Doctor of Philosophy in Public Health

Concentration in Global Health

Concentration in Disease Prevention

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Executive Summary

The vision of a graduate program in public health at UC Irvine was formally articulated by the campus administration approximately ten years ago. In order to build an intellectually robust and resource rich foundation for sustainable research education at the graduate level, we have since embarked on a schematic implementation of the original vision. Consequently, over the past five years, we have established two well subscribed undergraduate degree programs in public health, we have recruited excellent faculty members, and we have established a Masters Degree program in public health (MPH).

The Doctor of Philosophy (Ph.D.) degree is awarded on the basis of evidence that the recipient possesses knowledge of a broad field of learning and expert mastery of a particular area of concentration within it. The research dissertation is expected to demonstrate critical judgment, intellectual synthesis, creativity, and skill in written communication. The aim of the Doctor of Philosophy (Ph.D.) in Public Health is to train graduate students to conduct original research aimed to understand the determinants of public health status of populations and the translation of such knowledge to improvements in strategies for preventing disease and disability. Graduates of the proposed Ph.D. program will be prepared to engage in independent research careers in academic institutions, to teach at advanced levels of instructions, and to lead research efforts at agencies dedicated to public health at all levels of organization.

The framework for our proposal for a Ph.D. in Public Health emerged after critical review of existing doctoral programs nationally and internationally, focused understanding of contemporary and emerging issues in public health research, and broad consultations with numerous colleagues and administrators. In 2009, the department received a grant from the National Institutes of Health’s John E. Fogarty International Center for Advanced Studies in the Health Sciences to develop a Framework Program in Global Health (FRAME grant; R25TW008125). We are one of about 35 institutions in the country to have this award, aimed to develop academic programs in global health supported by a sustainable administrative structure. More than 30 research faculty members support this initiative. Professor Guiyun Yan and Professor Oladele Ogunseitan serve as director and co-director of the global health FRAME grant. In 2010, we received one of the first Graduate Growth Incentive Awards (GgIA) given by the Office of Graduate Studies to develop Global Health emphases in our graduate programs. Professor Ogunseitan is the Principal Investigator of the award, which in concert with the NIH FRAME grant, has facilitated the development of a strong academic curriculum, graduate student engagement, and research community in global health at UC Irvine.

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The department is also actively involved in the new NIH-funded Institute for Clinical and Translational Science at UC Irvine, where the Chair, Dr. Ogunseitan serves as the Director of Research Education, Training and Career Development. This $20 Million grant emphasizes transforming the research environment at UC Irvine to speed translational research, including the development of knowledge bases that advance understanding of strategies for disease prevention. Research in the department encompasses both T1 and T2 translational approaches with respect to moving discoveries such as biomarkers markers, vaccines, and devices from the laboratory bench to “first time in humans” applications⁴, and further to community engaged population-level research, respectively. To give one example of translational research in the department that cuts across traditional disciplines toward disease prevention, Dr. Hans-Ulrich Bernard in the department is an expert on the molecular biology of high-risk Human Papilloma Viruses (HPV) and the development of biomarkers for use in monitoring cervical cancer in population studies. Dr. Lari Wenzel works on biobehavioral outcomes of clinical trials and quality of life in cervical cancer management. On a related trajectory, Dr. David Timberlake, focusing on the genetic basis of adolescent substance abuse, is interested in exploring with this cluster of research, the synergistic effects of tobacco smoking and HPV carcinogenesis.

Therefore, in proposing this degree program, we are building on these rich foundations of research infrastructure and collaboration in global health and disease prevention. In addition to training in topics that form the foundation for a successful research career, students enrolled in the proposed Ph.D. in Public Health will have the opportunity to pursue research in one of two concentrations, namely, (1) **Global Health** (GH), and (2) **Disease Prevention** (DP). All students enrolled in the Ph.D. program will be instructed in seven core courses, including *Ethics and Responsible Conduct of Research; Research Proposal Development; Research Communication; Research Design; Quantitative Methods; Qualitative Methods;* and *Directed Research*. In addition to these core topics, students pursuing the concentration in Global Health will be required to take three additional core courses entitled *Advances in Global Health, Global Burden of Diseases,* and *Geographic Information Science*. Moreover, GH students must complete two courses each in *Risk Factors* and two courses in *Vulnerable Populations*. Students concentrating in Disease Prevention must complete additional core courses in *Health Behavior, Health Promotion Planning,* and *Social Research Methods* in addition to two courses each in *Risk Factors* and in *Vulnerable Populations*. Advancement to candidacy will depend on mastery of these courses and successful defense of a dissertation research proposal. All students must prepare and submit for review and approval a dissertation on the original research that they have completed while enrolled in the program. Dissertation committees will consist of a group selected among more than 20 faculty members with formal appointments, and who have active research projects.

We anticipate that in the first year, we will enroll 5 students in each of the two concentrations in the Ph.D. in Public Health degree program, with additional 4 – 6 students added annually. The Ph.D. program will be housed in the new (Spring 2011) facilities of the Program in Public Health totaling 21,338 square feet of space including offices for graduate students, conference/study rooms, computer

⁴ T1 translational Research (NIH-CTSA) 
laboratory, and wet and dry research laboratories. Ph.D. students will be supported financially by a combination of training grants, research assistantships through faculty research grants, and teaching assistantships. The program faculty currently operates more than $20 million in active extramural research grants.

The Ph.D. in Public Health is the next step in the development of a comprehensive Program in Public Health at UC Irvine. Based on the numerous inquiries that we have received since the proposal has been under review, there is strong demand for the degree program among prospective graduate students. Investing in the Ph.D. in Public Health now will enrich our campus through new opportunities for research and training grants, support for excellence in faculty research, and support for our exemplary Bachelors and Masters Degree programs.
Faculty Vote: Unanimous in favor.

Section I. Introduction

1.1 Aims and Objectives of the Program
The aim is to establish a Ph.D. degree program in Public Health at the University of California, Irvine (UCI) that will build on existing strengths in research and educational programs on campus. California presents major opportunities for training in public health research to elucidate the complexity of the determinants of health status and prevention of disease in diverse populations. In particular, Orange County, the home of UCI is one of the most diverse counties in the United States. According to the most recent census, every ethnic group is a minority in the County, and many residents are first generation immigrants from more than 70 different countries, with more than 30% of residents foreign born.

Hence, the objectives of the Ph.D. degree program are initially to train students in research concentrating in (1) Global Health, and (2) Disease Prevention.

Students who complete the doctoral training program will gain knowledge in the theoretical underpinnings of public health challenges, research methods, and their application to contemporary and emerging trends in public health. This program will train doctoral students to become independent researchers who employ multidisciplinary methods to study public health problems. The Ph.D. degree in Public Health emphasizes an integrated, multidisciplinary research approach for solving specific questions associated with the assessment of disease burden and the prevention of diseases at the population level. The degree will be administered through the Program in Public Health with Graduate Division Dean oversight, and it is targeted at students who desire a career in fundamental research, broad spectrum teaching and service to the community.

In developing this proposal, we wish to underscore the distinctive need for UC Irvine to cultivate research leadership in new and emerging challenges in public health and to establish a niche where traditional approaches to public health research are advanced toward new levels of understanding. We wish to establish a forward-thinking research education program that encourages mentors and trainees to think outside-the-box in search of creative solutions to multi-dimensional issues in population health. In embarking on this path, we draw inspiration from the National Academies and Institute of Medicine Committee on Educating Public Health Professionals for the 21st Century. Among the central recommendations of this distinguished committee is the recommendation that:

“.....doctoral research training in public health should include an understanding of the multiple determinants of health within an ecological model. Public health research differs from biomedical research in that its focus is on the health of groups, communities, and populations. The most striking change in public health research in the coming decades is the transition from research dominated by single disciplines or a small number to transdisciplinary research. Closely

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5 http://www.city-data.com/city/Irvine-California.html
related to the move toward more transdisciplinary approaches to complex health issues will be the move toward more intervention-oriented research. The study of interventions will, in turn, dictate the third sea-change in public health research: community participation.” [page 12].

The committee further recommends that:

“Schools [and Programs] of public health reevaluate their research portfolios as plans are developed for curricular and faculty reform. To foster the envisioned transdisciplinary research, schools of public health need to establish new relationships with other health related science schools, community organizations, health agencies, and groups within their region.” [page 12].

We note especially that distinguished institutions are increasingly embracing this approach, and in some cases, “re-tooling” programs are being developed to assist public health researchers trained in subjective disciplines to acquire interdisciplinary skills and the translational perspective. One such program is supported by the Robert Wood Johnson Foundation’s (RWJF) Health and Society Scholars program being implemented at Columbia University, Harvard University, UC Berkeley/UCSF, University of Michigan, University of Pennsylvania, and the University of Wisconsin. The rationale for the training program is best captured by the following quotation from RWJF:

“To increase the array of population-wide interventions, more scholars will need to explore the effects of contextual factors on behavior and biology. A new multidisciplinary field of population health is emerging, and there is a growing demand among government agencies, universities and public health organizations for interdisciplinary collaboration.”
(http://www.healthandsocietyscholars.org/).

The participating institutions were selected for “their commitment to interdisciplinary collaboration, the breadth and depth of their research opportunities, and the presence of faculty leaders in population health.” We believe that UC Irvine’s long tradition of interdisciplinary research can be leveraged to establish the proposed doctoral program as one of that prepares graduates for immediate competency in facing the kinds of challenges raised by RWFJ in establishing the Health and Society scholars program.

The Program in Public Health was established in 2003 with three short-term goals and one long-term vision7. The short term goals are to (1) develop a vigorous, high quality, well subscribed undergraduate program, (2) develop a well integrated high quality accredited graduate program, and (3) consolidate existing strengths in public health research, identify priority areas of research activity, and establish an international reputation in public health research and training at UCI. The long-term vision is to gain national accreditation8,9 first as a formal Program and ultimately as a School. We have moved rapidly

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toward these goals. Currently, the Program in Public Health has 37 faculty members including 14 faculty FTEs, 19 faculty members appointed without salary, and 4 lecturers in the non-senate Unit-18 series. The Program is responsible for an undergraduate program (B.S. in Public Health Sciences with about 550 students; and B.A. in Public Health Policy with about 250 students). The graduate Masters level program (MPH) is in its third year of student enrollment with approximately 30 students in current enrollment. The establishment of a doctoral degree in Public Health will facilitate the research activities of faculty members, and this degree will eventually support fulfillment of the requirement for gaining accreditation as a School of Public Health (SPH), when that goal is realized at UC Irvine10.

A distinctive feature of the proposed Ph.D. in Public Health graduate program is multidisciplinary training of students to prepare them to situate their independent research within the framework of complex public health problems. To achieve this goal, we have developed two concentrations in public health, each with three knowledge modules in partial fulfillment of the degree requirements:

1. **Preparatory Module**, consisting of seven courses through which students learn about the contemporary ethical and regulatory issues governing research in public health; how to develop and write research proposals; how to communicate research findings to various audiences; research design; one course in quantitative research methods (e.g. graduate level-biostatistics) one course in qualitative research methods, and participation in directed research with a faculty research group.

2. **Concentration Module**, in which students complete seven core courses within the concentration in Global Health (One course each in Advances in Global Health, Global Burden of Disease, and Geographic Information Science; Two courses each in Risk Factors and Vulnerable Populations) or Disease Prevention (One course each in Health Promotion, Social Research Methods, and Health Behavior, and two courses each in Risk Factors and Vulnerable Populations).

3. **Research Module**, in which students establish a faculty mentors committee, write a research proposal; advance to candidacy by defending the proposals, consistently enroll in research units, complete original research, and submit and defend a dissertation to the faculty committee. Students must register for at least three four-unit quarters dissertation research course.

Upon enrollment, students are assigned to two faculty mentors, who will facilitate students’ responsibilities toward developing a coordinated curriculum plan and initiation of research.

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1.11 Aims and Objectives of the Concentration in Global Health

The specific learning objectives of the Global Health concentration are:

1. Demonstrate knowledge of the major theoretical underpinnings of advances in global health research.

2. Explain the relationship between theory and research methods focused on understanding the association of risk, vulnerability, and outcome in global health.

3. Compare and contrast the health status of different populations with respect to their burden of disease.

4. Formulate research hypotheses in the intersection of risk factors, vulnerable populations, and burden of disease (see Figure 1).

5. Compose research proposals and conduct original research that contributes to the understanding of risk factors and variations in disease burden at the global level.

Figure 1. Contextual framework for generating research hypotheses in the Global Health concentration.
Context of the Global Health Concentration

The distinctive focus of the concentration in Global Health is excellence in research education of graduate students who will pursue hypothesis-driven strategies to develop integrative expertise and advance knowledge toward the improvement of health status of populations. The concentration builds upon a robust learning culture that nurtures a cadre of public health researchers who are prepared to implement effective strategies for reducing the global burden of disease and disability in culturally diverse communities, and who are primed to draw from their training in the global dimensions of public health to lead and work collaboratively on precise assessments of health risk factors and toward the translation of evidence-based strategies for preventing disease.

Global Health is one of the priority areas announced by the current U.S. government and advocated by Dr. Francis Collins, Director of the National Institutes of Health\textsuperscript{11}. For guidance, we adopt the definition of global health presented by the Board on Global health of the National Academy of Science’s Institute of Medicine as “health problems, issues and concerns that transcend national boundaries, may be influenced by circumstances or experiences in other countries, and are best addressed by cooperative actions and solutions and that contribute a significant burden of disease and disability in resource-poor countries.\textsuperscript{12}

Specifically, we will promote global health research and training by bridging the gaps between laboratory sciences, field-based clinical studies, and policies that influence the determinants of public health status in vulnerable populations. We consider favorably, the early development of integrative expertise as essential for global health research where hypotheses are situated in the nexus of content (risk analysis), context (vulnerability assessments), and process (translation of knowledge into action)\textsuperscript{13}.

UC Irvine faculty have received several major research grants on global health, including nearly $20 million grant from the Bill and Melinda Gates Foundation to develop new methods to control the transmission of vector-borne diseases, a $40 million grant from NIH on biodefense and emerging infectious disease research, and more than $20 million in federal funds to support various research on malaria, natural disasters, and transboundary movement of health hazards. UC Irvine is home to Global Infectious Disease Research Training Program funded by NIH Fogarty International Center for Advanced Study in the Health Sciences.

The department is also home to the Framework Program in Global Health also funded by the NIH Fogarty Center (Dr. Guiyun Yan and Dr. Oladele Ogunseitan are Director and Co-Director, respectively). Through this award, we have developed new curricula in global health for undergraduate and graduate students; we have established a vigorous research training program in global health for graduate students and junior faculty; and we have created an administrative structure to coordinate global health education, research and outreach activities at UC Irvine. We funded 18 graduate students and faculty to conduct research all over the world, including Argentina, Mexico, Kenya, Sweden, India, Ghana, Uganda,


\textsuperscript{12} http://www.iom.edu/About-IOM/Leadership-Staff/Boards/Board-on-Global-Health.aspx

Thailand, Philippines, China, and Indonesia. Moreover, through a Graduate Growth Incentive Award (GgIA) from the Office of Dean of Graduate Studies, we have involved graduate students including current Ph.D. students in planning the concentration in Global Health within the Ph.D. in Public Health.

UC Irvine faculty members are active participants in the UC Global Health Institute, and on November 30, 2010, we hosted the first ever UC Global Health Day, with Dr. Roberto Tapia-Conyer of the Carlos Slim Health Institute in Mexico, serving as the keynote speaker and Chancellor’s Distinguished Fellow. Dr. Tapia-Conyer is on the external advisory board of the UC Irvine Program in Public Health, and he wrote a letter of support for our global health framework.

It is increasingly apparent that changes in the global environment and population movements are exacerbating the pressures on global health, particularly in vulnerable communities and nations. These pressures have dramatically increased the level of urgency associated with developing innovative approaches to education and research and translating these into clinical or sub-clinical intervention programs in public health.

Several international health threats of global proportions have emerged in the past few years, including natural disasters and infectious diseases such as drug-resistant tuberculosis, SARS and avian influenza. Furthermore, there is increasing recognition that certain non-communicable diseases associated with demographic transitions can now be categorized as global epidemics, including but not limited to metabolic syndrome diseases (e.g., obesity and diabetes), certain cancers (including those associated with tobacco use and industrial chemicals), cardiovascular diseases, and last but not least, mental health disturbances.

The gap in the burden of disease between those with and without access to effective health care services is widening in many countries. The Global Forum for Health Research estimated that only 10% of worldwide expenditure on health research and development is devoted to the problems that primarily affect the poorest 90% of the world’s population, a phenomenon termed as “10/90 gap”. Furthermore, in many developing countries, deterioration of the population’s health has significantly hindered efforts for poverty eradication and economic development. Addressing the 10/90 gap calls for “increased research directed to the health needs of those living in poverty and to improving access to affordable products and services in a variety of settings”.

The participation of public health researchers in developed nations is crucial for this endeavor to succeed because health disparity is intimately linked to resource distribution, industrial development, and technology sharing. According to the Association of Schools of Public Health, international health accounted for the fourth largest category (8.8%) of applications received in U.S. Schools of Public Health. However, to our best knowledge, only four of eleven existing California Schools and Programs in Public Health offer specialization in global health as a formal curriculum or degree. Specifically, UC-Berkeley has an international health certification program; UC San Diego’s Ph.D. in Public Health established a global health concentration in 2007; University of Southern California recently developed

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14 UC Irvine Global Health Framework. [http://publichealth.uci.edu/gh_docs/index/fellowship#awardee_8](http://publichealth.uci.edu/gh_docs/index/fellowship#awardee_8)
16 [http://www.asph.org/userfiles/ADR%202005.pdf](http://www.asph.org/userfiles/ADR%202005.pdf)
17 [http://sph.berkeley.edu/degrees/areas/spec_ih.html](http://sph.berkeley.edu/degrees/areas/spec_ih.html)
18 [http://gph.ucsd.edu/education/jdp.shtml](http://gph.ucsd.edu/education/jdp.shtml)
a Global Health Leadership track in the MPH program\textsuperscript{19}; and Loma Linda University recently established a Department of Global Health\textsuperscript{20}.

Global health education and training capacity in California is inadequate for a state catering to more than 36 million people with a highly diverse population and a large proportion of immigrants. In addition, California’s large economy and geographical situation expands its influence on global health issues, especially with respect to the cross-roads of Asia and the Americas. Therefore, there is a great need to increase global health research education and training capacity in California. In Southern California, where most of the population is concentrated, UC Irvine is in a unique position to establish a doctorate level research training in global health, building upon strong initiatives in Program in Public Health, and across related academic units on campus.

Dr. Guiyun Yan, Professor of Public Health and Director of the UC Irvine Global Health Framework Program will served as the faculty coordinator for the concentration in Global Health. Dr. Yan is a world renowned expert in malaria research with more than $15 million in current research funding on various projects, including support from the Bill and Melinda Gates Foundation, and the National Institutes of Health. He has active inter-continental research projects, especially in Africa and Asia, which provide excellent opportunities for doctoral students to formulate research hypotheses.

\subsection*{1.12 Aims and Objectives of the Concentration in Disease Prevention}

The specific \textit{learning objectives} of the Disease Prevention concentration are:

1. Demonstrate knowledge of the major theoretical underpinnings of strategies for disease prevention.

2. Explain the relationship between theory and research methods focused on understanding the association of risk, behavior, and vulnerability with respect to disease pathways.

3. Compare and contrast biological, social, and policy strategies for health promotion and disease prevention.

4. Formulate research hypotheses in the intersection of health risk factors, health behavior, and health promotion and policies toward disease prevention (see Figure 2).

5. Compose research proposals, and conduct original research that contributes to the understanding and implementation approaches toward of disease prevention.

\textsuperscript{19} \url{http://ipr1.hsc.usc.edu/php/wwwthreads5.4/ughc/ughc.php}
\textsuperscript{20} \url{http://www.llu.edu/llu/sph/glbh/index.html}
1.121 Context of the Concentration in Disease Prevention

The distinction of the concentration in Disease Prevention is to train excellence in research on the determinant and contextual factors associated with strategies to understand and prevent disease in vulnerable populations. This concentration builds upon a strong foundation of interdisciplinary research and translational science at UC Irvine. The United States spends nearly 16% of the Gross Domestic Product (GDP) on health care, the second largest proportion in the world (East Timor apparently has the highest proportion of health care spending in the world), but by far the largest per capita expenditure at about $7,500 per person for a total of $2.26 trillion, annually)\(^{21, 22}\). Yet, we are not leading in terms of health status parameters. There have been several proposals to address this discrepancy, and most advocate doing more toward disease prevention.

Currently, less than 3% of health care expenditure is dedicated to the prevention of disease. This percentage includes all public health strategies such as, health promotion and advocacy, behavior modification, vaccination programs, smoking cessation programs, environmental pollution abatement, policy enactment and implementation. Over the past year, the U.S. legislature and the public has been engrossed in debates over health care reform, one of the most challenging public health problems of our generation. The Ph.D. concentration in Disease Prevention emphasizes hypothesis-driven research to explore the intersection of risk factors, health behavior and promotion, and disease burden in


vulnerable populations. There are rich research topics in this context, and we believe that results will contribute to solutions to the current challenges facing the country and many part of the international community.

The mission of the United States Centers for Disease Prevention and Control (CDC) captures, in part, the emphasis that we place on need for integrative research training in disease prevention:

“CDC’s Mission is to collaborate to create the expertise, information, and tools that people and communities need to protect their health – through health promotion, prevention of disease, injury and disability, and preparedness for new health threats.”

To give an example, In 2010 and 2011, two major natural disasters associated with Earthquakes in Haiti (January 2010) and in Japan (March 2011) underscore why we are still a long way from understanding and managing the interrelatedness of health threats and the need for comprehensive research on disease prevention and the adoption of translational paradigms in graduate-level research training. In Haiti the acute mortality resulting from the Earthquake gave way to insidious threats from water pollution and cholera epidemic imported from Asia through emergency response workers. In Japan, the Earthquake was followed by a massive Tsunami leading to the worst -case scenario of nuclear power plant breakdown and public exposure to radiation. In our department, Dr. Lisa Ludwig, one of the world’s foremost experts on Earthquakes and emergency preparedness is coordinating with Dr. Kristi Koenig of the Department of Emergency Medicine to create a collaborative center that can provide support for doctoral research embracing the translational science perspective in risk analysis and public health response systems.

The demand for integrative training in disease prevention is further exemplified by Dr. Ogunseitan’s directorship of the Research and Education in Green Materials (REGM)24, a program originally funded by one of the UC Systemwide Research and Teaching Programs, aimed to train graduate students supported by REGM fellowship research assistantships to investigate the impacts of toxic chemicals in consumer products and their linkage to disease in the population. Since its establishment in 2008, the program has funded graduate students in the School of Physical Sciences (Chemistry); School of Social Ecology (Planning Policy and Design); School of Engineering (Chemical Engineering and Materials Science) School of Medicine (Environmental Toxicology) and the Program in Public Health. The need to address toxic chemicals from consumer products is apparent in Dr. Scott Bartell’s research on population exposure to perfluorooctanoic acid (PFOA; used in the manufacture of Teflon) in contaminated groundwater. The research challenges in eliminating or reducing the levels of toxic risk factors from consumer products is exemplified by the challenges facing the implementation of California’s Green Chemistry Initiative. As a member of the State’s Green Ribbon Science Panel (group of experts from different disciplines assembled nationwide to assist the State in implementing the Green Chemistry Initiative), Dr. Ogunseitan brings lessons from the pitfalls and advances of translating scientific knowledge to policies that protect vulnerable members of the population.

Related to the understanding of risk factors, disease prevention, and green chemistry is Dr. Jun Wu’s recent recognition as the 2010 Walter A. Rosenblith New Investigator by the Health Effects Institute (HEI). The award for a project to examine adverse reproductive health outcomes associated with

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pregnant women's exposure to gaseous and particulate air pollution. Dr. Wu and her research staff plan to develop four different ways of estimating exposure to air pollution and to investigate linkages between exposure and specific birth outcomes in California over a period of changing fuel compositions and policies. HEI is funded jointly by worldwide representatives of the Motor Vehicle Industry and the U.S. Environmental Protection Agency, and this research as for others described above will provide exceptionally rich hypothesis-generating and training opportunities for Ph.D. students in Public Health.

Dr. Lari Wenzel, Professor of Public Health and Professor of Medicine will serve as the faculty coordinator for the concentration in Disease Prevention. She is a world-renowned expert in health-related quality of life assessments. She is a member of the Health Policy Research Institute, and the Chao Family Comprehensive Cancer Center. She is a well-funded researcher, including a current interdisciplinary research project on “Stress, Immunity, and Cervical Cancer: Biobehavioral Outcomes of a Randomized Trial” (NIH/NCI R01 CA118136-01). Her work in cervical cancer complements the disease prevention related research of Dr. Hans-Ulrich Bernard who is working on the development of biomarkers for Human Papilloma Virus for population screening, and of Dr. David Timberlake who is interested in multifactor predictors of tobacco addiction among adolescents vulnerable to the development of cervical and other cancers.

1.2 Historical Development of the Field and of Public Health at UC Irvine

Historical Development of the Field In a seminal 1920 article in Science, Winslow stated that "public health is the science and the art of preventing disease, prolonging life, and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and the development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health."25 The U.S. Surgeon General's reports of the past four decades have expanded the definition of public health to include areas such as human behavior and mental health. This fact has had broad implications for our understanding of health and risk, personal pleasure and social norms, science and moral standards, and individual freedoms and public policy.26

Winslow’s original vision of public health and its later expansion guided the training of public health personnel in the U.S. for most of the twentieth Century. However, in a new landmark publication on the status of public health education in the U.S., the Board on Health Promotion and Disease Prevention of the Institute of Medicine, National Academies of Sciences, states that "The extent to which we are able to make additional improvements in the health of the public depends, in large part, upon the quality and preparedness of the public health workforce, which is, in turn, dependent upon the relevance and

quality of its education and training.” The report is the latest and most comprehensive examination of the current inadequacy of an essential component of the public health workforce - public health professionals.

Currently there are 46 accredited Schools of Public Health and approximately 83 accredited Graduate Programs in the United States. There are four Schools of Public Health in California, the last of which was accredited about 20 years ago. These graduate programs focus invariably on the training of specialists in each of the various sub-disciplines of public health. Because of the intrinsically multidisciplinary nature of public health, spanning both natural and social science domains, it is not easy to develop broadly trained public health professionals with a good grasp of the systems nature of public health challenges. Hence the argument for integrative preparation in public health research at the graduate level is reinforced by a new vision defined by an ecological model of public health. The integrative ecological model of public health is defined as a model of health that emphasizes the linkages and relationships among multiple determinants affecting health. An integrative view of health is a perspective that involves knowledge of the ecological model of determinants of health, and an attempt to understand a specific problem or situation in terms of that model. An integrative approach to health is one in which multiple strategies are developed to impact determinants of health relevant to the desired health outcomes.

The United States government began supporting public health programs in 1798 with the establishment of the Marine Hospital Service (MHS) designed to provide health services to seamen, and to provide quarantine services against importation of infectious diseases. In 1912, Congress officially renamed MHS to become the “Public Health Service” (PHS). During World War I, Congress allocated substantial resources to PHS to assist states in dealing with venereal disease epidemics, considerably expanding the decentralization of government involvement in rural health services. The establishment of Johns Hopkins University School of Hygiene and Public Health in 1926 with substantial support of the Rockefeller Foundation marked the beginning of training programs for public health practitioners in the United States. Columbia, Yale, and Harvard had each established Schools of Public Health by 1922, and by the end of the 20th century, there were 29 accredited schools of public health enrolling more than 15,000 students. At the early phases of public health training, Master’s degrees in public health were awarded initially as a second degree for medical professionals, but public health training has evolved into a primary discipline in health science. Public health professional education has emphasized graduate-level training with the Master of Public Health (MPH) and Doctor of Public Health (DrPH) degrees; whereas research education in has focused on the Ph.D. degree. The University of California


recently commissioned an assessment of professional/research doctorates at the systemwide level, but the final report is still pending.\textsuperscript{30}

Currently in the United States, there are more than 300 programs that offer graduate training in some aspect of public health, and 37 Schools of Public Health (3 in California) accredited by Council on Education for Public Health (CEPH). It has been more than 20 years since the last California institution was accredited as a School of Public Health. One criterion for SPH accreditation is that there must be one doctorate degree program in at least one core area of public health. It is apparent that the high quality of accredited programs is a distinction accompanied by many opportunities for traineeships, federal student funding, and employment advantages.

\textit{Evolution of the Program in Public Health at UC Irvine} In response to the evident needs of the understanding the status and trajectory of public health in the dynamic demographic social-scape of California and in the country at large, and in order to build upon UCI’s strengths in research and education, the Program in Public Health (PPH) was established in 2003, and the Department of Population Health and Disease Prevention was established in 2008. The core strengths of UCI faculty in public health were recognized more than five years ago by a committee charged with exploring the feasibility of a formal School of Public Health\textsuperscript{31}. With the establishment of UCI’s PPH, substantial progress is being made to consolidate existing faculty strengths and to recruit additional faculty under the umbrella of the Program.

More than 60 faculty members support the global health framework and the development of graduate programs in public health. These faculty members are engaged in active research, a precondition for mentoring research students. Campuswide oversight of the proposed doctoral program will reside with the Dean of Graduate Division. Day-to-day operations will be managed in the Program in Public Health, with departmental administration under the Chair, consisting of a Chief Academic Officer, a Management Services Officer, a Budget Analyst and Sponsored Projects Officer, two Administrative Assistants, a Programmer Analyst, a Sponsored Projects Officer, and four Student Affairs Officers (see organizational structure in Figure 3). Since 2005, the Program has offered two undergraduate degree programs (B.S. in Public Health Science and B.A. in Public Health Policy); and since 2008, the MPH degree has been offered in three emphasis areas, namely environmental health, epidemiology, and socio-cultural diversity and health.

\url{http://www.universityofcalifornia.edu/senate/underreview/MW2DivChairs_PDPE%20Report_Review.pdf}

1.3 Timetable for Development of the Program

We anticipate completion of the academic senate review of the proposal by Spring 2012. We propose to enroll the first cohort of Ph.D. students by Fall quarter of 2012. We anticipate that we will initially (Fall 2012) enroll a cohort of 5 students in each of the two concentrations, with additional 4 – 6 students annually thereafter.
Figure 3. Organizational and Administrative Support Structure for the Ph.D. in Public

Department of Population Health and Disease Prevention – Program in Public Health
Organizational Structure

Chancellor
Michael Drake
Executive Vice Chancellor and Provost
Michael Gottfredson

Vice Provost for Academic Affairs
Michael Clark

Graduate Dean
Edward Blum
Undergraduate Dean
Sharon Slinger

Chair
Oladele Ogunseitan

External Advisory Board
7 Members

Development External Relations
Elizabeth Eastin

Chief Administrative Officer
Liza Krassner
Academic Programs

Research Facilities
Marcel Bates
Peter Mowa

Student Services
Stephanie Leonard
Sandra Miller
Susan Rattigan
Stephanie Uiga
Cindy Wolff

Core Faculty FTE – Professor Series
(12)

Affiliated Faculty – Professor Series
(16)

Global Health Framework Faculty
(32)

Lecturing Faculty FTE
(2: Senate/SOE)
(6: Non-Senate)

Graduate Director
Lisa Grant
Curriculum
Sharon Stern
Research
Lai Wenzel
Guiyun Yan

Management Services Officer
Deisa Langford
Business Operations

Payroll
Martha Jensen

Purchasing
Vickey Strother

Financial Services
Budgeting
Grants Fellowships
John Rupp

Graduate and Undergraduate Students
1.4 Relation to Existing Programs on Campus

The Ph.D. degree in Public Health will provide inter-disciplinary training in public health. UCI faculty are currently engaged in public health-related research and education activities that have evolved in different academic units of campus. The relevant graduate programs include:

**Ph.D. in Environmental Toxicology** The School of Medicine, through the defunct Department of Community and Environmental Medicine offered this degree program, but no students have been recruited in the past 2 – 3 years. Since summer of 2008, this degree was transferred to the Department of Medicine. In Winter 2011, re-opened to receive applications. This degree provides research training in toxicology from an environmental perspective (as opposed to pharmacological perspective). The degree program requirements are specified in the University catalog, which is available on the UC Irvine website. Several faculty members in the Program in Public Health are affiliated with the revised version of this degree program (2010).

**Ph.D. in Social Ecology (emphasis in Epidemiology and Public Health)** The Department of Epidemiology at the School of Medicine and School of Social Ecology jointly administer a doctoral program in social ecology with an emphasis in epidemiology and public health. The Department of Epidemiology prepared a proposal to restructure and solely administer that doctoral program, with a stronger focus on epidemiologic methods. Some coursework will be shared for the epidemiology and public health doctoral programs including graduate-level epidemiology courses. The proposed doctoral program in public health utilizes these methods to focus on hypothesis-driven questions in global health and disease prevention. Professors Bruckner and Ogunseitan in the Program in Public Health have a joint appointment in the School of Social Ecology.

**Ph.D. in Epidemiology** The UC Coordinating Council on Graduate Affairs approved the proposal for a Ph.D. in Epidemiology in April 2011. The Department of Epidemiology expects to implement the proposal in 2011-2012. As described above, the Ph.D. in Epidemiology is an offshoot of the Ph.D. in Social Ecology.

**Ph.D. in Molecular Biology, Genetics and Biochemistry (MBGB)** MBGB is a campus-wide interdisciplinary graduate program with 145 faculty members from 7 academic departments participating in the program. The program carries out “common-pool” recruitment and admissions, and provides the first-year curriculum for graduate students who will subsequently enter specialized Ph.D. programs in Anatomy & Neurobiology, Biological Chemistry, Developmental & Cell Biology, Microbiology & Molecular Genetics, Molecular Biology & Biochemistry, Pathology & Laboratory Medicine, or Physiology & Biophysics. MBGB offers 12 specialized tracks of training, including Biology of Infectious Disease, Biomedical Informatics, Cancer Biology, Cell Biology, Developmental Biology & Genetics, Experimental Pathology, Immunology, Mechanisms of Gene Expression, Molecular Neurobiology, Stem Cell Biology, Structural Biology & Molecular Biophysics and Virology. A number of courses offered by this program will be elective courses for our proposed Ph.D. program. Professor Ulrich Bernard in the Program in Public Health is jointly appointed in MBGB.

**Ph.D. (Specialization) in Health Promotion and Policy** The department of Planning, Policy and Design in the School of Social Ecology offers a Ph.D. specialization that emphasizes a broad ecological perspective, students in the Health Promotion and Policy specialization explore a spectrum of
approaches to improving health including changing individual behavior, improving the built environment, working with communities, and regulatory/legal mandates. Interventions at the organizational, community, national, and international levels are considered. Core faculty members in this specialization include Ken Chew (demography, epidemiology), Tim Bruckner (health economics and policy; Dr. Bruckner is also a core faculty member in Public Health), Raul Lejano (land use and health, risk mapping) and Dan Stokols (workplace wellness, tobacco control, transdisciplinary research and education; Dr. Stokols is also appointed without salary in Public Health). Also affiliated with the specialization is Paul Feldstein (health economics). Faculty in this specialization study a variety of topics including the economics of health insurance; the effects of physical and social conditions within work environments on employees' health; environmental stressors such as traffic congestion; drug policy including workplace drug testing and medical marijuana; the design, implementation, and evaluation of community health promotion programs; cognitive mapping of environmental hazards; industrial archeology for public health planning; cancer control in Chinese and Korean communities; and risk factors for homicide, suicide, and child abuse.

**Ph.D. (Concentration) in Informatics in Biology and Medicine (IBAM)** The School of Informatics and Computer Sciences offer a doctorate that is relevant to public health informatics. Biology and medicine have become data-intensive information sciences. Massive data acquisition technologies, such as genome sequencing, high-throughput drug screening, and DNA arrays, generate biological information in quantities that overwhelm conventional approaches. Cost-effective health care and quality medical decision-making require integrating large amounts of up-to-date information and knowledge. Biological systems have also inspired computer science advances with new concepts, including genetic algorithms, artificial neural networks, computer viruses and synthetic immune systems, DNA computing, artificial life, and hybrid VLSI-DNA gene chips. New computational opportunities such as these create a critical need for theoretical and algorithmic advances in storing, retrieving, networking, processing, analyzing, and visualizing biomedical information. Informatics in Biology and Medicine is an interdisciplinary concentration at the interface between computer sciences, biological sciences, and medicine. It addresses problems that are specific to the information technologies in biology, medicine, and health care. Research topics include gene finding, protein structure and function prediction, structural and functional genomics, proteomics, electronic patient record systems, medical decision support systems, guideline-based health care, medical information access, and human-computer interfaces for medical applications. To make advances in these areas, society needs people with knowledge and skills that bridge those taught in conventional biological, medical, and computer science curricula. This area provides for such an interdisciplinary computer science education.

**Ph.D. in Psychology and Social Behavior (specialization in Health Psychology)** The Department of Psychology and Social Behavior in the School of Social Ecology offers four specializations of graduate study in Health Psychology, Developmental Psychology, Social and Personality Psychology, and Psychopathology. Each of these specializations provide training in theory, research methods, advanced statistics as well as the classic and contemporary issues of their respective fields. Graduate study in Psychology and Social Behavior prepares students for careers in academic research and
teaching. The health psychology specialization is particularly relevant to public health education, where trainees focus on understanding the psychosocial, physiological and behavioral factors that influence health and disease, and the effectiveness of health promotion programs and medical treatments. Training will allow students to develop a strong foundation in the theoretical perspectives, research methods, physiological assessments, intervention strategies, ethical issues, and current controversies in health psychology.

**Ph.D. in Statistics** The Statistics graduate program is administrated by the Department of Statistics in the Bren School of Information and Computer Sciences. Statistics research focuses on developing and studying the mathematical properties of methods for collecting, analyzing, interpreting, and presenting empirical data. Particular research areas of the faculty in this program include astrostatistics, Bayesian statistics, biostatistics and statistical computing. Particularly relevant to the proposed Public Health is the expertise of the faculty in Bayesian statistics and biostatistics such as survival analysis, longitudinal analysis, development of risk analysis models, sample size and power determinations, and methods for describing and predicting the spatial distribution of diseases. Our students will have the opportunity to take courses offered by the Department of Statistics. Professor Scott Bartell of the Program in Public Health is informally affiliated with the Department of Statistics.

**Relation to Undergraduate Degree Programs in Public Health at UC Irvine** UC-Berkeley and UCI are the only University of California campuses that have undergraduate degree programs in public health. UCI’s undergraduate program in public health is different from UC-Berkeley’s program in that UCI students have an opportunity to specialize through depth in the natural sciences (B.S. Public Health Science) and the social sciences (B.A. Public Health Policy). Our proposed Ph.D. degree at UCI will not only strengthen undergraduate curriculum by offering new elective courses to senior undergraduate students; it will also help create more opportunities for hands-on research for the undergraduate students, and provide a cadre of well trained graduate teaching assistants Therefore, our current undergraduate program will benefit greatly from the proposed public health Ph.D. program.

**1.5 Interrelationship with other UC Programs**

There are two Schools of Public Health (Berkeley and Los Angeles) within the UC system and one joint Public Health Program between UC-San Diego and San Diego State University that offer the Ph.D. degree in Public Health. The School of Public Health at UC-Berkeley offers Ph.D. degrees in Biostatistics, Environmental Health Sciences, Epidemiology, Health Services and Policy Analysis and Infectious Diseases. Similarly, the UCLA School of Public Health offers Ph.D. degrees in Biostatistics, Community Health Sciences, Environmental Health Sciences, Epidemiology and Health Services. The Public Health program of UC-San Diego offers Ph.D. in Public Health with possible concentrations in global health, health behavior and in epidemiology. UC Davis offers Ph.D. degrees in epidemiology, biostatistics, and pharmacology & toxicology, each administered by a different graduate group composed of members of various academic units.

The UCSD program is the closest to what we are proposing at UC Irvine, with respect to an umbrella Ph.D. degree, and one of the concentrations in Global Health. In response to a systemwide initiative in
Over the past two decades the State of California has experienced rapid and increasingly diverse public health challenges. The UC Irvine Ph.D. in Public Health is distinctive because of the contextual emphasis that supports hypothesis-driven research in global health, and the interdisciplinary concentration in Disease Prevention. Our proposed Ph.D. program differs from other Ph.D. programs at other UC campuses by emphasizing contextual issues that embed hypothesis-driven research in the nexus of risk factors, vulnerable populations, burden of disease, and preventive strategies. Our program will enable students to have broad understanding of the fundamental theoretical foundations of their research questions and to apply specific methods for addressing research questions under complex public health challenges.

Over the past two decades the State of California has experienced rapid and increasingly diverse population growth resulting in greater population density, the introduction of new disease vectors, and more crowding. Additionally, the aging of the population and existing health workforce shortage bring about a need for more and diversified training of the public health workforce to meet the ever changing needs of our population. Additionally, challenges posed by existing and emerging diseases demand more public health professionals with cross training in both natural science and social and behavioral sciences to understand the intersection between biological and behavioral determinants of disease and disease transmission, as well as the behavioral antecedents of disease and disease prevention. However, the small number of Ph.D. programs in public health in California limits our capacity to train public health professionals to meet the increasing demand for public health needs across a number of areas of public health. We believe that UCI’s Ph.D. in Public Health will contribute significantly to the public health capacity and infrastructure in Southern California by providing strong interdisciplinary training of public health researchers in the core areas of public health to address multi-faceted public health problems facing Californians now and in the years to come.

1. 6 Administration of the Program

The Department of Population Health and Disease Prevention will administer the Ph.D. in Public Health. The degree will be conferred by the Graduate School of UCI. Professor Oladele Ogunseitan, Chair of the Department will be responsible for coordinating the overall administration of the degree program. The Dean of Graduate Studies, Dr. Frances Leslie will provide Decanal oversight. Professor Lisa Grant will serve as the Graduate Director who will also serve as the faculty liaison with the Office of the Dean of Graduate Studies. She has more than five years of experience in this role within the School of Social Ecology. In addition, a committee of the faculty will be appointed to review applicants to the Ph.D. program. Professors Lari Wenzel and Guiyun Yan will serve as faculty research advisors for general matters pertaining to the concentrations in Disease Prevention and Global Health, respectively. In April, 2008, we recruited a Graduate Student Counselor, Ms. Stephanie Uiga who is dedicated to supporting the graduate program. We have three additional Student Affairs Officers (SAO), Ms. Stephanie Leonard, Ms. Sandra Miller, and Ms. Cindy Wolff who work collaboratively under the supervision of the Chief Academic Officer, Ms. Liza Krassner. Course scheduling and coordination of enrollment is supported by the dedicated role of Ms. Susan Rattigan, Administrative Analyst.
1.7 Evaluation Plan

The Public Health faculty will conduct annual evaluation for enrollment, graduation, and progress toward objectives outlined in the degree program. The Academic Senate also conducts reviews of all campus academic programs on a regular schedule. At the time we apply for accreditation of the Program in Public Health, an external review of our degree programs will be conducted by the Council on Education for Public Health (CEPH), an independent agency recognized by the U.S. Department of Education to accredit schools of public health and graduate public health programs outside schools of public health.\(^{32}\)

Section 2. Program

2.1 Undergraduate Preparation for Admission

Because of interdisciplinary nature of public health research, undergraduate training in one or more subject areas of public health is the preferred prerequisite for admission to the Ph.D. degree program. We will also prioritize admission of students who already have advanced degrees such as M.A., M.D., M.S., M.P.P., or M.P.H. Undergraduate preparation of applicants is strongly contingent on the research interests of the applicants. For example, applicants interested in natural science aspect of public health should have taken upper division courses in statistics, organic chemistry with laboratory, biological sciences with laboratory, and environmental or earth sciences, whereas those interested in the social/behavioral aspect of public health should have taken courses in research design and statistics, demography, psychology, anthropology, sociology or economics. A good guide for undergraduate preparation in these two aspects of public health is represented by the UCI curriculum in the B.S. Public Health Sciences and B.A. Public Health Policy as described in the general catalogue. Outstanding applicants who lack prerequisites may make up courses during the first year in the graduate program. However, undergraduate courses may not be used to satisfy program core or elective course requirements.

All applicants must have an overall grade point average of B (3.0 on a 4.0 scale) or better. All prospective students must take the Graduate Record Examination (GRE) general test and encouraged to take the subject test in their area of undergraduate study. Applicants whose first language is not English are required to take the Test of English as a Foreign Language (TOEFL); this requirement is waived for applicants with an advanced degree from a U.S. university. Applicants are also required to submit official college transcripts, three letters of recommendation, and a statement of interest. Applicants are evaluated based on submitted material. Qualified candidates are encouraged to attend on-campus interviews.

All Ph.D. students are required to pass the Test of Spoken English (TSE) or other campus-approved oral English proficiency test during their time in the graduate program. Each Ph.D. student is required to serve as a teaching assistant for at least two quarters during the graduate program and such work requires passing a campus-approved oral English proficiency exam.

2.2 Foreign Language

There will be no foreign language requirement. English is the common language of the discipline.

2.3 Program of Study

- Specific fields of emphasis: We propose a Ph.D. degree program in Public Health with two fields of emphasis: (1) Global Health and (2) Disease Prevention.
b. **Unit requirements**: Ph.D. students are required to take a minimum of 75 quarter units. Among those, 60 quarter units are required course work according to the three modules designed specifically for the Ph.D. in Public Health degree; Preparatory Module (20 units); Concentration Module (28 units); and Research Module (at least 12 units). The remaining units may consist of elective courses selected in part by consultation with faculty advisor, subject to review by a faculty oversight committee. These courses will cover the necessary fundamental and methodological principles, and accommodate cross-disciplinary research themes in public health.

c. **Required and recommended courses**:

The curriculum is designed in **3 modules** representing 48 units of formal courses and at least 12 units of research course. The formal course work should be completed within the first year of study, and advancement to doctoral candidacy by the end of the second year of study. The modules are:

*Preparatory Module*, consisting of seven courses through which students learn about the contemporary ethical and regulatory issues governing research in public health; how to develop and write research proposals; how to communicate research findings to various audiences; research design; one course in quantitative research methods (e.g. graduate level-biostatistics) one course in qualitative research methods, and participation in directed research with a faculty research group.

*Concentration Module*, in which students complete seven core courses within their declared concentration in **Global Health** (One course each in *Advances in Global Health*, *Global Burden of Disease*, and *Geographic Information Science*; Two courses each in Risk Factors and Vulnerable Populations) or **Disease Prevention** (One course each in *Health Promotion*, *Social Research Methods*, and *Health Behavior*, and two courses each in Risk Factors and Vulnerable Populations).

*Research Module*, in which students establish a faculty mentors committee, write a research proposal; advance to candidacy by defending the proposals, consistently enroll in research units, complete original research, and submit and defend a dissertation to the faculty committee. Students must register for at least 12 units of dissertation research course PH-296 under the supervision of the Chair of the dissertation committee.
Courses (68 quarter-units required, plus 8 units of electives; total = 76 units):

Preparatory Module (28 units required)

1. Ethics and Responsible Conduct of Research in Public Health (4) (PH-292)
2. Research Communication in Public Health (4) (PH 293)
3. Research Proposal Writing in Public Health (4) (PH 294)
4. Research Design (4) (PH 297)
5. Directed Research (4) (PH-298)
6. Biostatistics (4)
7. Qualitative Research Methods (4)

Concentration Module (28 units required)

A. CONCENTRATION IN GLOBAL HEALTH

Three Core Courses:

1. Global Burden of Disease (4 units) (PH-280)
2. Advances in Global Health (4 units) (PH-282)
3. Geographic Information Systems in Public Health (4 units) (PH-283)

Two courses (8 units) selected from cluster in Risk Factors:

1. Environmental Hydrology (4 units) (PH-261)
2. Earthquakes and Seismic Hazard (4 units) (PH-262)
3. Air Pollution, Climate, and Health (4 units) (PH-269)
4. Human Exposure to Environmental Contaminants (4) (PH-270)
5. Environmental Toxicology (4 units) (CEM 202)
6. Advanced Topics in Occupational Toxicology (2 units) (CEM 297)
7. Virus Engineering Laboratory (4 units) (MBB-224)
8. Pathogenic Microbiology (4 units) (M 216)
9. Medical Virology (4 units) (M 219)
10. Medical Microbiology (4 -6 units) (M 210A)
11. The Psychobiology of Stress (4) (P-274)
12. Biobehavioral Aspects of Health and Illness (4) (P-273)

Two courses selected from cluster in Vulnerable Populations with at least one in the epidemiology series

1. Infectious Diseases Epidemiology (4 units) (PH-281)
2. Genetic Epidemiology (4 units) (PH-251)
3. Environmental Epidemiology (4 units) (PH-203)
4. Chronic Disease Epidemiology and Prevention (4 units) (EPI 232)
5. Cancer Epidemiology (4 units) (PH-202)
6. Health Impacts of Global Environmental Change (4 units) (PH-271)
7. Environmental Policy and Global Sustainability (4 units) (PH-241)
8. Immigration and Globalization (4 units) (AAM 202)
9. Methods of Demographic Analysis (4 units) (SOC 226A)
10. Sociology/Demography of Health (4 units) (SOC-269)
11. Health and Medicine among Latinos and Latinas (4 units) (C/LS 213)
12. Cultural and Historical Precedents for Latinos and Medical Care (4 units) (C/LS 210)
13. Health Policy and Management (PH-241)
14. Theories of Health Communication (PH-242)
15. Program Evaluation (PH-243)

**B. CONCENTRATION IN DISEASE PREVENTION**

**Three core courses (12 Units):**

1. Health Behavior Theory (4 units) (PH-244)
2. Health Promotion Planning (4 units) (PH-245)
3. Social Research Methods (4 units) (PH-246)

**Two courses (8 units) selected from cluster in Risk Factors:**

1. Environmental Hydrology (4 units) (PH-261)
2. Earthquakes and Seismic Hazard (4 units) (PH-262)
3. Air Pollution, Climate, and Health (4 units) (PH-269)
4. Human Exposure to Environmental Contaminants (4) (PH-270)
5. Environmental Toxicology (4 units) (CEM 202)
6. Advanced Topics in Occupational Toxicology (2 units) (CEM 297)
7. Virus Engineering Laboratory (4 units) (MBB-224)
8. Pathogenic Microbiology (4 units) (M 216)
9. Medical Virology (4 units) (M 219)
10. Medical Microbiology (4 -6 units) (M 210A)

11. The Psychobiology of Stress (4) (P-274)
12. Biobehavioral Aspects of Health and Illness (4) (P-273)
Two courses (8 units) selected from cluster in Vulnerable Populations with at least one in the epidemiology series

1. Infectious Diseases Epidemiology (4 units) (PH-281)
2. Genetic Epidemiology (4 units) (PH-251)
3. Environmental Epidemiology (4 units) (PH-203)
4. Chronic Disease Epidemiology and Prevention (4 units) (EPI 232)
5. Cancer Epidemiology (4 units) (PH-202)
6. Health Impacts of Global Environmental Change (4 units) (PH-271)
7. Environmental Policy and Global Sustainability (4 units) (PH-241)
8. Immigration and Globalization (4 units) (AAM 202)
9. Methods of Demographic Analysis (4 units) (SOC 226A)
10. Sociology/Demographic Analysis of Health (4 units) (SOC-269)
11. Health and Medicine among Latinos and Latinas (4 units) (C/LS 213)
12. Cultural and Historical Precedents for Latinos and Medical Care (4 units) (C/LS 210)
13. Health Policy and Management (PH-241)
14. Theories of Health Communication (PH-242)
15. Program Evaluation (PH-243)

Research Module (12 units)

1. Dissertation Research (2 - 8) PH-296

Electives (8 units)

1. Two courses recommended from the list of courses under the two clusters, Risk Factors and/or Vulnerable Populations. Petitions to take elective courses that are not within the list of courses included in the clusters will be reviewed by a faculty committee.

Additional requirements of the Ph.D. program:

1. After completing courses in the preparatory and concentration modules, students must successfully submit and defend a dissertation research proposal to a committee of faculty members prior to advancing to doctoral candidacy.
2. Students are required to serve as teaching assistants for at least two quarters of their graduate study.
3. Students must submit and defend a doctoral dissertation based on original research.
2.4 Field Examinations

None.

2.5 Qualifying Examination

Students may petition to sit for the qualifying examination after the completion of the requirements in the Preparatory and the Concentration modules, and before completing the requirements in the Research module. Advancement to doctoral candidacy is contingent on passing the qualifying examination. Students who fail the written part cannot proceed to the oral part of the qualifying exam. Students must submit a detailed research proposal to a committee of five faculty members consisting of four members with formal appointments in public health, and an external member.

The qualifying examination is an oral examination based in part on a defense of the student’s research proposal, and on a test of their breadth of knowledge of subjects within their concentration. Students who fail to pass the examination after the second attempt will be required to implement a remediation plan. Failure after a third attempt is subject to dismissal from the program. It is expected that students will sit for the qualifying examination by the beginning of their third year in the program.

2.6 Dissertation

Ph.D. students are required to complete a dissertation based on original research. The complete draft of the dissertation must be submitted to the Doctoral Dissertation Committee at least four weeks before the dissertation defense. The Doctoral Dissertation Committee will consist of at least three faculty members and must be chaired by a faculty member with an appointment in the Program in Public Health. Representation on the Doctoral Dissertation Committee by researchers and scholars from peer institutions other than UCI is encouraged. The dissertation defense will consist of a public seminar, followed by a closed conference between the candidate, the Doctoral Dissertation Committee, and any other faculty invited by the Doctoral Dissertation Committee. If the Doctoral Dissertation Committee finds that the dissertation is satisfactory, they will indicate so by signing the appropriate page of the dissertation. Unsatisfactory defense of the dissertation will result in mandatory repeat of the process.

2.7 Final Examination

The defense of the dissertation will serve as the final examination.
2.8 Explanation of Special Requirements over and above Graduate Division Minimum Requirements.

Teaching requirement. Students enrolled in the Ph.D. in Public Health are required to serve as Teaching Assistants in public health courses for at least two quarters during their graduate study. Teaching is an important component of graduate training, as it helps graduate students learn how to communicate effectively about their field of knowledge. In addition, teaching experience is valuable to those planning for a career in academia. Graduate students with comparable prior teaching experience (e.g., through postgraduate degrees earned at UC Irvine or other comparable institution) may request a waiver of the teaching requirement.

2.9 Relationship of Master’s and Doctoral Programs

The Masters in Public Health (MPH) degree program at UC Irvine began enrolling students in the Fall quarter of 2009. The MPH has three areas of emphasis in Environmental Health, Epidemiology, and Sociocultural Diversity and Health, and the degree is designed for students who wish to enter into public health practice at public and private agencies working to improve the health of populations at the community level. Hence the capstone experience for MPH students is a practicum course in which students are complete 240 hours of placement in an external public health organization to gain a hands-on understanding of how public health programs are implemented. In contrast, the propose Ph.D. in Public Health is an academic research-based degree with a focus on original advances in knowledge and creative inventions to advance our understanding of the determinants, consequences, and prevention of disease in vulnerable populations.

2.10 Special Preparation for Careers in Teaching

All Ph.D. students will be required to serve as teaching assistant for at least two quarters. A campus approved oral English proficiency test must be passed to qualify as a teaching assistant in accord with UC Irvine policy.

2.11 Sample Program

An example curriculum for the Ph. D. in Public Health is presented in Tables 1 and 2 focusing on the Global Health and Disease Prevention concentrations, respectively.
**Table 1.** A sample plan of study for the Ph.D. degree program in Public Health with a concentration in *Global Health.* P = Preparatory Module; C-C = Core Courses in Concentration Module; C-R = Risk Factors Courses in Concentration Module; C-V = Vulnerable Population Courses in Concentration Module; R = Research Module; E = Elective Courses.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Quarter</th>
<th>Winter Quarter</th>
<th>Spring Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PH 297 (Research Design) (P)</td>
<td>PH 293 (Research Communication in Public Health) (P)</td>
<td>PH 283 (Advances in Geographic Information Systems in Public Health) (C-C)</td>
</tr>
<tr>
<td></td>
<td>PH 292 (Ethics and Responsible Conduct of Research in Public Health) (P)</td>
<td>PH 265 (Human Exposure to Environmental Contaminants) (C-R)</td>
<td>PH 203 (Environmental Epidemiology) (E)</td>
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<tr>
<td></td>
<td>PH 280 (Global Burden of Disease) (C-C)</td>
<td>PH 282 (Advances in Global Health) (C-C)</td>
<td>PH-298 (Directed Research (P)</td>
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<td></td>
<td>PH-204 Biostatistics (P)</td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>PH 294 (Research Proposal Writing in Public Health) (P)</td>
<td>PH 281 Infectious Diseases Epidemiology (C-V)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PH 261 (Environmental Hydrology) (C-R)</td>
<td>M 210 A (Medical Microbiology) (E)</td>
<td>AAM 202 Immigration and Globalization (C-V)</td>
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<tr>
<td></td>
<td>PPD 220 Qualitative Methods: Fieldwork and Data Collection (P)</td>
<td>SOC 226 (Methods of Demographic Analysis (E)</td>
<td>PH 271 (Health Impacts of Global Environmental Change) (E)</td>
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<td></td>
<td></td>
<td></td>
<td>PH 299 Independent Studies (E)</td>
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<td>PH – 296 Dissertation Research (R) / Defense</td>
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<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2. A sample plan of study for the Ph.D. degree program in Public Health with a concentration in Disease Prevention. P = Preparatory Module; C-C = Core Courses in Concentration Module; C-R = Risk Factors Courses in Concentration Module; C-V = Vulnerable Population Courses in Concentration Module; R = Research Module; E = Elective Courses.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Quarter</th>
<th>Winter Quarter</th>
<th>Spring Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>PH 297 (Research Design) (P)</td>
<td>PH 293 (Research Communication in Public Health) (P)</td>
<td>PH 246 (Social Research Methods) (C-C)</td>
</tr>
<tr>
<td></td>
<td>PH 292 (Ethics and Responsible Conduct of Research in Public Health) (P)</td>
<td>PH 245 (Health Promotion Planning) (C-C)</td>
<td>AAM 202 (Immigration and Globalization) (E)</td>
</tr>
<tr>
<td></td>
<td>PH 244 (Health Behavior Theory) (C-C)</td>
<td>P 274 (The Psychobiology of Stress) (C-R)</td>
<td>PH-298 (Directed Research (P)</td>
</tr>
<tr>
<td></td>
<td>PH-204 Biostatistics (P)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td>PH 294 (Research Proposal Writing in Public Health) (P)</td>
<td>EPI 232 Chronic Diseases Epidemiology (C-V)</td>
<td>P 273 (Bio-behavioral Aspects of Health and Illness) (C-R)</td>
</tr>
<tr>
<td></td>
<td>PH 242 Theories of Health Communication (C-V)</td>
<td>C/LS 213 (Cultural and Historical Precedents for Latinos in Medical Care) (E)</td>
<td>SOC 269 (Sociology/Demography of Health) (E)</td>
</tr>
<tr>
<td></td>
<td>PPD 220 Qualitative Methods: Fieldwork and Data Collection (P)</td>
<td>SOC 226 (Methods of Demographic Analysis (E)</td>
<td>PH 299 Independent Studies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 3</td>
<td>Qualifying Examination</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PH – 296 Dissertation Research (R)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PH – 303 (Teaching Assistantship)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4</td>
<td></td>
<td>PH – 296 Dissertation Research (R) / Defense</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PH-303 (Teaching Assistantship)</td>
<td></td>
</tr>
<tr>
<td>Year 5</td>
<td></td>
<td>PH – 296 Dissertation Research (R) / Defense</td>
<td></td>
</tr>
<tr>
<td>Year 6</td>
<td></td>
<td>PH – 296 Dissertation Research (R) / Defense</td>
<td></td>
</tr>
</tbody>
</table>
2.12 Normative Time from Matriculation to Degree for Full-time Students

The normal time from matriculation to graduation of full-time Ph.D. students is six years. The pre-candidacy period is expected to last no more than three years. The maximum time for degree completion is eight years.

Incoming graduate students will be assigned a faculty advisor (FA) from the Program in Public Health. These initial assignments will be based on projected interests of the student. During the first year of the program, the FA will mentor each student with regard to course selection and any opportunities for interdisciplinary research collaborations. By the end of first year, students are expected to identify a major research advisor (RA). The major RA will guide the student in developing research plans and help the student meet the program’s requirement regarding substantial knowledge of an application area. A primary role of the RA is to help keep the student on schedule with respect to time-to-degree guidelines. By the Fall Quarter of the second year, each student is expected to appoint a five-member Graduate Candidacy Committee. Qualifying Examinations will be conducted by the end of second year in the program. After a student is advanced to Ph.D. candidacy, a Doctoral Dissertation Committee will be formed. The primary role of the Doctoral Dissertation Committee is to assess student progress and provide guidance on student’s research. Students must present research progress with a written evaluation by the Doctoral Dissertation Committee.
Section 3. Projected Need

3.1 Student Demand for the Program

Student demand for research degrees in Public Health is strong as evidenced by national statistics concerning applications and enrollment at other universities and current capacity of public health education in California.

According to the 2005 Annual Data Report of Association of Schools of Public Health\textsuperscript{33}, applications to graduate programs in the thirty-seven accredited schools of public health in the US has increased from 17,611 to 26,995 over the period of 1995-2005, a 53.3% increase (Table 2). The new enrollments in 2005 were 7,206, and the total enrollments in those schools were 19,443, only 29.9% increase from 1995. Consequently, selectivity increased as the increase in applications far exceeded increase in enrollment. Of the 26,995 applications in 2005, only 7,206 (26.6%) actually enrolled, a 3.6% reduction in comparison to 1995 (Table 3). Ph.D. student enrollments have reached 3,710 in 2005 from 2,038 in 1995, a 19.1% increase. In 2005, doctoral degrees were awarded to 761 individuals or 11.4% of the total degree recipients, and the highest proportion of doctoral degree recipients was awarded to the Ph.D. (8.1%). In 1995, only 6.5% total degree recipients in SPH was awarded to the Ph.D. In sum, there is a strong student demand for Ph.D. degree program in the US.

One notable characteristic in student demand for education in public health is strong interests among minorities and women (Table 3). For example, 38.7% applications came from minority groups and 71.0% from female students in 2005, and women represented the majority of the enrollments (70.6%). Furthermore, the percentage of total enrollment for each of these groups increased significantly 1995-2005 (Table 4). These national data demonstrate a rapid growth trend in student demand for public health degree programs over the past decade. In California, applications to schools of public health have increased at a rate similar to the national trend. However, enrollments have remained essentially flat, resulting in increasingly large numbers of applicants being turned away and a rapid decline in the size of California schools relative to peer institutions nationwide (Table 5). Furthermore, only three Schools of Public Health in California (UC-Berkeley, UCLA and SDSU) offer Ph.D. degree programs. Such a limited training capacity is not adequate for the State of California with rapid population growth and increasing ethnic diversity. In a report submitted to the University of California in January 2007, the Advisory Council on Future Growth in the Health Professions described the situation this way:

\begin{quote}
“Among the nation’s top ten schools of public health, UCB is the smallest and UCLA is the third smallest in total enrollment. In California, however, they are the largest. . . . The number of applications for admission to public health schools has risen 48 percent nationwide since 1992. Applications to California’s four schools and six accredited programs in public health show similar upward trends. . . . UC
\end{quote}

schools of public health differ from national statistics in the virtual lack of growth in enrollment over the last 10 years, due to space constraints and limits in the number of faculty FTE."  


<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2005</th>
<th>% of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPH applications35</td>
<td>17,611</td>
<td>26,995</td>
<td>53.3%</td>
</tr>
<tr>
<td>SPH accepted</td>
<td>9,879 (56.1% of apps)</td>
<td>14,773 (54.7% of apps)</td>
<td>-2.6%</td>
</tr>
<tr>
<td>SPH new enrollments</td>
<td>5,332</td>
<td>7,206</td>
<td>35%</td>
</tr>
<tr>
<td>SPH enrollments</td>
<td>14,973</td>
<td>19,443</td>
<td>29.9%</td>
</tr>
<tr>
<td>Ph.D. enrollment36</td>
<td>2,038</td>
<td>3,710</td>
<td>19.1%</td>
</tr>
<tr>
<td>Percentage of Ph.D. students in enrollment</td>
<td>13.6%</td>
<td>19.1%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Ph.D. new degrees37</td>
<td>301</td>
<td>542</td>
<td>80.1%</td>
</tr>
<tr>
<td>Percentage of Ph.D. among all graduate degrees awarded by SPH38</td>
<td>6.5%</td>
<td>8.1%</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Table 4. SPH Applications and Enrollments among Minority and Women

<table>
<thead>
<tr>
<th></th>
<th>1995*</th>
<th>2005*</th>
<th>% of increase among total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Minority39</td>
<td>4,579 (33.7%)</td>
<td>7,815 (38.7%)</td>
<td>4.0%</td>
</tr>
<tr>
<td>Women40</td>
<td>11,076 (62.9%)</td>
<td>19,155 (71.0%)</td>
<td>8.1%</td>
</tr>
<tr>
<td>Enrollments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Minority41</td>
<td>3,370 (27.8%)</td>
<td>5,615 (33.9%)</td>
<td>6.1%</td>
</tr>
<tr>
<td>Asian</td>
<td>1,216 (10.0%)</td>
<td>2,084 (12.6%)</td>
<td>2.6%</td>
</tr>
<tr>
<td>Black</td>
<td>985 (8.1%)</td>
<td>1,893 (11.4%)</td>
<td>3.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1068 (8.8%)</td>
<td>1,509 (9.1%)</td>
<td>0.3%</td>
</tr>
<tr>
<td>Women42</td>
<td>9,509 (63.8%)</td>
<td>13,733 (70.6%)</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

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35 Based on ASPH Table 2-7.
36 Based on ASPH Table 3-14.
37 Based on ASPH Table 4-13.
38 Based on ASPH Table 4-13.
39 Based on ASPH Table 1-10.
40 Based on ASPH Table 1-9.
41 Based on ASPH Table 3-12.
42 Based on ASPH Table 3-11.
* The percentage in the table refers to the proportion of enrollment in the particular category among the total student enrollments.

As a result, the Council recommends that “UC should expand opportunities for preparing future public health professionals to work in settings and disciplines of greatest need”. Specifically, the Council recommends an increase of more than 180 percent in Masters student enrollments by 2020. The Council also recommends parallel increases in doctoral student enrollments from 279 students to 785 by 2020, namely “50 percent increase between 2005-2010 and 2010-2015; and 25 percent between 2015-2020”. This equals an increase from 279 doctoral students to 419 by 2010, to 628 by 2015, and finally to 785 by 2020. The proposed Ph.D. program at UCI would significantly contribute to the training of future public health professionals.

3.2 Opportunities for Placement of Graduates

We begin by bringing back the quotation from Robert Wood Johnson Foundation scholar’s program:

“To increase the array of population-wide interventions, more scholars will need to explore the effects of contextual factors on behavior and biology. A new multidisciplinary field of population health is emerging, and there is a growing demand among government agencies, universities and public health organizations for interdisciplinary collaboration.”

(http://www.healthandsocietyischolars.org/).

The Public Health Education of the University of California report suggests a strong demand for graduate students in public health due to the ageing of the population, rapid population growth and increasing ethnic diversity, existing health workforce shortage, lack of training within the existing public health workforce, and challenges posed by existing and emerging diseases. Nationwide, environmental scientists, health educators, epidemiologists and administrators are among the professional occupations with the greatest demand. In California, governmental public health agencies often found recruitment of trained public health professionals a challenge due to limited applicant pools and non-competitive pay, particularly in rural communities. The most significant shortages are for epidemiologists, health educators, and environmental health scientists when public health degrees are required.

Public health Ph.D. recipients are generally employed by universities, government agencies or private sectors such as non-governmental organizations (community based social service organizations and advocacy groups), disease management, information technology, and biotechnology firms. We are not


able to obtain definitive information on the placement of public health Ph.D. graduates among other schools of public health in the US because there is no comprehensive database that tracks the employment of public health Ph.D. graduates. A search for placement of public health Ph.D. graduates yield information from several universities. For example, recent Ph.D. graduates (n=25) in the School of Public Health at the University of North Carolina found that 56% were employed by academics as faculty or research scholars, 20% by federal government or state government health agencies such as the Center for Disease Control and Prevention and State Department of Public Services, and other 24% by industries as researchers or administrators (http://www.unc.edu/~nbeach/phd_employ_01_06.pdf). A search for the American Public health Association CareerMart website (http://PPHartners.org/jobs.html) in Jan. 2008 found 101 active, full-time public health position postings. Among them, 16 positions were in academics which require a Ph.D. or equivalent degrees. In January 2008, the Association of Schools of Public

Table 5. Applications/Acceptances/Enrollments by School, FALL 2005

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>APPLICATIONS</th>
<th>NEW ENROLLMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOTAL</td>
<td>ACCEPTED</td>
</tr>
<tr>
<td>UAB</td>
<td>390</td>
<td>243</td>
</tr>
<tr>
<td>ALBANY</td>
<td>383</td>
<td>238</td>
</tr>
<tr>
<td>ARIZONA</td>
<td>171</td>
<td>129</td>
</tr>
<tr>
<td>ARKANSAS</td>
<td>35</td>
<td>21</td>
</tr>
<tr>
<td>BOSTON</td>
<td>1,026</td>
<td>815</td>
</tr>
<tr>
<td>UC-BERKELEY</td>
<td>1,026</td>
<td>369</td>
</tr>
<tr>
<td>UC-LOS ANGELES</td>
<td>775</td>
<td>503</td>
</tr>
<tr>
<td>COLUMBIA</td>
<td>1,626</td>
<td>974</td>
</tr>
<tr>
<td>DREXEL</td>
<td>597</td>
<td>312</td>
</tr>
<tr>
<td>EMORY</td>
<td>1,731</td>
<td>921</td>
</tr>
<tr>
<td>GWU</td>
<td>876</td>
<td>536</td>
</tr>
<tr>
<td>HARVARD</td>
<td>1,644</td>
<td>699</td>
</tr>
<tr>
<td>UIC</td>
<td>822</td>
<td>395</td>
</tr>
<tr>
<td>IOWA</td>
<td>339</td>
<td>168</td>
</tr>
<tr>
<td>JHU</td>
<td>2,646</td>
<td>1,171</td>
</tr>
<tr>
<td>KENTUCKY</td>
<td>131</td>
<td>74</td>
</tr>
<tr>
<td>LOMA LINDA</td>
<td>294</td>
<td>196</td>
</tr>
<tr>
<td>UMASS</td>
<td>596</td>
<td>340</td>
</tr>
<tr>
<td>MICHIGAN</td>
<td>1,671</td>
<td>905</td>
</tr>
<tr>
<td>MINNESOTA</td>
<td>900</td>
<td>594</td>
</tr>
<tr>
<td>UMDNJ</td>
<td>301</td>
<td>164</td>
</tr>
<tr>
<td>NYMC</td>
<td>163</td>
<td>92</td>
</tr>
<tr>
<td>UNC-CHAPEL HILL</td>
<td>1,744</td>
<td>714</td>
</tr>
<tr>
<td>OHIO STATE</td>
<td>421</td>
<td>223</td>
</tr>
<tr>
<td>OKLAHOMA</td>
<td>367</td>
<td>169</td>
</tr>
<tr>
<td>PITTSBURGH</td>
<td>613</td>
<td>420</td>
</tr>
</tbody>
</table>

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45 ASPH Table 1-7.
Health career website (http://www.publichealthjobs.net/) listed 345 active public health related positions. Among them, 90 positions (27%) require doctoral (Ph.D., M.D. or equivalent) degree, and 43 (13%) require Ph.D. degree. It is worth noting that a number of non-governmental organizations employ public health graduates as program managers and technical advisors. In 2005, 37 accredited schools of public health in the US awarded only 542 Ph.D. degrees. Given the high demand for public health Ph.D. recipients, we anticipate our outstanding graduates will be competitive in the job market.

3.3 Importance to the Discipline

Important objectives of public health sciences include “preventing disease, prolonging life, and promoting health and efficiency through organized community effort for the sanitation of the environment, control of communicable infections, education in personal hygiene, organization of medical and nursing services, and the development of the social machinery to ensure everyone a standard of living, adequate for the maintenance of health”. These existing needs are projected to increase in the future due to “changing demographic trends within the U.S. and in California, the aging of the population and the public health workforce itself, overall population growth and increasing ethnic diversity, existing health workforce shortages, lack of training within the existing public health workforce, and challenges posed by existing and emerging diseases”.

The increasing diversity of California is especially important because of a growing crisis in disparities of health and access to healthcare across ethnic and racial groups. The last public health school was established in California in 1980. Since then, there have been major shifts in the demographic characteristics of the state, resulting in major disparities in health attributes. A comprehensive

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48 There are four nationally accredited Schools of Public Health in California that grant the MPH degree: UC-Berkeley, established in 1943; UCLA, established in 1961; San Diego State University with collaborations with UC-San Diego, established in 1980; and Loma Linda University, established in 1967. In addition, there are seven other MPH granting programs at various institutions.
assessment of multicultural health disparities in California was published by the California Department of Health Services in 2003. These demonstrable shifts in demographic patterns and health risk factors, including the resurgence of chronic diseases such as diabetes and reemergence of infectious diseases, call for a new cadre of public health professionals. Our program offers broader training that encompasses all five core areas of public health, and will address a spectrum of public health issues, ranging from basic mechanisms of pathogen infections in human and risk factors associated with chronic disease to disease management.

3.4 Ways in which the Program will meet the Needs of society

The societal needs for increased number of public health professionals are evident. In a comprehensive report on California’s public health workforce, the UC Health Sciences Committee concluded that:

- California’s public health workforce is insufficient and needs are growing. In the face of increasing demand from new public health threats and changing demographics, the public health workforce in California is considered by many to be deficient in size, scope, and quality. It is estimated that only 20% of the state’s public health workforce is actually trained in public health.
- California’s population is increasingly diverse and its needs are not being met. Underrepresented minority groups are disproportionately affected by widening disparities in health status. Cultural and linguistic barriers continue to plague millions of Californians.

Those conclusions reflect the findings of the most comprehensive national survey of the public health workforce is Public Health Workforce from the U.S. Department of Health and Human Services (January 2005). Surveys in six states including California found it difficult to recruit in many fields. Where public health degrees are required, significant shortages exist for epidemiologists, health educators, and environmental health scientists.

The Public Health Ph.D. program at UCI will satisfy the needs of society by generating knowledge on evolving public health problems and identifying solutions, and increasing the training capacity for public health professionals in California. Based on the strengths of existing academic programs on campus and research interests of available faculty in the Program in Public Health, we design a broad Ph.D. degree program that emphasizes the inter-disciplinary nature of public health research and education.


50 UHSC Full Report, pp. 167-68.

51 The other states are New Mexico, Montana, Georgia, Texas, and New York. They were chosen to "assure representation of the four organizational modes which represent different relationships between the State and local public health agencies" (p. 2).

Through a combination of rigorous admissions standards and a curriculum that addresses the interdisciplinary nature of public health problems, we anticipate that our program will yield outstanding Ph.D. graduates who are excellent researchers, proficient in basic knowledge in public health, and are capable of applying their knowledge to real problems. The strong academic programs on campus and in the Program in Public Health at UCI will ensure our students receive high-quality training. We further envision that our graduate program will make important contributions in the following interdisciplinary areas:

1) **Global Health**, encompassing natural disasters and public health emergencies, Public Health Informatics, and the applications of Geographic Health Information Systems.

2) **Disease Prevention**, encompassing health behavior, health promotion and policy, and translational science in public health.

### 3.5 Relationship of the Program to Research and/or Professional Interests of Faculty

The research interests of the faculty in the Program in Public Health, Department of Population Health and Disease Prevention can be broadly classified into the two categories in which we are proposing concentrations in the Ph.D. in Public Health. In addition, some faculty members have research programs that cut across both concentrations. Specific examples of faculty research areas under each category include:

1) **GLOBAL HEALTH RESEARCH**
   - Malaria risk analysis; response to global change (Guiyun Yan)
   - Transnational movement of hazardous waste and toxic risks (Oladele Ogunseitan)
   - Natural disasters, Earthquake risk analysis, and emergency response (Lisa Ludwig)
   - Modeling disease patterns; Health networks; Demography (Andrew Noymer)

2) **DISEASE PREVENTION RESEARCH**
   - Chronic disease prevention, through for example cross-disciplinary work in biomarker research for population screening; health behaviors associated with regulation of gene expression of papillomaviruses and its relevance for progression of cervical cancer (Hans-Ulrich Bernard; Lari Wenzel; Frank Meyskens; David Timberlake)
   - Adolescent health; Ecological models of health and risk behavior; Social networks and health (Cynthia Lakon; David Timberlake)
   - Cultural and developmental factors influencing traffic safety, and community based injury prevention programs (Shahram Lotfipour)

3) **INTEGRATIVE RESEARCH**
   - Human exposure to pollutants associated with urban transportation, manufacturing, and consumer goods (Scott Bartell, Jun Wu, Rufus Edwards; Oladele Ogunseitan)
• Sequelae of regional economic downturns; neighborhood context and infant health disparities; mental health policy; biodemography (Tim-Allen Bruckner)
• Risk-adjusted outcomes; Racial disparities; Health economics (Mukamel).

3.6 Program Differentiation

Currently, three Schools of Public Health and one joint program in California offer Ph.D. degree programs:

• UC-Berkeley (Ph.D. in biostatistics, Environmental Health Sciences, Epidemiology, Health Services and Policy Analysis, and Infectious Diseases)
• UCLA (Ph.D. in Biostatistics, Community Health Sciences, Environmental Health Sciences, Epidemiology, and Health Services)
• UC San Diego (The joint program between SDSU and UCSD offers Ph.D. Public Health with concentrations in Epidemiology, Health Behavioral Science, and Global Health)
• UC Davis offers doctoral programs in epidemiology, biostatistics, and pharmacology and toxicology, each administered by a different graduate group composed of members of various academic units.

The UC Irvine Ph.D. in Public Health is distinctive in the program’s emphasis in defining the scope of hypothesis generation with a framework of complex public health questions that demand multidisciplinary research education and training. This framework shares some similarity, to some extent, with the health and society scholars program, a joint program of the UCSF Center for Health and Community and UC Berkeley School of Public Health. That program is supported by the Robert Wood Johnson Foundation, which has an explicit focus on the United States. In contrast, the UC Irvine Ph.D. also includes Global Health in this framework, thereby bridging the gap between understanding of disease prevention strategies and the translational science paradigm that will extend successes to other countries, especially in the economically underprivileged regions.

UC Irvine has all the ingredients to develop this kind of forward-thinking training program. The broader approach will help students to prepare for public health careers that can deal with emerging public health challenges at the regional and global levels. We aim to recruit students who particularly desire to chart new territories in public health, the foundation for which we are already establishing at Irvine, including engagement with the Institute for Clinical and Translational Science, where Dr. Oladele Ogunseitan is the Director of the Research Education, Training, and Career Development Unit.

53 http://www.hss.ucsf.edu/
54 http://www.rwjf.org/publichealth/
Section 4. Faculty

A multidisciplinary team of faculty will participate in teaching and mentoring research students under the proposed PhD in Public Health. The Program in Public Health includes core and affiliated individual faculty members (Table 6). Faculty in collaborating units and research centers may also apply to participate as mentors. These units include the Framework Program in Global Health (Table 7), the Center for Occupational and Environmental Medicine, Department of Epidemiology, Health Policy Research Institute, and the Urban Water Research Center. Letters of support are included in the appendix. Faculty resumes are also presented in the appendix.

We acknowledge the need for training junior faculty members in the art of mentoring protégés in research. We have implemented two major strategies for mentor training. First, we sought and received permission from colleagues at the University of Michigan55 and the University of Washington56, 57 to review and adapt successful aspects of mentoring guidelines for our purposes. The UC Irvine Public Health Faculty Mentoring Guidelines has input from our faculty members and graduate students. Second, our faculty members and graduate students participated in the inaugural colloquium and workshop on mentoring held at UC Irvine on May 20th 2011. Dr. Ogunsieitan organized the program in his role as the director of research education, training and career development for the new NIH-funded Institute for Clinical and Translational Science. The video-recorded program included presentations by nationally renowned researchers who have studied mentoring and published their findings58, 59. The participation of the speakers was co-sponsored by the Program in Public Health.

For the past two years, we have been hosting orientation events for graduate students during the Fall quarter, and this provides an opportunity for faculty and students to discuss various topics including the curriculum, career opportunities, research resources, and funding programs. We plan to include mentoring development for faculty as a key component of these orientation meetings, and to follow up the Fall meeting with an evaluation workshop in the Spring quarter. All our faculty members, including junior members, are expected to provide mentoring to MPH students, and we have been doing this for three years. We understand that research mentoring for doctoral students is different. We will expand


the current mentor training programs accordingly. The increasing number of senior faculty participants in our programs will also facilitate the development of mentoring skills by less experienced faculty members who are expected to serve on dissertation committees.

**Table 6. Faculty members in the Program in Public Health**

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Name</th>
<th>Title</th>
<th>Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bartell, Scott, Ph.D.</td>
<td>Assistant Professor</td>
<td>Human Exposure to Industrial and Environmental Pollutants – The PFOA Study; Biostatistics and Epidemiology</td>
</tr>
<tr>
<td></td>
<td>Bernard, Hans-Ulrich, Ph.D.</td>
<td>Professor</td>
<td>Human Papilloma Viruses; Biomarkers; Population Screening; Coincidental Risk Factors</td>
</tr>
<tr>
<td></td>
<td>Bruckner, Tim-Allen</td>
<td>Assistant Professor</td>
<td>Health Impacts of Regional Economic Downturns; Neighborhood Context and Infant Health Disparities; Mental Health Policy; Biodemography</td>
</tr>
<tr>
<td></td>
<td>Edwards, Rufus, Ph.D.</td>
<td>Assistant Professor</td>
<td>Air Pollution; Human exposures to particles, VOC, greenhouse gas incl. U.S. and European cities (Expolis) -- Environmental Epidemiology</td>
</tr>
<tr>
<td></td>
<td>Garner, Chad, Ph.D.</td>
<td>Assistant Professor</td>
<td>Statistical and Population Genetics</td>
</tr>
<tr>
<td></td>
<td>Grant-Ludwig, Lisa, Ph.D.</td>
<td>Associate Professor</td>
<td>Natural hazards, Paleoseismology, Active faults, San Andreas Fault, Seismic Hazard, Environmental Health and Geology</td>
</tr>
<tr>
<td></td>
<td>Lakon, Cynthia, Ph.D., M.P.H.</td>
<td>Assistant Professor</td>
<td>Ecological models of health and health behavior, social networks and health, social influence, social support, high risk youth populations, homelessness, and substance use.</td>
</tr>
<tr>
<td></td>
<td>Ogunseitan, Oladele, Ph.D., M.P.H.</td>
<td>Professor</td>
<td>Environmental Microbiology and Ecology; Toxic Risk Factors; International Environmental Health; Health Impacts of Global Change and Development</td>
</tr>
<tr>
<td></td>
<td>Wenzel, Lari, Ph.D.</td>
<td>Professor</td>
<td>Evaluation of behaviors in cancer patients and survivors.</td>
</tr>
<tr>
<td></td>
<td>Yan, Guiyun, Ph.D.</td>
<td>Associate Professor</td>
<td>Population ecology and genetics of host-parasite interactions, malaria</td>
</tr>
</tbody>
</table>

*Core Faculty who will supervise doctoral research students*
<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timberlake, David, Ph.D., M.P.H.</td>
<td>Assistant Professor</td>
<td>Genetic epidemiology, epidemiology of tobacco, alcohol and other substances of abuse</td>
</tr>
<tr>
<td>Wu, Jun, Ph.D.</td>
<td>Assistant Professor</td>
<td>Air pollution exposure assessment and air pollution epidemiology</td>
</tr>
<tr>
<td>Wu, Jun, Ph.D.</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td><strong>Core Lecturers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bic, Zuzana, Dr.P.H.</td>
<td>Lecturer, SOE</td>
<td>Lifestyle medicine on slowing the process of aging and the development of chronic diseases. Health Education.</td>
</tr>
<tr>
<td>Chandra, Candace</td>
<td>Lecturer, Unit 18</td>
<td>Global Health, International Environmental Remediation</td>
</tr>
<tr>
<td>Joanne Christopherson, Ph.D.</td>
<td>Lecturer, Unit 18</td>
<td>Geographical Information Systems</td>
</tr>
<tr>
<td>Schmidt, Terry, Dr.H.A.</td>
<td>Lecturer, Unit 18</td>
<td>Health Administration, Management and Law</td>
</tr>
<tr>
<td>Stern, Sharon, Ph.D.</td>
<td>Senior Lecturer, SOE</td>
<td>Potable Water Reuse; Water Quality Risk Factors.</td>
</tr>
<tr>
<td>Walsh, Eric, M.D., M.P.H., Dr.P.H.</td>
<td>Lecturer, Unit 18</td>
<td>Global Health</td>
</tr>
<tr>
<td>Amin, Alpesh</td>
<td>Professor</td>
<td>Health Administration; Medical Education, Curriculum Development.</td>
</tr>
<tr>
<td>Baker, Dean, M.D., M.P.H.</td>
<td>Professor</td>
<td>Environmental Epidemiology</td>
</tr>
<tr>
<td>Bondy, Steven, Ph.D.</td>
<td>Professor</td>
<td>Nutritional Toxicology</td>
</tr>
<tr>
<td>Chang, Wayne, M.D.</td>
<td>Assistant Professor</td>
<td>Occupational Health and Disease Prevention</td>
</tr>
<tr>
<td>Cygan, Ralph, M.D., M.B.A.</td>
<td>Professor</td>
<td>Primary Health Care</td>
</tr>
<tr>
<td>Detrano, Robert, M.D., Ph.D.</td>
<td>Professor</td>
<td>Chronic Diseases, Cardiovascular Diseases</td>
</tr>
<tr>
<td>Hubbell, Allan, M.D., M.S.P.H.</td>
<td>Professor</td>
<td>Health disparities, cancer prevention and control, and access to medical care</td>
</tr>
<tr>
<td>Israel, Leslie</td>
<td>Professor</td>
<td>Wellness and Disease Prevention</td>
</tr>
<tr>
<td>Kleinman, Michael, Ph.D.</td>
<td>Professor</td>
<td>Toxicology, Respiratory Diseases</td>
</tr>
<tr>
<td>Kornhauser, Elliot, MD</td>
<td>Professor</td>
<td>Injury Prevention</td>
</tr>
<tr>
<td><strong>Faculty Appointed Without Salary who may serve on doctoral research committees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Title/Position</td>
<td>Research Area</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lotfpour, Shahram, M.D., M.P.H.</td>
<td>Assistant Professor, ICTS KL-2 Scholar</td>
<td>Emergency Response; Screening and Brief Intervention for Alcohol Abuse, Older Driver Fitness and Driver Safety</td>
</tr>
<tr>
<td>Luderer, Ulrike, M.D., M.P.H., Ph.D.</td>
<td>Associate Professor</td>
<td>Reproductive Toxicology</td>
</tr>
<tr>
<td>Meyskens, Frank, M.D.</td>
<td>Professor</td>
<td>Cancer Prevention; Melanoma, chemoprevention, polyamines</td>
</tr>
<tr>
<td>Montoya, Michael, Ph.D.</td>
<td>Assistant Professor</td>
<td>Community health, participatory action-research, local knowledge, political economy of disease, diabetes, social studies of science and medicine, Latino health, translational science</td>
</tr>
<tr>
<td>Mukamel, Dana, Ph.D.</td>
<td>Professor</td>
<td>Health Policy</td>
</tr>
<tr>
<td>Noymer, Andrew, Ph.D.</td>
<td>Assistant Professor</td>
<td>The historical demography and epidemiology of influenza pandemics; the evolution of life expectancy; health and mortality in developing countries</td>
</tr>
<tr>
<td>Schnall, Peter, M.D.</td>
<td>Professor</td>
<td>Cardiovascular Disease Prevention</td>
</tr>
<tr>
<td>Sparks, Lisa, Ph.D.</td>
<td>Professor</td>
<td>Communication, health, aging, and cancer communication science</td>
</tr>
<tr>
<td>Stokols, Daniel, Ph.D.</td>
<td>Chancellor’s Professor</td>
<td>community and worksite health promotion; effects of environmental stressors on behavior and health</td>
</tr>
</tbody>
</table>

**Notes to Table 6**

*We are currently (Spring 2011) recruiting an Assistant Professor position in cancer research, population sciences, disease prevention.

**We are currently (Spring 2011) recruiting a Lecturer with Potential for Security of Employment.
<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Participation in Pertinent Collaborative Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guiyun Yan, Ph.D. (Director)</td>
<td>Program in Public Health</td>
<td>Malaria Research in Kenya, Thailand, China; Graduate Training Grant in Infectious Diseases</td>
</tr>
<tr>
<td>Oladele Ogunseitan, Ph.D., M.P.H.</td>
<td>Program in Public Health</td>
<td>Chair, Department of Population Health and Disease Prevention; Global trade in hazardous waste and toxicity of consumer products.</td>
</tr>
<tr>
<td>Zuzana Bic, M.U.Dr., Dr. P.H.</td>
<td>Program in Public Health</td>
<td>Lecturer ; Summer Undergraduate Experience Program in Switzerland; Prague Costa Rica</td>
</tr>
<tr>
<td>Richard Chamberlin, Ph.D.</td>
<td>Pharmaceutical Sciences and Chemistry</td>
<td>Chair, Department of Pharmaceutical Sciences; Member, Biomedical Informatics Graduate Training Program</td>
</tr>
<tr>
<td>Lisa Grant, Ph.D.</td>
<td>Program in Public Health</td>
<td>Associate Director, California Hazards Institute; Natural Disasters and Emergency Preparedness</td>
</tr>
<tr>
<td>Alison Holman, Ph.D., R.N.</td>
<td>Program in Nursing Science</td>
<td>Trauma and Psychological Stress in Emergencies</td>
</tr>
<tr>
<td>Mahtab Jafari, Ph.D.</td>
<td>Pharmaceutical Sciences</td>
<td>Complementary and Alternative Medicine</td>
</tr>
<tr>
<td>Kristi Koenig, M.D.</td>
<td>Department of Emergency Medicine</td>
<td>Director, Center for Disaster Medical Sciences</td>
</tr>
<tr>
<td>Ellen Olshansky, D.N.Sc., R.N.</td>
<td>Program in Nursing Science</td>
<td>Director, Program in Nursing Science; Women’s Health; Qualitative Research Methods</td>
</tr>
<tr>
<td>Roberto Tapia, M.D., M.P.H.</td>
<td>Carlos Slim Health Institute, Mexico</td>
<td>Global Health, Infectious Diseases; Electronic Medical Records; Cellphone-Health technologies.</td>
</tr>
<tr>
<td>Alan Barbour, M.D.</td>
<td>Microbiology and Molecular Genetics</td>
<td>Director, Center for Biodefense and Emerging Infectious Diseases</td>
</tr>
<tr>
<td>Daniel Cooper, M.D.</td>
<td>Department of Pediatrics</td>
<td>Director, Institute of Clinical Translational Science (ICTS)</td>
</tr>
<tr>
<td>Philip Felgner, Ph.D.</td>
<td>Division of Infectious Diseases</td>
<td>Center for Biodefense and Emerging Infectious Diseases</td>
</tr>
<tr>
<td>Donald Forthal, M.P.</td>
<td>Division of Infectious Diseases</td>
<td>Chair, Division of Infectious Diseases; Member, Center for Immunology</td>
</tr>
<tr>
<td>Allan Hubbell, M.D., M.S.P.H.</td>
<td>Department of Medicine Program in Public Health</td>
<td>Senior Associate Dean, Academic Affairs, School of Medicine; Health Policy Research Institute</td>
</tr>
<tr>
<td>Frank Meyskens, M.D.</td>
<td>Department of Biochemistry and Molecular Biology; Department of Medicine</td>
<td>Director, Chao Family Comprehensive Cancer Center</td>
</tr>
<tr>
<td>Federico Vaca, M.D., M.P.H.</td>
<td>Department of Emergency Medicine (Now at Yale University)</td>
<td>Director, Center for Trauma and Injury Prevention Research</td>
</tr>
<tr>
<td>Name</td>
<td>Department/Program</td>
<td>Affiliations/Research Areas</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bruce Blumberg, Ph.D.</td>
<td>Department of Pharmaceutical Sciences</td>
<td>Member, Chao Family Comprehensive Cancer Center; Obesogens</td>
</tr>
<tr>
<td>Peter Bryant, Ph.D.</td>
<td>Department of Development and Cell Biology</td>
<td>Global Sustainability</td>
</tr>
<tr>
<td>Stuart Krassner, Ph.D.</td>
<td>Department of Development and Cell Biology</td>
<td>Center for International Education</td>
</tr>
<tr>
<td>Luis Mota-Bravo, Ph.D.</td>
<td>School of Biological Sciences</td>
<td>Biological Sciences Minority Science Programs</td>
</tr>
<tr>
<td>Anthony James, Ph.D.</td>
<td>Microbiology and Molecular Biology; Molecular Biology and Biochemistry</td>
<td>Distinguished Professor, Center for Immunology; Analysis of malaria parasite/vector mosquito interactions. Molecular biology of insect vectors of disease.</td>
</tr>
<tr>
<td>Cecelia Lynch, Ph.D.</td>
<td>Department of Political Sciences</td>
<td>Director, Center for Global Peace and Conflict Studies; Global Health Faculty Fellow</td>
</tr>
<tr>
<td>Michael Montoya, Ph.D.</td>
<td>Department of Anthropology; Program in Public Health</td>
<td>Department of Chicano/Latino Studies; Center for Ethnography; Community Participatory Research; Chronic Diseases</td>
</tr>
<tr>
<td>Frank Bean, Ph.D.</td>
<td>Department of Sociology; UC Global Health Center for Expertise</td>
<td>Center for Immigration, Population, and Public Policy</td>
</tr>
<tr>
<td>Andrew Noymer, Ph.D.</td>
<td>Department of Sociology; Program in Public Health</td>
<td>Institute for Mathematical Behavioral Science</td>
</tr>
<tr>
<td>Raul Lejano, Ph.D.</td>
<td>Department of Planning, Policy and Design</td>
<td>Director, Center for Community Health</td>
</tr>
<tr>
<td>Rudolph Torres, Ph.D.</td>
<td>Department of Planning, Policy and Design</td>
<td>Research Initiative on Inequality and Social Justice</td>
</tr>
<tr>
<td>Armin Schwegler, Ph.D.</td>
<td>Department of Spanish and Portuguese</td>
<td>Director; Global Cultures Program</td>
</tr>
<tr>
<td>Andrew Githeko, Ph.D.</td>
<td>Kenya Medical Research Institute</td>
<td>Center for Vector Biology and Control Research</td>
</tr>
<tr>
<td>John Githure, Ph.D.</td>
<td>International Center of Insect Physiology and Ecology, Kenya</td>
<td>Division of Human Health</td>
</tr>
</tbody>
</table>
Section 5. Courses

Courses listed in this section are the approved core courses and elective courses for the proposed Public Health Ph.D. program. Requests to substitute a core course with other courses on campus should be approved by the Graduate Affairs Committee. Syllabi for core courses are presented in the appendix.

Description of Courses:

Preparatory Module Courses

1. PH 292 Ethics and Responsible Conduct of Research in Public Health (4 units): Covers issues of scientific integrity and satisfies the requirements for training in public health ethics. Includes guidelines for responsible conduct of research, federal and international codes, administrative review and approval, conflict of interest, and privacy and safety of research participants.

2. PH 293 Research Communication (4) Covers strategies for effective writing and oral presentation of research characteristics and results to various audiences. Includes exercises in writing for the public, for scholarly journals, and at conferences. Pre-requisite: Graduate Standing.

3. PH 294 Research Proposal Writing in Public Health (4). Teaches graduate students fundamentals of research proposal writing through introduction to funding sources, the missions of these sources, and how differences in mission statements translate into different goals within a proposal. Prerequisite: graduate standing or consent of instructor.

4. PH 297 Research Design (4 units). Provides training in research design and methods. Students learn how to evaluate the strength of research findings based on the methods used by a researcher and learn to use lessons from the course to develop a research proposal. Prerequisite: graduate standing or consent of instructor.

5. PPD 220 Qualitative Methods: Fieldwork and Data Collection (4 units). Covers fieldwork, data collection techniques, and related issues for anti-positivistic research. Data collection techniques include observation, physical traces, participation, in-depth interview. Data checks include veracity, detail, completeness, rigor. Prerequisite: graduate standing or consent of instructor.

6. PH-204 Biostatistics (4 units). Designed to help students develop an appreciation for the statistician’s view of the research process, emphasizing health research. Instills an understanding of how statistical models are used to yield insights about the data that form evidence-based understanding of the world around us. Prerequisite: graduate standing.

7. PH 298 Directed Studies in Public Health (2 to 4 units). Prerequisite: graduate standing or consent of instructor. May be repeated for credit.
Courses in the Concentration Module

**Concentration in Global Health Core Courses**

1. **PH-280 Global Burden of Diseases (4).** Introduces composite measures of disease burden, including Disability Adjusted Life Years and their use in prioritizing disease burden at the local, regional, and global levels. Focuses on WHO’s landmark assessments and introduces the DISMOD software for specific analyses. Prerequisite: graduate standing.

2. **PH-282 Advances in Global Health (4)** Critical appraisal of advances in taming the global burden of disease. The underlying sectoral determinants of health, and health systems development through multiple frames, including: economics, infectious and chronic disease, nutrition, injury, culture, social/political organization, humanitarian emergencies and international organizations. Prerequisite: graduate standing.

3. **PH-283 Advances in Geographic Information Systems for Public Health (4).** Covers geographic information systems software knowledge. Explores recent advances in the application of GIS to public health issues at all scales of analysis. Prerequisite: graduate standing.

**Concentration in Disease Prevention Core Courses**

1. **PH244 Health Behavior Theory (4)** — Introduces the field of Health Behavior and then segues into major theoretical perspectives. Focus on health behavior change from the vantage point of individual health behavior and theoretical abstraction. Explores how to relate theory to behavior change intervention programs.

2. **PH 245 Health Promotion Planning (4).** Introduces strategic planning integral to intervention planning in public health practice and research, emphasizing the fundamental domains of social and behavioral health science and practices. Students develop an intervention plan for a specific health problem, health behavior, and target population. Prerequisite: graduate standing.

3. **PH 246 Social Research Methods (4)** An interactive graduate seminar covering topics related to the research process and study design. Begins with conceptualizing research questions, hypotheses, and then turns to topics in measurement and concludes with experimental, quasi-experimental, and observational study designs.

**Risk Factors**

4. **PH262 Earthquakes and Seismic Hazard (4).** Provides an overview of earthquakes and introduction to seismic hazard. Topics include characteristics and effects of earthquakes, sources of earthquakes, seismic hazard assessment, introduction to earthquake loss estimation and mitigation. California examples are emphasized. Prerequisite: graduate standing or consent of instructor. Same as Environmental Health, Science, and Policy E231.

5. **PH 261 Environmental Hydrology (4).** Provides an overview of the occurrence, distribution, and movement of water in the environment. Quantitative methods are introduced for analyzing hydrologic processes. Human impacts on water distribution and quality are considered. Prerequisite: graduate standing or consent of instructor.

6. **PH 269 Air Pollution, Climate, and Health (4).** Emission of air pollutants into the atmosphere, physical and meteorological processes that affect transport, and influence on
global warming. Concepts of how and where people are most exposed, and how exposures and health effects differ in developed and developing regions. Same as Environmental Health, Science, and Policy E247.

7. **PH 270 Human Exposure to Environmental Contaminants (4)**. Introduces founders of conceptual thought that environmental contaminants can impact health. Theory and principles of exposure assessment, the continuum from emissions of a contaminant into the environment to evidence of health effects in a population. Same as Environmental Health, Science, and Policy E248.

8. **CEM 202 Environmental Toxicology (4)**. Analysis of real problems involving toxic chemicals and the human food, air and water supplies, occupational exposures, and life styles. Formal problems will be considered by small groups of students and discussed by the class.

9. **CEM 297 Advanced Topics in Occupational Toxicology (2) F,W,S.** Discussions with clinical and research faculty in environmental toxicology and occupational medical on current toxicology problems in the workplace and critical review of current publications in the field. Journal club/seminar format.

10. **224 Virus Engineering Laboratory (4) S.** Laboratory, four hours. An advanced laboratory for graduate students enrolled in the Biotechnology master's program. Students learn to engineer recombinant eukaryotic viruses and express genes in mouse tissue. Prerequisite: graduate standing.

11. **M 215 Fundamental Immunology I (4) F.** Lecture/seminar, three hours. Discussion and student presentation with the aim of achieving a basic understanding of the haematopoietic system, and the cellular and molecular basis of adaptive immunity. Prerequisite: consent of instructor.

12. **M 216 Pathogenic Microbiology (4) F.** Lecture, four hours. Biochemical and genetic properties of infectious agents; identification and behavior of pathogens; activities of toxins; the chemotherapy, biochemistry, and genetics of drug resistance; and epidemiology of infectious diseases. Prerequisite: consent of instructor.

13. **M 219 Medical Virology (4) F.** Lecture, four hours. Animal viruses as disease causing agents, including mechanisms of infection at both the cellular and organismic levels. Topics include comparative studies of different groups of viruses, viral transformation, and mechanisms of viral gene expression. Prerequisite: consent of instructor.

14. **P-273 Biobehavioral Aspects of Health and Illness (4).** Examines the behavior-physiology interactions of some major bodily systems: the nervous, cardiovascular, gastrointestinal, and endocrine systems. Analysis of normal and abnormal states of these systems as they relate to tissue injury, disease, and rehabilitation. Prerequisite: graduate standing or consent of instructor.

15. **P274 The Psychobiology of Stress (4).** Introduction to stress physiology and psychoneuroimmunology and critical review of research in this area. Examines bi-directional relationships between psychological factors (e.g., stressors, social processes, emotions), neuroendocrine and immune systems, and disease. Prerequisite: graduate standing or consent of instructor.

**Vulnerable Populations**

16. **PH 201 Cancer Epidemiology (4)** Concentrates on understanding how epidemiology plays a role in the search for cancer etiology, prevention, control, and treatment; gives an overview
of cancer research with an appreciation of the multidisciplinary nature of the field. Prerequisites: Public Health 203; graduate standing or consent of instructor.


18. **PH 203 Environmental Epidemiology (4)** Concentrates on epidemiological approaches to the assessment of community environmental hazards; issues involved in environmental exposure estimation; interdisciplinary approaches to environmental epidemiology, including the use of biomarkers of exposure and susceptibility; epidemiological studies within the context of risk assessment.

19. **PH-281 Infectious Diseases Epidemiology (4)** Covers the geographical distribution of infectious diseases and the health and disease risk in diverse human populations. Introduces basic methods for infectious disease epidemiology and case studies of important diseases. Includes surveillance, outbreak investigation, emerging pathogens, traditional and molecular epidemiology. Prerequisite: Graduate standing or consent of instructor.

20. **EPI 232 Chronic Diseases Epidemiology and Prevention (4)** Population differences, risk factors, prevention and control of major chronic diseases. Topics to be presented include different cancers (for examples, lung, digestive, reproductive), coronary and other cardiovascular diseases, hypertension, diabetes, aging, neurologic disorders, and kidney and respiratory diseases.

21. **SOC 226A Methods of Demographic Analysis (4)** S. Introduces basic demographic methods used in social science and public health research. Topics include sources and limitations of demographic data; components of population growth; measures of nuptiality, fertility, mortality, and population mobility projection methods; and demographic models. Prerequisite: graduate standing or consent of instructor.

22. **SOC-269 Sociology/Demography of Health (4).** This seminar will examine population health. Topics include catastrophic pandemics and the prospects for their recurrence; the "Columbian exchange"; the "McKeown debate" and evolution of health in developed countries; health and socio-economic status; the healthy immigrant "paradox"; the challenges facing developing countries today.

23. **C/LS 210A-B Cultural and Historical Precedents for Latinos and Medical Care (2-2).** Introduction to the history of Latinos, focusing on relevant pre-Columbian, colonial, and modern social and cultural developments, including issues of race, gender, sexuality, religious beliefs, and health beliefs and practices. In-progress grading for 210A. Chicano/Latino Studies 210A-B and 212 may not both be taken for credit.

24. **AAS 202 Immigration and Globalization (4).** Examines immigration to three leading immigrant-receiving nations: the United States, Canada, and Australia, as both cause and consequence of globalization. Specific attention to Asian migration, as well as assimilation and its relationship to multiculturalism. Prerequisite: graduate standing.

25. **C/LS 213 Health and Medicine Among Latinos and Latinas (4).** Examines contemporary issues of health beliefs, health practices, reproduction, political economy, immigration, access to medical care, culture competency, medicalization, biomedicine, and disease as they relate to U.S. Latinos and Latinas. Chicano/Latino Studies 213 and 211A-B may not both be taken for credit. Same as Anthropology 233B.

26. **PH 271 Health Impacts of Global Environmental Change (4).** Seminar on health impacts of environmental change at various scales of analysis. Uses numerical models such as “MIASMA” and “TARGETS” to analyze alternative outcomes of environmental-change
scenarios. Presentations from experts are featured. Prerequisite: graduate standing or consent of instructor.

27. **PH 241 Environmental Policy and Global Sustainability (4)**. Seminar organized around four transcendent questions: does the world value sustainability, what challenges must be met to move toward it, what are the roots of inequality, and is capitalism compatible with sustainability. Prerequisite: graduate standing or consent of instructor.

28. **PH 242 Theories of Health Communication (4)**. Explores the concepts, constructs, and theories of communication in health and risk contexts. Examines interpersonal, family, organizational, and mediated communicative processes about health care and conditions from a global perspective.

**Research Module**

1. **PH-296 Doctoral Dissertation (1 – 12 units)**. Prerequisites: consent of instructor, graduate standing. May be repeated for credit.

**Elective Course Options**

1. **(PH 290) Foundations of Clinical and Translational Science (4 units) (Proposed)**. This course introduces the rationale and imperative for clinical and translational science, which seeks to speed up discoveries into healthcare practices. The course will compare and contrast current impediments to clinical research with the potential of translational science. This course will include presentations from ICTS unit directors and guest speakers from other funded ICTS programs around the country.

2. **PH203 Epidemiology (4)**. Presents descriptive and experimental approaches to the recognition of the causal association of disease in the general population, as these approaches apply to populations using different student designs and models from the literature. Prerequisite: graduate standing or consent of instructor. Same as Environmental Health, Science, and Policy E226/Epidemiology 203.

3. **PH265 Advanced Environmental Health Science (4)**. Explores the complex relationships among exposure processes and adverse health effects of environmental toxins focusing on specific chemicals, sources, transport media, exposure pathways, and human behaviors. Techniques of environmental sampling for exposure assessment are discussed. Prerequisite: graduate standing or consent of instructor.

4. **STAT 240 Multivariate Statistical Methods (4)**. Theory and application of multivariate statistical methods. Topics include: likelihood and Bayesian inference for the multivariate normal model, visualization of multivariate data, data reduction techniques, cluster analysis, and multivariate statistical models. Prerequisites: Statistics 200A-B-C and Mathematics 121A.

5. **STAT 245 Time Series Analysis (4)**. Statistical models for analysis of time series from time and frequency domain perspectives. Emphasizes theory and application of time series data analysis methods. Topics include ARMA/ARIMA models, model identification and estimation, linear operators, Fourier analysis, spectral estimation, state space models, Kalman filter. Prerequisites: Statistics 200A-B-C.
6. **STAT 255 Statistical Methods for Survival Data (4).** Statistical methods for analyzing survival data from cohort studies. Topics include parametric and nonparametric methods, the Kaplan-Meier estimator, log-rank tests, regression models, the Cox proportional hazards model and accelerated failure time models, efficient sampling designs, discrete survival models. Prerequisite: Statistics 211.

7. **ICS 208 Introduction to Medical Informatics (4).** Concepts related to the incorporation of information technology into health care environments, covering both the technological challenges and the social challenges. Topics include medical decision support systems, electronic patient records, information retrieval, standards, data security, human-computer interaction, and computer-aided instruction. Prerequisite: undergraduate degree in computer science, biological sciences, or health sciences with some exposure to the fundamentals of computing.

8. **ICS 278 Data Mining (4).** Introduction to the general principles of inferring useful knowledge from large data sets (commonly known as data mining or knowledge discovery). Relevant concepts from statistics, databases and data structures, optimization, artificial intelligence, and visualization are discussed in an integrated manner. Prerequisite: ICS 273 or 274 or consent of instructor.

9. **U237 Introduction to Geographic Information Systems (4).** Application of Geographic Information Systems (GIS) to the field of urban and regional planning. Emphasizes current issues that occur in actual implementation settings. Lecture/discussion followed by laboratory demonstrating the area of GIS discussed. Offers "hands-on" student usage of GIS software.

10. **(PH290B*) Advanced Epidemiologic Methods.** Special topics in the design and statistical analysis of epidemiologic studies, and will include hands-on data analysis during weekly computer lab sessions. Topics include simulation methods for estimating statistical power, counter-matching and multistage study designs, handling missing data, marginal structural models, and Bayesian analysis of epidemiologic data.

11. **PH-272 Environmental Health and Quality (4).** Concepts and principles of environmental health. Focuses on industrial hygiene, water and air quality, noise pollution, and environmental carcinogens. Discusses theory and implementation practices through review of legislative measures and enforcement procedures. Examines social and biological interactions surrounding each topic. Prerequisite: graduate standing or consent of instructor. Same as Environmental Health, Science, and Policy E283.

12. **PH-240 Topics in Environmental Health Promotion and Education (4).** Focuses on design of intervention strategies dependent on the environmental agent, exposure to assessment, SES, health effects, stakeholders, and support base. Programmatic design includes media selection, communication/education, and pre/post surveys. Analysis of transborder and local environmental health promotion programs. Prerequisite: graduate standing or consent of instructor.

13. **PH220 Public Health Cost-Effectiveness Analysis (4).** Examines using cost-effectiveness information to allocate limited resources to maximize health benefits to a population; defining and measuring cost, survival, and health-related quality of life; and how to calculate cost-effectiveness using decision trees and Markov simulation models. Prerequisite: graduate standing or consent of instructor. Same as Environmental Health, Science, and Policy E228, Planning, Policy, and Design U226, and Psychology and Social Behavior P228.

14. **P270 Multilevel Models (4).** Introduces contemporary statistical models associated with nested, hierarchical, or clustered data. Topics include multilevel thinking in theory, growth curve modeling, intra-individual variation, cross-sectional multilayered data, hypothesis-
testing, statistical power, effect size estimation, and available software packages. Prerequisite: graduate standing or consent of instructor.

15. **P-258 Health Psychology (4)**. Interdisciplinary exploration of emerging fields of health psychology and behavioral medicine. Topics: role of stress in the development and treatment of medical problems; sociocognitive determinants of health and illness; interpersonal health transactions; behavioral approaches to medical problems such as diabetes, obesity, hypertension.

16. **P-272 Psychoneuroendocrinology (4)**. Introduction to a new and multidisciplinary research field investigating the interactions between the brain, hormones, and behavior. After an introduction to relevant neuroendocrine concepts, covers current research topics in the field including stress, memory, development, and psychopathology. Prerequisite: graduate standing or consent of instructor.

17. **SOC 281 Introduction to Social Network Analysis (4)**. Designed to provide a broad overview of social network analysis. At the same time, students have an opportunity to delve deeply into applications of the network approach in their individual areas of interest.

18. **C/LS 200A Theoretical Issues in Chicano/Latino Research (4)**. Introduction to theoretical issues in the scholarship in Chicano/Latino Studies. Theories from social sciences, humanities, critical theory. Topics: immigration, identity, gender and sexuality, globalization, transnationalism, social, political, and economic integration, race theory, labor market participation, social history, cultural productions.

19. **C/LS 200B Problems and Methods in Chicano/Latino Research (4)**. Examines issues related to conducting research in Latino communities. Topics include problem definition, sampling, quantitative and qualitative methods, participant-observation, language and interviewing, immigration status, gender, participatory research, and communication with the larger community.

20. **C/LS 211A-B Latinos/Latinas and Medical Care: Contemporary Issues (2-2)**. Introduction to medical anthropological and social science perspectives on Latinos/Latinas in relation to a number of health and medically related issues, i.e., immigration, gender, reproduction, culture, social structure, political economy, sexuality, utilization of medical services, and health beliefs. Chicano/Latino Studies 211A-B and 213 may not both be taken for credit.

21. **C/LS 212 U.S. Latinos, Culture, Medical Beliefs (4)**. Examines culture, social history, and medical beliefs of U.S. Latinos. Examines the development of issues related to identity, alternative medical practices and beliefs, sexuality, family, gender, and religious beliefs as they relate to contemporary Latinos. Chicano/Latino Studies 212 and 210A-B may not both be taken for credit. Same as Anthropology 233A.

22. **C/LS 216. Sociocultural Biologies (4)** Explores the interrelationship of what can be provisionally called "the sociocultural" with what is conceived of as "the biological." Examines ontological, normative, and political economic processes as they impact notions of the body, eugenics, death, health, and disease. Prerequisite: graduate standing. Same as Anthropology 231B
Section 6. Resource Requirements

The Ph.D. degree program will be administrated and implemented by the core faculty in the Public Health Program. The following describes the projected resource needs.

FTE Faculty – Currently, the Program in Public Health has 37 faculty members including 14 faculty FTEs, 19 faculty members appointed without salary, and 4 Unit-18 lecturers. There is an ongoing recruitment for an Assistant Professor position in cancer research in the area of disease prevention and population sciences. Another ongoing search is for a lecturer with potential for security of employment. In addition, there are 32 faculty members affiliated with the global health framework. By the time we implement this proposal, we expect 69 faculty members total who will be available to support the program. The current size of the faculty is sufficient to launch and implement the Ph.D. program. We anticipate that additional growth in faculty numbers in the next several years will enable the core and adjunct faculty in the Program in Public Health to teach most designated core and elective courses.

Library acquisition – Library acquisitions will be needed to meet the teaching and research needs of a graduate public health program. We anticipate the need for additional texts, monographs, media and software to support increased scholarly activities in the field of public health. The publishing field is expanding in this subject area and increasingly reflects a multidisciplinary and global orientation in its coverage and treatment, which will require additional resource allocations. In addition, we anticipate supplemental content from government agencies and publishers increasingly will be released as open access documents or with some library subsidy. We work with university librarians for library acquisitions to ensure that the library will provide adequate support for teaching and research activities critical to the success of the Public Health program. We have attached a library resources cost estimate (Table 7) and letter of support to the proposal. We also reflect library resources in our summary budget.

Computing costs – Computing equipment for faculty is addressed through startup funds, campus initiatives (like the Faculty Desktop Computing Initiative), and extramural grant funds. We have worked with the Office of Information Technology (OIT) to secure access to computing laboratory for 16 hours per week for graduate students in public health in the AIRB-computing lab.

Equipment – No additional equipment requirements.
Table 7. Estimated Library Budget, Annual Projection beginning 2010/11 (from UCI Associate Librarian Lorelei Tanji).

<table>
<thead>
<tr>
<th>Category</th>
<th>Justification</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Health Books</td>
<td>Print and Online</td>
<td>$10,000</td>
</tr>
<tr>
<td>Serials</td>
<td>Print and Online</td>
<td>$10,000</td>
</tr>
<tr>
<td>Database Subscriptions</td>
<td>public health and interdisciplinary resources, such as CABI Global Health, Abstracts on Hygiene and Communicable Diseases, Alt-Health Watch, Health and Wellness Resource Center, Health Reference Center - Academic</td>
<td>$50,000</td>
</tr>
<tr>
<td>Library Staff</td>
<td>Active faculty-librarian communication in collection selection is crucial to the success of the public health collection development process, a librarian with public health subject expertise, as well as adequate support staff, will be required to work closely with the Public Health Program and individual faculty members.</td>
<td>$65,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>$135,000</td>
</tr>
</tbody>
</table>

Space and other capital facilities – The Ph.D. Public Health will be housed in the new (Spring 2011) facilities of the Program in Public Health totaling 21,338 square feet of space including offices for graduate students, conference/study rooms, computer laboratory, and wet and dry research laboratories (Table 8).

Staffing requirement and costs – We expect that with increasing student enrollment at both undergraduate and graduate levels, and the recruitment of faculty members, there will be a growing need for administrative staff. Currently, the Program in Public Health has four Students Counselors, Ms. Stephanie Uiga, Ms. Stephanie Leonard, Ms. Cindy Wolff, and Ms. Sandra Miller. Who work under the supervision of Ms. Liza Krassner, Chief Administrative Officer. We also have a Management Services Officer (Ms. Delsa Tan), a Personnel and Payroll Analyst (Ms. Martha Jensen), an Assistant Administrative Analyst (Ms. Vickie Strother), Administrative Analyst (Ms. Susan Rattigan), a Programmer Analyst (Mr. Marcel Bates), an Information Technology specialist (Mr. Peter Moua) and a Budget Analyst (Mr. John Rupp) to manage contracts and grants. These staff members will support the graduate program coordination and management activities. These positions are university employees supported by the state funds.

Other operating costs – We include detailed budgets of the program activities in Tables 9 and 10. We have adequate resources to launch the degree program, and we will build on our existing graduate
Master’s level program to support the doctorate program. We are eligible for Block Grant funding (see letter of support from Dean of Graduate Division). Funds will be needed to support student recruitment activities, including program advertisement and on-campus interviews for selected candidates. Recruitment expenses will be paid by the block funds allocated to the Program in Public Health from The Dean of Graduate Division.

Table 8. Space

<table>
<thead>
<tr>
<th>Type of Space</th>
<th>AIRB</th>
<th>SE I</th>
<th>SE II</th>
<th>Sprague</th>
<th>Hewitt</th>
<th>SST</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Office</td>
<td>Cubicles</td>
<td>ASF (# of Rooms)</td>
<td>ASF (# of Rooms)</td>
<td>ASF (# of Rooms)</td>
<td>ASF (# of Rooms)</td>
<td>ASF (# of Rooms)</td>
</tr>
<tr>
<td>Faculty Offices</td>
<td>1,656 (12)</td>
<td>577 (4)</td>
<td>122 (1)</td>
<td></td>
<td></td>
<td></td>
<td>2,355 (17)</td>
</tr>
<tr>
<td>Research Space</td>
<td>990 (22)</td>
<td>5,391 (9)</td>
<td>1,795 (12)</td>
<td>1,550 (11)</td>
<td></td>
<td></td>
<td>9,726 (54)</td>
</tr>
<tr>
<td>Lecturer Offices</td>
<td>376 (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>376 (3)</td>
</tr>
<tr>
<td>Affiliated Faculty</td>
<td>421 (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>421 (3)</td>
</tr>
<tr>
<td>TA Offices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>290 (2)</td>
</tr>
<tr>
<td>Post Doc Offices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>322 (2)</td>
</tr>
<tr>
<td>Staff Offices</td>
<td>1,690 (14)</td>
<td>45 (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,735 (15)</td>
</tr>
<tr>
<td>Staff/Faculty Support</td>
<td>1,636 (3)</td>
<td>180 (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,816 (7)</td>
</tr>
<tr>
<td>Computer Lab</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>748 (1)</td>
</tr>
<tr>
<td>Teaching Lab</td>
<td>1,800 (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,800 (1)</td>
</tr>
<tr>
<td>Teaching Lab</td>
<td>380 (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>380 (4)</td>
</tr>
<tr>
<td>Graduate/MPH Study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>428 (1)</td>
</tr>
<tr>
<td>Seminar Room</td>
<td>727 (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>727 (2)</td>
</tr>
<tr>
<td>TOTAL Square ft.</td>
<td>6,506</td>
<td>1,215</td>
<td>2,608</td>
<td>6,580</td>
<td>1,917</td>
<td>1,550</td>
<td>748</td>
</tr>
<tr>
<td>TOTAL Number of Rooms</td>
<td>37</td>
<td>27</td>
<td>6</td>
<td>17</td>
<td>13</td>
<td>11</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 9. Budget categories for the program in public health

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Salaries &amp; Benefits</td>
<td>$801,008.27</td>
<td>$1,094,215.32</td>
<td>$1,307,297.41</td>
<td>$1,367,000.59</td>
<td>$1,041,961.43</td>
</tr>
<tr>
<td>Staff Salaries &amp; Benefits</td>
<td>$46,337.83</td>
<td>$23,586.12</td>
<td>$74,620.36</td>
<td>$112,913.11</td>
<td>$83,258.75</td>
</tr>
<tr>
<td>Operations</td>
<td>$36,452.37</td>
<td>$40,388.83</td>
<td>$53,031.13</td>
<td>$32,740.73</td>
<td>$25,696.68</td>
</tr>
<tr>
<td>Travel</td>
<td>$2,028.79</td>
<td>$9,893.41</td>
<td>$1,331.33</td>
<td>$446.64</td>
<td></td>
</tr>
<tr>
<td>MPH-Operations</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$19,692.00</td>
<td>$19,692.11</td>
</tr>
<tr>
<td>Indirect Cost Return to Faculty</td>
<td>0</td>
<td>$5,749</td>
<td>$10,718</td>
<td>$17,511.00</td>
<td>In Progress</td>
</tr>
<tr>
<td>Indirect Cost Return to Higher Administrative Level (50%)</td>
<td>0</td>
<td>$9,582</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MPH-Student Expenses</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$7,248.00</td>
</tr>
<tr>
<td>MPH-Travel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$5,810.00</td>
<td>$6,460.79</td>
</tr>
<tr>
<td>Graduate Student Fees/Tuition Remission (GSRs, Fellowships, Stipends)</td>
<td></td>
<td></td>
<td></td>
<td>$35,814.00</td>
<td>$48,485 (up to 31 March 2011)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$885,827.26</td>
<td>$1,183,414.68</td>
<td>$1,446,998.23</td>
<td>$1,591,928.07</td>
<td>$1,232,802.76</td>
</tr>
</tbody>
</table>
### Table 10. Projected Budget for the Ph.D. in Public Health

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>YEAR</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Director (Summer Salary/Course Release)</td>
<td></td>
<td>10,200</td>
<td>10,404</td>
<td>10,613</td>
<td>10,825</td>
<td>10,825</td>
</tr>
<tr>
<td>Graduate Student Services Administrator (Liza Krassner, M.P.A.)</td>
<td></td>
<td>86,426</td>
<td>88,154</td>
<td>89,917</td>
<td>91,716</td>
<td>93,550</td>
</tr>
<tr>
<td>Graduate Fellowships and Accounts Manager (Delsa Langford, M.B.A.)</td>
<td></td>
<td>63,240</td>
<td>64,505</td>
<td>65,795</td>
<td>67,111</td>
<td>68,453</td>
</tr>
<tr>
<td>Graduate Student Advising Officer (Stephanie Uiga, M.P.A.)</td>
<td></td>
<td>45,227</td>
<td>46,131</td>
<td>47,054</td>
<td>47,995</td>
<td>48,955</td>
</tr>
<tr>
<td>Graduate Advisors Liaison and Course Scheduler (Susan Rattigan)</td>
<td></td>
<td>40,513</td>
<td>41,324</td>
<td>42,150</td>
<td>42,993</td>
<td>43,853</td>
</tr>
<tr>
<td>Graduate Student Employment Processor (Martha Jensen)</td>
<td></td>
<td>54,809</td>
<td>55,905</td>
<td>57,023</td>
<td>58,163</td>
<td>59,327</td>
</tr>
<tr>
<td>Internet/Web Support (Marcel Bates) 50%</td>
<td></td>
<td>21,068</td>
<td>21,489</td>
<td>21,919</td>
<td>22,358</td>
<td>22,805</td>
</tr>
<tr>
<td>Programmer Analyst/IT Support (Peter Moua)</td>
<td></td>
<td>46,068</td>
<td>46,989</td>
<td>47,929</td>
<td>48,888</td>
<td>49,865</td>
</tr>
<tr>
<td>Computer lab stations (At $2,000 per station, printers, projector)</td>
<td></td>
<td>20,000</td>
<td>20,000</td>
<td>N.A.</td>
<td>20,000</td>
<td>N.A.</td>
</tr>
<tr>
<td>Graduate Seminar Series (Every other week during the academic year)</td>
<td></td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Research and Travel Funds (Up to $500 per conference and supplies)</td>
<td></td>
<td>5,000</td>
<td>5,000</td>
<td>6,000</td>
<td>6,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Graduate Program Events (Orientation, Workshops, Commencement)</td>
<td></td>
<td>1,000</td>
<td>1,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Library Acquisitions, Subscriptions, Databases</td>
<td></td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
<td>15,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Public Health Librarian – FTE (To Be Named; 50% Years 2 and 3, 100% thereafter)</td>
<td>N.A.</td>
<td>35,000</td>
<td>35,000</td>
<td>70,000</td>
<td>70,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL EXPENSES</td>
<td></td>
<td>459,451</td>
<td>502,720</td>
<td>493,155</td>
<td>561,758</td>
<td>551,316</td>
</tr>
<tr>
<td>REVENUE FROM CURRENT GRADUATE PROGRAM (80% of projected professional degree fees, excluding financial aid)</td>
<td></td>
<td>-40,000</td>
<td>-40,000</td>
<td>-50,000</td>
<td>-50,000</td>
<td>-60,000</td>
</tr>
<tr>
<td>EXTRAMURAL SUPPORT FOR LIBRARY ACQUISITION (NIH Framework for Global Health; R25TW008125)</td>
<td>N.A.</td>
<td>-5,000</td>
<td>-5,000</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>CURRENTLY FUNDED STAFF POSITIONS</td>
<td></td>
<td>- 403,251</td>
<td>-411,316</td>
<td>-419,542</td>
<td>-427,933</td>
<td>-436,491</td>
</tr>
<tr>
<td>NET TOTAL COSTS (EXPENSES MINUS STAFF SALARIES AND REVENUES)</td>
<td></td>
<td>11,200</td>
<td>46,404</td>
<td>33,613</td>
<td>83,625</td>
<td>55,825</td>
</tr>
</tbody>
</table>

**Notes to Table 8**

1. N.A. = Not Applicable

2. Staff salaries are projected at current levels with 2% annual increase.
3. Course release is currently granted for the graduate director, but 1-month summer salary is appropriate to ensure continuity of administrative support for research students throughout the year.

4. Portion of professional degree fee dedicated to general support of graduate programs, including seminar series, library resources, conference and travel support to integrate cross-learning and other interactions among all our graduate students.

5. With the increase in number of students and focus on emerging research topics in public health, an additional one FTE for a Research Librarian for Public Health will be needed to provide adequate support for activities critical to the success of the Public Health program. This new Research Librarian position will work proactively with the faculty on the selection of library collections, library instruction and training, and reference/research service support (see appended letter from Associate Librarian Ms. Lorelei Tanji).

6. Support for Ph.D. students in terms of tuition, fees, and stipends is available through Research Assistantships (currently, we have more than ten extramurally funded positions available) and Teaching Assistantships (currently, we have twenty four 20-hour/week funded positions available). Additional support through block grant allocation based on enrollment will be provided by the Dean of Graduate Division.

7. Revenue from professional degree fees estimated at $5,345 per student per year levels for thirty students during 2010-2011 with increments of five students per year.

8. The balance reflected in the Net Total Cost will be covered by general operating funds reserved for this purpose. As of April, 2010, we have more than $300,000 (Non-salary funds) readily available to support the implementation of the Ph.D. in Public Health.
Section 7. Graduate Student Support

Graduate students are normally supported by university or college fellowships, research assistantships (provided by funds from extramural research grants) and teaching assistantships.

Fellowships:

Students admitted to the Ph.D. in Public Health will be eligible for three major categories of graduate fellowships: national, state-level, and intra-campus. At the national level, we expect our students to be very competitive for fellowships such as the “Science to Achieve Results (STAR) and Graduate Research Opportunities fellowships under the U.S. Environmental Protection Agency\(^\text{60}\); and the Association of Schools of Public Health Fellows Program\(^\text{61}\). In addition, the National Institutes of Health awards similar fellowships (for example, the Ruth L. Kirschstein National Research Service Awards (NRSA) Training Grants and Fellowships\(^\text{62}\). At the State level, our Ph.D. students will be eligible for fellowships under research educational programs targeted at specific populations and geographies (e.g. UC-Mexus) or topic areas. For example, Dr. Ogunseitan is Director of the UC Systemwide Lead Campus on Green Materials, which awards up to 7 full graduate fellowships (~$29,000) per year. At the campus level, our students will be eligible for competitive fellowships coordinated through the Office of Graduate Studies (e.g. the Chancellor’s Fellowship). In addition, the Program in Public Health will develop fellowship programs similar to the Dean’s Data gathering and Dissertation Fellowships currently offered by various Schools (e.g. School of Social Ecology). These latter awards may include a stipend, student fees and tuition quarterly.

Teaching Assistantships:

Teaching assistants are allocated primarily to support undergraduate courses. As of Fall 2007, the total number of registered undergraduate students majoring in Public Health has reached 600 (200 students in the B.A. in Public Health Policy, and 400 students in the B.S. Public Health Sciences). Based on our current undergraduate course offerings, we employ 24 teaching assistantships FTEs per year; and we have recruited advanced graduate students and lecturers to teach during the Summer. A minor degree in public health was approved in Winter 2009, with estimated enrollment of approximately 30 – 50 students. Collectively, our faculty members teach about 30 courses per year, and about 20 of these courses are expected to require TA support based on enrollment of more than 50 - 100 students per class. Letters of support from Provost Gottfredson and Graduate Division Dean Leslie are included in this proposal.

Research Assistantships:

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The most important source of support for graduate students is extramural research grants. For the academic year of 2011, the core faculty of the Program in Public Health generated a total of more than $20 million extramural grant supports. The sources of funding include National Institutes of Health, National Science Foundation, U.S. Geological Survey, Bill and Melinda Gates Foundation, Health Effects Institute. Table 11 lists examples of major grants available to support research assistantships for Ph.D. in Public Health students.
<table>
<thead>
<tr>
<th>Project Name</th>
<th>P.I. *</th>
<th>Source</th>
<th>Period</th>
<th>Amount Total Award</th>
<th>Amount 2008-2009</th>
<th>Amount 2009-2010</th>
<th>Amount 2010-2011</th>
<th>Community-Based Y/N</th>
<th>Student Participation Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRIMARY FACULTY:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMA Assessment of Biobehavioral Processes in Human Pregnancy</td>
<td>S. Bartell (Co-I)</td>
<td>NIH R01 HD060628</td>
<td>2010-2015</td>
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<td>Exposure to Mobile Source Air Pollution and Adverse Birth Outcomes in the Los Angeles Air Basin</td>
<td>S. Bartell (Co-I)</td>
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<td>Personal, indoor and outdoor particulate air pollution and heart rate variability in elderly subjects with coronary artery disease</td>
<td>S. Bartell (Co-PI)</td>
<td>California Air Resources Board</td>
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<td>$235,000</td>
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<td>University-Community Consortium for Anniston Environmental Health Research</td>
<td>S. Bartell (Co-PI)</td>
<td>CDS/ATSDR US ATU473215</td>
<td>2003-2007</td>
<td>$1,368,068 total costs ($61,569 for UCI subcontract)</td>
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<td>Transcription of papillomaviruses</td>
<td>H. U. Bernard (PI)</td>
<td>NIH ROI CA 91964</td>
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<td>$1.5 Million</td>
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<td>HPV serology</td>
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<td>Chronic Disease Morbidity among Severely Mentally Ill Persons in Medicaid</td>
<td>T-A Bruckner (PI)</td>
<td>UC, Irvine-Special Research Grant</td>
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<td>Racial/Ethnic Disparities in Mental Health</td>
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<td>Mental Health Care following California’s Mental Health Services Act (Proposition 63)</td>
<td>T-A Bruckner (Lead Analyst)</td>
<td>State of CA Dept. of Mental Health</td>
<td>2009-2010</td>
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<td>The Relation between Income and Infant Health: A Natural Experiment</td>
<td>T-A Bruckner Co-Invest.</td>
<td>NICHD and UC-Berkeley Population Center</td>
<td>2009-2010</td>
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<td>Biochar inoculants for enabling smallholder agriculture</td>
<td>R. Edwards (Co-PI)</td>
<td>NSF</td>
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<td>Global warming and aerosol toxicity co-benefits from small-scale industries in Mexico</td>
<td>R. Edwards PI</td>
<td>UC MEXUS CONACYT</td>
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<td>In-Vehicle Air Pollution Exposure Measurement and Modeling</td>
<td>R. Edwards (Co-Invest)</td>
<td>State of California Air Resources Board, Contract no 07-310</td>
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<td>Implicaciones Ambientales De Las Emisiones De Gases De Efecto Invernadero Por Combustión De Biomasa En México Y Su Potencial De Mitigación.</td>
<td>R. Edwards (Co-Invest)</td>
<td>Fondo Sectorial De Investigación Ambiental (SEMARNA T-CONACYT) 23640</td>
<td>2007-2008</td>
<td>121,094</td>
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<td>Estudio de la eficiencia energética y mitigación de gases de efecto invernadero mediante estufas eficientes de leña.</td>
<td>R. Edwards (Co-Invest)</td>
<td>Programa De Apoyo A Proyectos De Investigación E Innovación Tecnológica, UNAM</td>
<td>2007-2009</td>
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<td>EcoHealth</td>
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<td>University of California Transportation Center</td>
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<td>Instant SHS Feedback as a Catalyst for Smoke-Free Homes</td>
<td>R. Edwards (Co-Invest) Subaward PI</td>
<td>Tobacco-Related Disease Research Program</td>
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<td>Exposure to mobile source air pollution and adverse birth outcomes in the Los Angeles air basin.</td>
<td>R. Edwards (Co-Invest)</td>
<td>National Institute of Environmental Health Sciences</td>
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<td>Co-benefits from mitigation of emissions and aerosol toxicity from small-scale industries in Mexico</td>
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<td>UCI Environment Institute</td>
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<td>Rupture History of the San Andreas Fault in the Carrizo Plain: Prior to 1200AD</td>
<td>L. Grant-Ludwig</td>
<td>USGS</td>
<td>2008-2009</td>
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<td>Active Deformation and Earthquake Potential of the So. Los Angeles Basin, Orange County, CA</td>
<td>L. Grant-Ludwig</td>
<td>USGS</td>
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<td>Age of Precariously Balanced Rocks (PBRs) for validation of a Petascale Cyberfacility for Physics-based Seismic Hazard Analysis</td>
<td>L. Grant-Ludwig</td>
<td>USGS/USC</td>
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<td>Quakesim: Increasing Accessibility &amp; Utility of Spaceborne and ground based earthquake fault data</td>
<td>L. Grant-Ludwig</td>
<td>NASA/JPL</td>
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<td>Bio-complexity in the Environment</td>
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<td>ULI RR031985 –CTSA Institute for Clinical and Translational Science PI: Cooper</td>
<td>O. Ogunseitan Unit Director</td>
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<td>UC: Research Education in Green Materials-Multi Campus</td>
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<td>Smoker’s Perceived Cancer Risks &amp; Views on Harm Reduction-IRG9827907</td>
<td>D. Timberlake, PI</td>
<td>American Cancer Society</td>
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<td>Gynecologic Oncology Group: Quality of Life Committee</td>
<td>L. Wenzel, Committee Chair</td>
<td>Nat’l Cancer Institute</td>
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<td>University of California, Irvine Cancer Center Support Grant Behavioral Shared Resource</td>
<td>L. Wenzel, Dir. PI: Meyskens</td>
<td>NIH/NCI</td>
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<td>Web-Based Ovarian Cancer Symptom Control: Nurse Guided vs. Self-Directed</td>
<td>L. Wenzel, Subcontract PI: Donovan</td>
<td>National Institute of Nursing Research</td>
<td>2008-2013</td>
<td>9,558</td>
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<td>Stress, Immunity &amp; Cervical Cancer: Biobehavioral Outcomes of a Randomized Trial</td>
<td>L. Wenzel, PI</td>
<td>National Cancer Institute</td>
<td>2007-2012</td>
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<td>Air Pollution and Childhood Cancers</td>
<td>J. Wu</td>
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<td>Exposure to Mobile source Air Pollution and Adverse Birth Outcomes in the Los Angeles Air Basin</td>
<td>J. Wu</td>
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<td>Exposure to Mobile source Air Pollution and Adverse Birth Outcomes in the Los Angeles Air Basin-Supplemental</td>
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<td>Adverse Reproductive Health outcomes and exposures to Gaseous and Particulate matter Air Pollution in Pregnant Women</td>
<td>J. Wu</td>
<td>Health Effect Institute</td>
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<td>449,577</td>
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<td>Affordable Housing in Transportation Corridors: Built Environment, Accessibility, and Air Pollution Implications of Near-Roadway Residential Locations</td>
<td>J. Wu (Co-PI)</td>
<td>UC-Transportation Center</td>
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<td>89,885</td>
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<td>Greening freight transportation: An analysis of some social benefits from shifting freight traffic to off-peak hours</td>
<td>J. Wu (Co-PI)</td>
<td>UC-Transportation Center</td>
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<td>85,778</td>
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<td>Validation of Time Activity and Air Pollution Formative Study</td>
<td>J. Wu (Co-Invest.)</td>
<td>PHS-NIH Child Health &amp; Human Services</td>
<td>2010-2011</td>
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<td>Risk of Hospital Encounters for Asthma Among Children From Exposure to Traffic-related Air Pollutants Near the Home</td>
<td>J. Wu (Co-Investigator; RJ Delfino, PI)</td>
<td>The BP/South Coast Air Quality Management District, BPG-46329</td>
<td>2009-2011</td>
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<td>In-Vehicle Air Pollution Exposure Measurement and Modeling</td>
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<td>Molecular Markers for Anopheles Gambiae Age Grading</td>
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<td>Vector Community Structure and Malaria Epidemiology</td>
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<td>Insecticide resistance in Anopheles minimus mosquitoes</td>
<td>G. Yan/PI</td>
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<td>Insecticide resistance in <em>Culex Pipiens Pallens</em> Mosquitoes</td>
<td>G. Yan/Nanjing Medical University</td>
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<td>Penn State University Subcontract (Southeast Asia Malaria Research Center subproject 2 “Malaria Vectorial System and New Vector Control Tools in Southeast Asia)</td>
<td>G. Yan/Co-Invest.</td>
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<td>Assessing the scientific outcomes of the NAS-Keck Foundation Futures Initiative (NAKFI)-Seed Grant</td>
<td>D. Stokols/PI Nat’l Academies of Science</td>
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<td>0</td>
<td>45,680</td>
<td>45,680</td>
</tr>
<tr>
<td>Optimizing at-home feedback to increase residential energy conservation</td>
<td>D. Stokols/PI UC Irvine Environment Institute</td>
<td>2010-2010</td>
<td>32,000</td>
<td>0</td>
<td>32,000</td>
<td>0</td>
</tr>
</tbody>
</table>
An intervention trial of text messaging to improve patient adherence to adjuvant hormonal therapy

| L. Sparks  | ASCO-Komen Award | 2011-2016 | - | - | - | Y | Y |

Sunscreen protection messages to reduce non-compliance.

| L. Sparks  | Early Career Development Award | 2011-2014 | - | - | - | Y | Y |

A randomized trial of an intervention to reduce early discontinuation of adjuvant anastrozole hormonal therapy in women with early stage breast cancer.

| L. Sparks  | DOD Innovator Award | 2011-2016 | - | - | - | Y | Y |

P30 CA-62203-14S (Meyskens) 8/01/02-01/31/12
University of California, Irvine Cancer Center Support Grant

| F. Meyskens | NIH/NCI | 2011-2012 | 773,574 | - | - | 773,574 | Y | Y |

SWOG- Associate Chair for Cancer Control and Prevention

| F. Meyskens | DCL | 2008-2012 | 176,238 | - | - | - | N | N |

Phase I and Phase II Clinical Trials of Chemopreventive Agents

| F. Meyskens | NIH/NCI | 2003-2012 | 4,317,555 | - | - | - | Y | Y |

Phase III Colon Cancer Prevention Trial

| F. Meyskens | NIH/NCI | 2002-2012 | - | - | - | - | Y | Y |

Bowman-Birk Inhibitor and Oral Leukoplakia

| F. Meyskens | NIH/NCI | 2004-2011 | 255,000 | - | - | - | N | Y |

Palliative Care Teaching for Hospitalists

| A. Amin (Co-PI) | Monarch Health Care | 2010-2012 | 202,975 | 0 | 0 | 101,488 | N | N |

Changing Lives by Eradicating Antibiotic Resistance

| A. Amin (Co-PI) | AHRQ | 2010-2013 | 9,831,915 | 0 | 0 | 3,277,305 | N | Y |

Long Term Effects of Subclinical CAD on Cardiac Function

| R. Detrano (PI) | DHHS/NIH/NHLBI | 2004-2010 | 500,000 | 0 | 500,000 | 0 | N | Y |

Clinical Center for the Clinical Trial

<p>| A. Hubbell | Nat'l Lung | 1994-2010 | 10,870,779 | 2,174,156 | 2,174,156 | 0 | N | Y |</p>
<table>
<thead>
<tr>
<th>Study Description</th>
<th>PI</th>
<th>Institution</th>
<th>Start Date</th>
<th>End Date</th>
<th>Total Population</th>
<th>Total Enrollment</th>
<th>Total Follow-up</th>
<th>Type</th>
<th>Site</th>
</tr>
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<tbody>
<tr>
<td>and Observational Study (N01 WH 4-2107)</td>
<td>(PI)</td>
<td>Heart Blood Institute</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women's Health Initiative Memory Study (CT 22775)</td>
<td>A. Hubbell (PI)</td>
<td>Wake Forest University School of Medicine</td>
<td>1996-2011</td>
<td></td>
<td>179,112</td>
<td>35,822</td>
<td>35,822</td>
<td>4,171</td>
<td>Y</td>
</tr>
<tr>
<td>National Children's Study – Southern California Study Center</td>
<td>D. Baker (Co-PI; Swanson-PI)</td>
<td>National Institute for Child Health and Development</td>
<td>2007-2012</td>
<td></td>
<td>25,484,170</td>
<td>5,096,834</td>
<td>5,096,834</td>
<td>5,096,834</td>
<td>Y</td>
</tr>
<tr>
<td>National Children's Study – Southern and Central California Study Center</td>
<td>D. Baker (Co-PI; Swanson-PI)</td>
<td>National Institute for Child Health and Development</td>
<td>2008-2013</td>
<td></td>
<td>14,080,049</td>
<td>2,816,010</td>
<td>2,816,010</td>
<td>2,816,010</td>
<td>Y</td>
</tr>
<tr>
<td>Agency for Toxic Substances and Disease Registries; Association for Occupational and Environmental Clinics Region IX - UC Pediatric Environmental Health Specialty Unit</td>
<td>D. Baker (PI)</td>
<td>Agency for Toxic Substances and Disease Registries; Association for Occupational and Environmental Clinics</td>
<td>2001-2014</td>
<td></td>
<td>68,803/yr</td>
<td>68,803</td>
<td>68,803</td>
<td>68,803</td>
<td>Y</td>
</tr>
<tr>
<td>Southern California Education and Research Center</td>
<td>D.Baker (PI at UC Irvine and Center)</td>
<td>National Institute for Occupational Safety and Health</td>
<td>07/01/95 - 06/30/2012</td>
<td></td>
<td>304,100/yr</td>
<td>304,100</td>
<td>304,100</td>
<td>304,100</td>
<td>Y</td>
</tr>
<tr>
<td>Deputy Director</td>
<td>Health</td>
<td></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>$62,654,937</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 8. Changes in Senate Regulations

No changes are required.
APPENDICES

Appendix I – Similar Degree Programs

Appendix II – Letters of Support

Appendix III – Faculty Resumes
Examples of U.S. Universities Offering Similar Ph.D. Degrees in Public Health

2. Yale University: [http://www.med.yale.edu/eph/phdgraduate/pdf/LearningObj_PhD.pdf]
6. Florida International University : [http://chua2.fiu.edu/publichealth/PhDProgram.htm]
7. University of Louisville : [http://louisville.edu/graduatecatalog/programs/degree-programs/academic/gh/phepphd/]
8. Temple University : [http://www.temple.edu/chp/departments/publichealth/PH_phd.htm]

Table 12. Descriptors of Ph.D. Graduates in Global Health at Johns Hopkins University (2010)\(^1\)

<table>
<thead>
<tr>
<th>Years taken to graduate</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative frequency</th>
<th>Cumulative Percent</th>
</tr>
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<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>4.6</td>
<td>2</td>
<td>4.6</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>36.4</td>
<td>18</td>
<td>40.9</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>13.6</td>
<td>24</td>
<td>54.6</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td>20.5</td>
<td>33</td>
<td>75.0</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>13.6</td>
<td>39</td>
<td>88.6</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>9.1</td>
<td>43</td>
<td>97.7</td>
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<tr>
<td>10</td>
<td>1</td>
<td>2.3</td>
<td>44</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Employment Type</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative frequency</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academia</td>
<td>11</td>
<td>27.5</td>
<td>11</td>
<td>27.5</td>
</tr>
<tr>
<td>Government</td>
<td>9</td>
<td>22.5</td>
<td>20</td>
<td>50.0</td>
</tr>
<tr>
<td>JHSPH</td>
<td>12</td>
<td>30</td>
<td>32</td>
<td>80.0</td>
</tr>
<tr>
<td>Medical Student</td>
<td>1</td>
<td>2.5</td>
<td>33</td>
<td>82.5</td>
</tr>
<tr>
<td>NGO</td>
<td>4</td>
<td>10</td>
<td>37</td>
<td>92.5</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2.5</td>
<td>38</td>
<td>95.0</td>
</tr>
<tr>
<td>Private</td>
<td>1</td>
<td>2.5</td>
<td>39</td>
<td>97.5</td>
</tr>
<tr>
<td>Residency</td>
<td>1</td>
<td>2.5</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\(^1\) Data from Lawrence H. Moulton, Ph.D., Professor, Department of International Health, The Johns Hopkins University Bloomberg School of Public Health.
Letters of Support
April 25, 2011

Oladele A. Ogunseitan, MSc, PhD, MPH
Professor and Chair
Department of Population Health and Disease Prevention
Public Health Program, Suite 2010, 2nd Floor
University of California, Irvine
Irvine, CA 92697-3957

Subject: Proposal for a PhD in Public Health with Concentration in Global Health and Disease Prevention

Dear Professor Ogunseitan:

I write to provide strong support for UCI’s proposal for a PhD in Public Health with concentration in Global Health and Diseases Prevention. A UCI program in Public Health has been under discussion for over 10 years. In the last five years, however, UCI has developed a strong program in Public Health supported by over 30 research faculty, and providing both undergraduate programs and a Masters in Public Health. Thus, incrementally, UCI has developed a strong foundation on which the present proposal will be based. There is strong support for the proposal on the campus and from Chancellor Michael Drake.

A major strength of the program is the leadership that will be provided by Professors Guiyun Yan and Ogunseitan. A second major strength is the support the program will receive from the UCI Institute of Translational Research, in which Dr. Ogunseitan serves as Director of Research Education, Training, and Career Development. The proposed curriculum is appropriate and the inclusion of Global Health and Disease Prevention as minors gives the program the flexibility that traditional Public Health Programs do not.

I, therefore, support the proposal enthusiastically.

Yours sincerely,

Haile T. Debas, M.D.
Director, University of California Global Health Institute
Maurice Galante Distinguished Professor of Surgery
Former Chancellor and Dean of the School of Medicine
University of California, San Francisco.
18 April 2011

To: Oladele A. Ogunseitan, Ph.D., M.P.H.
    Professor and Chair
    Department of Population Health and Disease Prevention, Public Health Program
    University of California, Irvine
    Suite 2010, 2nd Floor
    Irvine, CA 92697-3957

Re: Proposal for a Ph.D. in Public Health with Concentrations in Global Health and Disease Prevention

Dear Dr. Ogunseitan,

I have reviewed the proposal to establish a Ph.D. in Public Health at the University of California, Irvine. I am particularly interested in the concentration in Global Health. It is clear that this proposal builds on several years of planning and engagement in global health research by the faculty, facilitated by the prestigious framework program award from the Fogarty International Center. The list of participating faculty is impressive and the curriculum is strong.

I have also reviewed the syllabus for the core course in the Global Health concentration, namely the Global Burden of Disease course (PH-280). This course is essential for developing methodological skills in research students aiming to engage in comparative analysis of disease burden in various populations. The strategy to engage students early in research tradition through the preparatory module is impressive, as is the hypothesis-generating context of the curriculum.

There is increasing need for translational research in global health and there are growing career opportunities in the field. When this proposal is implemented, it will train well-prepared students to rigorously apply their methodological skills to solving pressing public health questions at the global level. There should be ample opportunities for employment by research institutes and academic programs focusing on interdisciplinary approaches in public health.

I am delighted to offer strong support for the proposal for the UC Irvine Ph.D. in Public Health and its concentrations in Global Health and Disease Prevention.

Sincerely,

Adnan Hyder, MD, MPH, Ph.D.
Associate Professor, International Health
Director, International Injury Research Unit
Deputy Director, Health Systems Program
Oladele A. Ogunseitan PhD, MPH  
Professor & Chair  
Program in Public Health  
Department of Population Health & Disease Prevention  
University of California, Irvine  
CA 92697-3957  

March 8, 2011

Dear Professor Ogunseitan:

RE: Letter of Support, PhD Proposal

I have reviewed the April, 2011 Doctor of Philosophy in Public Health proposal for UC Irvine. It is a thorough and compelling document that spells out clearly the potential degree program you propose.

I cannot help but to reflect back to March 3, 2011 when you accepted our invitation to speak at the Harvard Academic Leadership Day on the subject of public health and global health initiatives at the undergraduate and graduate levels. You were chosen to speak at the conference because your UC-Irvine undergraduate program is seen as a particularly fine example of a model program and one I know well and participated in as a keynote speaker. Whereas you eloquently spoke primarily on the history of the student initiated and rapidly expanding undergraduate programs in global health occurring in North America, it was also clear to the audience of academicians that further level of studies, especially in graduate PhD programs was a critical element in meeting the needs of students, now and in the future.

As you know, the younger generation is quite aware that their productive years will be spent in some aspect of globalization and global health. We are already overwhelmed with requests for such programs but are limited in both the quality and number of programs worthy of recommendation. The review of the detail of the curriculum is the most extensive and relevant I’ve seen come across my desk. The thoroughness of the planning and course curriculum and options provided to the students is a model for what academia must offer graduates as they seek a career in public health and global health. Your program, I must add, is especially relevant in meeting the proposed “blueprint for professionalizing the humanitarian professional” that was argued for in the recent Health Affairs article by Walker, Hein, et al. This is a movement that is being demanded by career seeking students and situational aware academicians.
We are honored to have you, your dedicated faculty and the proposed PhD program to recommend.

Therefore, I am honored to recommend this program without qualification. Thank you for the privilege to read and review the document.

Yours Sincerely,

[Signature]

Professor, Retired

Senior Fellow & Scientist
Harvard School of Public Health

Senior International Public Policy Scholar
Woodrow Wilson International Center for Scholars, Washington, DC

Institute of Medicine, elected 2007
Oladele A. Ogunseitan, Ph.D., M.P.H.
Professor and Chair
Department of Population Health and Disease Prevention
Program in Public Health
University of California, Irvine
CA 92697-3957
USA

Re: Proposal for a Ph.D. in Public Health with Concentrations in Global Health and Disease Prevention

I am writing to express my strong support to the proposal to establish a Ph.D. in Public Health degree program at the University of California, Irvine. This proposal builds on the NIH-funded Framework Program for Global Health that was awarded to the Public Health program. I wrote a letter of support for the original application, and I am delighted that the Framework Program has matured to support the implementation of a research doctorate training degree at the University.

Being a member of the External Advisory Board of the UC Irvine Program in Public Health, I truly believe that it can benefit UCI's academic mission by incorporating an innovative, multidisciplinary and global approach to research education.

The Framework, as well as the proposed degree program includes a fundamental understanding of health in our era, since it considers that there is an increasing interaction between global and local health; this vision as incorporated in an academic environment, will help generate human resources with a global vision while also capable of using it to provide effective solutions to preventing disease and mitigating health problems at local level.

The proposal is detailed in presenting a strong rationale for embedding global health in the overarching translational research context and its implementation would eventually change the way health education and training is delivered in the United States and internationally.

The proposed vigorous research training program begins with a preparatory module that invites talented students from a variety of disciplinary backgrounds to understand the underpinnings of research programs, and the concentration modules focus on hypothesis generation situated in the understanding of the relationships between health risks, vulnerable populations, and the emerging burden of diseases. The adopted cooperative perspective should help creative students to actually produce effective tools to reduce the health burdens particularly in developing countries.

Given the important benefits to the University of California, Irvine
I look forward to hearing that the Ph.D. in Public Health will soon be implemented.

With very kind regards,

[Signature]
Roberto Tapia-Conyer

Av. San Bernabe 404 casa 25 Col. San Jeronimo Lidice 10200 Mexico, D.F.
12 April 2011

Oladele A. Ogunseitan, Ph.D., M.P.H.
Professor and Chair
Department of Population Health and Disease Prevention
Program in Public Health
University of California, Irvine
CA 92697-3957 USA

Re: Proposal for a Ph.D. in Public Health with Concentrations in Global Health and Disease Prevention

Thank you for sending the proposal to establish a Ph.D. in Public Health at UC Irvine for my review and comments. This proposal thoughtfully demonstrates how students will be trained to facilitate the translation of new knowledge to improve community health. It represents the culmination of planning to implement innovative programs in public health education at UC Irvine, beginning with unique dual undergraduate degree programs, the MPH with its emphasis on Sociocultural Diversity and Health, and the Primary Medical Education for Latino Communities (PRIME-LC) program.

The Concentration in Global Health also builds nicely upon the framework program grant awarded to UCI two years ago by the Fogarty International Center for Advanced Study in the Health Sciences, as well as the UC Systemwide initiatives in Global Health. With unparalleled population diversity, Southern California provides an excellent “laboratory” to pursue public health research with implications for global health, and there is a need to train the next generation of professionals to translate important laboratory and clinical findings for application with vulnerable populations. The proposal complements many of the strengths of existing programs in global health, within the region including collaboration with UCSD and SDSU.

The faculty have given thorough consideration to develop a curriculum that facilitates the generation and testing of research hypothesis, taking into consideration, variations in health risk factors and the influence of vulnerabilities in populations that are disproportionately affected by the global burden of disease. The accompanying Concentration in Disease Prevention should also facilitate interactions among the cohort of Ph.D. students to translate findings into effective strategies to reduce disease burden nationally and globally.

I am pleased to offer my strong support for the implementation of the proposal, and I look forward to opportunities for collaboration between our two campuses that will undoubtedly be facilitated by this new research education project.

Sincerely,

[Signature]

María Luisa Zúñiga, Ph.D.
Associate Professor
Division of Global Public Health
Division of Child Development and Community Health
Faculty Director, Mexican Migration Field Training Program
UCSD School of Medicine
April 18, 2011

Oladele Ogunseitan, Ph.D., M.P.H.
Professor and Chair
Department of Population Health and Disease Prevention
Program in Public Health
University of California, Irvine
CA 92697-3957

Re: Proposed Ph.D. Program in Public Health with a Concentration in Global Health

Dear Prof. Ogunseitan:

I am writing to offer my enthusiastic support of your proposal to establish a Ph.D. program in Public Health with a Concentration in Global Health at UC Irvine. The research and development work led by yourself and Prof. Yan under the Global Health FRAME grant has created a strong foundation for a Ph.D. in Public Health with a Concentration in Global Health. At this stage in the development in the UCI Program in Public Health, it is a natural and vital step to be able to offer a Ph.D. Program. The UCI Program in Public Health has a diverse faculty with research, teaching interests and expertise that ensure that you can provide a comprehensive program in Global Health. Furthermore, the research funding that faculty have obtained provides the opportunity for students to benefit from the expertise and opportunities offered through the faculty’s global research agendas.

As a research anthropologist in the UCLA Center for Culture and Health and affiliated faculty in the UCLA Program in Global Health, I am extremely pleased to see that the UCI Program in Public Health draws on the expertise of researchers from various disciplines in order to offer students the opportunities to learn the complex ways in which global health issues are shaped by culture, environment, social and global inequalities (among other factors). The challenges we face in addressing health issues, now and in the future, demands attention to the specific contexts shaping health in a particular setting, and the ways in which these health issues are shaped by global intersections. It is critically important that we train professionals to meet the global health challenges we face.
Under the leadership of Prof. Ogunseitan, UCI's Program in Public Health is poised to take the next step by providing students the opportunity to pursue a PhD in Public Health with a Concentration in Public Health. I enthusiastically support this effort and look forward to the opportunity to work with future graduates in this PhD program.

Sincerely,

[Signature]

Deborah Mindry, Ph.D.
Research Anthropologist
UCLA Center for Culture and Health
Department of Psychiatry and Behavioral Sciences
NPI-Semel Institute for Neuroscience
760 Westwood Plaza, Box 62
Los Angeles, CA 90024-1759
dmindry@ucla.edu
Brandon J. Brown, MPH, PhD  
Title: Postdoctoral Fellow  
UCLA Program in Global Health  

Division of Infectious Diseases  
David Geffen School of Medicine at UCLA  
9911 West Pico Blvd., Ste. 955  
Los Angeles, CA 90035  
Telephone: 310-557-3044  
Fax: 310-557-1899  
Email: bjbrown@ucla.edu  

April 11, 2011  

Dr. Oladele A. Ogunseitan  
Professor and Chair, Department of Population Health and Disease Prevention  
Program in Public Health  
University of California, Irvine  
Irvine, CA 92697  

RE: PhD proposal for public health  

Dear Dr. Ogunseitan,  

It is my pleasure to write a strong and enthusiastic letter of support for your PhD proposal in public health at UC Irvine. As a 2004 UCI Alumni who went on to get my MPH from UCLA and PhD from Johns Hopkins School of public health, I realize there is no environment like UCI which nurtures academic growth.  

I have strong interest in becoming a faculty member in the Department of Population Health and Disease Prevention with a focus on Global Health. I will use my academic and research skills to develop collaborations with current faculty members, and foster the growth of the doctoral program. My projects include cervical screening and HPV vaccine acceptability in FSWs in Peru, and HPV Prevalence in MSM in Peru. In the next year, I will begin studies on the role of genital warts in HIV acquisition in MSM in Peru, and study the relationship between HPV prevalence, HIV, drug use, and migration among FSWs in 2 cities in Mexico. Through mentoring, field visits, monitoring, and data analysis in my studies, I will offer doctoral students the opportunity to gain international hands-on research experience in conjunction with their PhD program, and allow them to make a difference in the health of populations worldwide.  

Both UC Irvine and the state of California will benefit tremendously from a PhD program in Global Health. The research and scientific contribution by faculty and students alike in the program will have a profound effect on the health of individuals most in need at the local and international levels.  

You have my full support in the PhD proposal, and I have no doubt the doctoral program will be a major success.  

Regards,  

Brandon Brown  
Postdoctoral Fellow  
UCLA Program in Global Health
Center for Research on Immigration,  
Population and Public Policy

3151 Social Science Plaza  
Irvine, CA 92697-5100  
(949) 824-1361  
(949) 824-4717 fax  
April 11, 2011

Oladele A. Ogunseitan, Ph.D., M.P.H.  
Professor and Chair  
Department of Population Health and Disease Prevention  
Program in Public Health  
Room 2080 AIRB  
Zot Code 3957

Dear Dele:

This is to express my wholehearted and enthusiastic support for your proposal for  
a new PhD Program in Public Health at UCI. As you know, I am currently working on  
two large NIH grants dealing with immigration and health issues. I am also the UCI  
faculty liaison person with the new UC Center of Expertise in Migration and Health  
(COEMH), which is part of the new UC-wide Institute on Global Public Health. A PhD  
Program in Public Health at UCI would be a great asset to all of these endeavors.

Sincerely yours,

[Signature]

Frank D. Bean,  
Director, Center for Research on Immigration,  
Population and Public Policy  
Chancellor’s Professor of Sociology and Economics
March 20, 2011

Oladele A. Ogunseitan, Ph.D., M.P.H.
Professor and Chair
Department of Population Health and Disease Prevention
Program in Public Health
University of California, Irvine
CA 92697

Dear Prof. Ogunseitan,

I am writing in strong support of your proposal for a Ph.D. in Public Health with the "Global Health" concentration. The Global Health concentration including training in risk factors that transcend international boundaries, especially with respect to disasters and emergency response, is a critical and timely initiative.

The UC Irvine Center of Disaster Medical Sciences (CDMS) would be pleased to collaborate with you in training students in the Global Health concentration. Our faculty can offer leadership, education and training and research opportunities in the fields of disaster medicine and emergency response. CDMS is building a robust network on campus and internationally that would support the proposed program.

The Global Health concentration will be a tremendous asset to UC Irvine and the nation to integrate research and training from different disciplines that support population health and emergency response on campus. The concentration also builds on years of preparation in global health funded in part by the NIH award to develop a framework program in global health at UC Irvine.

In summary, CDMS enthusiastically supports the Global Health concentration within the proposed Ph.D. in Public Health. Please do not hesitate to contact me via email at kkoenig@uci.edu if I can be of assistance.

Sincerely,

/signed/

Kristi L. Koenig, MD, FACEP, FIFEM
Director, Center for Disaster Medical Sciences
Professor of Emergency Medicine
Director of Public Health Preparedness
University of California, Irvine
April 19, 2011

Oladele A. Ogunseitan, M.Sc., Ph.D., M.P.H.
Professor and Chair
Department of Population Health and Disease Prevention
Program in Public Health
University of California, Irvine
CA 92697-3957

Dear Dr. Ogunseitan,

**Doctor of Philosophy in Public Health**

Thank you for the opportunity to review your proposed PhD program in public health. First, I would like to state that as former PI of the NIH funded Framework for Global Health program at the University of Alabama at Birmingham School of Public Health, I am highly impressed with the notable and continuing impacts of UC Irvine’s Framework for Global Health program.

Second, in reviewing your proposed doctoral program, I noted several strengths, including your strong focus on advanced research methods. Your adoption of a trans-disciplinary approach to this program is also notable, and will clearly distinguish UC Irvine’s PhD program on public health from many of the current programs nationally and internationally, that are focused on solely public health and medicine. Overall, your proposed program eminently captures the true essence of a trans-disciplinary approach to global health that was envisioned by the framework approach to global health, launched by the Fogarty Center of NIH in 2005.

I commend you and your colleagues for the time and efforts you have invested into building this quality program. It is clearly one that I would have no hesitation in recommending to anyone seeking a well rounded, top quality doctoral training in global public health.

Sincerely,

John E Ehiri, PhD, MPH, M.Sc (Econ.)
Division Director, Professor
Flora Katz, Ph.D.
Program Manager
Division of International Training and Research
Fogarty International Center
31 Center Drive, MSC 2220
Building 31, Room B2C39
Bethesda, MD 20892-2220

Dear Dr. Katz:

Institutional Support for UCI’s proposal for the NIH Framework Programs for Global Health

This letter is to affirm our strong support for the proposal entitled "UC-Irvine Framework Program for Global Health."

The Global Health Framework award will be instrumental in building an academic and administrative home for global health that would be sustained within the campus's Program in Public Health, which is projected to grow significantly in the next five years in terms of its faculty and its educational programs.

Pending approval through established University processes, the University of California at Irvine will implement the curricula developed under this award. Our new Master's degree in Public Health (MPH)—which has been approved by our Academic Senate and is expected to receive formal approval by the systemwide Senate of the University of California this fall—explicitly calls for the development of a concentration in global health, and the undergraduate courses proposed in the framework would enhance our existing B.A. and B.S. programs in Public Health, which in their first year have already attracted substantial enrollments.

If established as part of the research and educational agenda for the Program in Public Health, the curricula, Global Health Student Fellows, Faculty Fellow, and Visiting Scholar programs described in the proposal would be sustained by resources in space, infrastructure, and administrative support at a level comparable to similar academic programs on our campus. Faculty positions for Public Health will be allocated on a competitive basis through our usual campus processes, and the needs of the Framework as described in the proposal should be easily accommodated within the growth projected for the Program.

Sincerely,

Michael R. Gottfredson
Executive Vice Chancellor and Provost
September 14, 2007

Program Manager
Framework Programs for Global Health
National Institutes of Health

Re: UC-Irvine Framework Program for Global Health

Dear Program Manager:

This letter affirms my enthusiastic willingness to serve as a faculty in the NIH proposal entitled “UC-Irvine Framework Program for Global Health”. I will assist the Global Health Student and Faculty Fellows Programs, and participate in teaching the course “Problem-based learning in global health”.

Sincerely,

Alan Barbour
September 11, 2007

Dr. Guiyun Yan
Program in Public Health
College of Health Sciences
University of California
Irvine, CA 92697

Dear Dr. Yan:

This letter affirms my willingness to participate as a faculty member in the development of the Framework Program for Global Health at the University of California, Irvine. This is a timely and important venture. I look forward to working with you on it.

Sincerely,

Anthony A. James, PhD
Distinguished Professor
September 6, 2007

Dr. Guiyun Yan
Program in Public Health
College of Health Sciences
University of California, Irvine
Hewitt Hall, Room 3038
Irvine, CA 92697-4050

Dear Guiyun,

**Re: UCI Framework Program for Global Health**

This letter is to confirm my willingness to serve as an international collaborator in your NIH proposal entitled “UC-Irvine Framework Program for Global Health”. In particular, I will assist the Global Health Student Fellows and Faculty Fellows Program, and participate in the Global Health Visiting Scholars Program. In the past decade, we have accumulated considerable experience in training students and research fellows in international health. Our training institution network include many countries in Africa and involve several exchange programs with faculty fellows from the US.

The proposed framework if funded will enhance international health collaboration.

Yours sincerely,

John Githure, Ph.D.
Senior Scientist and Head, Human Health Division
Program in Public Health
101 Theory, Suite 250
Irvine, CA 92697-3957
FAX (949) 824-0529

September 14, 2007

To: The Program Manager
Framework Programs for Global Health
National Institutes of Health

Via: Professor Dele Ogunseitan
Program in Public Health

Re: UC-Irvine Framework Program for Global Health

To Whom It May Concern:

I am strongly supportive of the UC-Irvine Framework Program for Global Health. This proposal will bring together the many strengths of this campus and fits well into the merging goals of the Program in Public Health. The College of Health Sciences conducted an online query of all University of California Irvine faculty last spring in regards to academic and research interests in global health. The response was broad and deep, and I believe this has been captured well in the proposal.

Please let me know what I can do to facilitate the acceptance of the proposal.

Sincerely,

[Signature]

Frank L. Meyskens, Jr.
Associate Vice Chancellor of Health Sciences

Cc: Vice Chancellor David Bailey
    Janis DeJohn
Program Manager  
Framework Programs for Global Health  
National Institutes of Health  

Re: University of California, Irvine Framework Program for Global Health  

I am writing to express my strong commitment to the proposed Framework for Global Health program at UCI. As a unit of the new College of Health Sciences, the Department of Pharmaceutical Sciences is working towards several new, highly integrated programs of interdisciplinary biomedical research and education at UCI. A new undergraduate major in Pharmaceutical Sciences, the first in the University of California system, is already in place, and an interdepartmental graduate program in Medicinal Chemistry & Pharmacology is in the final approval process. Our department will be actively exploring other joint educational initiatives with the School of Medicine, Graduate School of Management, the new UCI Law School, and of course with the other units in the College of Health Sciences, including Public Health. Thus, the proposed new program in Global Health fits beautifully into our agenda of helping to develop new innovative interdisciplinary teaching and research paradigms that cross the boundaries of traditional academic programs. Our faculty has interests and expertise in molecular pharmacology, structural biology, physical biochemistry, biopharmaceutics, medicinal chemistry, and a number of other elements of pharmaceutical sciences that will be an asset to the proposed program. We look forward to actively participating in any of the Global Health Program activities that relate to these fields, as well as areas into which we will be expanding, such as computational pharmaceutics and pharmacogenetics.

Sincerely,

Richard Chamberlin, Professor and Chair  
Department of Pharmaceutical Sciences
September 12, 2007

Program Manager
Framework Programs for Global Health
National Institutes of Health

Dear Program Manager:

I am very pleased to support this application for The Framework Program for Global Health at the University of California, Irvine. This proposal will add a critical dimension to the programs offered at UCI. By focusing on global health, UCI will be poised to prepare scholars, academicians, researchers, and practitioners who can contribute to health and across our world. Global health has become increasingly important in a world where traveling across continents and communicating across countries brings us all closer together as human beings. We must be cognizant of the health issues across the globe and this Frameworks Program is one way of doing so.

As Director of the Program in Nursing Science, I am thrilled to be part of this endeavor. This will truly be an interdisciplinary, inter-professional project. I am committed to contributing to this project as needed, in teaching, research, administration. I believe that this project will strengthen our growing nursing program as students become involved as well.

I offer my strong support for this program. I am confident that this well planned program will be successful and that we will be able to build on this program to continually develop more global health programs across the UCI campus.

Sincerely,

Ellen Olshansky, DNSc, RNC, FAAN
Professor and Director
Program in Nursing Science
College of Health Sciences
September 15, 2007

Program Manager
Framework Programs for Global Health
National Institutes of Health

Re: University of California, Irvine Framework Program for Global Health

Dear Dr. Katz:

I am writing to confirm my enthusiasm for the proposed UCI Global Health Framework Initiative. This proposal is timely in that it is contemporaneous with the developing Program in Public Health at UCI, which is expected to ultimately result in the development of a long-awaited School of Public Health. UCI has great strength in this area and the Global Health Framework Initiative will go a long way toward bringing together expertise from across campus. I will be delighted to participate and contribute my expertise in the biology of environmental endocrine disrupters and their modes of action through several important nuclear hormone receptors. My laboratory has recently shown that environmental “obesogens”, xenobiotic chemicals that promote fat cell differentiation and fat storage are a significant contributing factor to the world wide obesity epidemic. We have close ties with Japanese colleagues in this area and will help to promote the global nature of these studies at UCI.

Sincerely yours,

Bruce Blumberg

Bruce Blumberg
Associate Professor of Developmental and Cell Biology, Pharmaceutical Sciences and Biomedical Engineering.
September 10, 2007

Oladele A. Ogunseitan, Ph.D., M.P.H.
Professor of Public Health &
Professor of Social Ecology
University of California

Dear Dele,

I am writing to express my enthusiastic support for your efforts to secure a Framework Program for Global Health Award for UC-Irvine. My interest in this critical endeavor emanates both from experience and research background as an academic pediatrician and from my role as leader of UC Irvine’s new Institute for Clinical and Translational Science. As a pediatrician whose research is focused on the health consequences of physical activity in children, I am well aware of the global nature of the current epidemic in childhood obesity. Until fairly recently, this problem remained largely ignored both here in the United States and throughout the world, alas, even in countries deemed as so-called “third world”. In developed countries, the seriousness of the epidemic was trivialized in large measure because of popular misconceptions that children became obese because of sloth and laziness, and not because of simultaneous cataclysms in the environment in which high-calorie, high-fat foods became cheap and available at a time when the increasingly built environment of the urban landscape was seen by parents as simply to dangerous to permit children free-play and access. In less developed nations, the idea that obesity could occur is surprising to some, but poverty continues to be associated broadly with malnutrition, but, ironically with a 21st Century brand of overnutrition of unhealthy foods.

Thus, your attempts to add key resources to our institution’s training efforts in global health come at an opportune time and build on the many strengths of our faculty. Simultaneously, we are building at UC Irvine a new Institute for Clinical and Translational Science which is geared to transforming how human based biomedical research is conducted at our campus. Our goals are to match UC Irvine’s talents in this area with the vision recently established by the NIH Director,
Dr. Elias Zerhouni. This vision includes a very robust program to train the next generation of clinical scientists not only in the science of clinical investigation, but also to inculcate in our trainees the sense that all of biomedical research has a community context. In this light, your efforts to enhance awareness in our students and trainees that health in our region is not an isolated process, but is mechanistically linked to global patterns of health, are appropriate, indeed, critical.

I look forward to working with you on this much needed and exciting endeavor, both as an interested pediatric researcher and leader of our efforts to improve training of clinical scientists here at UCI.

Best Wishes,

Dan Cooper, M.D.
Professor of Pediatrics and Biomedical Engineering
Dear Dr. Yan:

Thank you for inviting me to participate in your Global Health Framework proposal.

I direct the Protein Microarray and Expression Laboratory for the Pacific Southwest Regional Center for Biodefense. In the last few years our laboratory has cloned, expressed, and printed microarrays containing 16,000 proteins from 20 different infectious agents that are medically important in developing countries. We have probed these chips with thousands of infected patient sera collected from patients in Africa, South American and the Pacific Rim and in this way identify immunodominant antigens potentially useful for serodiagonistics and subunit vaccines. There are 50 million deaths annually from infections and 80% occur in developing countries. Infectious disease accounts for more than 50% of the health care burden in the developing world but only 5% for developed countries. There is a growing concern that the high volume of worldwide travel will encourage the spread of emerging infectious diseases and make them more difficult to contain. Our research is contributing to improvements in Public Health surveillance to address this worldwide need. We have a $6 million NIH grant to study melioidosis in Thailand and we’re supported by the Gates Foundation to develop a serological test for tuberculosis to distinguish latently infected subjects from patients with clinically active TB in Africa. We’re also working with the Orange County Public Health Department to access and probe samples from patients undergoing antibiotic therapy to identify non-responsive patients infected with resistant strains and to monitor immigrants entering the country.

My laboratory can participate in developing new multidisciplinary curricula and degree programs in global health for undergraduate, graduate and professional students, contributing to new core courses in the Global Health curriculum. We will also participate in the research training program in global health for undergraduate, graduate and professional students. This Framework program will significantly enhance global health research education capacity at UC-
Irvine, and strengthen the career growth of students interested in global health research and education.

I’m looking forward to working with you on this fascinating and important program.

Best regards,

Philip L. Felgner, PhD.
Project Scientist
Division of Infectious Diseases
pfelgner@uci.edu
(949) 824-1407
September 10, 2007

Program Manager
Framework Programs for Global Health
National Institutes of Health

Re: University of California, Irvine Framework Program for Global Health

To Whom It May Concern:

This letter is in strong support of UC Irvine’s submission for the Framework Program for Global Health.

The Division of Infectious Diseases has a great interest in global health. Currently, faculty members in the Division are involved in research and education in a number of areas of critical importance to improving the well-being of individuals in the developing world. Examples include HIV/AIDS, malaria, tuberculosis, chlamydia infections, and melioidosis. In addition, for a number of years, the Division has offered a curriculum that includes training in all relevant infectious diseases. This curriculum is currently targeted at medical students, residents, fellows, and faculty members. Under the auspices of the Framework Program for Global Health, the curriculum could undoubtedly be strengthened and be adapted to target undergraduate and graduate students as well.

Several members of the Division have hands on experience teaching, conducting research, and practicing clinical medicine in developing countries. For example, Alan Barbour was a CDC Epidemic Intelligence Service (EIS) officer assigned to the WHO’s smallpox eradication program in India. I was also an EIS officer working on viral hemorrhagic fever viruses and HIV/AIDS in Africa. Following my employment with the CDC, I worked with WHO in the African Regional Office in Brazzaville, coordinating the development of HIV/AIDS control programs for several African countries. Ming Tan has a research focus on chlamydia infections and has recently established relationships in West Africa to study trachoma.

In summary, the Division of Infectious Diseases strongly supports the establishment of a Framework Program for Global Health. We feel that we can both contribute to and benefit from the establishment of such a program.

Sincerely,

Donald Forthal, MD
Chief, Division of Infectious Diseases
Associate Professor of Medicine
September 14, 2007

The Program Manager
Framework Programs for Global Health
National Institutes for Health

RE: University of California, Irvine Framework Program for Global Health

Dear Program Manager,

As an Associate Director for the University of California Multi-Campus Research Project (MRP) California Institute for Hazards Research (CalHaz) I enthusiastically support this proposal to develop a framework program for global health at UC Irvine. The CalHaz MRP was founded in 2006 to establish a UC systemwide program to support research and education to reduce the risk of catastrophes resulting from natural hazards. Natural hazards are global-scale problems that affect the health of millions worldwide. Recent catastrophes such as the 2004 Indian Ocean tsunami and hurricane Katrina in 2005 highlight the susceptibility of populations in developed and developing countries across the globe.

Natural hazards need not become natural catastrophes if they are addressed proactively and effectively, rather than reactively. CalHaz will promote basic scientific understanding, social policy research, engineered solutions, and medical response in areas that are critical to the survival, prosperity, economic vitality, and health. California has a world-class economy with a population vulnerable to world-class risks from damaging earthquakes, droughts, wildfires, floods, landslides, tsunamis, volcanic eruptions, severe weather and pandemics. The Irvine Framework Program for Global Health, in tandem with CalHaz, will build on the rich intellectual capital and expertise of our multicampus University to provide solutions to problems arising from natural hazards. The University is ideally positioned to solve the coupled problems of understanding natural hazards, while at the same time preparing a workforce that is prepared to manage the associated risk. UC has a world-class pool of faculty and research experts in natural hazards, including physical, biological, environmental, and health scientists, engineers, toxicologists, social scientists, economists, and policy experts. UC is also a world leader in information technology, needed for training and research in forecasting, planning, coordination, response and recovery from natural disasters. I look forward to expanding CalHaz training and educational efforts to global health problems through the proposed Framework Program in Global Health.

Sincerely,

Lisa Grant Ludwig, Ph.D.
Associate Director, California Institute for Hazards Research MRP <http://calhazards.org>
September 14, 2007

Program Manager
Framework Programs for Global Health
National Institutes of Health

Dear Program Manager:

I offer my enthusiastic support for your proposal entitled The Framework Program for Global Health at the University of California, Irvine. The proposed Program for Global Health adds a critically important area of study for our growing university and the students we serve. UCI and its College of Health Sciences offer a unique environment that would allow interdisciplinary work bridging across several important health-related sciences (biology, biochemistry, medicine, pharmacy, public health, and nursing) to address issues of concern to all. As a researcher dedicated to understanding the mental and physical health effects of traumatic life events (e.g., terrorism), I consider global health issues to be one of the most meaningful and important endeavors that our university can undertake. Mental health problems are ubiquitous throughout the world as is cardiovascular disease, and there is ample research to suggest that this is no coincidence. I am committed to understanding the link between mental and physical health. We must use a global perspective to address these problems adequately.

As Assistant Professor in the Program in Nursing Science, I would be honored to be part of this endeavor. I would gladly offer my support in developing an environment that will prepare scholars, academics, researchers, and practitioners who can help us understand and promote global health. As a mentor for young nursing scholars I consider it my responsibility to prepare them to become active professionals who engage in interdisciplinary efforts to improve human health. In today’s world, there is no way to do so without understanding global health.

I offer my strongest support for this program.

Sincerely,

E. Alison Holman, PhD FNP
Assistant Professor
Program in Nursing Science
College of Health Sciences
September 11, 2007

Program Manager
Framework Programs for Global Health
National Institutes of Health

Re: University of California, Irvine Framework Program for Global Health

I am writing to express my enthusiastic support for the Framework Program for Global Health at University of California, Irvine. The rapid globalization of world economy requires an understanding of human health and disease transmission at the global level. Two most populated countries in the world, India and China, are also experiencing the fastest economical growth. UC Irvine, with a diverse faculty and student body from all over the world, is uniquely positioned to establish such global health program. In the past five years, I have visited multiple universities, research institutions and governmental agencies in China for scholarly communication and information exchange on topics of global health. Chinese institutions welcome and support collaborations with University of California. My connection with China is just one of the examples of many on-going-collaborations with different counties among UC Irvine faculty. The Framework Program will synergize current global health research and establish new programs. It benefits UC Irvine research and education mission by placing health research at forefront of world needs and educating a new generation of students with a global vision of human health.

Please let me know if I can offer any additional help to make this program a success at University of California, Irvine.

Sincerely,

Sunny Jiang, Ph.D.
Associate Professor
Civil and Environmental Engineering
September 8, 2007

Program Manager
Framework Programs for Global Health
National Institutes of Health

Re: University of California, Irvine Framework Program for Global Health

I am writing to express my great interest in participating in the proposed NIH Framework Program for Global Health to be conducted at the University of California, Irvine.

The framework would be a wonderful vehicle for me to expand my continuing research and teaching in the international dimensions environmental health. Specifically, I would be enthused to pursue collaborative learning opportunities between academic and research groups in Asia and at UCI, such as around the theme of health in informal settlements. I think it makes sense for this initiative to grow at UCI, where we are, even more than other universities in California, traversing boundaries particularly around the Pacific Rim. I understand that, if the proposal is accepted, I would assist in crafting new collaborative opportunities in curricula and research, which I am eager to do.

Please let me know if I can provide any further information or assistance.

Regards,

Raul Lejano
Associate Professor
F. Allan Hubbell, M.D., M.S.P.H.
Professor and Chair
Department of Medicine

September 11, 2007

Program Manager
Framework Programs for Global Health
National Institutes of Health

Re: University of California, Irvine Framework Program for Global Health

Dear Colleagues:

I am pleased to provide a letter of support for the proposed Global Health Framework Program at UC Irvine. My research focuses on health disparities with an emphasis on the cancer control needs of medically under-served populations and health policy options to address those needs. An example includes the recently completed study funded by the National Cancer Institute (NCI) of cancer-related risk factors, knowledge, attitudes, and preventive practices among Latinos and Pacific Islanders. In this study, we collaborated with community based organizations in American Samoa, Guam, and California to evaluate the cancer control needs of Samoans, Chamorros, and Tongans. As part of the project, we developed the first cancer education brochures in the languages of the populations, conducted culturally sensitive cancer awareness activities, and trained nine Pacific Islander students in cancer prevention and control research. The latter effort is particularly pertinent for this application. We developed a curriculum that taught the students basic research skills and worked with them to develop pilot research projects that focused on cancer related issues of relevance to their communities. Six of the nine pilot project proposals received funding from the NCI. The six manuscripts that describe the findings are currently in press. More importantly, all of the students are involved in one way or another in cancer prevention efforts in their communities.

I believe that UC Irvine is in an excellent position to achieve the goals of this program. I look forward to working with other investigators engaged in teaching and research in the area of global health, to encouraging students to enter the global health field, and to supporting the development of educational opportunities in this area.

Sincerely yours,

F. Allan Hubbell, M.D., M.S.P.H.
September 12, 2007

Program Manager  
Framework Programs for Global Health  
National Institutes of Health  

Re: University of California, Irvine Framework Program for Global Health  

Dear Program Manager:

I wholeheartedly support the Global Health proposal as part of the Public Health Program at UC-Irvine. Dr. Ogadele Ogunseitan is a remarkable leader who has the drive, creativity and intellect to build interdisciplinary bridges. I am especially enthusiastic about the proposed course offerings that will draw upon the expertise of medical anthropologists at UC-Irvine and the important attention paid to nurturing collaborative interdisciplinary research into pressing global and local public health problems. I not only support this initiative but look forward to regularly offering courses for MPH students from across the campus.

Sincerely,  

Michael Montoya, PhD  
Anthropology, Chicano/Latino Studies &  
Program in Medical Education for the Latino Community
September 12, 2007

Program Manager
Framework Programs for Global Health
National Institutes of Health

Re: University of California, Irvine Framework Program for Global Health

This letter is to confirm my willingness to participate in the Global Health Framework program proposal submitted by UC-Irvine. I direct several NIH research training and minority science programs at UC-Irvine. One of the programs that I direct is the Minority Health and Health Disparities International Research Training (MHIRT), funded by the National Center on Minority Health and Health Disparities and Fogarty International Center of the National Institutes of Health. MHIRT provides international research training for the purpose of:

- Encouraging undergraduate, graduate and/or health professions students who are from health disparities populations to pursue careers in basic science, biomedical, clinical and behavioral health research fields
- Broadening the research efforts and scientific training of undergraduate, graduate, and/or health professions students from health disparities populations to encompass international health issues
- Assisting undergraduate, graduate and/or health professions students who are from such populations to participate in U.S. and international faculty collaborative research initiatives

MHIRT participants receive research training during the summer and participate in original data collection at prestigious international research institutions in Mexico and Spain.

I will contribute my experience in monitoring student recruitment and mentoring to the Global Health Framework program.

Sincerely,

Luis Mota-Bravo, Ph.D.
Director of Outreach, Research Training and Minority Science Programs (MSP)
Dear Prof. Yan,

I am writing to express my willingness to participate as core faculty in the UC-Irvine Framework Program for Global Health. I would also like register my strong support for this initiative.

I am a sociologist who studies health from both historical epidemiology and medical demography perspectives. I have a long-standing interest in global health. Here are some aspects of my work and training that make me qualified to serve as a core faculty member. My first post-baccalaureate degree was an MSc from the London School of Hygiene & Tropical Medicine (LSH&TM), a worldwide center of excellence in global health research; my thesis was on measles in sub-Saharan Africa. After LSH&TM, I worked as a demographer at the Instituto Nacional de Estatística (INE) in Luanda, Angola, and then as a visiting scholar at the Centre français sur la population et le développement (CEPED) in Paris. After that I began my PhD at Berkeley, which I completed in 2006. For the last two years, I have served as the co-coordinator of the Health and Global Change (HGC) project at IIASA (the International Institute for Applied Systems Analysis, outside Vienna, Austria), where our focus has been pandemic influenza. Most recently, in July 2007, I spent two weeks visiting the Ahmadu Bello University (ABU) in Zaria, Nigeria, teaching as part of an NIH/Fogarty program between ABU and the School of Public Health at Berkeley.

This experience makes me highly enthusiastic for the current proposal. At UC-Irvine, I see great opportunities to develop inter-School collaboration in teaching and research in global health. I am eager to participate in the activities outlined in the proposal, including the Seminar Series. I would be happy to coordinate my School of Social Science colleagues to present in this series, and for outside visitors, to investigate co-sponsorship, where appropriate, with the Sociology Department or with the Institute for Mathematical Behavioral Sciences (IMBS) at UCI.

In Winter quarter 2007, I taught Sociology 159, “The Sociology of Health & Illness”, for undergraduates. This course covered numerous aspects of global health, including, among other things, pandemic influenza, HIV/AIDS, the eradication of smallpox, and polio vaccination campaigns. I also teach Sociology 269, which is a graduate seminar version of the same material. I found my UCI students to be filled with curiosity about
the world beyond our national borders and especially interested in the health dimensions of international
development. My undergraduates were thrilled to learn about smallpox eradication and thirsty for more
information about how we may curb the spread of HIV/AIDS.

If the proposal is funded I would apply for support to improve these existing courses, or to build a course
on “Pandemics through the Ages”, looking at the Black Death, cholera, influenza, and HIV/AIDS as global
health crises of the fourteenth, nineteenth, twentieth, and twenty-first centuries, respectively.

In short, there is enormous interest in health among both the faculty and students at UCI’s School of Social
Sciences and if — as it deserves — this proposal is funded, Social Sciences will be an active and contributing
participant in Global Health at UCI.

Thank you very much for organizing the proposal. The University of California, Irvine has much to gain from
this proposal and also a lot to offer in terms of diverse resources and students who are keenly interested in
global public health.

Sincerely yours,

Andrew Noymer
Assistant Professor, Sociology
Dear Sir/Madame,

I am writing you as Director of UCI’s Global Cultures Program (an Undergraduate Major) in order to lend support of the proposed Framework Program for Global Health.

I have read the proposal carefully, and am convinced that it would greatly benefit our students here at UCI, and the community at large. Launched about five years, our rapidly growing program (100% growth last year alone) has sought to build interdisciplinary bridges, and several of our students have recently concentrated on global health issues (for instance, last year, one graduating student studied water rights and pollution-related issues in China and California from a comparative perspective). From our perspective of Global Cultures, the proposed Program for Global Health is a perfect fit, in to which we could contribute in meaningful ways by examining health issues from a world-wide cultural perspective.

Global Cultures is an innovative (and still rather new) undergraduate major in UCI’s School of Humanities with an exciting mission: to explore the problems and processes of globalization from a humanistic perspective. The major thus equips our students with twenty-first-century analytical skills and knowledge that is critical to understanding the complexities of the diverse world in which we live. Our program strives for a high(er) standard of excellence, and our current students have earned the grades (GPA) to prove it!

Date: Sept. 8, 2007
Today, more than ever, the rewards and responsibilities of global citizenship require us to have a greater appreciation of the world, its histories, and our intersection with it. In the proposed program for Global Health, we could offer courses that help students understand better all-important connections between culture and public health, and thus give them a diachronic perspective of how these “connections” can — and do often do — change over time. In California’s highly diverse population with a large proportion of immigrants from all corners of the world, such course work strikes me as particularly relevant (not to say “urgent”).

As author of a recent book on Black Magic (Cuba), I am acutely aware of the relevance of profoundly diverse cultural approaches to healing practices. As you may know, in Black Magic, the medicinal effects of herbs and other plant materials are greatly valued, along with spiritual beliefs that practitioners consider highly beneficial. Because of the outward migration of Cuban Paleros (“Black Magic priests”), their healing practices are now found in many corners of the Western World. Under the Framework Program for Global Health, we could teach our students about the importance of these and similar global health-related cultural issues, and examine them from the perspective of immigrants who are at the cross-roads of Africa, Latin America, and North America.

UCI already has a strong portfolio in global health, and my Program in Global Culture could contribute to offering a robust learning environment in which future public health professionals will be primed to draw from a cultural knowledge-base that is sensitive to the many ways in which greater public health can (and should) be promoted world-wide.

As you can see, I am very enthusiastic about the proposed program, and trust that you will give it serious consideration.

Dr. Armin Schwegler
Director, Global Cultures

You can find us at:
http://www.humanities.uci.edu/global_cultures/
September 14, 2007

PROGRAM MANAGER
Framework Programs for Global Health
National Institutes of Health

Re: University of California, Irvine Framework Program for Global Health

I am writing to express my strong support to the Framework Program for Global Health that the University of California, Irvine (UCI) is submitting for your consideration.

Being a member of the UCI participating faculty in the above-mentioned project, I truly believe that it can benefit UCI’s academic mission by incorporating an innovative, multidisciplinary and global approach to education.

The framework includes a fundamental understanding of health in our era, since it considers that there is an increasing interaction between global and local health; this vision as incorporated in an academic environment, will help generate human resources with a global vision while also capable of using it to provide effective solutions to health problems at local level.

I am convinced that the experience obtained from the framework’s implementation would eventually change the way health education and training is delivered in the United States and internationally.

I also truly believe that the proposed framework could make an important contribution that goes well beyond the UCI academic mission: the framework includes a vigorous research training program with a cooperative perspective that aims to actually produce effective tools to reduce the health burdens in developing countries. The framework global vision would definitely generate a global impact.

Given the important benefits that the University of California, Irvine Framework Program for Global Health, implies, I look forward to hear that you have kindly agreed to support it.

With very kind regards,

ROBERTO TAPIA-CONEYER, MD, MPH, MSc, DrSc
August 19, 2007

Dear Scientific Review Committee,

As the Executive Director of the Center for Trauma and Injury Prevention Research, it is with great pleasure that I write this letter of support for the University of California, Irvine Program in Public Health as they are being considered as a potential NIH Framework Program for Global Health.

The Center for Trauma and Injury Prevention Research (CTIPR) is an established multi-disciplinary school-wide research unit housed in the University of California, Irvine’s Department of Emergency Medicine. Faculty associates of the Center represent the Departments of Emergency Medicine, Pediatrics, School of Social Ecology, School of Social Sciences, and Graduate School of Management. The associates collaborate nationally and internationally on research within their fields of expertise. The Center maintains a core complement of highly experienced research staff that work on funded research in study design, implementation, analysis, interpretation, and dissemination of results. The Center staff participate with faculty in survey design, data collection, conducting focus groups, data entry, transcription services, statistical analysis, report preparation, staff supervision, and project management. Areas of expertise include injury prevention, transportation safety, anthropology, acute trauma care and resuscitation, post traumatic stress disorder, design of community based outreach and intervention programs, older adult safety, and emergency disaster preparedness and bioterrorism. CTIPR maintains data files used in conjunction with Geographic Information Systems (GIS) for transportation safety research for the state of California.

By way of participation in the proposed program, Center research faculty plan to participate in formal undergraduate and graduate public health instruction and mentoring with a considerable focus on the global burden of injury. Planned courses include but are not limited to the following:

- Injury and Injury Prevention in a Public Health Framework
- Public Health Implication of Injury Disparities
- Behavioral Health Models and Their Implication for Global Road Safety Programs
- The Global Burden of Injury
- The Role of Community Health Science in Global Road Safety

All of our research faculty and I look forward to a very successful and fruitful collaboration through this program.

Sincerely,

Federico E. Vaca, MD, MPH
Executive Director, Center for Trauma and Injury Prevention Research
Associate Professor of Emergency Medicine
The Program Manager  
Framework Programs for Global Health  
National Institutes of Health

Re: University of California, Irvine Framework Program for Global Health

Dear colleagues:

This is to express my full support for the proposed Irvine Framework Program for Global Health. I have been involved in:

1. Establishing and teaching an undergraduate course in Biodiversity and Conservation (Bio 65, lower division)
2. Designing and obtaining funding to establish the Interdisciplinary Minor in Global Sustainability
3. Proposing and coordinating the First-Year Integrated Program in Environmental Science, which includes components from the Schools of Physical Science, Biological Science, and Social Ecology.
4. Representing UCI’s membership in the National Council on Science and the Environment at its annual meeting, which dealt with Integrating Environment and Human Health.

My main interest is in the conservation of biodiversity and ecosystems, but these concerns overlap with Global Health in their focus on the need for a healthy environment. The undergraduate curricula mentioned above include substantial emphasis on several aspects of Global Health, including adapting to climate change; exposure biology; human population growth in relation to resource availability, and human domination of ecosystems. I believe these topics should all be included in the Global Health curriculum, and could be taught against the new rigorous scientific background typified by the Millenium Development Goals, the Millenium Ecosystem Assessment, the Program of Action established by the United Nations Conference on Population, and various reports from the United Nations Population Fund. I would be delighted to help with the development of appropriate courses and programs. With best wishes

Sincerely

Peter J. Bryant, Ph. D.
Developmental and Cell Biology  
University of California, Irvine  
Irvine, CA 92697-2275
September 10, 2007

Program Manager
Framework Program for Global Health
National Institute of Health

Re: University of California, Irvine Global Health Framework Program

I strongly support the proposal to establish a Framework Program for Global Health at UC-Irvine. It is important that both faculty and students of UCI’s Public Health Program participate and support the Framework program for Global Health. Students who are enrolled in UCI’s Public Health Program already express a high interest in different areas of public health disciplines and their interest will increase further if this Framework is implemented and administered through UCI’s Public Health Program. Students in the Public Health Program took the initiative to establish a Public Health Association in 2006 with strong commitment to both regional and international health issues.

Many of the students in my undergraduate public health courses ask me about the opportunities of being involved in research connected with global health. There is also a great general interest among students to be involved during the summer in research and/or public health interventions through WHO organizations and other agencies involved with global health. For example, I have one student who traveled during the summer to Sudan through a WHO organization and would like to prepare and describe the project as part of an Individual Study (PubHlth 199) in global health. Another student will go to India and take part in nutritional initiatives in New Delhi in cooperation with a local Public Health School. A third student is sending a proposal for a UCI UROP program on the topic “Health Psychology and Public Health Strategies in Promoting Beneficial Sexual Lifestyle Practices and HIV/AIDS Prevention in Ghana, Africa.” The student will spend 3 months during the winter quarter 2008 in Africa working on this project in cooperation with a local Public Health School and a Public Health Agency in Ghana. As these examples illustrate, many of my students are interested in global health and I try to work with them closely as part of their PubHlth 199 Independent Studies. Based on these examples and based on seeing the interest in global health among my students I strongly believe that giving the opportunity to UCI’s Public Health Program to be involved in the Framework Program for Global Health will be very well received by UCI students.

We have already taken a first step toward introducing our students to global health by preparing a Summer Session Travel Study in Geneva, Switzerland in cooperation by WHO. We expect the first cohort of students to participate during the summer of 2008.

I also believe that the strong diversity among UCI faculty, students, and the surrounding community will be a great asset in implementing a successful Framework Program for Global Health.
From my perspective I will be very interested to help develop or co-teach courses on:

- **Lifestyle interventions and health literacy on a global level** – assessment of health parameters, identification and application of appropriate dietary, fitness, stress reduction and other lifestyle –based interventions, lifestyle-related behaviors, culture, environment.
- **Marketing public health on a global level** – understand basic marketing principles and strategies for planning, implementing and evaluating public health initiatives based on cultural differences.
- **Case studies in global health** – series of case studies and the use of health education, policy changes to achieve impressive reduction in disease and disabilities even in the poorest countries
- **Nutrition and Global Prevention of Chronic Diseases**
- **Maternal and Child Health Programs from Global Health Perspectives**
- **Alternative Medicine, Culture and Public Health** – principles of health behavior, cultural issues in health care, social stigma, cultural competence and health disparities
- **Refugee Health** – programs to promote health
- **Healthy Aging** – understand the culture and lifestyle interventions for aging population
- **Drug abuse prevention on a global level**
- **Lifestyle Medicine Intervention for Prevention and Therapy of Chronic Disease on a Global Level.**

I enthusiastically support the Global Health Framework Program at UCI because it will give the University the opportunity to play a pioneering role in the increasingly important challenges of global health. I am convinced that the commitment and dedication of the faculty, students, and staff of our Public Health Program will transform the proposal into program of excellence.

Please let me know if you have any questions.

Sincerely,

Zuzana Bic, Dr.P.H., MUDr.
Lecturer PSOE
Public Health Program, College of Health Sciences
& School of Social Ecology
University of California, Irvine
101 Theory, Suite 257
Irvine, California, 926987-3957
Phone: 949-824-3216
Fax: 949-824-0529
E-mail: ZBic@uci.edu
http://www.hometown.aol.com/zbic
http://www.seweb.uci.edu/faculty/zbic/
http://www.cohs.uci.edu
Dear Program Manager:

I enthusiastically extend my support to the Global Health Framework proposal being submitted for your consideration. My research interests are in the area of Community and Home Oriented Information technologies. Specifically, I am interested in how the new technologies can contribute to community welfare and social development. I just organized a major conference in India in August 2007 in collaboration with the Indian Institute of Technology- Madras, in the city of Chennai, India. The title of the conference was “ICT (Information and Community Technologies) for the Next Billion.” For more information, I refer to the conference website www.hoit2007.com

My main interest in the current proposal is to participate and collaborate in investigating how new technologies can be harnessed and put to use for the improvement of education/health needs in community settings. Currently, I am involved with the Hispanic Chamber of Commerce of Orange County to assist them in making the new technologies available for small businesses and entrepreneurs. I am also involved in a project that looks at “Water in Everyday Life.” We just started the project and will be seeking funding at a future date after doing some preliminary work.

In sum, my interest in the present project proposal is to examine how communication and information technologies can be employed in improving community life.

Alladi Venkatesh
Professor and Associate Director
CRITO (Center for Research on Information Technology)
3200 Berkeley Place
University of California
Irvine CA 92697
email avenkate@uci.edu
http://www.crito.uci.edu/noah
November 25, 2008

MICHAEL R. GOTTFREDSON  
EXECUTIVE VICE CHANCELLOR AND PROVOST  

RE: Proposal for a Doctor of Philosophy in Public Health

I am writing to provide my enthusiastic support of this proposed new Doctor of Philosophy in Public Health. The aims and objectives of the proposal will meet the needs of graduate students interested in Public Health, provide a new academic offering at UCI, and offer the ability to build on existing strengths in research and educational programs on campus. The proposal is well planned and I offer my strongest endorsement.

[Signature]
Frank L. Meyskens, Jr., M.D.  
Associate Vice Chancellor  
College of Health Sciences

C: Vice Chancellor Bailey  
(with enclosure)
Dr. Michael Gottfredson  
Executive Vice Chancellor/Provost  
University of California, Irvine  
Irvine, CA 92697  

Dear Mike,  

I understand from Dele Ogunseitan that there is serious consideration of a proposal for creating a Ph.D. in public health. I am writing on behalf of the law school to express the hope that such a program will be created.

In addition to all of the benefits to the University of having such a program, it will provide the opportunity for collaboration with the law school. A joint J.D./Ph.D. in public health will attract some strong students for us. Also, as you know, we are pursuing joint appointments with public health in the area of environmental law. A Ph.D. in public health would help attract top faculty and also provide the benefit of excellent graduate students.

I hope that it is not presumptuous of me to express this support. Thanks so much for considering my views.

Warm regards,

Erwin Chemerinsky
December 16, 2008

Dear Prof. Ogunseitan:

The School of Biological Sciences has reviewed the proposal to establish a doctoral program in Public Health. The School considers this an important addition in the development of graduate academic programs at UCI, and finds the proposal well conceived and ready for implementation.

There are many excellent opportunities for interaction between the School of Biological Sciences and with students and faculty in the doctoral program in Public Health. We anticipate that some synergy will develop for students with common interests in biological aspects of public health, and these students will find relevant course work offered in these and other programs on campus.

The School of Biological Sciences has a number of faculty interested in virology, parasitology, and other areas relevant to Public Health. These faculty make valuable contributions to the graduate training environment, but we anticipate that there will be limited direct faculty participation from the School of Biological Sciences at the level of accepting and training graduate students for the doctorate in Public Health.

The School wishes you great success with your proposal.

Sincerely,

Mike Mulligan, Associate Dean for Graduate Studies

Albert F. Bennett, Dean, School of Biological Sciences
December 4, 2008

Professor Oladele Ogunseitan  
Chair, Department of Population Health and Disease Prevention  
Program in Public Health

Dear Dele,

I am delighted to offer this letter of support for the proposed doctoral program in Public Health here at UC Irvine. As you know, we have been working hard to transition our NIH funded General Clinical Research Center into the new vision of translational science embodied in the CTSA awards. A major goal of this effort is to create opportunities to train the next generation of clinical researchers with innovative approaches that emphasize team science, multidisciplinary research, and the critical need to reach out to the community both for scientific inspiration and dissemination of relevant public health and medical information. It is exciting to note that these principles are clearly embedded in your proposed doctoral degree program. If accepted, the public health PhD will perfectly complement the educational goals of our UC Irvine Institute for Clinical and Translational Science (ICTS). I am also confident that this outstanding program will attract the very type of energetic and concerned scholars who will want to interact with our programs in clinical and translational science.

A strong program in public health, of course, cannot exist without a robust doctoral program, and a strong faculty in public health will be, in my estimation, a critical component of a successful ICTS. Community outreach, so-called “type 2” translational science, is an essential component of the NIH new vision of clinical research entities. Absent the guidance and expertise of a balanced and active faculty in public health, our ICTS physicians, nurses, and community partners will lack access to experts whose research approach rests on solving specific questions associated with the assessment of disease burden and the prevention of diseases at the population level. This expertise is needed for a balanced program in translational science; thus, the doctoral program in public health is one that we consider essential to our success.

We have greatly appreciated your willingness to lead the ICTS effort to develop its own program in training and educating. Your devotion to our program development at the same time that you were working so hard on the doctoral program in public health, speaks volumes about your leadership and understanding the keen interdependence among the various arms of UC Irvine’s academic enterprise in the health sciences. I am convinced that this spirit of openness and cooperation will imbue your new program and ultimately enrich UC Irvine’s efforts to grow into a world class center of health academics, research, and practice.

Best Wishes,

Dan M. Cooper MD
Oladele A. Ogunseitan, Ph.D., M.P.H.
Professor and Chair
Department of Population Health & Disease Prevention

December 2, 2008

Dear Dele:

I have reviewed the proposal you sent for a new PhD degree in Public Health here at UCI. I think this is a very good proposal and I am pleased to endorse it in my role as the Chair of the Department of Psychology and Social Behavior.

As indicated in the proposal, this new degree offers the chance for creative exchanges with my department’s PhD program. In addition to our specialization in health psychology, our specialization in psychopathology might also provide such opportunities. We have a number of faculty interested in multi-level, contextual analysis of various kinds of mental disorder. To the extent that current or future faculty in the Public Health program share this interest in psychiatric outcomes, I hope we can work together.

Best wishes on your proposal.

Sincerely yours,

David Dooley
Professor and Chair
December 15, 2008

Professor Oladele Ogunseitan
Chair, Department of Population Health & Disease Prevention
Program in Public Health

Dear Professor Ogunseitan:

I am very pleased to support the excellent proposal for a Ph.D. Program in Public Health. With its focus on the health of groups, communities and populations, the proposed public health degree offers strategic synergies with our existing campus strengths in demographic research and training.

The development of the public health doctoral program, for example, will support elective courses that dovetail with the intellectual and career interests of a number of the M.A. students in our interdisciplinary Graduate Program in Demographic and Social Analysis (DASA). Since about one-third of DASA graduates go on to Ph.D. study, I suspect that the public health doctoral program would enroll one or more of our graduates nearly every year.

In addition, the faculty members affiliated with the campus Center for Demographic and Social Analysis (C-DASA) have expertise in health, geographic information systems, methodology, etc., that would support the public health Ph.D. program. For instance, I note that Assistant Professor of Sociology Andrew Noymer, a demographer with epidemiological interests in influenza and tuberculosis, is listed as an adjunct faculty member with the new program.

Let me congratulate you on this very strong proposal, Dele, and offer my continuing support for the development of the program.

Sincerely,

Judith Treas
Professor of Sociology
Director, Center for Demographic and Social Analysis (C-DASA)
December 4, 2008

Professor Oladele Ogunseitan
Chair, Department of Population Health and Disease Prevention
Program in Public Health

Dear Dele,

I am pleased to write in support of the Program in Public Health’s proposal for a Ph.D degree program in Public Health at UC Irvine. We would welcome students from the program in our graduate methodology classes. I read with interest your vision for a program focusing on research that goes beyond the boundaries of any one discipline. Indeed, I anticipate a variety of possibilities for interdisciplinary collaborations involving Statistics faculty and those in the Program in Public Health.

Please don’t hesitate to call on me if the Department of Statistics can provide any additional support for your proposal.

Sincerely,

Hal Stern
Professor and Chair
Department of Statistics
December 11, 2008

Dr. Oladele A. Ogunseitan  
Professor and Chair  
Population Health & Disease Prevention Program in Public Health

Dear Dr. Ogunseitan:

The faculty members of the Graduate Program in Environmental Toxicology have read your proposal to establish a Doctor of Philosophy in Public Health degree program in the Program in Public Health here at UCI. We enthusiastically support this proposal and look forward to a productive collaboration and synergy with your team.

Sincerely,

Ronald C. Shank, Ph.D.  
Professor and Director  
Graduate Program in Environmental Toxicology
November 24, 2008

Oladele A. Ogunseitan  
Professor and Chair  
Department of Population Health and Disease Prevention  
Program in Public Health  
College of Health Sciences  
University of California  
Irvine, CA 92697-3957

REF: Letter of Support  
Ph. D. Program in Public Health

Dear Dr. Ogunseitan,

This letter of support for a Ph. D. program in Public Health is provided without reservation.

As a person who has spent the last 37 years in the area of water, and mostly in drinking water, wastewater treatment and water intended for reuse, I understand the pivotal role that public health plays in our field. In fact, it is the cornerstone for the research that is done, the policies that are developed and the regulations that are promulgated.

I have read your proposal and feel that the direction which you are proposing will set you apart from others (uniqueness) and establish you program as a leader in the area of Public Health. I am also a strong proponent of transdisciplinary approaches to both research in the field specifically as it relates to water and the application of that research to practice.

My own research in the area of water started with the development of a test procedure for the determination of free chlorine in water. The sole purpose for the idea of specificity for free chlorine was public health. Then I turned my attention to better understanding the factors which affect the formation of disinfection by-products in drinking water and their potential adverse health effects. More recently, here at UCI I have focused on the two most recent issues in water and those are pharmaceuticals and other emerging contaminants of concern, and, the effect of nanoparticles in the application of membranes for water, wastewater and water reuse treatment.

I see many linkages between what you are proposing and the environmental engineering undergraduate and graduate programs. I would expect that students from your program and those from ours would take courses in each others program. I would also expect that some of the students in both programs would conduct research which overlaps both programs and in many cases have co-supervisors. Again, the underlying reasons for treatment of water, wastewater and water reuse are protecting the public’s health.
In summary, I feel that a Ph. D. in Public Health is extremely important and ties in with our expansion in Environmental Engineering. For example, as issues of water shortages become even more prevalent then they are now the need for the program will increase and the linkages between the two programs will be critical. If there is anything that you would like to discuss further with me, please feel free to contact me at 949-824-5620 or via email at wcooper@uci.edu.

Sincerely yours,

[Signature]

William J. Cooper
Professor
January 15, 2009

Oladele A. Ogunseitan, M.Sc., Ph.D., M.P.H.
Professor and Chair
Department of Population Health and Disease Prevention
Program in Public Health
College of Health Sciences
University of California, Irvine
CA 92697-3957

Dear Dele,

I am writing on behalf of the Department of Pharmaceutical Sciences to express our strong support for the proposal to establish a Ph.D. degree in Public Health. The program described in your proposal beautifully complements our developing plans for a graduate degree program in PharmSci, which will focus on some of the same disease-related issues but at the other extreme compared to your ecological/populations focus, i.e., at the molecular or individual level. There is of course a significant amount of common ground between those two extremes, and we in PharmSci are also enthusiastic about the potential for developing productive interdisciplinary research and educational programs in areas of common interest.

I look forward to hearing about the approval and implementation of your new Ph.D. degree program as well as continuing to work together within the CoHS to build the strongest programs possible.

Sincerely,

Richard Chamberlin
Professor of Chemistry and Pharmaceutical Sciences
Chair, Pharmaceutical Sciences
December 8, 2008

Oladele A. Ogunseitan, Ph.D., M.P.H
Professor of Public Health & Professor of Social Ecology
Director, Industrial Ecology Research Group
University of California
Irvine, CA 92697

Dr. Ogunseitan:

The Los Angeles District of the U.S. Food and Drug Administration is pleased to write this letter supporting the Ph.D. degree in Public Health Proposal for the Public Health Program in the College of Health Sciences at the University of California Irvine. We anticipate that the relationship between our FDA District Office would be enhanced by the implementation of the Ph.D. program and revitalize our existing partnership.

FDA’s mission is to protect the public health, and it is important that the District Office learn about the research and activities that will be generated by this program. Given the proximity of UCI and the FDA District Office and Laboratory, it is possible that some members of our staff could contribute to or participate in the educational and research opportunities presented by the Ph.D. program in Public Health. There may also be some cooperative education, internship, research and project opportunities in the areas of translational research/clinical trials, toxicology, microbiology, health education and promotion, and regulatory science. The Ph.D. program will provide new possibilities since regulatory issues are part of the translational research program. It will be exciting to encourage your students to integrate microbiological and toxicological explorations into the regulatory framework, and include these concepts in their dissertations.

Several of our investigators and analysts are UCI graduates. There has been a mutually beneficial relationship through several years and we look forward to future possibilities with the implementation of the Ph.D. degree in Public Health.

I wish you the best with your proposal.

Sincerely,

Alonza Cruse, Director
Los Angeles District Office, FDA
December 15, 2008

Oladele A. Ogunseitan
Professor of Public Health & Professor of Social Ecology
Program in Public Health
University of California
Irvine, CA. 92697-3957

Dear Dr. Ogunseitan:

It is my pleasure to provide this letter in support of your proposal to establish a Ph.D. degree program in Public Health at the College of Health Sciences at the University of California at Irvine.

At the diabetes center, we are particularly interested in working with you to establish internship practicum sites, particularly for post-doctoral candidates. We are also very interested in working with you in collaboration with other University departments to conduct community-based research in diabetes-related topics.

We wish you the best of luck in your proposal, and look forward to a productive collaborative relationship with you and your students.

Sincerely,

Kris V. Iyer
Medical Director
December 15, 2008

Oladele A. Ogunseitan, Ph.D., M.P.H.
Professor
Chair, Department of Population Health & Disease Prevention
Program in Public Health, College of Health Sciences
Director, University of California Lead Campus in Green Materials, Toxic Substances
Research & Teaching Program
University of California
Irvine, CA 92697-7070

Dear Professor Ogunseitan:

I’m writing this letter to express my strong support for the establishment of a Ph.D. degree in public health at the University of California, Irvine. With the growing population and the need to manage health care resources more effectively, people are looking to public health to play an important role in the future. UC Irvine has taken a bold step towards this future by creating the Masters of Public Health program. This program will train tomorrow’s public health educators, managers and executives. To complete the cycle, the Department also needs a doctoral program to cultivate educators and support local area research with a focus on understanding of the health care needs of Orange County’s communities.

On a personal level, I’m interested in pursuing doctoral training in public health closer to home. Even though I live in Orange County, CA, the only options I have are programs located in Los Angeles and the Inland Empire. While location and commuting convenience is only one criterion in selection of a training program, it is a very practical and important aspect of the selection process. If UC Irvine had a doctoral program in place today, I would enthusiastically apply to be in the inaugural class.

It is my hope that UC Irvine will be afforded the opportunity to not only train tomorrow’s public health workforce but also tomorrow’s public health teachers and researchers as well. I wish you success in this endeavor.

Sincerely Yours,

[Signature]

Thanh-Nghia Nguyen, MPH, MBA
Senior Project Manager
Primary Care Business Unit
Pfizer, Inc.
12261 Loraleen St.
Garden Grove, CA, 92841
December 16, 2008

TO: Prof. Oladele Ogunseitan, Public Health Program, College of Health Sciences

FROM: Lorelei Tanji, Associate University Librarian, Collections, UCI Libraries

RE: Proposal for a Doctor of Philosophy in Public Health

The UCI Libraries supports the establishment of a new program for a Doctor of Philosophy in Public Health and will work with the Program in Public Health and College of Health Sciences to meet the collections and service needs. The proposal must include the provision for additional funding support for library acquisitions and new staff which will be needed to ensure the success of the Public Health Ph.D. proposal, with its focus on cross-disciplinary and emerging themes in public health.

Library Acquisitions
Library acquisitions will be needed to meet the teaching and research needs of a graduate public health program even though we already support public health-related courses offered by existing faculty in Social Ecology, Social Sciences (medical anthropology & sociology), Information & Computer Science, Biological Sciences, and Medicine.

We anticipate the need for additional texts, monographs, and documents to support increased graduate scholarship, as well as new indexes and journals required by the faculty. The publishing field is expanding in this subject area and increasingly reflects a multidisciplinary and global orientation in its coverage and treatment, which will require additional resource allocations. In addition, we anticipate supplemental content from government agencies and publishers increasingly will be released as open access documents or with some library subsidy.

Given the Ph.D’s emphasis on the interdisciplinary nature of Public Health rather than focusing on individual core areas, we will need to acquire research resources with an equally broad scope. Bibliographic products such as Global Health or Environmental Issues and Policies Index will be important to students and faculty. Both journal and ebook formats (which have recurring subscription costs), will be needed to support the graduate-level curriculum and research.

Library staff
With the increase in students and faculty anticipated by this new graduate program, an additional one FTE for a Research Librarian for Public Health will be needed to provide adequate support for activities critical to the success of the Public Health program. This new Research Librarian position will work proactively with the faculty on the selection of library collections, library instruction and training, and reference/research service support.

The Libraries will be pleased to work with the Program in Public Health and College of Health Sciences to develop detailed costs to include in their budget proposal at the appropriate time.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Bean, Frank D.

POSITION TITLE
Chancellor’s Professor of Sociology
Director, Center for Research on Immigration, Population and Public Policy

eRA COMMONS USER NAME (credential, e.g., agency login)
FDBEAN

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
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<td>University of Kentucky</td>
<td>B.A.</td>
<td>1964</td>
<td>Sociology</td>
</tr>
<tr>
<td>Duke University</td>
<td>M.A.</td>
<td>1965</td>
<td>Sociology</td>
</tr>
<tr>
<td>Duke University</td>
<td>Ph.D.</td>
<td>1970</td>
<td>Sociology</td>
</tr>
</tbody>
</table>

A. Personal Statement

The overarching goal of the proposed research is to investigate the implications of incorporation patterns among Mexican immigrants for the development of obesity among their children. Dr. Bean brings extensive research experience to this topic from years of work examining the determinants and consequences of Mexican migration to the United States and studies focusing on Mexican immigrant group demographic, social and labor market incorporation. Evidence of this is reflected in his having received funding for research on Mexican immigrants from the Demographic and Behavioral Sciences Branch of NICHD in every decade of its existence, starting in 1969. Most recently, his work has focused on the individual and family/household-level aspects of Mexican immigrant group incorporation, emphasizing how different kinds of migration relate to the development of various family/household adaptation and settlement strategies that influence the nature of incorporation and hasten or retard its pace (Bean et al 2009; Brown and Bean 2006; Bean and Stevens 2003; Van Hook and Bean 2009). These themes feed directly into the foci of the proposed research. Most recently, this work (in collaboration with Dr. Van Hook) has concentrated on specifying theoretically how different kinds of migration contexts and contingencies, together with various combinations of immigrant characteristics, relate to first- and second-generation immigrant health incorporation, directly by affecting health outcomes and indirectly by influencing health risk behaviors. This work has led to a recent NIH GO grant to link the foreign-born persons in National Health Interview Surveys (NHIS) with Office of Immigration Statistics (OIS) data on their admission and legal permanent resident status, as well as their occurrence and timing of naturalization, data that will be used in and be especially valuable for the proposed research.

B. Positions and Honors

Positions and Employment

1968-1999  Assistant Professor to Ashbel Smith Professor of Sociology, University of Texas at Austin
1978-1984  Chairperson, Department of Sociology, University of Texas at Austin
1988-1990  Founding Co-Director, RAND/Urban Institute Program for Research on Immigration Policy, The Urban Institute, Washington, DC
1988-1990  Founding Director, Population Studies Center, The Urban Institute, Washington, DC
1995-1998  Director, Population Research Center, University of Texas at Austin (and 1987-1988)
1995-1999  Founding Director, Center for Research on Migration and the U.S./Mexico Border, University of Texas at Austin
1999-2006  Professor of Sociology, University of California, Irvine
2001-2002  Founding Director, Center for Research on Immigration, Population and Public Policy, University of California, Irvine
2002-present Co-Director to Director, Center for Research on Immigration, Population and Public Policy, University of California, Irvine
2006-present Chancellor’s Professor of Sociology and Economics, University of California, Irvine

Other Experience and Honors

Honors
1964 Graduation with Distinction and Honors, University of Kentucky; Phi Beta Kappa, Phi Kappa Phi, Alpha Kappa Delta, Omicron Delta Kappa
1983 Visiting Fellow, Research School of Social Sciences, Institute of Advanced Studies, Australian National University, Canberra Australia, May-June
1986, 1999 American Association of College and University Libraries, Outstanding Academic Book Awards
1984-1988 Member, Committee on Population, National Research Council, National Academy of Sciences
1993 2nd Vice President, Population Association of America
2001-2002 Guggenheim Fellow
2002-2003 Visiting Scholar, Russell Sage Foundation
2002-2006 Population Sciences Sub-Committee, NICHD
2003 Otis Dudley Duncan Award for Distinguished Scholarship in Social Demography (America’s Newcomers and the Dynamics of Diversity), Sociology of Population Section, American Sociological Association
2004-2005 Distinguished Senior Research Fellow, Center for Comparative Immigration Studies and Center for U.S./Mexico Relations, University of California, San Diego, 2004-2005;
2008-2009 Fellow, Transatlantic Academy, Washington, D.C., German Marshall Fund
2009 Chair, Section on International Migration, American Sociological Association
2009-2010 Panel on English Language Learner Formula Funding, National Research Council, National Academy of Sciences

C. Selected Peer-reviewed Publications

Most relevant to the current application (in chronological order).

Additional recent publications of importance to the field (in chronological order)


D. Research Support

**Ongoing Research Support**

RC2 HD064497 Van Hook and Bean (Co-PIs) 10/1/09-9/30/11
Generating Linked NCHS and OIS Data for Immigrant Health and Mortality Research
This project creates new data about the health and health care access of the foreign born and their children by linking foreign born respondents of the National Health Interview Surveys to immigrant admission and naturalization records.
Role: Co-PI

DHS Office of Science and Technology Bean and Van Hook (Co-PIs) 1/12/09-12/31/13
Improving estimates of unauthorized migration
This project uses multiple data sources to compare and improve the assumptions underlying estimates of the unauthorized foreign-born population living in the United States and to develop new methods for separating the component of the unauthorized population that are visa overstays.
Role: Co-PI

Russell Sage Foundation Bean and Brown (Co-PIs) 8/1/08-7/31/10
*Mexican Immigrant Group Incorporation*
Drawing on the analyses of data collected in 2004 as a part of the Immigrant Intergenerational Mobility in Metropolitan Los Angeles (IIMMLA) study funded by RSF, this research is for a monograph that is being written on the incorporation of Mexican immigrants and their descendants in the United States.

**Completed Research Support**

The U.S. Census Bureau Van Hook and Bean (co-PIs) 7/15/03-0/30/07
*Estimates of the Foreign-born Population of the United States by Migration Status and Geography*
This project uses multiple data sources to produce estimates of the number, geographic distribution, emigration, and internal migration patterns of the foreign-born population in the United States by broad legal status categories (undocumented, refugee/asylee, nonimmigrant, and legal permanent resident).
Role: Co-PI

*Immigration and Intergenerational Mobility in Metropolitan Los Angeles*
This grant assessed various dimensions and pathways of incorporation among young adult children of immigrants in metropolitan Los Angeles and among the young adult members of the third or later generations as well. The program was a multi-group, multi-method, multi-disciplinary, multi-investigator and multi-institutional in scope and relied on existing and newly collected data, using information obtained from the 1990 and 2000 Census, CPS, telephone interviews and other relevant data.
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blumberg, Bruce</td>
<td>Professor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>eRA COMMONS USER NAME</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruce.blumberg</td>
<td></td>
</tr>
</tbody>
</table>

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rutgers University, Camden, NJ</td>
<td>A.B</td>
<td>1976</td>
<td>Biology</td>
</tr>
<tr>
<td>University of California, Los Angeles, CA</td>
<td>Ph.D.</td>
<td>1987</td>
<td>Biological Sciences</td>
</tr>
<tr>
<td>UMDNJ, Piscataway, NJ</td>
<td>Postdoc</td>
<td>1987-88</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>University of California, Los Angeles, CA</td>
<td>Postdoc</td>
<td>1988-92</td>
<td>Biochem./embryology</td>
</tr>
</tbody>
</table>

**A. Positions and Honors**

**Positions and Employment**

<table>
<thead>
<tr>
<th>Year</th>
<th>Position and Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-1998</td>
<td>Staff Scientist, Gene Expression Laboratory, Salk Institute for Biological Studies, La Jolla, CA</td>
</tr>
<tr>
<td>1998-2004</td>
<td>Assistant Professor, Dept of Developmental and Cell Biology, University of California, Irvine, CA</td>
</tr>
<tr>
<td>2002-2004</td>
<td>Assistant Professor, Dept of Biomedical Engineering, University of California, Irvine, CA</td>
</tr>
<tr>
<td>2004-</td>
<td>Associate Professor, Dept of Developmental and Cell Biology, Biomedical Engineering, and Pharmaceutical Sciences, University of California, Irvine, CA.</td>
</tr>
</tbody>
</table>

**Other Experience and Professional Memberships**

<table>
<thead>
<tr>
<th>Year</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2003</td>
<td>Scientific Advisory Board, X-Ceptor Therapeutics (San Diego, CA)</td>
</tr>
<tr>
<td>2001-</td>
<td>Editor XINE newsletter for the Xenopus research community</td>
</tr>
<tr>
<td>2002-</td>
<td>Member executive and steering committee for the sequencing of the Xenopus tropicalis genome Department of Energy Joint Genome Institute</td>
</tr>
<tr>
<td>2003-</td>
<td>Program leader for functional genomics – UCI Institute for Genomics and Bioinformatics</td>
</tr>
<tr>
<td>2004-</td>
<td>Director, Chao Family Comprehensive Cancer Center Program in the Developmental Biology of Cancer</td>
</tr>
<tr>
<td>2005-</td>
<td>Editorial Board, Journal of Toxicogenomics and Toxicoproteomics</td>
</tr>
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</table>

**Honors and Awards**

<table>
<thead>
<tr>
<th>Year</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>Elected member of Athenaeum Honor Society of Rutgers University</td>
</tr>
<tr>
<td>2004</td>
<td>Invited Special Lecture, 22nd Annual Meeting of the Japanese Society for Bone and Mineral Research, Osaka, Japan</td>
</tr>
<tr>
<td>2004</td>
<td>Invited U.S. Delegate, OECD/IPCS Workshop on Toxicogenomics, Kyoto, Japan</td>
</tr>
<tr>
<td>2004</td>
<td>Invited Speaker and Special U.S. Delegate to the Ministry of Environment, Japan, 7th International Symposium on Environmental Endocrine Disrupters, Nagoya, Japan</td>
</tr>
<tr>
<td>2005</td>
<td>Invited Keynote Speaker, 8th Vitamin K and Bone Meeting, Tokyo, Japan</td>
</tr>
<tr>
<td>2005</td>
<td>Invited Plenary Lecturer, &quot;International Conference on the Promising Next Generation Technology of Toxicogenomics in Drug &amp; Food Safety and Environmental Human Health&quot; – 2nd annual meeting of the Korean Society of Toxicogenomics and Toxicoproteomics, Seoul, Korea</td>
</tr>
</tbody>
</table>

**B. Peer reviewed Publications** *(in chronological order, selected from a total of 74)*


C. Research Support

Ongoing support
STAR-R830686 (Blumberg, PI) 1/1/2003-12/31/2007
US-EPA
Species-specific xenobiotic metabolism mediated by the Steroid and Xenobiotic Receptor, SXR
The major goal of this project is to elucidate the mechanisms underlying the variability in the xenobiotic response among humans and between humans and laboratory model animals.
Role: PI
Acucela, Inc.
“Regulation of Retinoid Receptors”
The goal of this project is to test the effects of drug candidates on the activity of retinoid receptors.
Role: PI

NSF IOS-0719576 (Blumberg) 08/01/2007-6/30/2010
National Science Foundation – IBN
“Interactions between RA and FGF signaling in vertebrate patterning”
The major goal of this project is to elucidate the molecular nature of the mutually negative interactions between RA and FGF signaling in early neural patterning.
Role: PI

1R01ES015849-01 (Blumberg) 7/1/2007-6/30/2012
PHS-NIEHS 225,000 direct
“Endocrine disruption by organotins in obesity and diabetes”
The goal of this project is to understand the interactions between organotins and nuclear receptors that lead to obesity and diabetes.
Role: PI

P30 CA-62203 (Meyskens) 8/01/02-1/31/08
NIH/NCI
“Cancer Center Support Grant - University of California, Irvine “
The goal of this project is to support the basic science activities of the UCI cancer center. Dr. Blumberg is the co-director of the program in the Developmental Biology of Cancer.
Role: Blumberg is the program leader for the Program in the Developmental Biology of Cancer

Completed Research Support
DAMD17-02-1-0323 (Blumberg, PI) 7/1/2002-6/30/2005
US Department of Defense
SX R – A novel target for breast cancer therapeutics
The major goal of this project was to determine whether the orphan nuclear SXR is a valid target for the prevention and treatment of breast cancers
Role: PI

R01 GM605721 (Blumberg PI) 2/1/2000-1/31/2006
NIH/NIGMS
BXR signaling in vertebrate development
The major goals of this project are to understand the function of a novel vertebrate nuclear hormone receptor in development and to identify mouse and human homologs.
Role: PI

R24 RR15088 (Blumberg PI) 4/1/2001-3/31/2006
NIH/NCRR
New vertebrate model organism cDNA libraries
The major goal of this project is to develop new, full-length cDNA libraries from the vertebrate model organism Xenopus tropicalis.
Role: PI

CRCC-39387 (Blumberg) 7/01/06-6/30/07
U.C. Cancer Research Coordinating Committee
Steroid and xenobiotic receptor mediated steroid homeostasis
The goal of this project is to test the hypothesis that steroid and xenobiotic receptor (SXR) modulates steroid homeostasis through the hypothalamic-pituitary axis.
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bryant, Peter J.</td>
<td>Professor</td>
</tr>
</tbody>
</table>

| eRA COMMONS USER NAME | PETERBRYANT |

**EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)**

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>King's College, Univ. of London, England</td>
<td>B.S.</td>
<td>1964</td>
<td>Zoology</td>
</tr>
<tr>
<td>Univ. College, Univ. of London, England</td>
<td>M.S.</td>
<td>1965</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>Univ. of Sussex, Brighton, England</td>
<td>Ph.D.</td>
<td>1967</td>
<td>Genetics</td>
</tr>
<tr>
<td>CWRU, Cleveland, Ohio/UC Irvine, CA</td>
<td>Postdoc</td>
<td>1967-1969</td>
<td>Developmental Biology</td>
</tr>
</tbody>
</table>

**A. Positions and Honors.**

**Positions and Employment**

1969-1970 Postgraduate Research Biologist with Dr. Howard A. Schneiderman, Dept. of Developmental and Cell Biology, Univ. of Calif., Irvine.
1978-1979 Vice-Chair, Department of Developmental and Cell Biology, U.C. Irvine.
1977-present Professor, Department of Developmental and Cell Biology, U.C. Irvine.
2003-2006 Director, Graduate Program in Molecular Biology, Genetics and Biochemistry, U.C. Irvine.
2006-present Director, Stem Cell Training Program, U.C. Irvine.

**Other Experience and Professional Memberships**

1995 Member, NIH study section on Shared Instrumentation
2007 External Reviewer, German Research Foundation

**B. Selected Publications. Total Number of Peer-reviewed Publications: 153**


Research Support (last five years).

**Current**

None

**Completed**

**Title:** Molecular Genetics of Drosophila MAGUKs  
**Grant Number:** RO1-CA91043-01  
**Role:** PI  
**Source:** NIH  
**Goals:** To test the hypothesis that the Drosophila tumor suppressor Discs-large (Dlg) functions in cell proliferation control by controlling the localization of the Epidermal Growth Factor Receptor (EGFR) and some of the regulators of the EGFR pathway. To characterize the components of the multimolecular complex that depends on Dlg for its organization. To investigate then function of a Dlg-binding partner (Raps/Pins) that is required for its role in controlling brain growth.

**Title:** Neuronal Transplants as an Organotypic Brain Tumor Model  
**Grant Number:** Supplement to RO1-CA91043-02S1  
**Role:** PI  
**Source:** NIH  
**Goals:** To establish an organotypic model for CNS development and tumors by xenotransplantation of multipotent neural precursors from adult rats and from postnatal human cadavers into immune-deficient mice. To use this model to investigate the development of human stem cells and the cellular abnormalities arising in CNS tumors.

**Title:** Adenosine Deaminase-Related Growth Factors (Supported by NSF IBN-0091348; funded 02/01/01 - 01/31/04)  
**Role:** PI  
**Goals:** To examine the production and mode of action of a new family of five mitogenic growth factors discovered in Drosophila. These proteins (Adenosine Deaminase-related Growth Factors or ADGFs) show strong sequence similarity to Adenosine Deaminase and are predicted to be secreted. The mode of action of the ADGFs will be investigated using cell biological and genetic methods.
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
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<tbody>
<tr>
<td>Richard Chamberlin</td>
<td>Professor of Chemistry and Pharmaceutical Sciences</td>
</tr>
<tr>
<td>eRA COMMONS USER NAME</td>
<td>ARCHAMBERLIN</td>
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</table>

**EDUCATION/TRAINING** (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanford University, Palo Alto, CA</td>
<td>BS</td>
<td>1971</td>
<td>Chemistry</td>
</tr>
<tr>
<td>University of California, San Diego, CA</td>
<td>PhD</td>
<td>1978</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Harvard University, Cambridge, MA</td>
<td>Postdoctoral</td>
<td>1980</td>
<td>Organic Synthesis</td>
</tr>
</tbody>
</table>

**A. Positions and Honors**

**Employment**

1971-1974 Analytical Chemist, Stanford Research Institute (SRI)
1980-1986 Assistant Professor of Chemistry, University of California, Irvine
1986-1991 Associate Professor of Chemistry, University of California, Irvine
1991- Professor of Chemistry, University of California, Irvine
2001- Director, UCI Center for Interdisciplinary Chemical Synthesis
1996-2001 Chair of Chemistry, University of California, Irvine
2001-2004 Director, UCI Center for Interdisciplinary Chemical Synthesis
2004- Co-director, Center for Chemical and Structural Biology
2007- Professor of Pharmaceutical Sciences, University of California, Irvine
2007- Chair of Pharmaceutical Sciences, University of California, Irvine

**Other Experience and Professional Memberships**

NIH Postdoctoral Fellow, 1978-80
Lilly Grantee, 1984
UCI Physical Sciences Distinguished Teaching Award, 1985
NIH Career Development Award, 1987-1992
American Chemical Society
American Association for the Advancement of Science
Society for Neuroscience
Irvine Research Unit in Brain Aging
U. C. Cancer Research Coordinating Committee 1994-2001
UCI Protein Engineering Program
Chao Family Cancer Center Member
NIH Biomedical Sciences Study Section, 1989-93
Boards of Editors: *Chemistry & Biology*, *Bioorganic & Medicinal Chemistry*
Chair, U. C. CRCC Policy Committee 1999-
Scientific Advisory Board, Advanced Bio-research Corp., 1999-
Scientific Advisory Committee, Montana COBRE Center for Neuroscience, 2000-

**B. Selected Peer-reviewed Publications**


C. Research Support

Ongoing Research Support

GM57550 (Chamberlin, PI) 4/1/04 – 3/31/08
NIH NIGMS Annual Direct Costs = $190,000
"Studies of Protein Phosphatase Inhibitors"
The proposed major goal of this project is to design and synthesize new phosphatase inhibitors based on the structures of natural toxins such as microcystin and tautomycin. Using the natural toxins as lead structures, in combination with de novo design based on computer models of toxin binding to PP1 and PP2A, we are preparing new inhibitors as probes for the exploration of signaling pathways mediated by the two phosphatases.

NS27600 (Chamberlin, PI) 6/1/04 – 5/31/08
NIH NINDS Annual Direct Costs = $230,000
"Receptor-specific Excitatory Amino Acid Analogs"
Small molecule probes of ionotropic glutamate receptors are being designed, synthesized, and tested for activity. Current targets include iGluR1-7, KAR, and NMDR receptor subtypes.

NS30570 (Bridges, PI) 12/1/02 – 11/30/08
NIH Subcontract Annual Direct Costs = $12,000
"Properties and Roles of Excitatory Amino Acid Transport"
The major goal of this project is to characterize the pharmacology, kinetics, and biochemical mechanism of the various glutamate transport systems. Our role is to synthesize transport inhibitors.

Completed Research Support

S10-RR15840 (Chamberlin, PI) 2002
NIH
“Trident”
Shared instrumentation grant for synthesis facility.

Avon Products Foundation Research Grants/UCI Cancer Center Program in Breast Cancer (Chamberlin and Ellis Levin, Co-PIs) 4/1/01 – 3/31/02
Administered through the UCI Chao Family Comprehensive Cancer Center
"Design of membrane-impermeable ER antagonists and Agonists"
Goal was to prepare modified estradiols designed not to enter cells, thereby selectively activating putative membrane estrogen receptors.
**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
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<tbody>
<tr>
<td>Dan Michael Cooper, M.D.</td>
<td>Professor of Pediatrics and Biomedical Engineering</td>
</tr>
<tr>
<td>eRA COMMONS USER NAME</td>
<td>Program Director UCI Clinical Research Center</td>
</tr>
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</table>

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, Santa Cruz</td>
<td>BA</td>
<td>1970</td>
<td>Sociology</td>
</tr>
<tr>
<td>University of California, San Francisco</td>
<td>MD</td>
<td>1974</td>
<td>Medicine</td>
</tr>
<tr>
<td>San Francisco General Hospital</td>
<td></td>
<td>1975</td>
<td>Rotating Internship</td>
</tr>
<tr>
<td>New York University, Bellevue Hospital</td>
<td></td>
<td>1978</td>
<td>Pediatric Residency</td>
</tr>
<tr>
<td>Columbia University, College of P&amp;S</td>
<td></td>
<td>1981</td>
<td>Pediatric Pulmonary</td>
</tr>
</tbody>
</table>

A. Positions and Honors

**EMPLOYMENT**

1997-Present: Professor of Pediatrics and Director of Respiratory and Critical Care Research, Department of Pediatrics, University of California, Irvine

1999-Present: Program Director, UC Irvine General Clinical Research Center/Clinical Translational Science Center

2002-Present: Vice Chair, Department of Pediatrics

2005-Present: Program Director, UC Irvine Clinical Translational Science Center

2004-Present Joint Appointment as Professor in Pediatrics and Biomedical Engineering

2007-Present Vice Dean for Clinical and Translational Science

**BOARD CERTIFICATION**

1980 American Board of Pediatrics

1994 Sub-board of Pediatric Pulmonology (Recertification through 2008)

**HONORS**

1970 General Honors at Graduation, University of California, Santa Cruz

**SOCIETY MEMBERSHIPS**

American Thoracic Society

American Physiological Society

Society for Pediatric Research

American College of Sports Medicine

American Pediatric Society

B. Selected peer-reviewed publications


23. Jamner, MS, Spruijt-Metz, D, Bassin, S, and Cooper, D A controlled evaluation of a school-based intervention to promote physical activity among sedentary adolescent females; Project FAB. *Journal of Adolescent Health,* 2004 Apr;34(4):279-89.


47. Ozdemir V, Williams-Jones B, Cooper DM, Someya T, Godard B. Mapping translational research in personalized therapeutics: from molecular markers to health policy. 2007 Pharmacogenomics 8(2):177-185


C. Ongoing Major Research Support

R01 HL080947-15 (Cooper) Period: 04/01/05 - 03/31/10
PHS - NIH NHLBI
“PBMCs, Exercise, and Children: Initial Mechanisms”
The goal of this project is to understand the effect of brief bouts of exercise on gene and protein expression of key inflammatory and growth mediators in peripheral blood mononuclear cells in healthy children.
Role: Principal Investigator

1-U01-DK061259-01 (Cooper) Period: 03/01/02 - 02/28/09
PHS - NIH NIDDK
“Exercise Strategy to Prevent Pediatric Type 2 Diabetes”
The major goal of this research is to introduce an innovative approach to increase physical activity in schools, and thereby, decrease risk factors for type 2 diabetes in children and adolescents. The research is also aimed understanding the fundamental inter-relationships among fitness, body composition, and physiological markers of glucose homeostasis in growing children.
Role: Principal Investigator at UCI site

RO1 1R01NR009070 (Cooper) Period: 10/01/05 – 9/30/09
PHS – NINR/NICHD
“Assisted Exercise in Prematurity: Effects and Mechanisms”
This research is designed to examine the mechanisms through which physical activity in premature babies alters body composition, immune function and growth factors.
Role: PI

1P01HD048721 (Cooper) Period: 04/01/06 – 03/31/11
PHS – NICHD
“Mechanisms of Health Effects of Exercise in Children”
This research involves both human and animal models to examine the molecular immune and growth factor mechanisms through which physical activity alters asthma and metabolic syndrome in children.
Role: PI
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.

Follow this format for each person. DO NOT EXCEED FOUR PAGES.

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
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</thead>
<tbody>
<tr>
<td>Donald N. Forthal</td>
<td>Associate Professor</td>
</tr>
</tbody>
</table>

**eRA COMMONS USER NAME**

DONALDFORTHAL

**EDUCATION/TRAINING** (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, Los Angeles, CA</td>
<td>BA</td>
<td>1967-71</td>
<td>Linguistics</td>
</tr>
<tr>
<td>University of California, Irvine, CA</td>
<td>MD</td>
<td>1975-79</td>
<td>Medicine</td>
</tr>
<tr>
<td>University of California, San Francisco, CA</td>
<td>Internship</td>
<td>1979-80</td>
<td>Pediatrics</td>
</tr>
<tr>
<td>UCLA/ Harbor Medical Center, Torrance, CA</td>
<td>Residency</td>
<td>1980-82</td>
<td>Pediatrics</td>
</tr>
<tr>
<td>LAC/USC Medical Center, Los Angeles, CA</td>
<td>Fellowship</td>
<td>1982-84</td>
<td>Infectious Diseases</td>
</tr>
</tbody>
</table>

**A. Positions and Honors**

**Positions and Employment**

1984-1987: Epidemic Intelligence Service Officer (Viral Special Pathogens), Centers for Disease Control
1987: AIDS Coordinator, African Region, World Health Organization, Brazzaville, Congo
1987-1989: Infectious Diseases practice
1989-1994: Asst. Clinical Professor, University of California, Irvine College of Medicine
1994-2001: Asst. Professor of Medicine, University of California, Irvine College of Medicine
2001-present: Associate Professor of Medicine, University of California, Irvine College of Medicine
2002-present: Chief, Division of Infectious Diseases, University of California, Irvine College of Medicine
2004-present: Faculty, Center for Virus Research, University of California, Irvine College of Medicine
2005-present: Faculty, Center for Immunology, University of California, Irvine College of Medicine

**Honors**

1975: Phi Beta Kappa
1979: Excellence in Pediatrics
1979: Alpha Omega Alpha
1999-2002: Faculty Career Development Award, Department of Medicine, UC

**B. Selected peer-reviewed publications (in chronological order).**


C. Research Support

Ongoing Research Support

R01 DE015517-01 Selsted (PI) NIDCR
“Molecular Ontogeny of Oral Mucosal Resistance to SIV”
The primary goal of this research is to delineate the role of defensins in protection of the oral cavity from infection by primate lentiviruses.
Role: Co-investigator

5 U10EY08057 Meinert (PI); Kupperman (PI at UCI) NEI
“Longitudinal Study of the Ocular Complications of AIDS”
The major goals of this project are to provide information on the incidence and course of ocular complications of AIDS in the face of changing anti-HIV and anti-CMV therapies.
Role: Co-Investigator

5 R24 MH59745-04 Grant (PI); 04/01/2002 - 05/31/2008 NIMH
“California NeuroAIDS Tissue Network”
The goal of the project is to recruit persons with a variety of clinical manifestations of advanced HIV disease who are at high risk of dying within a few years. Neurobehavioral functioning is assessed in detail and plasma and CSF samples are stored. CNS and other tissues obtained at autopsy are described, catalogued, and stored at a central facility. Tissue and data are made available for investigative work on NeuroAIDS.
Role: PI at UCI

AI-65359 Barbour (PI) NIH Allergy and Infectious Diseases
Pacific Southwest Center for Biodefense and Emerging Infections
Administer and finance projects at a consortium of 16 universities and research institutes in California, Arizona, Nevada and Hawaii. Its mission will be to bolster basic biomedical research into bioterrorism agents, such as those that cause anthrax and botulism, and naturally occurring infectious diseases.
Role: Associate Director

ID06-I-226 Forthal (PI) Universitywide Aids Research Program
“Fcγ Receptor Polymorphisms and Risk of HIV Infection”
The goal is to determine the relationship between Fcγ receptor polymorphisms and HIV risk using cohorts of infected and uninfected subjects. In vitro tests to explore this relationship will be developed. There is overlap between this grant and the proposed grant. If the proposed grant is funded, adjustments will be made to this currently funded award.
Role: PI

R21AI073147 Forthal (PI) NIH Allergy and Infectious Diseases
“Fcγ Receptor Polymorphisms and Risk of HIV Infection”
NAME
Lisa Grant Ludwig (Lisa B. Grant)

POSITION TITLE
Associate Professor

eRA COMMONS USER NAME

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanford University, Stanford CA</td>
<td>B.S.</td>
<td>1985</td>
<td>Environmental Earth Science Environmental Engineering and Science</td>
</tr>
<tr>
<td>Caltech, Pasadena, CA</td>
<td>M.S.</td>
<td>1989</td>
<td>Environmental Engineering and Science Geology</td>
</tr>
<tr>
<td>Caltech, Pasadena, CA</td>
<td>M.S.</td>
<td>1990</td>
<td>Geology Geology and Geophysics</td>
</tr>
<tr>
<td>Caltech, Pasadena, CA</td>
<td>Ph.D.</td>
<td>1993</td>
<td>Geology and Geophysics</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

Positions and Employment

Associate Professor, Program in Public Health, College of Health Sciences, University of California Irvine, 2006 - present

Associate Director, California Institute for Hazards Research, University of California Multi-campus Research Project, 2006 - present

Assistant / Associate WOS Professor, Dept. Environmental Health, Science and Policy, School of Social Ecology, University of California, Irvine, 1998 – present; Graduate Advisor, 2006 - present

Assistant Professor of Environmental Science and Geology, Program Director for Environmental Science, Chapman University, Orange, CA, 1995-98

Graduate Research & Teaching Assistant, Division of Geological & Planetary Sciences, Caltech, 1990-93

Graduate Research Assistant, Keck Hydraulics Lab, Environmental Engineering and Science, Caltech, 1989

Staff to Assistant Project Scientist, Woodward-Clyde Consultants, 1992-1995

Research Scientist, California Research and Technology, 1985-1987


Other Experience and Professional Memberships

Member, National Academy of Sciences U. S. National Committee for the International Union of Geodesy and Geophysics, 2003 to present

Vice-Chair, Board of Directors, Southern California Earthquake Center, 2007, Member of Board since 2002

Guest Editor, Bulletin of the Seismological Society of America, Special Issue on Paleoseismology of the San Andreas Fault System, published 2002

Associate Editor, Bulletin of the Seismological Society of America, 1997 -2003

Technical Reviewer, Appendix E, Earthquake Rate Model 2.2 of the USGS National Seismic Hazard Mapping Program and the Working Group on California Earthquake Probabilities, 2007
Member, Community Executive Committee, Orange County Essential Facilities Risk Assessment (OCEFRA) Project, FEMA Region IX Floodplain Mapping Program, 2007
Special Session Convener: Paleoseismology of the Planet
Seismological Society of America Annual Meeting, 2001
Member, Selection Committee, Inaugural Richter Early Career Award, Seismological Society of America, 2005, 2006, 2007
Special Session Convener: The Dynamic Earth: Earthquake Risks and Geohazards
Member, Geological Society of America, Geology and Health Section

Honors

NASA Certificate of Recognition with cash award “for the creative development of a technical innovation… QuakeSim” NASA Tech Brief NPO 41079, September 8, 2005
UCI Faculty Career Development Award, 2002-2003
Southern California Earthquake Center, Outstanding Outreach Certificate, 1999
Chapman University Award for Excellence, 1997
Chapman University Faculty Development Grants, 1996 & 1997
F. Beach Leighton Fellowship, Caltech, 10/92 to 6/93
Earle Anthony Fellowship, Caltech, 10/89 to 6/90
Caltech Special Institute Fellowship, 10/87 to 3/88

B. Selected peer-reviewed publications (in chronological order).


Akciz, S. O., Grant, L. B., Arrowsmith, J R.,(In Review) An average recurrence interval of 144 years for repeated rupture of the San Andreas Fault in the Carrizo Plain, California, since A.D. 1280, *Journal of Geophysical Research*

C. Research Support

**Ongoing Research Support**

- Collaborative research: Slip-per-event rupture history of the San Andreas fault in the Carrizo Plain: Was the 1857 earthquake characteristic, National Science Foundation, 7/01/07-6/30/09, $270,116 (P.I.)

- Age of precariously balanced rocks (PBRs) for validation of a petascale cyberfacility for physics-based seismic hazard analysis, 2/01/07-1/31/07/08, Southern California Earthquake Center, $20,000 (Co-I.) award pending

- Rupture history of the San Andreas fault in the Carrizo Plain prior to 1200 AD, U.S. Geological Survey, 4/1/07 - 3/31/08, $77,218 (PI)

- Numerical simulations for active tectonic processes: Increasing interoperability and performance, JPL (NASA), 10/06-9/09, $75,000 UCI (Co-I.)
BIOGRAPHICAL SKETCH
Provide the following information for the key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Ellen Alison Holman

eRA COMMONS USER NAME

POSITION TITLE
Assistant Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco State University</td>
<td>BSN</td>
<td>1981</td>
<td>Nursing Science</td>
</tr>
<tr>
<td>University of California, Santa Cruz</td>
<td>BA</td>
<td>1989</td>
<td>Psychology</td>
</tr>
<tr>
<td>University of California, Irvine</td>
<td>MA</td>
<td>1992</td>
<td>Social Ecology</td>
</tr>
<tr>
<td>University of California, Irvine</td>
<td>PhD</td>
<td>1996</td>
<td>Health Psychology</td>
</tr>
<tr>
<td>University of California, Irvine</td>
<td>FNP</td>
<td>2001</td>
<td>Family Medicine</td>
</tr>
</tbody>
</table>

A. Positions and Honors.
Positions and Employment
1981-1983 Registered Nurse, Pediatric Intensive Care Unit, Children’s Hospital, Oakland, CA
1984-1985 Registered Nurse, Pediatrics, University of California, San Francisco, CA
1987-1989 Registered Nurse, Pediatrics, Kaiser Permanente, Santa Clara
1990-1992 Registered Nurse, Infants and Toddlers Medical Floor, Children’s Hospital, Orange County, CA
1990-1992 Project Coordinator, Child Health Information Processing, Program in Social Ecology, UC Irvine; PI: Carol Whalen
1990-1993 Project Director, Resilience in Incest Survivors, Program in Social Ecology, UC Irvine; PI: Roxane Silver
1993-1996 Project Director, Psychological Impact of Southern California Firestorms, Department of Psychology and Social Behavior, UC Irvine; PI: Roxane Silver
1993-1998 Project Director, Somatization in Immigrants and Refugees, Department of Psychology and Social Behavior, UC Irvine; Co-PI: Roxane Silver
1997-1998 Visiting Scholar/Instructor, Department of Psychology, Stanford University CA
1998-2002 Postdoctoral Research Fellow, Department of Psychology and Social Behavior, UC Irvine
2001-2005 Associate Researcher, Step I, Health Policy and Research, College of Medicine, UC Irvine
2005-present Associate Researcher, Step II, Department of Psychology and Social Behavior, UC Irvine
2002-present Family Nurse Practitioner, Huntington Beach Community Clinic, Huntington Beach, CA
2007, July Assistant Professor III, Program in Nursing Science, College of Health Sciences, UC Irvine

Honors and Awards
International Society for Traumatic Stress Studies’ Chaim Danieli Young Investigator’s Award, 2001
UC Irvine Alumni Association Lauds and Laurels Award for Outstanding Graduate Student, University of California, Irvine, 1995
Social Ecology Associates’ Dr. Martha Newkirk Award for Excellence in Graduate Student Research, University of California, Irvine, 1994
Outstanding Graduate Student Achievement Award for Research in Victimology, Association for the Treatment of Sexual Abusers, 1992
Outstanding Graduate Student Teaching Assistant Award, School of Social Ecology, University of California, Irvine, 1992
University of California Regents Summer Research Fellowship, 1990
University of California Regents Fellowship, Program in Social Ecology, University of California, Irvine, 1989-90
B.A. with Highest Honors in Psychology, University of California, Santa Cruz, 1989
B.S.N. with Highest Honors in School of Education, Summa Cum Laude, San Francisco State University, 1981
B. Selected publications (in chronological order).


C. Research Support.

**Ongoing Research Support**

Research Education in Disaster Mental Health (REDMH) Advanced Mentoring Award for advanced statistical training to examine the longitudinal trajectories of well-being following the September 11th terrorist attacks. 4/07-4/09. $15,000 (Total award). Role: Principal Investigator
**Completed Research Support**

**SF03-9**  
10/03 – 11/05  
Josiah Macy, Jr. Foundation  
The Mental and Physical Health Effects of Terrorism and Trauma: A Prospective National Study.  
Role: Principal Investigator

**BCS-0215937**  
Silver (PI)  
09/02 – 08/05  
National Science Foundation  
Coping with Community-based and Personal Trauma: National Response following September 11th.  
A national longitudinal study of responses to the September 11th terrorist attacks.  
Role: Co-Principal Investigator

**BCS-9910223**  
Silver (PI)  
08/99 – 07/03  
National Science Foundation  
Coping with Community-based Traumatic Events: The Columbine High School Shootings and the 9/11 Terrorist Attacks.  
Studies of the Columbine High School shootings and the September 11th terrorist attacks.  
Role: Co-Principal Investigator

**BCS-0211039**  
Silver (PI)  
02/02 – 01/03  
National Science Foundation  
A national longitudinal study of responses to the September 11th terrorist attacks.  
Role: Co-Principal Investigator

**BCS-9403386**  
Silver (PI)  
12/15/93 – 11/30/95  
National Science Foundation  
Coping with the Southern California Firestorms: Immediate Responses and Predictors of Adjustment.  
A longitudinal study of responses to the Southern California firestorms.  
Role: Co-Principal Investigator
NAME
F. Allan Hubbell

POSITION TITLE
Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baylor University, Waco, TX</td>
<td>BA</td>
<td>1971</td>
<td>Biology</td>
</tr>
<tr>
<td>Baylor College of Medicine, Houston, TX</td>
<td>MD</td>
<td>1974</td>
<td>Medicine</td>
</tr>
<tr>
<td>University of California, Irvine/Long Beach, CA</td>
<td>Residency</td>
<td>1978</td>
<td>Internal Medicine</td>
</tr>
<tr>
<td>University of California, Los Angeles, CA</td>
<td>MSPH</td>
<td>1983</td>
<td>Public Health</td>
</tr>
</tbody>
</table>

NOTE: The Biographical Sketch may not exceed four pages. Items A and B, together, may not exceed two of the four-page limit.

A. Positions and Honors.

Positions
1979-81 Assistant Clinical Professor of Medicine, University of California, Irvine, CA
1981-89 Assistant Professor of Medicine, University of California, Irvine, CA
1989-97 Associate Professor of Medicine and Social Ecology, University of California, Irvine
1993-2002 Chief, Division of General Internal Medicine and Primary Care, University of California, Irvine
1993--- Director, Center for Health Policy and Research
1993--- Co-Leader, Chao Family Comprehensive Cancer Center Populations SciencesResearch Program,
1997--- Professor of Medicine and Social Ecology, University of California, Irvine, CA
2001--- Chair, Department of Medicine and Senior Research Fellow, Center for Health Policy and Research, University of California, Irvine, CA

Honors
National Cancer Institute Community Health Research Leadership Award, Center to Reduce Cancer Health Disparities, 2004
Governor’s Guaahan (Guam) Award for outstanding contributions to the island of Guam and her People in cancer prevention and control, 2005
Honorary Matai (Chief) for contributions to improving cancer control for Tongans, Samoans and Chamorros, Pacific Islander Cancer Control Network, 2005

B. Selected peer-reviewed publications (in chronological order)
(Publications selected from 100 peer-reviewed publications)


C. Research Support.

Current Research

Name: Women’s Health Initiative: Clinical Center for the Clinical Trial and Observational Study (N01 WH 4-2107)
Funding Agency: National Heart, Lung, and Blood Institute
Role: Principal Investigator
Dates: October 1994 - September 2010
This grant is evaluating the effect of hormone replacement therapy, calcium/vitamin D, and/or low fat diet on a variety of cardiovascular, cancer, and musculoskeletal outcomes in postmenopausal women.

Name: Women’s Health Initiative Memory Study (CT 22775)
Funding Agency: Wake Forest University School of Medicine
Role: Principal Investigator (subcontract)
Dates: June 1996 - May 2010
This grant is evaluating the effect of hormone replacement therapy on the mental status of postmenopausal women.

Name: Single Visit Cervical Cancer Prevention Program (R01 CA76502)
Funding Agency: National Cancer Institute
Role: Co-Investigator
Dates: July 1998 - June 2008
This grant is evaluating the feasibility and effectiveness of a single visit cervical cancer prevention program among Latinas.

Recently Completed Research

Name: Pacific Islander Cancer Control Network (U01 CA86073)
Funding Agency: National Cancer Institute
Role: Principal Investigator
Dates: April 2000 – March 2007

Name: A Randomized Controlled Trial of Fat Reduction, Calcium/Vitamin D Supplementation, Hormone Replacement Therapy, and Risk of Proliferative Forms of Benign Breast Disease: Women’s Health Initiative Ancillary Study
Funding Agency: Albert Einstein College of Medicine
Role: Principal Investigator (subcontract)

Name: Latina Cervical Cancer Survivorship: A Developmental Study (R21 CA 097191)
Funding Agency: National Cancer Institute
Role: Co-Investigator
Dates: July 1, 2002 – June 30, 2004
This grant evaluated quality of life in Latina cervical cancer survivors
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors. DO NOT EXCEED FOUR PAGES.

NAME
Mahtab Jafari

eRA COMMONS USER NAME
mjafari

POSITION TITLE
Assistant Professor
Pharmaceutical Sciences

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, San Francisco</td>
<td>Pharm.D.</td>
<td>1994</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>University of California, San Francisco</td>
<td>Residency</td>
<td>1995</td>
<td>Clinical Pharmacy</td>
</tr>
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</table>

A. Positions and Honors.

Positions and Employment

1995-1996  Assistant Clinical Professor of Pharmacy, University of California, San Francisco
1996-2000  Adjunct Assistant Clinical Professor, UCI School of Medicine
2000-     Adjunct Associate Clinical Professor, UCI School of Medicine
1996-2000  Assistant Professor, Western University of Health Sciences
1998-2002  Director, Cholesterol Clinic, University of California at Irvine Medical Center
2000      Co-Director, Cardiovascular Risk Reduction Program, UCI
2000-2003  Senior Research Scientist, Abbott Laboratories, Irvine, Ca and Abbott Park, IL
2003-2004  Regional Scientific Manager, Abbott Laboratories, Irvine, Ca and Abbott Park, IL
2005-     Assistant Professor, University of California, Irvine
2005-2007  Associate Director, Program in Pharmaceutical Sciences, UCI
2007-     Director, Pharmaceutical Sciences Undergraduate Program, University of California, Irvine
2007-     Assistant Professor of Pharmaceutical Sciences, University of California, Irvine

Other Experience and Professional Memberships

Professional Memberships
American Aging Association
American College of Clinical Pharmacy

Reviewer for Journals
2007  Biogerontology
2007  Central European Science Journal

Honors

2007-2008  Recipient of the UCI Distinguished Assistant Professor Award for Teaching
1997  Honorable Mention for Innovation in Teaching, American Council on Pharmacy Education

B. Selected peer-reviewed publications (in chronological order).


**Book Chapters**


**C. Research Support**

**Ongoing Research Support**

Start-up Funds
**NAME:** Sunny Jiang  
**POSITION TITLE:** Professor

### EDUCATION/TRAINING  
*Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
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<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nankai University, Tianjin, China</td>
<td>B. S.</td>
<td>1989</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>University of South Florida, USA</td>
<td>M. S.</td>
<td>1993</td>
<td>Marine Science</td>
</tr>
<tr>
<td>University of South Florida, USA</td>
<td>Ph. D.</td>
<td>1996</td>
<td>Marine Science</td>
</tr>
</tbody>
</table>

### A. Positions and Honors.

**Positions and Employment:**
- Associated Professor, Department of Civil and Environmental Engineering, The Henry Samueli School of Engineering, University of California, Irvine, July 1, 2006-present
- Associate Professor, Joint-appointment, Department of Environmental Health, Science, and Policy, Ecology and Evolutionary Biology, Community and Environmental Medicine, University of California, Irvine. July 2004-June 2006
- Associate Professor, honorary appointment, College of Life Sciences, Nankai University, Tianjin, China. June 2001-Present
- Assistant Professor, Department of Environmental Health, Science and Policy, University of California, Irvine. July 1998 – June 2004

**Other Experience and Professional Memberships:**
- American Society for Microbiology, Member
- American Society of Limnology and Oceanography, Member

**Honors:**
- Excellence in Teaching, Division of Undergraduate Education, UC Irvine, 2002
- Chancellor’s Award for Excellence in Undergraduate Students Research Mentoring, UC Irvine, 2001
- Environmental Project Award, Environmental Professionals Organization, 2001
- Pacific Rim Universities Fellow, UC Irvine, 2000 (Travel to East Asia)
- Faculty Career Development Award, UC Irvine, 1999-2000
- The Sackett Prize for Innovative Research, University of South Florida, 1998
- Knight Oceanographic Fellow, University of South Florida, (With scholarship of $16,000 per year) 1995 & 1996
- Gulf Oceanographic Charitable Trust Fellow, University of South Florida, (With scholarship $8000) 1994
B. Selected peer-reviewed publications (in chronological order).


C. Research Support

**Ongoing Research Support:**

Newport Coast Flow and Water Quality Assessment, ASBS Protection and Restoration Program Grant Agreement No. 05-230-550-0, City of Newport Beach. PI, Partner with Weston Solution, 2006-2007

Marine Pathogens, Toxins and Recreational Health Risk, California Sea Grant, PI, 2007-2008

**Completed Research Support**


Ecology of Viruses in an Alkaline, Hypersaline Lake, Mono Lake, California. National Science Foundation, PI, Jan. 02 to Dec. 04,

Real-Time PCR Detection of Human Viruses And Indicators In Water. Water Environment Research Foundation, PI. March 02 to Feb. 04
BIOGRAPHICAL SKETCH
Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Stuart M. Krassner, Sc.D., Psy.D.

POSITION TITLE
Professor

eRA COMMONS USER NAME

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brooklyn College, New York</td>
<td>B.S.</td>
<td>1957</td>
<td>Biology</td>
</tr>
<tr>
<td>Johns Hopkins., Bloomberg Sch of Public Health</td>
<td>Sc.D</td>
<td>1961</td>
<td>Parasitology</td>
</tr>
<tr>
<td>Johns Hopkins, ICMRT Program in Calcutta India</td>
<td>Postdoc</td>
<td>1961-62</td>
<td>Tropical Medicine</td>
</tr>
<tr>
<td>The Rockefeller Institute, New York</td>
<td>Res Fellow</td>
<td>1962-65</td>
<td>Tropical Medicine</td>
</tr>
<tr>
<td>American Behavioral Studies Institute, California</td>
<td>Psy.D.</td>
<td>2001</td>
<td>Counseling Therapy</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

Positions and Employment
1956-57  Laboratory Assistant, Brooklyn College
1957-60  Laboratory Instructor/Assistant, Johns Hopkins University
1961-62  Research Fellow, The Rockefeller University
1983-84  Professor & Acting Chair, Developmental & Cell Biology, University of California, Irvine
1984-87  Professor & Acting Dean, Research & Graduate Studies, University of California, Irvine
1987-89  Professor and Associate Dean, Research & Graduate Studies, University of California, Irvine
1965-2005 Professor, Developmental & Cell Biology, University of California, Irvine
2005-present  Professor Emeritus (on recall), Developmental & Cell Biology, University of California, Irvine

Past Professional Memberships
Sigma Xi, American Society of Parasitology, American Society of Protozoology, AAAS, AIBS, Helminthological Society of Washington, American Society of Tropical Medicine and Hygiene, Southern California Parasitologists, Society of Vector Biologists

Professional Service
Member, TDR section on American Trypanosomiasis, WHO (1978-1983)
Member, Study Section on Program Project Grants, NIAID, NIH (1999)

Honors
PHS Fellowship, 1957-1961
Sigma Xi

Invited Lectures in Tropical Medicine (1960-1997)
Calcutta School of Tropical Medicine, University of Calcutta (Institute of Biochemistry), Ohio State University, UCLA (Department of Biology), Leningrad (St. Petersburg) University, Cambridge University (Molteno Institute), Swiss Tropical Institute (Basel), University of Edinburgh, University of Nebraska, City University of New York (Brooklyn College), University of British Columbia (Canada), Federal University do Rio de Janeiro (Brazil), Instituto do Oswaldo Cruz (Brazil), Meharry Medical College, Lister Institute (London), NIH (NIAID), Johns Hopkins University (Bloomberg School of Public Health), Rockefeller University, Harvard University School of Medicine, Technical University of Hong Kong, University of Buenos Aires (Argentina), University of Granada (Spain), USC School of Medicine
Teaching


Experience in Industry


*Research contract* with Allergan Pharmaceuticals, Irvine, California. Project: Sterile testing for *Acanthamoeba*.

*Scientific consultant* for pathogenic soil amoebae infections (1986-1987)

*Consultant* for Lasermed Corporation, Costa Mesa, California


NIAIS, a non-profit organization, Irvine, California. rositex (test system for the U.S. Department of Transportation).


Member of the Scientific Board, Neotherapeutics, Irvine, CA (1997 – 2003)

Member of the Board of Directors, Spectrum Pharmaceuticals, Irvine, CA (2005-present)

B. Selected peer-reviewed publications (in chronological order).


C. Research Support

None
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
RAUL P. LEJANO

POSITION TITLE
Associate Professor

eRA COMMONS USER NAME

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of the Philippines</td>
<td>B.S.</td>
<td>1985</td>
<td>Civil Engineering (cum laude)</td>
</tr>
<tr>
<td>UC Berkeley</td>
<td>M.S.</td>
<td>1986</td>
<td>Environmental Engineering</td>
</tr>
<tr>
<td>UCLA School of Public Health</td>
<td>D.Env.</td>
<td>1992</td>
<td>Environmental Science and Engineering</td>
</tr>
<tr>
<td>UCLA School of Public Health</td>
<td>Ph.D.</td>
<td>1998</td>
<td>Environmental Health Science</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

Positions and Employment

Associate Professor  University of California, Irvine  2007 - Present
Department of Planning, Policy, and Design

Assistant Professor  University of California, Irvine  2002 - 2007
Department of Planning, Policy, and Design

Visiting Asst. Professor  Massachusetts Institute of Technology  2000 - 2002
Department of Urban Studies and Planning

Lecturer:  University of California, Los Angeles  1996 - 2000
Department of Urban Planning

Other Experience and Professional Memberships

Honors

• 2006 Recipient, Daniel Stokols Award for Interdisciplinary Research.
• 2006 - present, Board of Directors, Communities for a Better Environment.
• 2002 - present, Research Fellow, Community-Based Resource Management Research Center.
• Pacific Rim Fellowship (University of California, Los Angeles).
• Anthony Earle Fellowship (University of California, Berkeley).
B. Selected peer-reviewed publications (in chronological order).

BOOKS

PEER-REVIEWED JOURNAL ARTICLES


Smith, C. Scott, Raul P. Lejano, Oladele Ogunseitan, and Aaron Hipp (2007), "Cost Effectiveness of Regulation-Compliant Filtration to Control Sediment and Metal Pollution in Urban Runoff" Environmental Science & Technology (accepted).


C. Research Support

Ongoing Research Support

Vulnerability and Risk of Communities to Extreme Weather (University Water Research Center, $10,000)
Colloquia on intersection of social networks and social capital to resilience of communities to floods and droughts. PI: Lejano

People Power Movements (GPACS, $5,000; Peace and Justice Foundation, $1,000)
Symposium theorizing people power movements. PI: Lejano

Completed Research Support

Vulnerable Communities at Risk: Southeast LA Initiative (CBE, $34,000) 7/1/03 - 6/30/05
Community-based participatory action research project on environmental health issues in Southeast Los Angeles. The study of complex interactions between vulnerability and risk. PI: Lejano

Risk Mapping Study (CORCLR, $10,000, Liberty Hill, $5,000) 6/1/02 - 5/31/04
Series of risk and hazard mapping studies for the town of Val Verde. PI: Lejano

Optimization of Stormwater Management (Sea Grant/UWRC, $160,000) 7/1/04 - 6/30/06
Construction of decision framework linking land use, hydrologic, and economic optimization models in an integrated framework. Use of comprehensive decision model for incorporation of multiple knowledge sets in formulating a best management practice strategy. PI: Lejano

Combined Wastewater/Stormwater Management for Cabanatuan City (UNDP, $25,000) 1/1/96 - 6/1/96
Master plan and water distribution optimization for first combined wastewater/stormwater management system in the Philippines (Cabanatuan City). PI: Lejano

Community Based Coastal Resource Management (GPACS/CORCLR, $10,000) 9/1/04 - 8/30/05
Comparative assessment of two community-based coastal resource management programs in Batangas (Calatagan and Mabini); institutional strengthening. PI: Lejano

Institutions as Structures of Care (CORCLR/Marisla Foundation, $41,000) 9/1/05 - 8/30/06
Development of institutional model for decentralized modes of governance. Design of institutions upon after an ethic of care. Application to Turtle Islands management program. PI: Lejano
NAME
Cecelia Lynch

POSITION TITLE
Professor, Dept of Political Science, and Director, Center for Global Peace and Conflict Studies

eRA COMMONS USER NAME

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
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<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>Drake University, Des Moines, IA</td>
<td>BA</td>
<td>1980</td>
<td>Int'l Relations/French</td>
</tr>
<tr>
<td>Institut d'Etudes Politiques de Paris</td>
<td>Certificat</td>
<td>1979</td>
<td>Sciences Politiques</td>
</tr>
<tr>
<td>Columbia University, New York</td>
<td>MA</td>
<td>1982</td>
<td>Political Science</td>
</tr>
<tr>
<td>Columbia University, New York</td>
<td>M. Phil.</td>
<td>1985</td>
<td>Political Science</td>
</tr>
<tr>
<td>Columbia University, New York</td>
<td>Ph.D.</td>
<td>1993</td>
<td>Political Science</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

-- Andrew W. Mellon “New Directions” Post-doctoral Fellowship, for new book project on “Islamic and Interfaith Religious Ethics in World Crises,” spring 2006-summer 2007 (one of 10 awarded nation-wide in the social sciences and humanities)

-- American Association of University Women (AAUW) American Post-doctoral Fellowship, 2004-2005

-- Andrew W. Mellon Fellowship, Huntington Library, Pasadena, CA, for two months during 2004-2005, for archival research on the religious and ethical debates about the use of violence during the Mission era in California and Mexico

-- Society for Women in International Political Economy Mentor Award, 2003

-- Women’s Caucus for Political Science of the American Political Science Association, Excellence in Mentorship Award, 2003

-- Myrna Bernath Book Prize 1998-1999, for Beyond Appeasement: Interpreting Interwar Peace Movements in World Politics (Cornell, 1999), Society for Historians of American Foreign Relations (SHAFR)

-- Edgar Furniss Book Prize for 1999, for Beyond Appeasement, Mershon Center for the Study of International Security, Ohio State University

-- Social Science Research Council-MacArthur Foundation Fellowship on International Research on Peace and Security, for project on “War, Crisis, and Transnational Theology,” September-December 1999


Positions and Employment

Current

-- Director, Center for Global Peace and Conflict Studies (CGPACS), UC Irvine, (July 2004 – present; on leave until April 2007); CGPACS promotes scholarship, public awareness and dialogue on issues of peace and conflict

-- Associate Professor, Department of Political Science, University of California, Irvine (July 2001 - present)

Previous

-- Assistant Professor, Department of Political Science, University of California, Irvine (spring 1999 - July 2001)
Assistant Professor, Department of Political Science, Northwestern University (1993 - 1999; Instructor from 1991-1993)


Visiting Scholar, The Divinity School, University of Chicago (1996-1998); studied Christian, Jewish, Inter-faith and Third World ethics and theology as part of SSRC-MacArthur Foundation fellowship

Other Experience and Professional Memberships

Service to the Profession and Peer Review Responsibilities

-- 2007-2008, Member, Social Science Research Council Study Group on Religion, Secularism, and International Affairs
-- 2006, Chair, Qualitative Methods Section Article Prize Committee, APSA
-- 2004, Chair, Jervis-Schroeder Book Prize Committee, International Politics and History Section of the American Political Science Association (other committee members were Miles Kahler of UCSD and Jeff Taliaferro of Tufts University)
-- 2002-2003, Member, Committee on Professional Rights and Responsibilities, International Studies Association
-- 2001-2001 Chair, Ethics Section, International Studies Association
-- 2000-2001 Vice Chair, Ethics Section, International Studies Association
-- 1999-2000 Secretary, Ethics Section, International Studies Association
-- 1998 Chadwick Alger Prize Committee, IO Section of the International Studies Association,
-- Editorial Board, Constructivism Series (under editorship of Nicholas Onuf), M. E. Sharpe, publishers

B. Selected peer-reviewed publications (in chronological order).

Books

-- Strategies for Research in Constructivist International Relations, co-authored with Audie Klotz (Armonk, NY: M. E. Sharpe, February 2007)
-- Beyond Appeasement: Interpreting Interwar Peace Movements in World Politics (Ithaca, NY: Cornell University Press, 1999), recipient of Edgar J. Furniss Book Prize given by the Mershon Center of Ohio State University, co-recipient of the Myrna Bernath Book Prize given by the Society for Historians of American Foreign Relations (SHAFR), Ohio State University (see Awards section)
-- Law and Moral Action in World Politics, co-edited with Michael Loriaux (Minneapolis, MN: University of Minnesota Press, 2000)

Refereed Journal and Book Articles

-- “Public Spheres Transnationalized: Comparisons Within and Beyond Muslim Majority Societies,” in Armando Salvatore and Mark LeVine, eds., Religion, Social Practice, and Contested Hegemonies: Reconstructing the Public Sphere in Muslim Majority Societies,” Palgrave MacMillan, 2005
-- “Dogma, Praxis, and Religious Perspectives on Multiculturalism,” in Fabio Petito and Pavlos Hatzopoulos, eds., Religion in International Relations: the return from exile, Palgrave, 2003), revision of the following article of the same title, in
-- “Social Movements and the Problem of ‘Globalization’,” *Alternatives*, vol.23, no.2 (May 1998)
-- “Kant, the Republican Peace, and Moral Guidance in International Law,” *Ethics & International Affairs*, vol. 8 (Spring 1994)

C. Research Support

**Ongoing Research Support**

Andrew W. Mellon “New Directions” Fellowship (see “A.” above)

**Completed Research Support**

AAUW Postdoctoral Fellowship
Andrew W. Mellon Huntington Library Fellowship
SSRC-MacArthur Foundation Fellowship on International Research on Peace and Security
(for details on all of these, see “A.” above)
**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meyskens Jr., Frank L.</td>
<td>Professor of Medicine and Biological Chemistry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>eRA COMMONS USER NAME</th>
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</thead>
<tbody>
<tr>
<td>FLMEYSKENS</td>
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</tr>
</tbody>
</table>

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Univ. of California, San Francisco, CA</td>
<td>B.S.</td>
<td>1967</td>
<td>Medicine</td>
</tr>
<tr>
<td>Univ. of California, San Francisco Medical School, CA</td>
<td>M.D.</td>
<td>1972</td>
<td>Medicine</td>
</tr>
</tbody>
</table>

**A. Positions and Honors**

**Positions and Employment**

- 1972-1974     House Staff Training (Intern First Year Resident), University of California, Moffet Hospital, San Francisco, CA
- 1974-1975     Clinical Associate, Medicine Branch, NCI, Bethesda, MD
- 1975-1977     Clinical Associate, Laboratory of Tumor Cell Biology, NCI, Bethesda, MD
- 1977-1981     Assistant Professor of Medicine (Hematology Oncology), University of Arizona, Tucson, AZ
- 1984-1989     Associate Professor of Molecular and Cell Biology, University of Arizona, Tucson, AZ
- 1984-1989     Director for Cancer Prevention and Control, Arizona Cancer Center, Tucson, AZ
- 1985-1989     Professor of Medicine (Hematology Oncology), University of Arizona, Tucson, AZ
- 1989-         Professor of Medicine and Biological Chemistry; Director, Chao Family Comprehensive Cancer Center, University of California, Irvine, Irvine, CA
- 1999-2004     Associate Dean of Research, College of Medicine, University of California, Irvine, Irvine, CA
- 2004-2004     Interim Senior Associate Dean of Allied Health Sciences, University of California, Irvine, Irvine, CA
- 2004-2007     Senior Associate Dean of Health Sciences, University of California, Irvine, Irvine, CA
- 2007-         Associate Vice Chancellor of Health Sciences

**Other Experience and Professional Memberships**

- 1974     Board Certified, Internal Medicine, American Board of Internal Medicine
- 1982     Board Certified, Oncology, American Board of Internal Medicine
- 1982, 85, 88, 92     Co-Chair, 1st, 2nd, 3rd and 4th International Conferences on Modulation and Mediation of Cancer by Vitamins, Tucson, AZ
- 1986-1990     Board of Scientific Counselors (Chair, 1990), DCPC, NCI
- 1997-2004     President, International Society of Chemoprevention

**Honors**

- 1968     Dean’s Prize in Research, University of California, San Francisco, CA
- 1989     Grace A. Goldsmith Award, American College of Nutrition
- 1990     NCI – Year 2000 Award
- 2006     ASPO – career achievement award
- 2006     Daniel G. Aldrich Jr Endowed Chair(UC Irvine)

**B. Selected peer-reviewed publications (in chronological order).**

(Publications selected from over 300 peer-reviewed publications)


34. Armstrong, W, Taylor, T, Meyskens, FL, Jr. Point: Surrogate end point biomarkers are likely to be limited in their usefulness in the development of cancer chemoprevention agents against sporadic cancers, Cancer Epidemiology, Biomarkers & Prevention Vol. 12, p589-592, 2003.


C. Research Support

**Ongoing Research Support**

**P30 CA-62203 (Meyskens) 08/01/02- 1/31/08**
NIH/NCI
University of California, Irvine
Cancer Center Support Grant
Center grant to support UCI Cancer Center
Role: PI

**R01 CA-88078 (Meyskens) 09/30/02-09/29/08**
NIH/NCI
A Phase III Trial to Prevent Colon Cancer
To reduce the recurrence rate of adenomatous colonic polyps without producing toxicity greater than that seen in the placebo group. To develop safe combinations of chemoprevention agents that can be used in the practice setting and complement current surveillance efforts. This project is an expansion of the Phase IIb N01 Trial.
Role: PI

**N01-CN-35160 (Meyskens) 10/01/03-09/30/08**
NIH/NCI
Phase I and Phase II Clinical Trials of Chemopreventive Agents
The overall objective of this project is to conduct multiple early phase (Phase I and Phase II) clinical trials for candidate cancer preventive agents using the extant infrastructure that has been developed over the past decade at the UCI NCI-designated Chao Family Comprehensive Cancer Center. The main focus of these trials will be to assess the cancer preventive potential of various compounds by evaluating their effects on biological or imaging endpoints.
Role: PI

**U01 CA-72294 (Meyskens) 08/31/04-09/29/08**
NIH/NCI
Bowman-Birk Inhibitor and Oral Leukoplakia
To conduct phase IIa and IIb chemoprevention studies of BBIC in oral leukoplakia. Phase IIa was completed in 9/98 and a phase IIb trial started in 10/00.
Role: PI

**Recent Completed Research Support**

**N01CN25139 (Meyskens) 09/30/02-09/29/05**
NIH-NCl
Phase II Clinical Trials of New Chemopreventive Agents - An Exploratory Study to Evaluate the Effect of HPV 16 Vaccine (Workstatement 80)
Role: PI

**U19 CA81886 (Meyskens) 04/01/99-09/30/07**
NIH/NCI
Chemoprevention of Familial Prostate Cancer
Dr. Meyskens is the Principal Investigator for this program project grant and the Project Leader for the Administrative core. The primary objectives for this grant are to develop a population-based family registry of early onset familial prostate cancer and to conduct a one-year, randomized, phase IIb chemoprevention trial of DFMO for prostate cancer.
Role: PI
BIOGRAPHICAL SKETCH
Provide the following information for the key personnel in the order listed on Form Page 2.
Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Michael Montoya

POSITION TITLE
Associate Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lewis and Clark College, Portland, Oregon</td>
<td>B.A.</td>
<td>1989</td>
<td>Sociology/Anthropology</td>
</tr>
<tr>
<td>Stanford University, Stanford, California</td>
<td>M.A.</td>
<td>1998</td>
<td>Anthropology</td>
</tr>
<tr>
<td>Stanford University, Stanford, California</td>
<td>Ph.D.</td>
<td>2003</td>
<td>Anthropology</td>
</tr>
</tbody>
</table>

A. Positions and Honors

Positions

1989-92 Coordinator and Community Services Manager: Campaign to End Childhood Hunger; USDA Summer Food Service Program; Regional Food Bank; Food and Nutrition Services Inc. Aptos, CA.

1990-94 President and Board Member, Santa Cruz Community Health Center, non-profit family practice clinic, Santa Cruz, CA.

1993-95 Associate Trainer, Santa Cruz Housing Corporation, non-profit housing and business developer, Santa Cruz, CA.

1995-96 Program Manager/Instructor, Partners in Education English Literacy Program, Title VII, Federal Office of Bilingual Education and Minority Language Affairs Project-OBEMLA, San Jose, CA.


2000-01 Program Analyst and Planner. University of Wisconsin, Office of Academic Affairs, System Administration, PK-16 Technology in Education Program, Madison, WI.

2001 Research Assistant to L. Hogle, Explorations of Policy and Ethics Issues in Tissue Engineering, Stanford School of Medicine, Center for Biomedical Ethics. Funded by the National Science Foundation and the Greenwall Foundation.

2001-2004 Associate Director-Research Associate, Institute on Race and Ethnicity, University of Wisconsin System, Madison/Milwaukee, WI.

2004 Research Fellow/Consulting Researcher, The Molecular Sciences Institute, Berkeley, CA.
2004-present  Assistant Professor, Chicano/Latino Studies and Anthropology; Program in Medical Education for the Latino Community, University of California – Irvine, Irvine, CA.

Honors
1997-2000  Ford Foundation, Minority Pre-Doctoral Fellowship
1998   Social Science Research Council, International Minority Summer Research Fellowship
1997, 1999  Mellon Fieldwork Fellowship, Stanford Anthropology
1999-2000  Wenner-Gren Foundation, Dissertation Research Grant
2000   NIH, OBSSR, Social and Cultural Dimensions of Health, Conference Attendance Grant,
2000   Mellon Dissertation Fellowship, Stanford University
2001-02  National Science Foundation, Science and Technology Studies Dissertation Grant
2005   National Science Foundation, Measuring Human Behavior, Methodological Training Grant
2005-2007  National Institutes of Health, Office of Minority Health and Health Disparities, Health Disparities Research Scholar Award, Loan Repayment Program

B. Selected Peer-Reviewed Publications


C. Research Support

2004/2007 Center for the Study of Latinos in a Global Society Research Award, School of Social Sciences, UC-Irvine. This award funds the development and analysis of a random telephone survey on the correlation between stressful life events and illnesses such as diabetes.

2005/2007 NIH, National Center on Minority Health and Health Disparity, LRP-Health Disparities Research Scholar Award. This loan repayment award supports the development of a pilot study into the biocultural causes of type 2 diabetes among Latinos in the US.
2006/2007 General Clinical Research Center, School of Medicine, UC-Irvine, Research Feasibility Fund Award. This award funds a feasibility study for the use of bioethnographic research methods for characterizing community health disparities in a small local population.

2006/2007 Social Science Alumni Assistant Professor Research Award, School of Social Sciences, UC-Irvine. This award funds the development of a participatory collaborative research group to examine diabetes among Latinos in one neighborhood.

2006/2007 Intel Corporation Research Award, Department of Anthropology, UC-Irvine. This award funds research into the role of technology in health related behaviors of urban Latinos living in the US.
BIOGRAPHICAL SKETCH

<table>
<thead>
<tr>
<th>Name</th>
<th>Position Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrew Noymer</td>
<td>Assistant Professor of Sociology</td>
</tr>
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</table>

Education/Training

<table>
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<th>INSTITUTION</th>
<th>DEGREE</th>
<th>YEAR</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvard University</td>
<td>A.B.</td>
<td>1995</td>
<td>Biology</td>
</tr>
<tr>
<td>London School of Hygiene &amp; Tropical Medicine (Univ. of London, UK)</td>
<td>M.Sc.</td>
<td>1996</td>
<td>Medical Demography</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>Ph.D.</td>
<td>2006</td>
<td>Sociology</td>
</tr>
</tbody>
</table>

A. Positions and Honors

Professional Experience

1997: Demographer, Instituto Nacional de Estatística (INE), Ministry of Planning, Luanda, Angola
1997–99: Visiting Researcher, Centre français sur la population et le développement (CEPED), Paris, France
July 2006–present: Assistant Professor, Sociology, University of California, Irvine.

Honors and Awards

1991: Minor Planet (asteroid) number 4956 named ‘Noymer’ by the International Astronomical Union (ref.: IAU Minor Planet Circular No. 19341)
2002: Best Paper in Mathematical Sociology, Mathematical Sociology Section, American Sociological Association (for urban legend paper in J. Math. Soc.)
2002: Best Student Paper in Mathematical Sociology, Mathematical Sociology Section, American Sociological Association (for urban legend paper in J. Math. Soc.)
1996: Selwyn-Clarke Prize, best student in Medical Demography master’s program, London School of Hygiene & Tropical Medicine, University of London
2007: Faculty Career Development Award
       Office of the Executive Vice Chancellor and Provost, UC–Irvine
2007: Social Science Assistant Professor Research Award
       School of Social Sciences, UC–Irvine

B. Peer-reviewed Publications

(i) Journal Articles

1. The Perseus Flasher and satellite glints.
(i) Journal Articles, contined


(ii) Bringing Sociology to a Broader Public

1. Plans to fight pandemic flu must focus on senior citizens. (Op-Ed) *Chicago Sun-Times*, 5 November 2005 Juliane Baron and Andrew Noymer

2. You might be infected — with an urban legend. (Op-Ed) *Los Angeles Times*, 28 December 2003, p. M5 (Sunday opinion section; carried on other newspapers nationwide through LA Times wire service.)

(iii) Book Chapters


(iv) Book Reviews


C. Research Support

No ongoing research support.
NAME: Oladele A. Ogunseitan
POSITION TITLE: Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Ife, Nigeria</td>
<td>B.Sc./M.Sc.</td>
<td>1980/1983</td>
<td>Microbiology</td>
</tr>
<tr>
<td>University of Tennessee, Knoxville,</td>
<td>Ph.D.</td>
<td>1988</td>
<td>Microbiology</td>
</tr>
<tr>
<td>University of California, Berkeley, USA</td>
<td>M.P.H.</td>
<td>1998</td>
<td>Environmental Health Sciences</td>
</tr>
<tr>
<td>University of California, Berkeley, USA</td>
<td>Certificate</td>
<td>1998</td>
<td>International Health</td>
</tr>
</tbody>
</table>

A. Personal Statement

As Chair of the Department of Population Health & Disease Prevention, and Director of our Master of Public Health (MPH) degree program, I am responsible for implementing curricula and research education at the undergraduate and graduate levels that involve global health and disease prevention. I coordinate the undergraduate degrees in public health (approximately 800 students) and the MPH program. I also direct the Research Education, Training, and Career Development Unit of UC Irvine’s NIH-funded Institute for Clinical and Translational Sciences, bringing together students and faculty mentors from various disciplines to collaborate on research associated with community engagement. I direct a UC systemwide program on research and education in green materials, focusing on my own research on human exposure to toxic chemicals. I have trained more than 15 Ph.D. students who have gone on to employment in academia (e.g. Dr. Aaron Hipp, Assistant Professor of Public Health at Washington University in St. Louis), industry (e.g. Dr. Kelly Pollack at GeoSyntech, Inc.) and government (e.g. Dr. Eunice Chern of the US E.P.A. and Dr. Sarah Becker of the C.I.A.). I have received grants in disease private foundations (e.g. Josiah Macy Jr. Foundation) to study disease prevention; and from Global Institutions (e.g. Global Forum for Health Research in Geneva, Switzerland) to conduct research in Global Health.

B. Positions and Honors.

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Department</th>
<th>Location</th>
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<tbody>
<tr>
<td>2009 -</td>
<td>Co-Director</td>
<td>Global Health Framework</td>
<td>UC-Irvine</td>
</tr>
<tr>
<td>2008 -</td>
<td>Dept. Chair</td>
<td>Population Health &amp; Disease Prevention</td>
<td>UC-Irvine</td>
</tr>
<tr>
<td>2008 -</td>
<td>Director</td>
<td>Lead Campus in Green Materials</td>
<td>UC-Systemwide</td>
</tr>
<tr>
<td>2007</td>
<td>Director</td>
<td>Research Education, Training and</td>
<td>UC-Irvine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Career Development</td>
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<tr>
<td></td>
<td></td>
<td>Institute for Clinical and Translational Science</td>
<td></td>
</tr>
<tr>
<td>2004 -</td>
<td>Professor</td>
<td>School of Social Ecology</td>
<td>UC-Irvine</td>
</tr>
<tr>
<td>2004</td>
<td>Institute Faculty</td>
<td>International Institute for</td>
<td>Laxenburg, Austria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applied Systems Analysis (IIASA)</td>
<td></td>
</tr>
<tr>
<td>1999 - 2000</td>
<td>Faculty Fellow</td>
<td>Kennedy School of Government,</td>
<td>Harvard University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Center for Science and International Affairs</td>
<td></td>
</tr>
<tr>
<td>1999 – 2000</td>
<td>Investigator</td>
<td>Marine Biological Laboratory</td>
<td>Woods Hole, MA</td>
</tr>
<tr>
<td>1992 – 2004</td>
<td>Assist/Assoc Prof</td>
<td>School of Social Ecology</td>
<td>UC-Irvine</td>
</tr>
</tbody>
</table>

Selected Honors

Exceptional Mentoring Award, Associated Graduate Students of UC Irvine, 2007
Excellence in Teaching Award, 14th Annual Celebration of Teaching, UC-Irvine 2007
Best Publication Award, UC Toxic Substances Research and Teaching Program, 2007
Best Paper Award, IEEE/ISEE, 2007
Professor of the Year Award. School of Social Ecology. 2002.
President’s Award: American Society for Civil Engineering (Orange County Chapter), 2006
UNESCO/ASM Visiting Resource Faculty Award. 1999.

Selected Editorial Services
Journal of Epidemiology and Community Health (ad hoc, 2007 - )
American Journal of Public Health (ad hoc, 2007 - )
Applied & Environmental Microbiology (1997 - Present; Distinguished Service Award, 2005)
Environmental Science & Technology (ad hoc, 1998- )
Nature Biotechnology (ad hoc, 1994 - )

Selected Professional Services
2010: Distinguished Editor (NIH/Fogarty Center) Panel on Global Health (ZRG1 BDAN 50)
2009: National Science Foundation (Environmental Sustainability Program) Review Panel.
2006: Canadian Institutes of Health Research: Review, Innovation and Industry Programs Branch.

Memberships
American Public Health Association
American Society for Microbiology
American Association for the Advancement of Science
The Minerals, Metals, and Materials Society (Member, Materials and Society committee, 2008 – Present)

Selected recent publications


(Best paper award – 2007 – UC- TSR&TP)


### Current and Pending Research Support

#### Current Research Grants

<table>
<thead>
<tr>
<th>Institution</th>
<th>Project Title</th>
<th>Principal Investigator</th>
<th>Unit Director</th>
<th>Funding</th>
<th>Start Date - End Date</th>
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</thead>
<tbody>
<tr>
<td>National Institutes of Health</td>
<td>Biocomplexity in the Environment</td>
<td>O.A. Ogunseitan</td>
<td>UL1 RR031985 CTSA</td>
<td>$20 Million</td>
<td>07/10 – 06/15</td>
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<tr>
<td>National Science Foundation</td>
<td>Research and Education in Green Materials</td>
<td>O.A. Ogunseitan</td>
<td>CMS-0524903</td>
<td>$1.5 Million</td>
<td>10/05 – 9/10</td>
</tr>
<tr>
<td>University of California</td>
<td>Global Health Framework</td>
<td>O.A. Ogunseitan</td>
<td>Research and Education in Green Materials</td>
<td>$1.62 Million</td>
<td>7/08 – 6/14</td>
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#### Pending Applications

<table>
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<tr>
<th>Institution</th>
<th>Project Title</th>
<th>Principal Investigator</th>
<th>Funding</th>
<th>Start Date - End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Science Foundation</td>
<td>Materials Informatics</td>
<td>O.A. Ogunseitan</td>
<td>$100,000</td>
<td>10/11 – 09/14</td>
</tr>
</tbody>
</table>
NAME
Olshansky, Ellen F.

Professor and Director, Program in Nursing Science, College of Health Sciences, University of California, Irvine

eRA COMMONS USER NAME
olshane

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
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<tbody>
<tr>
<td>University of California, Berkeley, CA</td>
<td>B.A.</td>
<td>1972</td>
<td>Social Work</td>
</tr>
<tr>
<td>University of California, San Francisco, CA</td>
<td>B.S.N.</td>
<td>1975</td>
<td>Nursing</td>
</tr>
<tr>
<td>University of California, San Francisco, CA</td>
<td>M.S.</td>
<td>1979</td>
<td>Women’s Health Nursing</td>
</tr>
<tr>
<td>University of California, San Francisco, CA</td>
<td>D.N.Sc.</td>
<td>1985</td>
<td>Nursing Science</td>
</tr>
</tbody>
</table>

A. Positions

Positions and Employment

1985-1991 Assistant Professor, Department of Parent and Child Nursing, University of Washington, Seattle, WA
1988-1992 Nurse-Counselor, Infertility Clinic, University of Washington, Seattle, WA (20% of faculty position)
1993-1996 Adjunct Associate Professor, Women Studies, University of Washington, Seattle, WA
1991-1996 Associate Professor, Family & Child Nursing, University of Washington, Seattle, WA (formerly Parent & Child Nursing Dept.)
1996-Present Affiliate Faculty, Family and Child Nursing, University of Washington, Seattle, WA – nonsalaried position
1996-Present Affiliate Member, Center for Women’s Health Research, University of Washington School of Nursing, Seattle, WA
1996-2002 Associate Professor to Professor Duquesne University School of Nursing, Pittsburgh, PA Chair, PhD in Nursing Program (7/1/98-8/31/2001) Associate Dean, Graduate Programs (9/1/2001-6/30/2002)
2002-Present Professor and Chair, Dept. of Health and Community Systems, University of Pittsburgh School of Nursing, Pittsburgh, PA (secondary appointment Women’s Studies, 2005 – 2007)
2007-Present Professor and Director, Program in Nursing Science, University of California, Irvine (Affiliate Faculty, Women’s Studies, 2007-present)

Honors

1968-1969 Edward Frank Kraft Prize - University of California, Berkeley
1972 Graduation with Distinction in General Scholarship - University of California, Berkeley
1975 Graduation with Highest Honors - University of California, San Francisco School of Nursing
1975 Sigma Theta Tau International, inducted for lifetime membership
1986 American Nurses Foundation Scholar
1992 Research Award, National Organization of Nurse Practitioner Faculties.
1994 CARE Award (Creative Achievement in Reproductive Endocrinology) presented by the American Society for Reproductive Medicine and Serono Pharmaceutical Company.
2001-2003 Jean Baker Miller Training Institute Practitioners’ Program.
2002 American Association for Colleges of Nursing Academic Leadership Training. One year mentored program for nursing faculty interested in academic leadership.
2002-Present Appointed Editor of the Journal of Professional Nursing
2003 Inducted as a Fellow in the American Academy of Nursing
2004 Who’s Who in American Education
2005 Selected as a Harris Fellow in the Leadership Development Initiative of Zero-to-Three
2005-2009 Selected for membership on the Editorial Board of Archives in Psychiatric Nursing
B. Selected Peer-reviewed Publications


relationships: Parent-provider communication in the developmental treatment setting. Qualitative Health Research, 16, 647-663.


C. RESEARCH SUPPORT

Past Support (within past 3 years)

Foundation Grant 7/1/04 – 6/30/05
AMDA (PFIZER)
Medication Error Reporting in Long-Term Care
To describe what factors contribute to or inhibit the reporting of medication errors by health care providers.
Role on Project: Consultant for qualitative research methods

University of Pittsburgh Grant 7/1/04 – 6/30/05
University Center for Social and Urban Research, Steven Manners Grant Working Interdisciplinary Qualitative Research Group
This is an infrastructure award to facilitate qualitative research across the University of Pittsburgh campus and beyond.
Role on Project: Principal Investigator

USAMRAA W18XWH-04-2-0030 7/1/04 - 3/14/06
Department of Defense (Siminerio)
Diabetes Prevention and Treatment Program for Western Pennsylvania
To evaluate the use of a computerized system to teach diabetics about their health care.
Role on Project: Co-investigator

AG-04-022 (Studenski) 7/1/04 – 6/30/07
NIA
Core 1: Participant Core of the Pittsburgh Older Americans Independence Center (Claude D. Pepper Grant)
To describe the reasons older adults choose to enroll in clinical trial research.
Role on Project: Senior Investigator

AG-04-022 (Studenski) 7/1/04 – 6/30/07
NIA
Data Management and Analysis Core of the Pittsburgh Older Americans Independence Center (Claude D. Pepper Grant)
To facilitate management and analysis of data from all studies that are part of the Claude D. Pepper Grant.
Role on Project: Consultant for qualitative research methods

P30 NR03924-11 (Dunbar-Jacob) 7/1/05 – 6/30/07
NINR
Data Management and Analysis Core of the Center for Research in Chronic Disorders
To facilitate management and analysis of data from all studies that are part of the Center for Research on Chronic Disorders.
Role on Project: Consultant for qualitative research methods 5% donated effort

Current Support
None

Pending
R01 (Hess)
NIH
A Biopsychosocial Model of Intimacy During Midlife: BMIDL
To describe the behavior, lifestyle, relationship factors as well as vaginal estrogen that affect sexuality during the menopausal transition
Role on Project: Co-Investigator and supervisor of the qualitative data analysis section
NAME
Armin Schwegler

POSITION TITLE
Director of Global Cultures (at UC Irvine)
Professor of Spanish Linguistics

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECOLE SUPERIEURE DE COMMERCE, Neuchâtel, Switzerland. Business diploma in accounting, management, and computer science.</td>
<td>Diploma</td>
<td>1975</td>
<td>Business diploma in accounting, management, and computer science</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

Director of Global Cultures (at UC Irvine)
Professor of Spanish Linguistics (at UC Irvine)

Positions and Employment

Other Experience and Professional Memberships


— Co-editor of *Revista Internacional de Lingüística Iberoamericana (RILI)*. Published by Iberoamericana, Madrid / Vervuert, Frankfurt.

— Co-editor of the series *Lengua y Sociedad en el Mundo Hispánico (LENSO) / Language and Society in the Hispanic World* (Vervuert Verlag, Frankfurt), co-edited with Juan Calvo (Spain), Fernando Lara (Mexico), Matthias Perl (Germany), and Klaus Zimmermann (Germany). (1997 to present)

Honors

*President's Fellow in the Humanities*. UC Berkeley
*Fulbright Award* to study African influences in Colombian Spanish
Voted (by UCI’s students) “Outstanding Professor of the Humanities” (2006)

B. Selected peer-reviewed publications (in chronological order).

BOOKS AUTHORED


6. in progress La lengua ritual “congo” de Cuba (Regla Palo Monte). Co-authored with Jesús Fuentes.

MONOGRAPH-LENGTH PUBLICATIONS


[Note: Part I of this study was also published in América Negra (see art. #24 below); for the sake of clarity, this monograph is also listed under article #31].

BOOKS EDITED
(with name listed as Editor)


ARTICLES (SELECTION)


18. 1993d “Rasgos (afro-) portugueses en el criollo del Palenque de San Basilio (Colombia).” Homenaje a José Pérez Vidal, ed. Carmen Díaz Alayón, 667-696. La Laguna, Tenerife: Litografía A. Romero S. A.


42. forthcoming “Black ritual insulting in the Americas: On the art of “vociferar” (Colombia), “vacilar” (Ecuador) and “snapping”, “sounding” or “playing the dozens” (U.S.A.). Indiana.


**C. Research Support**

**Completed Research Support (selection)**

President’s Fellow in the Humanities. University of California, Berkeley. Grant for research on Palenquero language.

Cultural Diversity Studies Faculty Research Grant #CD-01/02-003, research grant for studying “Cuban Palo Monte and its Kikongo Roots”.

Faculty Development Grants (UCI Latin America Studies Program).
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rodolfo Torres</td>
<td>Professor</td>
</tr>
</tbody>
</table>

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>University of California, Irvine</td>
<td>B.A.</td>
<td></td>
<td>Comparative Culture</td>
</tr>
<tr>
<td>Claremont Graduate School</td>
<td>M.P.P.</td>
<td></td>
<td>Public Policy Studies</td>
</tr>
<tr>
<td>Claremont Graduate School</td>
<td>Ph.D.</td>
<td>1985</td>
<td>Administration, Planning and Social Policy</td>
</tr>
</tbody>
</table>

**A. Positions and Honors**

Department of Planning, Policy & Design, School of Social Ecology, University of California, Irvine
Co-Director, Center on Inequality and Social Justice, University of California, Irvine

**CURRENT RESEARCH INTERESTS**

Urban Inequalities, Classes, and Economic Restructuring
Child Poverty in Southern California
Latinos in the United States: Changing Economies, Classes, and Ethnicities
Postindustrial Economies and the Changing Nature of Work
Alternative Futures

**B. Selected publications**

**Books:**


**Edited Books:**

C. Research Support

Research support from the State of California, Department Labor and Employment to support ongoing research on community and economic development in Latino neighborhoods.
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Federico E. Vaca

eRA COMMONS USER NAME
FEDERICOVACA

POSITION TITLE
Associate Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (If applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Clara University, CA</td>
<td>B.S.</td>
<td>8/84 – 6/88</td>
<td>Combined Sciences</td>
</tr>
<tr>
<td>Univ. of Osteopathic Med &amp; Health Sc. IA</td>
<td>(Transfer)</td>
<td>8/88 – 7/90</td>
<td>Medicine</td>
</tr>
<tr>
<td>Creighton University School of Medicine, NE</td>
<td>M.D.</td>
<td>8/90 – 5/92</td>
<td>Medicine</td>
</tr>
<tr>
<td>University of California, Irvine, CA</td>
<td>Residency</td>
<td>6/92 – 6/95</td>
<td>Emergency Medicine</td>
</tr>
<tr>
<td>University of California, San Diego, CA</td>
<td>Fellowship</td>
<td>7/95 – 6/96</td>
<td>Sports Medicine</td>
</tr>
<tr>
<td>University of California, Los Angeles, CA</td>
<td>M.P.H.</td>
<td>9/00 – 6/02</td>
<td>Comm. Health Science</td>
</tr>
<tr>
<td>US Dept. of Transportation / NHTSA, Wash., DC</td>
<td>Fellowship</td>
<td>8/00 – 7/02</td>
<td>National Traffic Safety</td>
</tr>
</tbody>
</table>

Positions and Employment

1992-95 Resident Physician, Emergency Medicine, University of California, Irvine
1994-95 Chief Resident, Emergency Medicine, University of California, Irvine
1995-96 Fellow, Clinical Instructor, Fellow – Department of Family and Preventive Medicine University of California San Diego
1996-03 Assistant Clinical Professor of Emergency Medicine, University of California, Irvine
2002-Present Faculty Associate, Southern California Injury Prevention Research Center / UCLA School of Public Health, Co-Director for Emergency Medicine
2003-06 Faculty Associate, Program in Medical Education for the Latino Community (PRIME-LC), University of California Irvine – College of Medicine
2003-Present Associate Professor of Clinical Emergency Medicine, University of California, Irvine
2004-06 Associate Faculty, School of Social Ecology, Department of Environmental Health, Science and Policy
2007-Present Adjunct Associate Professor, University of California, Irvine-Program in Public Health

Other Experience and Professional Memberships

1993-Present Member, Society for Academic Emergency Medicine
1999 Fellow, American College of Emergency Medicine
2001-Present Editor, Annals of Emergency Medicine, Department, Official Journal of the American College of Emergency Physicians
2002-03 Expert Consultant, Latino Health Access, Latino Community Based Child Occupant Safety Program, Children and Families Commission of Orange County California (Make Me Safe-Buckle Me Up)
2003 State and Territorial Injury Prevention Directors Association (STIPDA), National Emergency Medical Services (EMS) Injury Prevention Roundtable - National Expert Panel Member
2003-06 Expert Consultant, University of Washington – Harborview Injury Prevention Research Center, Dissemination of Booster Seat Community Intervention. (Centers for Disease Control – Ebel)
2004-Present Expert Consultant, University of Virginia, Center for Applied Biomechanics, Benefits of Rear Facing Restraints for Older Children (Centers for Disease Control – Crandall)

2006-Present California State Highway Safety Implementation Team Member, Challenge Area 6, Young Drivers


2007 U.S. Department of Health and Human Services; Centers for Disease Control and Prevention: Impaired Drivers: Injured, Unreported, Untreated - Expert Panel Member

Honors
1992 Magna Cum Laude – Creighton University School of Medicine, Omaha, Nebraska
1992-95 Most Outstanding Emergency Medicine Resident, University of California, Irvine
1998 The Robert J. Doherty, MD, FACEP / National Emergency Medicine; Residents Association (EMRA), American College of Emergency Physicians, Emergency Medicine Foundation Teaching Fellowship Scholarship
2002 UCLA School of Public Health, Delta Omega (ΔΩ) National Honorary Society in Public Health
2005 Orange County Medical Association, Physician of Excellence
2005-2006 Humanism in Medicine Award, Association of American Medical Colleges / University of California, Irvine

Selected publications


Vaca, F., Cellular Phones and Cars: "A mix that is a real hand full with or without the hands," Ann Emerg Med. 2002;39:82-85.


Vaca, F. Evaluation of the repeal of the all-rider motorcycle helmet law in Florida: When will we learn…or truly care to learn? *Ann Emerg Med.* 2006;47(2):203

**Research Support**

**Ongoing Research Support**

Name: Emergency Department Alcohol Screening and Brief Intervention
Role: Principal Investigator

This project will train physicians and nurses to provide alcohol screening and brief intervention (SBI) for English and Spanish speaking Emergency Department patients. A computerized interactive computer kiosk will also be developed to provide SBI. The extent of and process for screening as well as the feasibility of using a kiosk for SBI will be assessed. The Brief Intervention (BI) will be evaluated through follow up interviews with patients at 1 and 6 months after the ED visit and by review of medical and driving records.

**Completed during last three years**

Name: Communities at Risk (CAR) Traffic Safety Initiative (Agran)
Role: Co-Investigator
This project will address traffic safety of three at-risk populations: senior drivers, teens and young adults, and non-seat belt users in non-or limited-English speaking populations. The project will develop training programs for medical providers, a satellite resource center at senior centers, youth training retreat, and will fund community based organizations to develop programs to address seat belt use in non- or limited-English speakers.

Name: Epidemiology and Cost of Minor Traumatic Brain Injury in Non-hospitalized Patient Populations (Kraus)
Funding Agency: Centers for Disease Control
Role: Co-Investigator
Dates: September, 2002 – September, 2005

This study examined the incidence, costs and long-term consequences of mild traumatic brain injury among population-based patient groups presenting to trauma centers and non-trauma-designated hospitals.

Name: Injury Risk Management for Young Children (Agran)
Funding Agency: Centers for Disease Control
Role: Co-Investigator
Dates: September, 2001 – September, 2005

This research project followed an existing cohort of Latino and non-Latino White mothers of infants through the high-risk toddler age to assess injury risk management changes over time and to identify individual factors, modulating factors, and interrelationships between factors that affect injury risk management.
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors.
Follow this format for each person.  DO NOT EXCEED FOUR PAGES.

NAME

Alladi Venkatesh

eRA COMMONS USER NAME

POSITION TITLE

Professor of Management

EDUCATION/TRAINING  (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Madras, India</td>
<td>BA (Honors)</td>
<td>1958</td>
<td>Political Science</td>
</tr>
<tr>
<td>University of Madras, India</td>
<td>LL.B.</td>
<td>1961</td>
<td>Law</td>
</tr>
<tr>
<td>Syracuse University, NY</td>
<td>MBA</td>
<td>1971</td>
<td>Management</td>
</tr>
<tr>
<td>Syracuse University</td>
<td>PhD</td>
<td>1977</td>
<td>Management</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

Positions and Employment
Assistant Professor, Management, State University of New York, Binghamton 1978-1981
Faculty, Management (Assistant Professor to Professor), University of California, Irvine, 1981-present

Other Experience and Professional Memberships
President, Home Informatics and Telematics Association (Division of IFIP) 2005-2007
Stockholm School of Economics, Permanent Visiting Professor 2002- Present

Honors
First Rank, BA (Honors), University of Madras
PhD Dissertation selected for Landmark Dissertation Series on Women’s Studies
Senior Fellow, American Institute of Indian Studies, University of Chicago
Visiting Scholar, University of California, Berkeley
Faculty Research Award, School of Management, University of California, Irvine
Best Paper Award, Journal of Consumer Research

B. Selected peer-reviewed publications (in chronological order).

C. Research Support

**Ongoing Research Support**
National Science Foundation (1991 – Present) $2.8 million

**Completed Research Support**
National Science Foundation (1997-2000) ($475,000)
National Science Foundation (1985-1986) ($420,000)
Various industry support (totaling $100,000)
NAME: John I. Githure

POSITION TITLE: Principal Scientist and Head, Human Health Division, ICIPE, Nairobi, Kenya

eRA COMMONS USER NAME: Jgithure

EDUCATION/TRAINING: (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

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<th>INSTITUTION AND LOCATION</th>
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<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Nairobi</td>
<td>BSc</td>
<td>1978</td>
<td>Zoology / Botany</td>
</tr>
<tr>
<td>University of Nairobi</td>
<td>MSc</td>
<td>1980</td>
<td>Zoology</td>
</tr>
<tr>
<td>University of Nairobi</td>
<td>Ph.D.</td>
<td>1989</td>
<td>Parasitology</td>
</tr>
</tbody>
</table>

A. Positions and Honors

Professional Positions

1978-1978 Assistant Research Officer - Kenya Trypanosomiasis Research Institute
1981-1981 Graduate Research Assistant - University of Nairobi
1987-1994 Chairman, Leishmaniasis Programmes Committee, KEMRI
1988-1989 Director, Vector Biology and Control Research Centre, Kisumu
1989-1994 Chairman, Animal Care and Use Committee, KEMRI.
1989-1998 Director, Biomedical Sciences Research Centre,
1990-1994 Secretary, Scientific Committee of the Annual Medical Scientific Conference, Kenya
1990-1994 Secretary, Scientific Steering Committee, KEMRI.
1990-1998 Coordinator, KEMRI/JICA Technical Cooperation Project
1991-1994 Coordinator, KEMRI Scientific Seminars
1996-2003 Chief Research Officer, Kenya Medical Research Institute (KEMRI)
1997-1999 Coordinator, Malaria Vectors Project, ICIPE
1999-Present Head, Human Health Division, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi, Kenya

Honors and Other Professional Activities

1994-1996 Member, Editorial Board of the African Journal of Health Sciences
1994-1996 Chairman, National Organizing Committee of the African Health Sciences Congress
1994-Present Member, Health Sciences Specialist Committee of the National Council for Science and Technology, Kenya
1994-Present Member, National Health Research and Development Centre, Kenya

B. Selected Publications


**C. Research Support**

**Ongoing research support**

1 UO1 AI054889-01 Novak R.J. (PI) 05/01/03-04/30/08
NIH/ NIAID
"Microbial control of immature Anopheles mosquitoes"
The major goal of this project is to demonstrate that larval management using environmentally safe and efficacious microbial insecticides in rice can provide an integral part of a malaria control program.
Role: Major Foreign Collaborator and Investigator

1 P20 RR020770-03 Beier JC (PI) 09/28/04-07/31/07
NIH (NIH Director’s Exploratory Centers for Interdisciplinary Research)
"Vector-Borne Disease Control in Urban Environments"
The major goal of this project is to develop new interdisciplinary approaches for the control of vector-borne diseases in urban environments, through collaborative studies involving investigators from 11 Departments and Centers at University of Miami, and investigators from Kenya, Egypt, Israel, Costa Rica, and Trinidad.
Role: Major Foreign Collaborator and Co-PI

**Completed Research**

U19 AI45511-06 Beier JC (PI) 09/01/99-08/31/06
NIH/NIAID (ICIDR Program)
"African Malaria Vectors" The major goal of this project is to better understand the larval ecology, behavior, and vector competence of African malaria vector mosquitoes.
Role: Major Foreign Collaborator and Project Leader
**Currently in a no-cost extension**

D43 TW01142-06 Beier JC (PI) 06/01/99-05/31/06
NIH Fogarty International Center (ABC Program)
"African Malaria Vectors (Training Grant)"
The major goal of this ABC project is to provide research training to African students in the areas of tropical medicine and insect ecology.
Role: Major Foreign Collaborator and Trainer
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Andrew K. Githeko

eRA COMMONS USER NAME

POSITION TITLE
Chief Research Officer

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
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<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>University of Nairobi</td>
<td>BSc</td>
<td>1981</td>
<td>Chemistry/Zoology</td>
</tr>
<tr>
<td>University of Liverpool, UK</td>
<td>MSc</td>
<td>1985</td>
<td>Parasitology/Entomology</td>
</tr>
<tr>
<td>University of Liverpool, UK</td>
<td>PhD</td>
<td>1992</td>
<td>Medical Entomology</td>
</tr>
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</table>

Please refer to the application instructions in order to complete sections A, B, and C of the Biographical Sketch.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

Positions:
1981 Research Officer II, Ministry of Health; Attached to Kenya Medical Research Institute (KEMRI), Malaria and Other Protozoan Diseases Research Centre, Kisumu, Kenya
1983 Assistant Research Officer, KEMRI, Kisumu, Kenya
1986 Research Officer, Center for Vector Biology and Control Research, KEMRI, Kisumu, Kenya
1994 Senior Research Officer, Center for Vector Biology and Control Research, KEMRI, Kisumu
1999 Principal Research Officer, Center for Vector Biology and Control Research, KEMRI, Kisumu
2003 Chief Research Officer, Center for Vector Biology and Control Research, KEMRI, Kisumu

Honors and Professional Service:
1998-2001 Inter-governmental Panel on Climate Change (/IPCC) Scientist
2000 Member, National Standards and Enforcement Review Committee. Ministry of Environment and Natural Resources,
2001 Advisor to WHO/WMO/UNEP Canada Health Meeting to develop guidelines to assess vulnerability and adaptation to impacts of Climate Change. Victoria Canada
2001 WMO/UNEP Consultant: Disaster management Policy
2001 Advisor to UNDP/GEF/UNFCCC methodologies on climate change and enhanced adaptation framework, Montreal, Canada.
1999-date Member of Editorial Board: Journal of Global Change and Human Health
1998-2001 IPCC Coordinating Lead Author, Health Chapter
2003 Member of Review Board: Millennium Ecosystem Assessment
2004 Inter-governmental Panel on Climate Change Lead author Fourth Assessment report
B. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.


**C. Research Support.** List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and responsibilities of principal investigator identified above.

**Active:**

1. R56 AI 50243   Yan (PI)   07/01/07-06/30/08
   NIH one-year bridge award
   “Ecology of African Highland Malaria”
   The goal of this project is to determine the factors causing malaria reemergence in high-altitude areas in East Africa, and to develop models for forecasting malaria outbreaks.
   Role: Investigator

2. D43 TW01505  Yan (PI)  09/15/05-09/14/10
   NIH/FIC
   “Population Biology of African Malaria Vectors”
   The goal of this training grant is to train African scientists in the area of mosquito population ecology and genetics.
   Role: Faculty mentor
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
<th>UNIVERSITY OF CALIFORNIA AT IRVINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROBERTO TAPIA-CONYER</td>
<td>PROFESSOR AT THE COLLEGE OF HEALTH SCIENCES</td>
<td></td>
</tr>
<tr>
<td>eRa COMMONS USER NAME</td>
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**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO (UNAM). MEXICO CITY, MEXICO</td>
<td>MD</td>
<td>1972-1977</td>
<td>MEDICINE</td>
</tr>
<tr>
<td>HARVARD SCHOOL OF PUBLIC HEALTH HARVARD UNIVERSITY, CAMBRIDGE, MA.</td>
<td>MPH</td>
<td>1983-1984</td>
<td>PUBLIC HEALTH</td>
</tr>
<tr>
<td>HARVARD SCHOOL OF PUBLIC HEALTH HARVARD UNIVERSITY, CAMBRIDGE, MA.</td>
<td>MSc</td>
<td>1984-1985</td>
<td>HEALTH SERVICE ADMINISTRATION</td>
</tr>
<tr>
<td>CENTERS FOR DISEASE CONTROL AND UNIVERSITY OF CALIFORNIA. BERKELEY, CA.</td>
<td>DIPLOMA</td>
<td>1993-1994</td>
<td>PUBLIC HEALTH LEADERSHIP</td>
</tr>
<tr>
<td>UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO. MEXICO CITY, MEXICO</td>
<td>DrSc</td>
<td>2003</td>
<td>PUBLIC HEALTH</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

**Positions and Employment**

1978-1980 Titleholder Professor (Acting), School of Medicine, UNAM
1980 to date Senior Professor, School of Medicine, UNAM
1984-1985 Research Assistant, Institute for Health Research, Harvard University, Cambridge, MA
1985 Assistant Professor, Master of Public Health Program, Harvard School of Public Health Harvard University, Cambridge, MA
1985-1991 Director of Epidemiological Surveys at the Mexican Secretariat of Health.
1986-1990 Professor, Instituto Nacional de Salud Pública (National Institute of Public Health), Mexico
1991-1997 General Director of Epidemiology at the Mexican Secretariat of Health.
1997-2006 Undersecretary of Prevention and Health Promotion at the Mexican Secretariat of Health.
2004 –to date Tutor of Masters and Doctorate in Sciences at the UNAM
July 2007-to date  Professor College of Health Science, University of California at Irvine
2007-to date  Director-General CARSO Health Institute

**Other Experience and Professional Memberships**

1985  Consultant to The Pathfinder Fund for the project: Development of Epidemiology Programs (Boston, Mass. USA)
1986  Consultant to the Kellogg’s Foundation in technical assistance for Information System’s management (Latinamerica)
1987  Consultant to the Rockefeller Foundation for the Project: Development of strategies and integration of an Advisory Council on Epidemiology (Mexico)
1988  Consultant to the Association of Universities’ Programs in Health Administration, for the project: Design and elaboration of a handbook based on case methodology to be applied to epidemiology
1992 to date  Member of the Editorial Committee of *Salud Pública de México*, Journal of the Instituto Nacional de Salud Pública (National Institute Health) Mexico
1992 to date  Member of the Editorial Committee of *Archives of Medical Research*
1995 to date  Member of the Editorial Committee of *La Gaceta Médica de México*  Journal of the Academia Nacional de Medicina (National Academy of Medicine) Mexico
1997 to date  Member of the Technical Advisory Group on Vaccines and Immunization of the Panamerican Health Organization (PAHO)
1997 – 2000  Member of the Group of Experts on Essential Public Health Functions. World Health Organization
2001 to date  Member of the Stop TB Coordinating Board Executive Committee. World Health Organization
2001 -2006  Member of the Board of Advisors of the California Mexico Health Initiative
2002 to date  Representative of the American Region in the Stop TB Partnership Coordinating Board. World Health Organization
2003 to date  Member of the Board of Directors of the Public Health Institute, Oakland, CA, USA
2003 to date  Member of the National Advisory Council for the California Health Benefits Review Program
2005 to date (elected)  Chairperson of the Subgroup on Advocacy, Communication and Social Mobilization at Country Level of the Stop TB Partnership. World Health Organization
2005- to serve until  Chairperson of the Strategic and Technical Advisory Group on Tuberculosis. World Health Organization
2007 (elected) | Health Organization

September 2007 to September 2009 | Member of the Influenza Global Action Plan Advisory Group, WHO (Nominated by WHO Director-General)

### Affiliations

**1987** to date | Member of the Sociedad Mexicana de Salud Pública (Mexican Public Health Association), elected as President for the term 1997-1998

**1992** to date | Member of the Academia Nacional de Medicina (National Academy of Medicine)

**1994** to date | Member-Fellow Researcher of the Sistema Nacional de Investigadores de Consejo Nacional de Ciencia y Tecnología (National Researchers’ System of the National Council for Science and Technology)

**1996** to date | Member of the Academia Mexicana de Ciencias (Mexican Academy of Sciences)

**2001** to date | Member of the Academia Mexicana de Cirugía (Mexican Academy of Surgery)

**2005** to date | Member of Alpha Omega Alpha Honor Medical Society. California, USA

### Honors

**1993** | "Miguel Alemán Valdez" Research Prize
Fundación Miguel Alemán (Miguel Aleman’s Foundation)
Mexico

**1996** | "José Ruiloba" Prize on Epidemiology
For his piece entitled: "Seroepidemiologic survey on Lyme’s Borreliosis in the Mexican Republic"
Asociación Mexicana de Infectología y Microbiología Clínica (Mexican Association of Infectology and Clinical Microbiology)
Mexico

**1999** | Medical Research Prize "Dr. Jorge Rosenkranz 1998" on Epidemiology
For his piece entitled: “Clinical and epidemiological characteristics of the Helicobacterpylori infection in Mexico”
Mexico

**2000** | Medal to the Sanitary Merit
Sociedad Mexicana de Salud Pública (Mexican Public Health Association)
Mexico

**2003** | Distinguished Citizen Award in recognition to the contributions made to Public Health Research
Guanajuato’s State Government
Mexico

**2004** | Distinguished Professor Award for 25 years of teaching
School of Medicine
Universidad Autónoma de México
Mexico
B. Selected peer-reviewed publications (in chronological order).


C. Research Support

Ongoing Research Support:

Análisis de la Encuesta Nacional de Salud y Nutrición 2006
Análisis del Estudio Longitudinal de Enfermedades Crónicas en la Cohorte de Adultos de Wellcome Foundation
BIOGRAPHICAL SKETCH
Provide the following information for the key personnel and other significant contributors. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Zuzana Bic, Dr.P.H., MUDr.

eRA COMMONS USER NAME
zbic@uci.edu

POSITION TITLE
Lecturer PSOE

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>The King Charles University, Medical School, Prague, Czech Republic,</td>
<td>MUDr.</td>
<td>1980</td>
<td>Doctor of Medicine</td>
</tr>
<tr>
<td>Loma Linda University, Loma Linda, CA, School of Public Health,</td>
<td>Dr.P.H.</td>
<td>1997</td>
<td>Doctor of Public Health, Preventive Care-Lifestyle Medicine</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

Positions and Employment

Academic Appointment
1980–1983 Candidate of Science, Institute of Hygiene & Epidemiology, Prague, Czech Republic, Europe
1998-2002 Assistant Adjunct Professor of Medicine, Preventive Care & Integrative Lifestyle Management, University of California, Irvine, The Chao Family Comprehensive Cancer Center, Orange, CA
2002-2004 Assistant Clinical Professor, College of Medicine - Hematology/Oncology, University of California, The Chao Family Comprehensive Cancer Center, Orange, California
2001-2005 Lecturer in the Kinesiology & Health Promotion Department, California State Polytechnic University, Pomona, CA
2005-present Lecturer PSOE in Social Ecology and Public Health Program, School of Social Ecology, College of Health Sciences, University of California Irvine, Irvine, CA

Professional experience:
1994–1998 Preventive Care Specialist, Family Medical office, Medical Plaza, Irvine, CA
1995 Leading ANAD (National Association of Anorexia Nervosa and Associated Disorders) Support Group, organized by New Directions for Women, Inc., Costa Mesa, CA
1996–1998 Preventive Care Specialist, Family Medical office, Medical Plaza, Tustin, CA
1998-1999 Lecturer for “Lifestyle for Living” (a program for prostate cancer prevention), Newport Beach, CA
1999-2001 Preventive Care Specialist, Director and Founder of Preventive Care & Lifestyle Medicine Clinic, Tustin, CA
1998-present Lecturer for CMESN (Continuing Medical Education Speakers Network), Santa Ana, CA
1998-2006 Member of Clinical Trial Protocol Review and Monitoring Committee (CTPRMC), University of California, Irvine, CA
1999-present Member of Professional Advisory Board, The Wellness Community, Orange County, CA
2001-2003 Member of Medical Content Panel and Advisors, and host of “Lifestyles with Dr. Bic”, Sun Integrative Health, Newport Beach, CA, www.sunintegrativehealth.com
2001-present Founder of Lifestyle Medicine over the Phone Clinic - Lifestyle Medicine Programs & Consultations Services
2002-2004 Founder of Tour De Health program for cancer patients, Wellness Community Orange County, CA
2004-2007 Founder of the program for cancer patients: “Food for Thought”, Wellness Community, Orange County, CA
Biographies for Public Health Faculty
A. Personal Statement

The overall goal of my research is to understand the etiology of cancer of the cervix uteri. I am working in this field since 1986. During this time, my principal contributions were (1) to develop a phylogenetically based taxonomy of papillomaviruses, and (2) to study the transcription of papillomaviruses, including epigenetic phenomena. The latter topic often concentrated on the linkage between cellular physiology and transcriptional mechanisms of papillomaviruses and the impact of these linked entities on the carcinogenic process. An example is the induction of transcription of the papillomavirus oncopgenes by stress- and sex-hormones. This interest has led me to the present project, which still targets the same disease but is not linked to papillomaviruses, namely the role of cholinergic signaling in cervical biology and cervical carcinogenesis. This new interest aims to understand the molecular basis for the epidemiological observation, that tobacco smoking is the principal behavioral risk factor to develop cervical cancer. The relevance of this mechanism is probably of a much broader nature, as it is probably not just tobacco smoke, but normal autocrine acetylcholine signaling that contributes to cancer progression, which may also be linked to identify the specific anatomic site of carcinogenesis, the cervix, and the histologic process of squamous metaplasia. In the person of Dr. Itzel Calleja-Macias and Erinn Parnell, I have two well-trained students who will execute the experiments. I am strongly supported by my collaborator Dr. Sergei Grando, who is a leading expert on the role of cholinergic signaling in oral and lung cancer, but his student Dr. Anna Chikova, who contributes special experience in transfection techniques, and Kathy Ozann, who will support us in biostatistic evaluations.

B. Positions and Honors

Positions and Employment

1980-1987       Scientific Assistant, German Cancer Research Center, Heidelberg
1987-1990       Senior Lecturer, Institute of Molecular and Cell Biology (IMCB), Singapore
1990-2000       Associate Professor, IMCB, Singapore
2000-2002       Professor, IMCB, Singapore
2002-2006       Professor in Residence, Molecular Biology and Biochemistry, Univ. of California Irvine
2007-present   Professor, Molecular Biology and Biochemistry and Program in Public Health, Univ. of California Irvine

Other Experience and Professional Memberships

1990-       Vereinigung f. Allgemeine & Angewandte Mikrobiologie (Germany)
2003-       NIH Peer Review, ad-hoc reviewer
2006- Virology, Member of the Editorial Board
2009- Journal of General Virology, Member of the Editorial Board

Honors
1969-1975 Fellowship of the Studienstiftung des Deutschen Volkes,

C. Selected Peer-reviewed Publications (Selected from 135 peer-reviewed publications)

Most relevant to the current application.


Additional recent publications of importance to the field (in chronological order)


D. Research Support

**Ongoing Research Support**

CRCC Bernard (P.I.) 07/01/10-07/01/12

The role of acetylcholine receptor subunit single nucleotide polymorphisms in cervical carcinogenesis.

Role: P.I.

FAMRI Bernard (PI) 07/01/07-12/31/10

Synergy of HPVs and tobacco smoke in cervical cancer

The goal of this study is to lay the foundation for the current proposal, namely to investigate whether cholinergic signaling takes place in cervical cancer cells and whether it might synergize with papillomaviruses.

Role: PI

**Completed Research Support**

ROI NIH-CA-91964 Bernard (PI) 07/01/02-06/30/08

Transcription of human papillomavirus-16

Study of mechanisms of HPV-16 transcription, particularly epigenetics.

Role: PI

UC_Mexus Bernard (PI) 07/01/04-06/30/09

The role of human papillomaviruses in cancers from patients from Mexico

A series of 5 1-year-grants to collaborate with scientists in Mexico City and Monterrey.

Role: PI

Prior to 2002 my Research Support was part of the overall-budget of the Institute of Molecular and Cell Biology, Singapore.
A. Personal Statement

I have extensive training and experience in statistics and epidemiology, key aspects of the proposed research project. My research experience includes about a dozen published studies on dietary exposures, with an emphasis on repeated measurements and the impacts of dietary variability on exposure estimation and epidemiologic analyses. I recently served as co-PI for a population study of polychlorinated biphenyl exposures and various health outcomes (including diabetes and CVD) in Anniston, Alabama, and currently lead the UCI research team for a multi-university epidemiologic study of 70,000 individuals exposed to perfluorooctanoate in West Virginia. Relevant statistical experience includes longitudinal data analyses for a variety of epidemiologic studies including air pollutant exposures and cardiovascular outcomes, dietary contributions to pesticide exposures, and development of Bayesian methods and estimating equations for biomarker-based exposure estimation. I teach graduate courses on applied longitudinal data analysis, introductory biostatistics, and advanced epidemiologic methods.

B. Positions and Honors

Positions and Employment

1996 Research Consultant (ASPH Intern), Radiation Studies Branch, U.S. Centers for Disease Control and Prevention, Atlanta, GA.
2003-2006 Assistant Professor, Department of Environmental and Occupational Health and Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, GA.
2006- Assistant Professor, Department of Statistics, Department of Epidemiology, and Program in Public Health, University of California, Irvine, CA.

Selected Professional Service and Honors

2000-2003 US Environmental Protection Agency, STAR Fellowship
2002-2003 Sacramento Statistical Association, Councilor
2005-2006 National Research Council, Committee on Assessing Human Health Risks of Trichloroethylene
2007 National Research Council, Peer Reviewer, Review of Key Scientific Literature for Establishing Chronic Inhalation Exposure Levels for Beryllium
2010 US Environmental Protection Agency Science Advisory Board, Trichloroethylene Review Panel
C. Selected Peer-reviewed Publications (Selected from 38 peer-reviewed publications)


Goncharova A, M Pavuk, HR Foushee, and DO Carpenter for the Anniston Environmental Health Research Consortium. Blood pressure in relation to concentrations of PCB congeners and chlorinated pesticides. Environmental Health Perspectives (Accepted and available online, 2010).

Haneuse S and S Bartell. Designs for the combination of group- and individual-level data. Epidemiology (Accepted, 2010).

D. Research Support

Ongoing Research Support


Personal, indoor and outdoor particulate air pollution and heart rate variability in elderly subjects with coronary artery disease.

Specific aims: Examine relationships between cardiovascular autonomic function as measured by heart rate variability and exposures to personal, indoor and outdoor home air pollutants. We hypothesize that PM_{0.25} and particle number concentration will be inversely associated with HRV, which will support the view that exposure to ultrafine particles leads to disturbances of cardiovascular autonomic function.

Role: Co-PI.

NIH, NIEHS, R21 ES016379 (Wu) 9/1/2008 – 8/30/2011
Exposure to mobile source air pollution and adverse birth outcomes in the Los Angeles Air Basin
Specific aims: Determine the association of mothers’ residential exposure to traffic-related air pollutants with low birth weight, preterm delivery, and intrauterine growth restriction in a large retrospective cohort
Role: Co-Investigator

Garden City Group, Inc., Contract 6-38874-C1 (Ryan) 7/1/07 – 2/28/11
Retrospective Exposure Assessment for Perfluorooctanoic Acid in Eastern Ohio and Western West Virginia
Specific Aims: Develop and apply environmental fate, transport, and exposure models to be used in epidemiologic studies of perfluorooctanoic acid.
Role: Co-Investigator (PI on UCI subcontract, via Emory University)

Garden City Group, Inc., Contract 6-38909-C2 (Ryan) 7/1/08 – 3/1/12
C8 Half Life Study
Specific Aims: Develop a model for perfluorooctanoic acid toxicokinetics in humans using serial blood samples from 200 volunteers after exposure cessation from activated carbon filtration of drinking water.
Role: Co-PI (PI on UCI subcontract, via Emory University)

NIH, R01 HD060628-01A2 (Wadhwa) 2/1/10 – 2/1/15
EMA Assessment of Biobehavioral Processes in Human Pregnancy
Specific Aims: Examine relationships between birth outcomes and prenatal stress in prospective longitudinal cohort study, using maternal cortisol levels and real-time electronic diary assessments.
Role: Co-Investigator

Completed Research Support (last three years)

CDC/ATSDR, U50 - ATU473215 (Shelton) 10/1/03 - 12/14/07
University-Community Consortium for Anniston Environmental Health Research
Specific Aims: Investigate the health effects of PCB exposures in Anniston, Alabama using a suite of studies including a randomized survey and clinical measurements for over 600 residents.
Role: Co-PI (PI on UCI subcontract, via Jacksonville State University)
ZUZANA BIC, Dr.P.H., MUDr.
Doctor of Public Health/Health Promotion and Education
Preventive Care Specialist

Lecturer SOE
Department of Population Health and Disease Prevention,
Program in Public Health, College of Health Sciences
University of California, Irvine
Anteater Instruction & Research Building (AIRB)
Suite 2040, office 2041
Irvine, California, 92697-3957
http://publichealth.uci.edu/
Phone: 949-824-3216 /949-854-9365/cell 949-378-3065
Fax: 949-824-0529
E-mail: ZBic@uci.edu

OBJECTIVES
Lecturer SOE. Department of Population Health and Disease Prevention
Consultant in the areas of lifestyle medicine for prevention, treatment and total wellness, which includes nutrition, exercise and stress management

SUMMARY OF QUALIFICATIONS
- Doctor of Public Health in Health Promotion & Education, Preventive Care Specialist.
- Expert in the prevention of headaches, migraines, and other chronic diseases.
- Extensive skill in individual consultations combining the influence of stress, exercise, nutrition, and other lifestyle factors in promoting health and preventing diseases.
- Well-versed in developing and delivering lectures on a wide range of health-related topics for health professionals and the community.
- Extensive interest and research experience in studying the impact of lifestyle medicine on cancer prevention, aging, and other chronic diseases.
- Experience in developing and implementing wellness programs designed to meet a wide spectrum of health issues.
- Highly skilled in promotion of programs and services, motivation of clients/patients, and health intervention on individual basis.
- Skilled in coordination and evaluation of wellness programs using state-of-the tools; specialist in lifestyle risk assessments.
- Strong inter-personal communication skills and ability to instruct and interact effectively with individuals in a corporate setting.

EDUCATION
1980 MUDr. Doctor of Medicine, Charles University, Medical School, Prague, Czech Republic (Public Health and Medicine)
1997 Dr.P.H. Doctor of Public Health, Preventive Care – Lifestyle Medicine, Loma Linda University, Loma Linda, CA, School of Public Health, Preventive Care (Public Health, Promotion & Education, Preventive Care Specialist)
LICENSURE AND CERTIFICATION
1980 MUDr., state examination, Prague, Czech Republic
1998 Certified Preventive Care Specialist (American Board of Preventive Care), DPC-00800.

PREDOCTORAL AND POSTDOCTORAL TRAINING (for Dr.P.H.)
1992–1996 Clinical experience in various preventive care programs/individuals and groups (nutritional medicine, stress management, relaxing techniques, dependency, weight management, smoking cessation, body composition measurements, exercise and fitness testing):
- St. Joseph Hospital, Orange, CA
- Hoag Hospital, Newport Behavioral Health, Newport Beach, CA
- Beaver Medical Clinic, Inc., Redlands, CA
- Loma Linda University, Center for Health Promotion and Education, Loma Linda, CA
- Family Practice Office, Irvine and Tustin, CA
- Loma Linda Medical Group, Sun City, CA

Academic Appointment
1980–1983 Candidate of Science, Institute of Hygiene & Epidemiology, Prague, Czech Republic
1998-2002 Assistant Adjunct Professor of Medicine, Preventive Care & Integrative Lifestyle Management, University of California, Irvine, The Chao Family Comprehensive Cancer Center, Orange, CA
2002-2006 Assistant Clinical Professor, College of Medicine - Hematology/Oncology, University of California, The Chao Family Comprehensive Cancer Center, Orange, California
2001-2005 Lecturer in the Kinesiology & Health Promotion Department, California State Polytechnic University, Pomona, CA
2005-present Lecturer SOE, Department of Population Health and Disease Prevention, Public Health Program, College of Health Sciences, University of California Irvine, Irvine, CA
2008-present Director of the Student Experience in Public Health Practice, Program in Public Health, College of Health Sciences, University of California Irvine, Irvine, CA

PROFESSIONAL EXPERIENCE:
1994–1998 Preventive Care Specialist, Family Medical office, Medical Plaza, Irvine, CA
1995 Leading ANAD (National Association of Anorexia Nervosa and Associated Disorders) Support Group, organized by New Directions for Women, Inc., Costa Mesa, CA
1996–1998 Preventive Care Specialist, Family Medical office, Medical Plaza, Tustin, CA
1998-1999 Lecturer for “Lifestyle for Living” (a program for prostate cancer prevention), Newport Beach, CA
1999-2001 Preventive Care Specialist, Director and Founder of Preventive Care & Lifestyle Medicine Clinic, Tustin, CA
1998-present Member and temporary lecturer for CMESN (Continuing Medical Education Speakers Network), Santa Ana, CA
1998-2006 Member of Clinical Trial Protocol Review and Monitoring Committee (CTPRMC), University of California, Irvine, CA
1999-2007 Member of Professional Advisory Board, The Wellness Community, Orange County, CA
2001-2005 Lecturer for Kinesiology & Health Promotion Department, California State Polytechnic University, Pomona, CA
2001-2003 Member of Medical Content Panel and Advisors, and host of “Lifestyles with Dr. Bic”, Sun Integrative Health, Newport Beach, CA, www.sunintegrativehealth.com
2001-present Founder of Lifestyle Medicine over the Phone Clinic - Lifestyle Medicine Programs & Consultations Services, Irvine, CA, LFM program phone: 949-854-9365
2002 - 2003 Founder of Tour De Health program for cancer patients, Wellness Community Orange County, CA
2005 - 2007 Founder and Lecturer “Food for Thought” program for cancer patients, Wellness Community Orange County, CA
2005-2011 Temporary lecturer only for online classes, Kinesiology & Health Promotion Department, California State Polytechnic University, Pomona, CA
2010-present Member of Community Leadership Board for American Diabetes Association (ADA), Orange County, CA

TEACHING AWARDS

Teaching Awards:

2011 Award – 2011 Outstanding Professor at UCI, School of Health Sciences
2010 Award – 2010 Outstanding Professor at UCI, School of Health Sciences
2009 Award – 2009 Outstanding Professor at UCI, School of Health Sciences
2008 Award - Lecturer of the year 2008 at UCI
2009 Excellence in teaching recognized by Gamma Phi Beta Sorority (attached)
2008 PHA received Anteater Award: Most Outstanding Academic Organization at the under my Advisor-ship for UCI PHA (Public Health Association) from 2006 – present

Research and Creative Activity

Journal Articles, peer reviewed:
  • Z. Bic, S. Biza: Getting “Un” Constipated in the 21st Century (Constipation...the “Low-Serotonin Syndrome”), Czech and Slovak Gastroenterology and Hepatology, Volume 4, 64, August 2010.
  • Author of the article: Anti-inflammatory diet, (500 words), 2010, Salem Press, Alternative Medicine, on the list of contributors, *Salem Health: Complementary and Alternative Medicine.*

Publication or Creative Work

• Book:
  “Educating instead of Medicating in Public Health”, University Readers, published
Professional Recognition and Activity

HONORS, AWARDS, NOMINATIONS. ELECTIONS

Honors and awards

2006 Nutrition Network Award, June 2006, awarded by Santa Ana Unified School District for cooperation in health education through PubHlth 198

2007 Certificate of appreciation for support and involvement in with UCI residents, staff, students of Arroyo Vista Team, UCI

2008 Award- Lecturer of the year 2008 at UCI

2008 PHA received Anteater Award: Most Outstanding Academic Organization at the under my Advisor-ship for UCI PHA (Public Health Association) from 2006 – present

2008 Network for a Healthy California Award for dedication and support to healthier living for students and families in the Santa Ana Unified School District community

2009 IHA Health Literacy Award Nominee – for published material “Educating instead of Medicating in Public Health” by Zuzana Bic, Dr.P.H.,MUDr. and Ramon P.Oblepias Llamas,B.S


2009 Award – 2009 Outstanding Professor at UCI, School of Health Sciences

2009 Excellence in teaching recognized by Gamma Phi Beta Sorority (attached)

2010 Certificate of recognition for the support (honoring the work of Public Health students in Project :Mangel-Benim-reforestation”,(Fundacion Neotropica, Costa Rica, under my advising in the Summer Travel Program, UCI

2010 Award – 2010 Outstanding Professor at UCI, School of Health Sciences

2010 Award: Professor of the Month for April 2010, Campus Village Housing

2010 Award: Professor of the Month for December 2010, Campus Village Housing

2010 Award: Outstanding Advisor, recognition by Students’ Public Health Association, UCI

2010 Students’ project under my supervision: Lifestyle Medicine & Oral Health – The Honduras Project, was nominated for Award on Health Literacy and research was presented as a poster presentation at the conference, “Health Literacy in the Real world: Programs and solutions that work”, 9th Annual Health Literacy Conference

2010 Under my supervision students received $8,000 grants (from Aetna and Allergen) for ADA, Public Health Program received “ACT” award at the ADA Stop Diabetes awards dinner.

2011 Award – 2011 Outstanding Professor at UCI, School of Health Sciences
Election to offices in professional societies and scholarly organizations

1999-2007  Member of the Professional Advisory Board, The Wellness Community, Orange County
2010-present  Board Member on Community Leadership Board for American Diabetes Association, Orange County
2009  Nominated for the position at the board of directors – representing Dr.P.H. for 2010-2012 at American College of Lifestyle Medicine (ACLM)

PROFESSIONAL ACTIVITY

Invited presentations at educational, governmental institutions, professional meetings, (or similar organizations)

2005-2006:
▪ Fountain of Youth: Typical versus Normal Aging, Antelope Valley Hospital, Lancaster, Ca 93534
▪ Fibromyalgia and Chronic Fatigue Syndrome, White Memorial Medical Center, Los Angeles, CA 90033
▪ Fibromyalgia and Chronic Fatigue Syndrome, Centinela Freeman Regional Medical Center, Marina del Rey, CA 90292
▪ Fibromyalgia and Chronic Fatigue Syndrome, John F. Kennedy Memorial Hospital, Indio, CA 92201
▪ Fountain of Youth: Typical versus normal Aging, Encino Tarzana Regional Medical Center, Tarzana, CA 91356

2007:
▪ Migraines in Children, Fountain Valley Regional Hospital, Fountain Valley, CA 92708
▪ Health and wellness Issues in the Aging, John F. Kennedy Memorial Hospital, Indio, CA
▪ Eating disorders, Salinas Valley Memorial Healthcare System, Salinas, CA
▪ Nutrition in Pregnancy, Kaiser Permanente Bellflower, Bellflower, CA 90706
▪ Role of Nutrition in Modern Lifestyle, Torrance Memorial Medical Center, Torrance, CA 90505
▪ Hair Loss prevention and Treatment – Evidence-based Lifestyle Medicine, RW Bliss Army Health Center, Ft.Huacuca, Arizona, sponsored by Tuscon Hospital Medical Education Program, Tuscon, Arizona
▪ Are There Health Benefits in a Vegetarian Diet? Valley Presbyterian Medical Center, Van Nuys, CA

2008:
▪ “Focus the Nation at UCI”, 2008 – Topic: Are there benefits in a vegetarian diet? (copy attached)

2009:
▪ Distinguish Guest Lecture Series - 2009, Saddleback College Emeritus Institute,
Topic: Educating instead of Medicating in Public Health (copy attached)
- Overview of eating disorders, Center for Healthy Communities, Los Angeles, CA
- Wellness/Lifestyle Medicine and Healthy Aging, Monterey Park Hospital, Monterey Park, CA

2010
- Impaired immunity in the senior population, Fountain Valley Regional Hospital, CA

2011
- Nutrition for the Stroke, Valley Presbyterian Hospital, Van Nuys, CA
- Complementary and Alternative Medicine, Salinas Valley Memorial Healthcare System, Salinas, CA
- Cancer and Nutrition, Fountain Valley Regional Medical Center, Fountain Valley, CA

Professional on-line resources produced/edited/maintained

Publications that cited my work:
- Women’s Day, 6/21/2005, Title: “Food and Exercise Rx: Feel Better without Medication, Headaches and Migraines”
- msn.com, msn health and fitness 6/1/2005 Title: Managing migraines: A Big Fat Headache? (attached)
- 10/29/2007: Interview with New University, UCI topic: Women more abusive than men, study shows”

OTHER PROFESSIONAL SERVICE

Service to professional societies (committees, session chair, conference organizer, etc.)
- Member of Professional Advisory Board, The Wellness Community, 1999–2007 (information attached)
- Member of Clinical Trial Protocol Review and Monitoring Committee (CTPRMC), University of California, Irvine, CA, 2002-2006
- Professional membership in: American Botanical Council - present
- Professional membership in: American College of Sports Medicine - present
- Professional membership in: American College of Lifestyle Medicine - present

Ad hoc service as reviewer of manuscripts and referee of proposals
- Book chapters review: Drugs and Society, 9th edition, by Glen R. Hanson, Peter J. Venturelli and Anette E. Fleckenstein, jbpub.com, publisher, May 2007
- Manuscript peer-review: “Trends in obesity, fatness and physical fitness among male and female college students” (P.Pribis et al.), ISSN 2072-6643, Journal Nutrients,
2010


Consulting activities (industry, government; indicate whether paid or pro bono)

- Member of CME (Continuing Medical Education) for physicians, topics on disease prevention, disease from Public Health perspectives, (from 1998- present). Presenting public health lectures to local hospitals. (paid for the lecture)

CONTRACTS, GRANTS, FELLOWSHIPS

Under my supervision students in the class PubHlth 198 Directed studies (topic: “Stop Diabetes with ADA cooperation”) received grants
#1: $5,000 for their submitted proposal “ Por Tu Familia Fair” from Aetna
#2: $3,000 for their submitted proposal from Allergen

Pending: Proposal (2011)
Co-PI: Zuzana Bic Dr.P.H.,MUDr. and students in PubHlth 199 Special Studies
- Title: The effects of natural anti-oxidative and anti-inflammatory rich food extracts on the prevalence and severity of headaches.
- Total cost for 1 years $25,000, Status: pending

Pending: Co-PI: Zuzana Bic Dr.P.H.,MUDr
- Title: The influence of Pycnogenol™ on the Incidence and Severity of Chronic Tension Type of Headache (CTH). Total direct cost for 2 years $233,435; indirect costs $121,071, total budget $354,506 (Sponsor, Pycnogenol, Horphag Research, LTD. Status: pending (2010)
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Bruckner, Tim A.

POSITION TITLE
Assistant Professor of Public Health and Planning, Policy, and Design

eRA COMMONS USER NAME (credential, e.g., agency login)

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dartmouth College</td>
<td>B.A.</td>
<td>1998</td>
<td>Biology</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>M.P.H.</td>
<td>2003</td>
<td>Epidemiology / Biostatistics</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>Ph.D.</td>
<td>2007</td>
<td>Epidemiology</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>Postdoctoral</td>
<td>2009</td>
<td>Health Policy</td>
</tr>
</tbody>
</table>

A. Positions and Honors

Positions and Employment
2001-2007 Graduate Student Researcher, State of California Perinatal Outcomes Research Project
2007-2009 AHRQ Post-doctoral Scholar in Health Policy, University of California, Berkeley
2009- Assistant Professor, Public Health & Planning, Policy and Design, University of California, Irvine

Other Experience and Professional Memberships
2005- Member, Population Association of America
2006- Member, International Union for the Scientific Study in Population
2006- Member, Society for Epidemiologic Research
2007-2008 Member, Society for Maternal and Fetal Medicine
2009- Mental Health Policy Consultant to the World Health Organization

Honors
2004 Pre-doctoral Award, NICHD Training Grant in Child Health
2005 Pre-doctoral Award, NIA Training Grant in Demography
2006 Public Health Alumni Association Pre-doctoral Scholar

B. Selected Peer-reviewed Publications (Selected from 32 peer-reviewed publications)


C. Research Support

Ongoing Research Support

Special Research Grant, University of California, Irvine  5/1/10-5/1/11
Chronic Disease Morbidity among Severely Mentally Ill Persons in Medicaid
This study compares cardiovascular disease and diabetes morbidity among severely mentally ill California Medicaid enrollees who either report or do not report a co-occurring substance use disorder.
Role: PI

National Institutes of Health  9/1/09 – 9/1/11
Extramural Loan Repayment Program Award in Health Disparities Research
Racial/Ethnic Disparities in Mental Health
Role: PI

Completed Research Support

08-78106-000  Scheffler (PI)  1/21/09-1/21/10
State of California Department of Mental Health
Mental Health Care following California’s Mental Health Services Act (Proposition 63)
This project examined the prevalence of treated severe mental disorders in California following the influx of $1.5 billion to county mental health departments. We tested the hypothesis that increased county mental health resources, from the 2004-enacted tax on California millionaires, reduce the prevalence of costly emergency and/or involuntary treatment of severely mentally ill persons.
Role: Lead Analyst

5R21HD056581  Hout (PI)  7/1/09-4/1/10
NICHD and University of California, Berkeley Population Center
The Relation between Income and Infant Health: A Natural Experiment
This project tested the hypothesis that a sudden influx of financial resources during pregnancy improves birth outcomes.
Role: Co-Investigator
BIOGRAPHICAL SKETCH

NAME  
Edwards, Rufus D.

POSITION TITLE  
Associate Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
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<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham University, Birmingham, UK</td>
<td>B.Sc.</td>
<td>1992</td>
<td>Biological Sciences</td>
</tr>
<tr>
<td>Rutgers University, New Brunswick, NJ</td>
<td>M.S.</td>
<td>1995</td>
<td>Environmental Sciences</td>
</tr>
<tr>
<td>Rutgers University, and University of Medicine and Dentistry of New Jersey, NJ (joint degree)</td>
<td>Ph.D.</td>
<td>1999</td>
<td>Exposure Measurement and Assessment</td>
</tr>
</tbody>
</table>

A. Personal Statement.
Dr. Edwards’ research focuses on human exposures to air pollutants including particulate matter and volatile organic compounds, development of sampling and analysis techniques, mitigation of wild land firefighter exposures, carbon offset assessment, dermal exposure to pesticides, health effects of wood smoke, residential energy provision, greenhouse gas emissions and health co-benefits. Dr Edwards is a member of the WHO Indoor Air Quality Guidelines Development Group (GDG), Co-Chair of the Climate Working Group for Global Alliance for Clean Cookstoves www.cleancookstoves.org – which launched September 2010 at the Clinton Global Initiative, and has served as technical advisor to Small Scale Working group of the Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCC)

B. Positions and Honors.
Honors
2009 Winner of Joan M. Daisey Outstanding Young Scientist Award. International Society of Exposure Science. Awarded for scientific quality of publications, significance of research to the field of exposure analysis, and potential for making future contributions to the science of exposure analysis.

Positions and Employment

<table>
<thead>
<tr>
<th>Year</th>
<th>Position and Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 –present</td>
<td>Associate Professor, Department of Epidemiology, University of California, Irvine</td>
</tr>
<tr>
<td>2006 - 2009</td>
<td>Assistant Professor, Department of Epidemiology, University of California, Irvine</td>
</tr>
<tr>
<td>2003 - 2006</td>
<td>Assistant Professor, Environmental Health Science and Policy, University of California, Irvine</td>
</tr>
<tr>
<td>2001 - 2003</td>
<td>Research Associate, Environmental Health Sciences, School of Public Health, University of California, Berkeley</td>
</tr>
<tr>
<td>1999 - 2001</td>
<td>Researcher, National Public Health Institute of Finland, KTL Finnish National Institute of Public Health, Kuopio, Finland, sponsored by the National Academy of Sciences, Finland</td>
</tr>
</tbody>
</table>

Other Experience and Professional Memberships

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Co-Chair Climate Working Group for Global Alliance for Clean Cookstoves <a href="http://www.cleancookstoves.org">www.cleancookstoves.org</a> – which launched September 2010 at the Clinton Global Initiative</td>
</tr>
<tr>
<td>2011</td>
<td>WHO Indoor Air Quality Guidelines Development Group (GDG)</td>
</tr>
<tr>
<td>2010</td>
<td>Technical advisor to Small Scale Working group of the Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCC)</td>
</tr>
<tr>
<td>2009 - 2010</td>
<td>European Science Foundation – peer reviewer of proposals</td>
</tr>
<tr>
<td>2009</td>
<td>International Society of Exposure Science conference technical organizing committee</td>
</tr>
<tr>
<td>2008 - present</td>
<td>Membership committee, International Society of Exposure Science</td>
</tr>
<tr>
<td>2008 - 2009</td>
<td>Nominations committee, International Society of Exposure Science</td>
</tr>
<tr>
<td>2007 - 2009</td>
<td>Governing Board, Councillor Academic Sector, International Society of Exposure Science</td>
</tr>
<tr>
<td>2005 - 2008</td>
<td>Awards Committee, International Society of Exposure Science</td>
</tr>
</tbody>
</table>
C. Selected peer-reviewed publications (15 most relevant to the current application from 47 publications)


D. Research Support.

Ongoing Research Support

Project Title: Biochar inoculants for enabling smallholder agriculture

Investigators: Edwards, Lehmann

Amount of funding: $1,600,000

Funding Agency: NSF Bread
Dates of Project Period: 01/03/10-29/2/13
Role in Project: Co-PI

Project Title: Global warming and aerosol toxicity co-benefits from small-scale industries in Mexico
Funding Agency: UC MEXUS CONACYT
Investigators: Edwards Masera
Source and Amount Funding: $25,000
Dates of Project Period: 8/1/09-01/31/11
Role in Project: PI

Project Title: In-Vehicle Air Pollution Exposure Measurement and Modeling.
Funding Agency: State of California Air Resources Board, Contract no 07-310
Investigators: Delfino
Source and Amount Funding: $500,000
Dates of Project Period: 6/30/08 – 6/29/11
Role in Project: CoI.

Pending Research Support

Project Title: Characterization Of Emissions From Small, Variable Solid Fuel Combustion Sources For Determining
Global Emissions And Climate Impact
Funding Agency: Environmental Protection Agency
Investigators: Rufus Edwards
Source and Amount Funding: $900,000.00
Role in Project: PI

Project Title: Improving Indoor Air Quality and Health by Using Sustainable and Safe Home Painting Products
Funding Agency: Department of Housing and Urban Development (HUD)
Investigators: Rufus Edwards
Source and Amount Funding: $725,148.00
Dates of Project Period: 12/1/2010 - 11/30/2013
Role in Project: PI

Project Title: An Assessment of the Effectiveness of Integrated Pest Management in Improving Respiratory Outcomes and
Reducing Home Allergen Concentrations in Privately Owned Multi-Family Housing in Los Angeles
Funding Agency: Department of Housing and Urban Development (HUD)
Investigators: Healthy Homes Collaborative
Source and Amount Funding: $1,000,000.00
Dates of Project Period: 12/1/2010 - 11/30/2013
Role in Project: Co-I

Project Title: Monitoring to support smoke free multi unit buildings
Funding Agency: Tobacco-Related Disease Research Program
Investigators: Rufus Edwards, Neil Klepeis
Source and Amount Funding: $510,000.00
Role in Project: PI

Recently Completed Research Support

Project Title: Air Oxidants Increase Bioavailability of Lead House Paint Leading to Increased Childhood Lead
Poisoning in Los Angeles County, California
Funding Agency: Department of Housing and Urban Development (HUD) CALHT0108
Investigators: Rufus Edwards, Michael Kleinman, John Ericson, Donald Dabdub, Jun Wu
Source and Amount Funding: $745,471.00
Dates of Project Period: 04/01/06 - 03/31/08
Role in Project: Principal Investigator

Project Title: Implicaciones Ambientales De Las Emisiones De Gases De Efecto Invernadero Por Combustión De Biomasa En México Y Su Potencial De Mitigación.
Funding Agency: Fondo Sectorial De Investigación Ambiental (SEMARNAT-CONACYT) 23640
Investigators: Masera
Source and Amount Funding: $121,094
Dates of Project Period: 01/01/07 - 12/31/08
Role in Project: Co-investigator

Project Title: Estudio de la eficiencia energética y mitigación de gases de efecto invernadero mediante estufas eficientes de leña.
Funding Agency: Programa De Apoyo A Proyectos De Investigación E Innovación Tecnológica, UNAM IN109807
Investigators: Masera IN109807
Source and Amount Funding: $54,230
Dates of Project Period: 01/01/07 – 12/31/09
Role in Project: Co-investigator

Project Title: Development of the UCB-L Particle Monitor For Applications in Environmental Justice
Funding Agency: State of California Air Resources Board
Investigators: Smith K.R.
Source and Amount Funding: $200,000
Dates of Project Period: 01/01/07 – 12/31/10
Role in Project: Co-investigator. PI Sub-award

Project Title: Near Source Modeling of Transportation Emissions in Built Environments Surrounding Major Arterials
Funding Agency: University of California Transportation Center
Investigators: Boarnet, Edwards, Princevac
Source and Amount Funding: $196,619
Dates of Project Period: 01/01/2008-08/31/2008
Role in Project: Co-Principal Investigator

Project Title: Instant SHS Feedback as a Catalyst for Smoke-Free Homes
Funding Agency: Tobacco-Related Disease Research Program
Investigators: Klepeis
Source and Amount Funding: $129,917.00
Dates of Project Period: 9/11/08-09/11/10
Role in Project: Co-Investigator. PI subaward

Project Title: Exposure to mobile source air pollution and adverse birth outcomes in the Los Angeles air basin.
Funding Agency: National Institute of Environmental Health Sciences
Investigators: Wu
Source and Amount Funding: $420,263
Dates of Project Period: 9/11/08-09/11/08
Role in Project: Co-Investigator

Project Title: Co-benefits from mitigation of emissions and aerosol toxicity from small-scale industries in Mexico
Funding Agency: UCI Environment Institute
Investigators: Edwards Kleinman
Source and Amount Funding: $40,000
Dates of Project Period: 9/1/08-08/30/09
Role in Project: PI
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.

Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Chad Garner

POSITION TITLE
Associate Professor

eRA COMMONS USER NAME (credential, e.g., agency login)
cgarner

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Diego State University, California</td>
<td>B.Sc.</td>
<td>05/93</td>
<td>Biology</td>
</tr>
<tr>
<td>University of Oxford, U.K.</td>
<td>D.Phil.</td>
<td>07/99</td>
<td>Statistical Genetics</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>Post Doc.</td>
<td>03/02</td>
<td>Population Genetics</td>
</tr>
</tbody>
</table>

Please refer to the application instructions in order to complete sections A, B, C, and D of the Biographical Sketch.

Personal Statement

My research includes both methodological interests and applied research in complex diseases and quantitative traits. My methodological research has been focused on developing new methods for studying rare alleles and analysis of high-throughput DNA sequencing data. I recently published a new method that utilizes a hidden Markov model to scan the genome for disease susceptibility regions characterized by rare disease alleles as well as an investigation of the problem of sequencing depth and confounding in association studies of rare alleles. My group has experience with handling, managing, analyzing and storing large datasets, including genome-wide association studies and next-generation sequencing studies. I am involved in collaborative genetic studies of celiac disease, multiple cancer types, and the expression of fetal hemoglobin.

Positions and Honors

1994  Associate Scientist
      Department of Genetics, Sequana Therapeutics, Inc, La Jolla, California, USA
1995 – 1996  Scientist
             Department of Statistical Genetics, Sequana Therapeutics, La Jolla, California, USA
1997 – Present  Course Instructor
                Wellcome Trust Advanced Course, Genetic Analysis of Multifactorial Disease, Hinxton Hall, Cambridge, UK
2000 – 2002  Postdoctoral Fellow
             Department of Integrative Biology, University of California, Berkeley
2002 – 2008  Assistant Professor
             Department of Epidemiology, School of Medicine, University of California, Irvine
2002 – Present  Honorary Senior Lecturer
                Guy’s, King’s and St. Thomas’ School of Medicine, King’s College London, UK
2006 – Present  Member, Scientific Council
                Genetic Epidemiology Research Institute, University of California, Irvine
2008 – Present  Associate Professor
                Department of Epidemiology, School of Medicine, University of California, Irvine
2009 – Present  Member
                Institute for Genomics and Bioinformatics, University of California, Irvine
2010 – Present  Director, Bioinformatics Core, Genomics High-Throughput Facility and Chao Comprehensive Cancer Center, University of California, Irvine

Peer-Reviewed Publications (15 of 40 shown)

Research Grant Support

Active Research Funding

R01 DK081645 NIH/NIDDK 08/09 – 06/12
*Genome-wide Association Study of Celiac Disease*
Goal of Project: to identify genetic variants associated with celiac disease through a genome-wide association study and follow-up association studies.
Role: Principal Investigator

R01 DK50678 NIH/NCI 03/07 – 02/11 (in extension)
*The IGF Signalling Pathway and Breast Cancer Risk*
Goal of Project: to use genetic association analysis to interrogate the role of the insulin growth factor signalling pathway in breast cancer risk.
Role: Subcontract P.I. (P.I. Susan Neuhausen, City of Hope)

R56 DK089184 NIH/NIDDK 09/10 – 10/11
*Celiac Disease: Identifying Causal Variants from GWAS*
Goal of Project: to comprehensively identify and test genetic variation in candidate celiac disease regions using next-generation DNA sequencing.
Role: Principal Investigator

### Completed Research Funding (previous 3 years)

<table>
<thead>
<tr>
<th>Grant Number</th>
<th>Funding Agency</th>
<th>Role</th>
<th>Project Title</th>
<th>Duration</th>
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<tr>
<td>R01 HL083328</td>
<td>NIH/NHLBI</td>
<td></td>
<td>Iron Status: A Pathway Analysis in Multiple Ethnicities</td>
<td>08/06 – 07/10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Role: Co-Investigator (P.I. Christine McLaren, UC Irvine)</td>
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<tr>
<td>R01 DK50678</td>
<td>NIH/NIDDK</td>
<td></td>
<td>Mapping and Cloning of Non-HLA Genes for Celiac Disease</td>
<td>09/99 – 08/07</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Role: Co-Investigator (P.I. Susan Neuhausen, UC Irvine)</td>
<td></td>
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<tr>
<td>R01 CA58860-10</td>
<td>NIH/NCI</td>
<td></td>
<td>Hereditary Breast Cancer: Genetic and Molecular Studies</td>
<td>12/03 – 02/09</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Role: Co-Investigator (P.I. Hoda Anton-Culver, UC Irvine)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R01 CA074415</td>
<td>NIH/NCI</td>
<td></td>
<td>Genetic Epidemiology of Breast Cancer: BRCA1 and BRCA2</td>
<td>09/03 – 08/08</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Role: Co-Investigator (P.I. Susan Neuhausen, UC Irvine)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>California Breast Cancer Research Program</td>
<td>07/03 – 06/07</td>
<td></td>
</tr>
<tr>
<td>R01 CA074415</td>
<td></td>
<td>Role: Co-Investigator (P.I. Susan Neuhausen, UC Irvine)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>The IGF Pathway and Breast Cancer Risk in African Americans</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BIOGRAPHICAL SKETCH
Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Lakon, Cynthia Marie

POSITION TITLE
Assistant Professor

eRA COMMONS USER NAME (credential, e.g., agency login)
CLAKON

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, Los Angeles</td>
<td>BA</td>
<td>1986-1991</td>
<td>Psychology</td>
</tr>
<tr>
<td>University of California, Los Angeles</td>
<td>MPH</td>
<td>1994-1995</td>
<td>Community Health</td>
</tr>
<tr>
<td>University of North Carolina, Chapel Hill</td>
<td>PhD</td>
<td>1998-2004</td>
<td>Health Behavior</td>
</tr>
<tr>
<td>University of Southern California, Los Angles</td>
<td>Post-Doc</td>
<td>2004-2006</td>
<td>Prevention Research</td>
</tr>
</tbody>
</table>

A. Positions and Honors

Positions and Employment

1989-1991 Peer Health Counselor, University of California, Los Angeles
1990-1991 Research Assistant, University of California, Los Angeles, Psychology Department
1991-1992 Research Assistant, California State University, Los Angeles, Biology Department
1991-1992 Instructor, California State University, Los Angeles, Department of Psychology
1994 Health Educator, Veterans Administration Medical Center, Sepulveda, CA
1995 Consultant, Blue Cross of California, Public Benefits Program, Canoga Park, CA
1995-1997 Association of Schools of Public Health Fellow, Centers for Disease Control and Prevention
1997-2000 Research Assistant, University of North Carolina, Chapel Hill, Department of Health Behavior/Health Education
1999 Consultant, Felix, Burdine & Associates, Allentown, PA
2000 Research Assistant, Duke University
2004-2006 Postdoctoral Fellow, University of Southern California, Department of Preventive Medicine, Institute for Health Promotion and Disease Prevention
2008-present Assistant Professor, University of California, Irvine, Program in Public Health

Honors and Awards

1990 Psi Chi National Honor Society in Psychology
1995 Delta Omega National Scholastic Honor Society in Public Health
1997 El Camino Real Hellenic Association Scholarship
1997-1998 Merit Scholar, University of North Carolina, Chapel Hill
2003-2004 Jessie Ball duPont Dissertation Fellowship for Research, University of North Carolina, Chapel Hill
2004 Royster Society of Fellows, University of North Carolina, Chapel Hill (highest honor for graduate students at UNC-Chapel Hill)
2005 Early Career Investigator Travel Award, National Institute on Drug Abuse (NIDA)/American Psychological Association (APA)

Professional Memberships

1995-present American Public Health Association
2006-present International Network for Social Network Analysis (INSNA)
2006-present Social Networks Research Group, University of California, Irvine, Department of Sociology
C. Selected Publications

Peer-Reviewed Publications


Non-Peer Reviewed Publications


Posters and Presentations


D. Research Support

Completed Research Support

Special Research Grant Award, UC Irvine                           04/01/10 – 03/31/11
Role: PI

F31 DA14153-02  Lakon (PI)  05/01/01 – 05/01/03
National Institute on Drug Abuse
Social Network Influence & HIV Risk in High Risk Youth
The goals of this project were to investigate social network influences on injection drug users’ needle use behaviors.
Role: PI

F31 DA14153-02  (Supplement) Lakon (PI)  05/01/03 – 08/01/03
National Institute on Drug Abuse
Social Network Influence & HIV Risk in High Risk Youth
The goals of this project were to investigate social network influences on injection drug users’ needle use behaviors.
Role: PI
Academic Program Review – College of Health Sciences
AY 2008-09

FACULTY BIOGRAPHICAL SKETCH
FOR PERIOD SINCE AY 2002-03
DO NOT EXCEED THREE (3) PAGES + ATTACHMENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE AND DEPARTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lisa Grant Ludwig</td>
<td>Associate Professor, Program in Public Health Dept. of Population Health and Disease Prevention</td>
</tr>
</tbody>
</table>

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanford University</td>
<td>B.S.</td>
<td>1985</td>
<td>Applied Environmental Earth Science</td>
</tr>
<tr>
<td>Caltech</td>
<td>M.S.</td>
<td>1989</td>
<td>Environmental Engineering &amp; Science</td>
</tr>
<tr>
<td>Caltech</td>
<td>M.S.</td>
<td>1990</td>
<td>Geology</td>
</tr>
<tr>
<td>Caltech</td>
<td>Ph.D.</td>
<td>1993</td>
<td>Geology and Geophysics</td>
</tr>
</tbody>
</table>

A. Teaching (last 2 years).

- **Fall 2009**
  - PubHlth 90: Natural disasters 97
  - PubHlth298: Directed Studies 1
  - PubHlth299: Independent Study 1

- **Winter 2010**
  - PubHlth 161: Environmental geology 65
  - SE296: Doctoral dissertation 1

- **Spring 2010**
  - SE296: Doctoral dissertation 2

- **Fall 2010**
  - PubHlth90: Natural disasters 96
  - SE296: Doctoral dissertation 1

- **Winter 2011**
  - PubHlth161: Environmental geology 79
  - SE296: Doctoral dissertation 1
  - PubHlth 399: University Teaching 1

- **Spring 2011**
  - PubHlth 199: Indep study 3
  - SE296: Doctoral dissertation 1

B. Number of Students Supervised, counted by whether you have served as chair of the committee or as a member of the committee.

| Number of Ph.D. and Masters Students Supervised (since 2004) | Chair | Member |

Page 250 of 352
Ph.D. students who have completed their degrees (those who have officially completed all requirements, including a signed and accepted dissertation) | 1 | 1 |
---|---|---|
Ph.D. students advanced to candidacy | 2 | 2 |
Number of other Ph.D. students supervised | 4 |
Number of Masters students supervised | 2 | 1 |

Number of undergraduates supervised in research projects (e.g., honors courses, 199's.) __5 (current)___

C. **Awards and Honors**

- Research featured on the cover of *Science*, 26 February 2010
- NASA Certificate of Recognition with cash award “for the creative development of a technical innovation… QuakeSim” NASA Tech Brief NPO 41079, September 8, 2005

D. **Major Recent Service Activities**

- Member, Independent Expert Panel on the New Madrid Seismic Zone Earthquake Hazard, Subcommittee of the National Earthquake Prediction Evaluation Council, Jan. – April 2011
- National Correspondent, International Association for Seismology and Physics of the Earth’s Interior (IASPEI) 2008 - 2011
- Member, Board of Directors, Seismological Society of America, 2010 – present
  - Chair, Honors Committee, April 2010 to present
  - Member, Publications Committee, April 2011 to present
- Vice Chair, Board of Directors, Southern California Earthquake Center, Sept. 2007 to present
  - At-Large Elected Member of the Board of Directors, 2002 to present
- Executive Committee Member, California Institute for Hazards Research, University of California MRP, 2006 to June 2011
- Graduate Advisor/Director
  - Program in Public Health, UC Irvine 2009 – present
  - Environmental Health Science and Policy, UC Irvine, 2005 - present
E. **Summary of Research** (250 words or less)

Earthquakes are a major threat to public health globally and locally in California. My research is focused primarily on defining the potential for large earthquakes, and working collaboratively on developing forecasts and effective responses to seismic risk. A major focus of my research program is to identify active faults and quantify their potential for generating large earthquakes in the next few decades by discovering their history of earthquake production over the last few centuries. The hypothesis to be tested is that currently active and potentially active faults have a history and pattern of earthquakes over geologic time intervals that can presage their future seismic activity. Research methods involve field observation and sampling of active faults and earth materials in seismically active regions. My field research is focused on two areas: the San Andreas fault which is the largest and most active fault in California; and the southern Los Angeles Basin in Orange County. This research has been funded by the National Science Foundation, U. S. Geological Survey, and Southern California Earthquake Center. Results are applied regionally for earthquake forecasting, land-use planning, building design, risk assessment, disaster preparedness planning, and public education about the earthquake threat. With funding from NASA, I have been working collaboratively on numerical simulation earthquake experiments and forecasting using advanced information systems and computing technologies as well as space-based observations of ground deformation.

F. **Current and Pending Research Support** –

1. **Current Research Grants**

   [35] Ground Penetrating Radar (GPR) survey of the Bidart Fan site on the Carrizo section of the San Andreas fault, California, 2/01/10-1/31/2012, Southern California Earthquake Center /USGS, $32,000 (PI)

   [34] Using precariously balanced rocks (PBRs) to constrain activity of UCERF “B” faults and evaluate rupture direction, 2/01/10-1/31/2012, Southern California Earthquake Center /USGS, $30,000 (PI)

   [33] Rupture history of the San Andreas fault in the Carrizo Plain prior to 1300 AD, U.S. Geological Survey award G10AP00073, 6/1/10 - 5/31/12, $52,000 (PI)

   [30] QuakeSim: Increasing Accessibility and Utility of Spaceborne and Ground-based Earthquake Fault Data, JPL (NASA), 04/01/09-12/31/12, $75,000 UCI (Co-I.)

   [27] Collaborative research: Slip-per-event rupture history of the San Andreas fault in the Carrizo Plain: Was the 1857 earthquake characteristic, National Science Foundation award EAR-0711518, 7/01/07-6/30/11, $270,116 (P.I.)

G. **Research Publications**

Selected Peer-Reviewed Publications

10 most recent


NAME: Oladele A. Ogunseitan  POSITION TITLE: Professor

EDUCATION/TRAINING  (Begin with baccalaureate or other initial professional education, such as)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Ife, Nigeria</td>
<td>B.Sc./M.Sc.</td>
<td>1980/1983</td>
<td>Microbiology</td>
</tr>
<tr>
<td>University of Tennessee, Knoxville,</td>
<td>Ph.D.</td>
<td>1988</td>
<td>Microbiology</td>
</tr>
<tr>
<td>University of California, Berkeley, USA</td>
<td>M.P.H.</td>
<td>1998</td>
<td>Environmental Health Sciences</td>
</tr>
<tr>
<td>University of California, Berkeley, USA</td>
<td>Certificate</td>
<td>1998</td>
<td>International Health</td>
</tr>
</tbody>
</table>

A. Personal Statement

As Chair of the Department of Population Health & Disease Prevention, and Director of our Master of Public Health (MPH) degree program, I am responsible for implementing curricula and research education at the undergraduate and graduate levels that involve global health and disease prevention. I coordinate the undergraduate degrees in public health (approximately 800 students) and the MPH program. I also direct the Research Education, Training, and Career Development Unit of UC Irvine’s NIH-funded Institute for Clinical and Translational Sciences, bringing together students and faculty mentors from various disciplines to collaborate on research associated with community engagement. I direct a UC systemwide program on research and education in green materials, focusing on my own research on human exposure to toxic chemicals. I have trained more than 15 Ph.D. students who have gone on to employment in academia (e.g. Dr. Aaron Hipp, Assistant Professor of Public Health at Washington University in St. Louis), industry (e.g. Dr. Kelly Pollack at GeoSyntech, Inc.) and government (e.g. Dr. Eunice Chern of the US E.P.A. and Dr. Sarah Becker of the C.I.A.). I have received grants in disease private foundations (e.g. Josiah Macy Jr. Foundation) to study disease prevention; and from Global Institutions (e.g. Global Forum for Health Research in Geneva, Switzerland) to conduct research in Global Health.

B. Positions and Honors.

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Department</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 -</td>
<td>Co-Director</td>
<td>Global Health Framework</td>
<td>UC-Irvine</td>
</tr>
<tr>
<td>2008 -</td>
<td>Dept. Chair</td>
<td>Population Health &amp; Disease Prevention Program in Public Health</td>
<td>UC-Irvine</td>
</tr>
<tr>
<td>2008 -</td>
<td>Director</td>
<td>Lead Campus in Green Materials</td>
<td>UC-Systemwide</td>
</tr>
<tr>
<td>2007</td>
<td>Director</td>
<td>Research Education, Training and Career Development</td>
<td>UC-Irvine</td>
</tr>
<tr>
<td>2004 -</td>
<td>Professor</td>
<td>School of Social Ecology</td>
<td>UC-Irvine</td>
</tr>
<tr>
<td>2004</td>
<td>Institute Faculty</td>
<td>International Institute for Applied Systems Analysis (IIASA)</td>
<td>Laxenburg, Austria</td>
</tr>
<tr>
<td>1999 - 2000</td>
<td>Faculty Fellow</td>
<td>Kennedy School of Government, Center for Science and International Affairs</td>
<td>Harvard University</td>
</tr>
<tr>
<td>1999 – 2000</td>
<td>Investigator</td>
<td>Marine Biological Laboratory</td>
<td>Woods Hole, MA</td>
</tr>
<tr>
<td>1992 – 2004</td>
<td>Assist/Assoc Prof</td>
<td>School of Social Ecology</td>
<td>UC-Irvine</td>
</tr>
</tbody>
</table>

Selected Honors

Exceptional Mentoring Award, Associated Graduate Students of UC Irvine, 2007
Excellence in Teaching Award, 14th Annual Celebration of Teaching, UC-Irvine 2007
Best Publication Award, UC Toxic Substances Research and Teaching Program, 2007
Best Paper Award, IEEE/ISEE, 2007
Professor of the Year Award, School of Social Ecology. 2002.
President’s Award: American Society for Civil Engineering (Orange County Chapter), 2006
UNESCO/ASM Visiting Resource Faculty Award. 1999.

Selected Editorial Services
\textit{Journal of Epidemiology and Community Health (ad hoc, 2007 - )}
\textit{American Journal of Public Health (ad hoc, 2007 - )}
\textit{Applied & Environmental Microbiology (1997 - Present; Distinguished Service Award, 2005)}
\textit{Environmental Science & Technology (ad hoc, 1998- )}
\textit{Nature Biotechnology (ad hoc, 1994 - )}

Selected Professional Services
2010: Distinguished Editor (NIH/Fogarty Center) Panel on Global Health (ZRG1 BDAN 50)
2009: National Science Foundation (Environmental Sustainability Program) Review Panel.
2006: Canadian Institutes of Health Research: Review, Innovation and Industry Programs Branch.

Memberships
American Public Health Association
American Society for Microbiology
American Association for the Advancement of Science
The Minerals, Metals, and Materials Society (Member, Materials and Society committee, 2008 – Present)

Selected recent publications


(KBest paper award – 2007 – UC-TSR&TP)


**Current and Pending Research Support**

**Current Research Grants**

<table>
<thead>
<tr>
<th>Institute</th>
<th>Grant Number</th>
<th>Investigator</th>
<th>Amount</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Institutes of Health</td>
<td>UL1 RR031985</td>
<td>Unit Director</td>
<td>$20 Million</td>
<td>07/10 – 06/15</td>
</tr>
<tr>
<td></td>
<td>CMS-0524903</td>
<td>Principal Investigator</td>
<td>$1.5 Million</td>
<td>10/05 – 9/10</td>
</tr>
<tr>
<td>National Science Foundation</td>
<td>Research and Education in Green Materials</td>
<td>Principal Investigator</td>
<td>$1.62 Million</td>
<td>7/08 – 6/14</td>
</tr>
<tr>
<td>University of California</td>
<td>Global Health Framework</td>
<td>Co-Director</td>
<td>$135,000/yr</td>
<td>5/09 – 5/11</td>
</tr>
</tbody>
</table>

**Pending Applications**

<table>
<thead>
<tr>
<th>Institute</th>
<th>Grant Number</th>
<th>Investigator</th>
<th>Amount</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Science Foundation</td>
<td>Materials Informatics</td>
<td>Principal Investigator</td>
<td>$100,000</td>
<td>10/11 – 09/14</td>
</tr>
</tbody>
</table>
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

**NAME**
Sparks, Lisa

**POSITION TITLE**
Foster and Mary McGaw Professor in Behavioral Sciences

**eRA COMMONS USER NAME (credential, e.g., agency login)**
lsparks

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Oklahoma – Norman, Oklahoma</td>
<td>B.A.</td>
<td>05/84</td>
<td>Journalism/French</td>
</tr>
<tr>
<td>University of Oklahoma – Norman, Oklahoma</td>
<td>M.A.</td>
<td>08/93</td>
<td>Communication</td>
</tr>
<tr>
<td>University of Oklahoma – Norman, Oklahoma</td>
<td>Ph.D.</td>
<td>05/98</td>
<td>Communication</td>
</tr>
</tbody>
</table>

A. Personal Statement

The goal of the proposed research is to conduct a randomized trial that would randomize 958 women with breast cancer on adjuvant AI therapy to either receive text messaging or usual care to reduce early discontinuation of the drug. I have the expertise, leadership and motivation necessary to successfully carry out the proposed work of the health messaging portion of the application. I have a broad background in health communication, with specific training and expertise in key research areas for this application. As a cancer communications research fellow at the Health Communication and Informatics Research Branch (HCIRB) at the National Cancer Institute (NCI/NIH), I carried out focus group and survey research and secondary data analysis on health information and messaging preferences. As PI or co-Investigator on several previous university- and RWJF-funded grants, I laid the groundwork for the proposed research by developing effective culturally based messages to targeted populations to aid in increased understanding of complicated health information for better decision-making and health outcomes. In addition, I successfully administered the projects (e.g. staffing, research protections, budget), collaborated with other researchers, and produced several peer-reviewed publications from each project. As a result of these previous experiences, I am aware of the importance of frequent communication among project members and of constructing a realistic research plan, timeline, and budget. The current application builds logically on my prior work, and principal and co-investigators (Neugut, Hershman) provide a wealth of expertise in oncology and breast cancer. In summary, I have a demonstrated record of successful and productive research projects in an area of high relevance for targeted populations, and my expertise and experience have prepared me to participate in the proposed project.

B. Positions and Honors

**Positions and Employment**

<table>
<thead>
<tr>
<th>Year</th>
<th>Position and Location</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998 – 1999</td>
<td>Assistant Professor, Department of Communication, University of Texas, San Antonio, Texas</td>
<td></td>
</tr>
<tr>
<td>1999 – 2006</td>
<td>Associate Professor, Department of Communication, George Mason University, Fairfax, Virginia</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>Cancer Communications Research Fellow, National Cancer Institute, National Institutes of Health</td>
<td></td>
</tr>
<tr>
<td>2006 – present</td>
<td>Foster and Mary McGaw Endowed Professor in Behavioral Sciences and Director of Graduate Studies in Health and Strategic Communication, Schmid College of Sciences, Chapman University, Orange, California</td>
<td></td>
</tr>
<tr>
<td>2008 – present</td>
<td>Full Member, Chao Family Comprehensive Cancer Center (NCI Designated) and Adjunct Professor, Public Health Program, Division of Population Sciences, University of California, Irvine, Orange, California</td>
<td></td>
</tr>
</tbody>
</table>
Other Experience and Professional Memberships

1998- Life Member, International Communication Association
1998- Life Member, National Communication Association
1999- Life Member, Eastern Communication Association
2000- NIH Peer Review Committee: Health Communication and Informatics, ad hoc reviewer
2003- Guest Editor, Health Communication
2004- MCAT Test Reviewer and Consultant to assess interpersonal communication competencies for
the Association of American Medical Colleges (AAMC) and Educational Testing Service (ETS)
2005-2007 Editor, Communication Research Reports
2008- Invited Speaker, How Health Communications Turned Cardiovascular Prevention into a Reality.
Special Session: Achieving the Potential of Chemoprevention. Frontiers in Cancer Prevention Research, American Association for Cancer Research (AACR), Washington, D.C.
2008- Guest Editor, Patient Education and Counseling
2008- Member, Southwest Oncology Group
2008- Senior Scientific Advisor, Entertainment Industries Council Congressional Mental Healthcare
2009- Invited Speaker, Translational community-based health communication interventions to promote

cancer prevention and control for at-risk populations: Conceptualizing future research
directions. Southwest Oncology Group: A National Clinical Research Group, Health
Disparities Committee
2009- Invited Distinguished Facilitator, Picture This: A Local Approach to Mental Health in Los
Angeles, KTTV station, Los Angeles, California
2009- Invited Judge and Scientific Consultant, nomination review committee for PRISM awards, 20th
Century FOX and Entertainment Industries Council, Los Angeles, California
2010- Invited Speaker: Health Messages and HPV vaccine among underserved populations. Chao
Family Comprehensive Cancer Center Research Retreat, University Of California, Irvine, 2010.
2010- Guest Editor, Communication Education
2011- Invited Keynote Speaker: Bay Area Undergraduate Communication Research Conference, San
Jose, CA, 2011.

Honors
1994 Robert Kibler Memorial Research Award, International Communication Association, Sydney,
Australia.
1997 Excellence in Teaching Award, International Communication Association, Montreal, Canada.
2001 Innovations Corporate Adaptability Award for Most Effective Corporate Interaction:
“Presenting with Technology: What is effective and what is ineffective?”, George Mason
University, Fairfax, VA.

C. Selected Peer-reviewed Publications (Selected from 42 peer-reviewed publications)

Recent publications of importance to the field

breaking bad news: Communication guidelines for healthcare professionals. Journal of Applied Commun
4. Harzold, E., & Sparks, L. (2007). Adult child perceptions of communication and humor when the parent is
diagnosed with cancer: A suggestive perspective from communication theory. Qual Res Rpts in Commun.
2007;7, 67-78.
5. Pecchioni, L., Sparks L. Health information sources of individuals with cancer and their family members.


**Books relevant to the current application**


**D. Research Support**

**Ongoing Research Support**

ASCO-Komen Award  Neugut (PI)  9/1/2011-08/31/2016  
Project Title: *An intervention trial of text messaging to improve patient adherence to adjuvant hormonal therapy.*
Role: Co-Investigator

K05 Early Career Development Award  Meyskens (PI) 9/1/2011-08/31/2014  
Project Title: *Sunscreen protection messages to reduce non-compliance.*
Role: Consultant

DOD Innovator Award  Neugut (PI)  9/1/2011-08/31/2016  
Project Title: *A randomized trial of an intervention to reduce early discontinuation of adjuvant anastrozole hormonal therapy in women with early stage breast cancer.*
Role: Co-Investigator

**Completed Research Support**

**Completed Research**

Foundation Award  Sparks (PI)  
Robert Wood Johnson Foundation (RWJF)  
*Hablamos Juntos por Salud: Eliminating the Communications Roadblocks to Quality Health Care for Spanish-Speakers*
Role: PI
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stokols, Daniel S.</td>
<td>Chancellor’s Professor</td>
</tr>
</tbody>
</table>

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Chicago</td>
<td>B.A.</td>
<td>1969</td>
<td>Psychology</td>
</tr>
<tr>
<td>University of North Carolina, Chapel Hill</td>
<td>M.A.</td>
<td>1971</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>University of North Carolina, Chapel Hill</td>
<td>Ph.D.</td>
<td>1973</td>
<td>Social Psychology</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

**Positions**

- **1973-1983** Assistant to Associate Professor, Program in Social Ecology, University of California, Irvine
- **1981-1986** Director, National Institute of Mental Health Predoctoral and Postdoctoral Training Program in Environmental Demands, Human Development, and Health, Program in Social Ecology, UC Irvine
- **1982-1983** President, Div. of Population and Environmental Psychology, American Psychological Association
- **1983-present** Professor, Program in/School of Social Ecology, University of California, Irvine
- **1988-present** Director, UC Irvine Health Promotion Center
- **1988-1992** Director, Program in Social Ecology, University of California, Irvine
- **1992-1998** Dean, School of Social Ecology, University of California, Irvine
- **1992** Professor, Urban and Regional Planning/Planning Policy and Design, School of Social Ecology
- **1999-2004** Healthway Visiting Professor, School of Public Health, University of Western Australia, Perth AU
- **2005-present** Director, Transdisciplinary Core Research Project of the NIH/UCI Transdisciplinary Tobacco Use Research Center (TTURC)
- **2008** IPA Research Consultant, Division of Cancer Control and Population Sciences, National Cancer Institute
- **2008** Chancellor’s Professor of Social Ecology and Public Health, UCI

**Honors**

- **1998** School of Social Ecology Faculty Interdisciplinary Research Award
- **1998** Educator Award, International Facility Management Association
- **1991** Career Award, Environmental Design Research Association
- **1991** University of California/Health Net Wellness Lecturer Award
- **2003** UCI Chancellor’s Award for Excellence in Fostering Undergraduate Research
- **2003** UCI Lauds and Laurels Faculty Achievement Award
- **2004,2007** Professor of the Year Award, School of Social Ecology Student Association
- **2009** Outstanding Professor for the School of Social Ecology, UCI Senior Class Award
B. Selected peer-reviewed publications (in chronological order).

Selected Books

Selected Book Chapters

Selected Journal Articles


C. Research Support

**Ongoing Research Support**

<table>
<thead>
<tr>
<th>Principal Investigator (PI)</th>
<th>Year(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Cancer Institute</td>
<td>2005-present</td>
</tr>
<tr>
<td>Toward a science of transdisciplinarity and development of evaluative metrics for assessing transdisciplinarity research center initiatives. IPA research contract, Office of the Director, Division of Cancer Control and Population Sciences, National Cancer Institute</td>
<td></td>
</tr>
</tbody>
</table>

| National Academies of Science | 2009-present |
| Assessing the scientific outcomes of the NAS-Keck Foundation Futures Initiative (NAKFI) Through its Seed Grants |

| UC Irvine Environment Institute | 2009-present |
| Optimizing at-home feedback to increase residential energy conservation |

**Completed Research Support**

<table>
<thead>
<tr>
<th>Principal Investigator (CO-PI)</th>
<th>Year(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIDDKD, National Institutes of Health</td>
<td>2004-2008</td>
</tr>
<tr>
<td>The social ecology of health promotion and disease prevention</td>
<td></td>
</tr>
<tr>
<td>NIH Roadmap Initiative Grant to establish the Interdisciplinary Summer Undergraduate Research Experience (ID-SURE) at UCI</td>
<td></td>
</tr>
</tbody>
</table>
Academic Program Review – College of Health Sciences
AY 2010-11

FACULTY BIOGRAPHICAL SKETCH
FOR PERIOD SINCE AY 2002-03
DO NOT EXCEED THREE (3) PAGES + ATTACHMENTS

NAME
Sharon M. Stern

POSITION TITLE AND DEPARTMENT
Senior Lecturer SOE

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universite de Paris, Orsay, France</td>
<td>Post doc</td>
<td>1977-78</td>
<td>Biology</td>
</tr>
<tr>
<td>University of Utah, Salt Lake City, UT</td>
<td>PhD</td>
<td>1977</td>
<td>Biology</td>
</tr>
<tr>
<td>University of Utah, Salt Lake City, UT</td>
<td>MS</td>
<td>1972</td>
<td>Biology</td>
</tr>
<tr>
<td>University of Colorado, Boulder, CO</td>
<td>BA</td>
<td>1969</td>
<td>Biology</td>
</tr>
</tbody>
</table>

A. **Teaching:** courses I have taught while at UC Irvine  

**2002-2003**

- E103 Topics in Applied Ecology
- SE195 Field Study
- E163 Potable Reuse
- PH162 Potable Reuse
- E3 Human Environments
- SE 198 Directed Studies
- SE199 Special Studies
- E5 Env Quality and Health
- PH60 Env Quality and Health
- PH160 Env Pollution and Remediation
- SE195 Field Study
- Uni Stud Why Water?
- E 253 Env Pollution
- SE195 Field Study
- E191A Water Issues
- Uni Stud Feces and Urine
- SE 195 Field Study
- Uni Stud Sex, Race, and Age
- PH165 Potable Reuse
- PH179 Human Ecology of Health
- PH195W PH Practicum
- SE198 Directed Studies
- UniStu 13A Human and Environmental Health

B. **Number of Students Supervised** *(since 2002-03)*, counted by whether you have served as chair of the committee or as a member of the committee.
Number of Ph.D. Students Supervised

<table>
<thead>
<tr>
<th>Number of Ph.D. Students Supervised</th>
<th>Chair</th>
<th>Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph.D. students who have completed their degrees (those who have officially completed all requirements, including a signed and accepted dissertation)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Ph.D. students advanced to candidacy (in progress) during this period</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Number of other Ph.D. students supervised</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Students in Chemistry, Chemical Engineering, Social Ecology**

Number of undergraduates supervised in research projects (e.g., honors courses, 199's.) ___53___

C. **Awards and Honors** *(in chronological order since 2002-03):*

   **Outstanding Teaching Award for Social Ecology** 2003

   **Upper Division Writing Award, Science category— Faculty Mentor**
   Faculty Mentor to winner Elizabeth Poston Poston 2008
   Faculty Mentor to winner Beth Zabokrtsky 2009

D. **Five Major Service Activities** *(in chronological order since 2002-03):*

   President Phi Beta Kappa Mu chapter + selection committee 2003-2011
   University Scholarship Selection Committees: 2003-2011
   - Merage Scholarship
   - Jack Kent Cooke Scholarship
   - Aldrich Scholarship
   Workshops on writing Statement of Purpose, CAMPUSWIDE HONORS, CAMP 2003-2011
   Public Health faculty liaison to PH Advisor, development of Honors program, Latin Honors 2007, 2008
   Public Health Director of PH195W Practicum course 2007-2011
   CEP member 2009-2011
   Undergraduate Council 2009-2011

E. **Summary of Research** *(250 words or less)*

   -- *(My job description is primarily that of instruction)*

   “Strategies for the Development of Onsite Wastewater Treatment in Akumal, MX” Research project and Manuscript, 2009

F. **Current and Pending Research Support** – please attach lists, if necessary – include Faculty role, Agency, Dates of Project, Total Direct Costs, % Effort, and Title of Project

   1. Current Research Grants
2. Research Grants completed since 2002-03

3. Pending Grants

G. Research Publications

Career Total = 3

Total since AY 2002-03 = 02

Selected Peer-Reviewed Publications (in chronological order since 2002-03; limit to one page). List author(s), title, publisher or journal, volume, year and pages, in customary style for the discipline.
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person: **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timberlake, David S.</td>
<td>Assistant Professor</td>
</tr>
</tbody>
</table>

**eRA COMMONS USER NAME**

DAVIDTIMBERLAKE

**EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)**

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Polytechnic State University, SLO</td>
<td>B.S.</td>
<td>1993</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>San Diego State University, San Diego</td>
<td>M.P.H.</td>
<td>1995</td>
<td>Epidemiology</td>
</tr>
<tr>
<td>University of California, San Diego</td>
<td>Ph.D.</td>
<td>2003</td>
<td>Epidemiology</td>
</tr>
<tr>
<td>University of Colorado, Boulder</td>
<td>Postdoc.</td>
<td>2003-2006</td>
<td>Behavioral Genetics</td>
</tr>
</tbody>
</table>

**RESEARCH AND PROFESSIONAL EXPERIENCE** *In chronological order, please list: (1) All professional positions, including title, organization and term of appointment. (2) Complete citations of all publications in the past five years, and earlier pertinent publications. List all authors in order. If investigator published under another name, underline that name. Maximum: Three (3) pages*

**PROFESSIONAL POSITIONS**

6/1995-1/1996: Epidemiologist (ASPH Intern), Division of Diabetes Translation, CDC, Atlanta, GA.
4/1996-10/1997: Data Analyst, Department of Statistical Genetics, Sequana Therapeutics, La Jolla, CA.
7/2000-6/2003: Doctoral Research, Department of Medicine and Center for Molecular Genetics, University of California, San Diego, CA.
8/2003-12/2006: Postdoctoral Fellow, Institute for Behavioral Genetics, University of Colorado, Boulder, CO.
1/2007-present: Assistant Professor, College of Health Sciences, University of California, Irvine, CA.

**PUBLICATIONS**


A. PERSONAL STATEMENT

I am a Professor in the Program in Public Health, the Department of Medicine and the Health Policy Research Institute in the College of Health Sciences at the University of California, Irvine. I am also Principal Investigator of three completed NCI-funded studies examining quality of life (QOL) of gynecologic cancer survivors, including long-term cervical cancer survivors and Latina cervical cancer survivors. I have had substantial experience developing and supervising the implementation of counseling interventions, including those to enhance quality of life and cancer survivorship. My extensive experience as a quality of life investigator and current QOL Committee Chair within the Gynecologic Oncology Group further strengthens my expertise in patient-reported outcome measurement and assessment. Currently, I am the Co-Principal Investigator of an R01 examining stress, immunity and cervical cancer evaluating the effects of a Psychosocial Telephone Counseling intervention on the QOL and biological parameters of cervical cancer survivors. I was also Principal Investigator of the R21 which was the foundation for the R01. In the R01, I am responsible for the overall conduct and administration of the study, development of the counseling intervention, and supervision of the counselors.

B. POSITIONS AND HONORS

Positions and Employment

1995-1996  Assistant Clinical Professor: Department of Medicine, Div. of Hematology/Oncology, University of California at Irvine
1995-1999  Associate Scientist: Center for Behavioral Research; Chair: Psychosocial Research Programs, AMC Cancer Research Center, Denver, CO
1996-1999  Member: University of Colorado Cancer Center, Denver, CO
1999-2001  Assistant Adjunct Professor: Dept. of Medicine, Epidemiology Division, University of
2001-2005  Associate Adjunct Professor: Dept. of Medicine, College of Medicine, University of California, Irvine
2005 – 2008  Associate Professor: Department of Medicine, and Program in Public Health, College of Health Sciences, University of California, Irvine
2003-present  Senior Research Associate: Health Policy Research Institute, University of California, Irvine
2008-present  Professor: Department of Medicine, and Program in Public Health, College of Health Sciences, University of California, Irvine
2010-present  Associate Dean, Faculty Development, School of Medicine, UCI

Other Experience and Professional Memberships

1994-2004  Gynecological Oncology Group Quality of Life Member
C. Peer-reviewed Publications

Most relevant to the current application (in chronological order)


Additional research publications of importance to the field (on chronological order)


D. RESEARCH SUPPORT

Ongoing Research Support

<table>
<thead>
<tr>
<th>Grant Number</th>
<th>Principal Investigator(s)</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO1 CA118136-01 (PI)</td>
<td>National Cancer Institute</td>
<td>03/19/07</td>
<td>02/28/12</td>
</tr>
<tr>
<td>RO1 NR 010735-02 (Donovan)</td>
<td>National Institute of Nursing Research</td>
<td>09/29/08</td>
<td>06/30/13</td>
</tr>
</tbody>
</table>

Stress, Immunity & Cervical Cancer: Biobehavioral Outcomes of a Randomized Trial

The major goal of this project is to test the efficacy of psychosocial telephone counseling, compared to usual care, and evaluate the longitudinal immune and neuroendocrine parameters in cervical cancer patients who have received the counseling, compared to those with usual care.

Role: Principal Investigator

<table>
<thead>
<tr>
<th>Grant Number</th>
<th>Principal Investigator(s)</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA 27469-25 (DiSaia)</td>
<td>National Cancer Institute</td>
<td>04/01/10</td>
<td>03/31/15</td>
</tr>
</tbody>
</table>

Gynecologic Oncology Group: Quality of Life Committee

The major goal of this project is to run the Quality of Life Committee of the GOG, and work collaboratively with NCI and scientific members of GOG who are interested in cancer prevention, control, quality of life, and symptom management.

Role: Committee Chair

<table>
<thead>
<tr>
<th>Grant Number</th>
<th>Principal Investigator(s)</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 P30 CA-62203-14 (Meyskens)</td>
<td>NIH/NCI</td>
<td>02/01/09</td>
<td>01/31/12</td>
</tr>
</tbody>
</table>

UCI Cancer Center Support Grant. This grant supports the operations of shared resources at the Chao Comprehensive Cancer Center UCI.

Role: Director, Biobehavioral Shared Resource

<table>
<thead>
<tr>
<th>Grant Number</th>
<th>Principal Investigator(s)</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO1 CA 100256 (DeAlba)</td>
<td>National Cancer Institute</td>
<td>04/01/04</td>
<td>03/31/07</td>
</tr>
</tbody>
</table>

Culture, Gender and Pap Smear Use Among Latinas

The major goal of this project is to conduct a qualitative study utilizing focus groups to initiate exploration of the knowledge, attitudes and behaviors of Latino men and women regarding cervical cancer as a preventable sexually transmitted disease.

Role: Co-Investigator

<table>
<thead>
<tr>
<th>Grant Number</th>
<th>Principal Investigator(s)</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
</table>
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2. Follow the sample format on preceding page for each person. DO NOT EXCEED FOUR PAGES.

NAME
Jun Wu

POSITION TITLE
Assistant Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tsinghua University, China</td>
<td>B.E.</td>
<td>1997</td>
<td>Environmental Engineering</td>
</tr>
<tr>
<td>Pennsylvania State University</td>
<td>M.S.</td>
<td>2000</td>
<td>Environmental Engineering</td>
</tr>
<tr>
<td>University of California, Los Angeles</td>
<td>Ph.D.</td>
<td>2004</td>
<td>Environmental Health Sciences</td>
</tr>
</tbody>
</table>

A. Personal Statement.
I am an Assistant Professor, in the Program in Public Health, and Department of Epidemiology, School of Medicine, UC Irvine. I have extensive experience in air pollution exposure assessment and environmental epidemiology. The overarching goal of my research is to more accurately characterize air pollutant exposure and examine the impact of air pollution exposure on adverse health outcomes. For exposure assessment, I have developed and applied various models to improve population and individual exposure assessment for air pollutants using geographical information system (GIS) techniques, spatial modeling, atmospheric dispersion modeling (CALINE4), and regional airshed modeling. Previous exposure assessment research has included development of an individual exposure model to retrospectively quantify vehicle-related air pollution exposures for individual children; quantification of the population exposure to naphthalene for Southern California; development of methods to estimate particulate matter exposures before, during and after the 2003 Southern California wildfires; and development of spatial-temporal models using GIS and advanced statistical methods for traffic-related pollutants. My exposure assessment research has led to more than 10 publications. For environmental epidemiology, I focused on the impact of air pollution exposure on reproductive health, including studies that linked traffic-related air pollution with adverse pregnancy outcomes (e.g. preeclampsia and preterm birth) and linked biomarker-based polycyclic aromatic hydrocarbon exposure with missed abortion during early pregnancy. We have published the 1st study in the literature that linked exposure to local traffic-generated pollutants with the development of preeclampsia during pregnancy.

My research has been recognized with the 2005 Young Investigator Award from the International Society of Exposure Analysis and the 2010 Walter A. Rosenblith New Investigator Award from the Health Effects Institute. I am the PI of two research grants (NIEHS and Health Effect Institution) on examining the impact of urban air pollution on adverse reproductive outcomes, co-PI of a California Air Resources Board grant on modeling traffic-related air pollutant exposure in-transit, and co-PI of two University of California Transportation Center grants that examines built environment and traffic-related air pollution exposure in local communities in Los Angeles and greening freight transportation. I am also working on a sub-project in the National Children’s Study to improve time-location predictions using questionnaire data and real-time global positioning system (GPS) tracking in air pollution epidemiological studies. In summary, I have extensive experience in spatial modeling methods, exposure assessment of air pollutants, and studying the impact of air pollution on reproductive health outcomes. I am well-suited to work on the proposed project.

B. Positions and Honors

Positions and Employment

2010 – present Assistant Professor, UCI Program in Center for Occupational and
Environmental Health and Program in Civil and Environmental Engineering
2006 – present  Assistant Professor, UCI Program in Public Health and Epidemiology
Department, College of Health Sciences
2004 – 2006  Assistant Researcher, UCLA School of Public Health
2004 – 2006  Air Quality Analyst, Sonoma Technology, Inc., CA
2004 – 2005  Post-doctoral Researcher, UCLA Institute of the Environment
2000 – 2004  Graduate Student Researcher, UCLA School of Public Health
1998 – 2000  Research Assistant, Penn State University, PA

Honors and Awards
2010  Walter A. Rosenblith New Investigator Award, Health Effects Institute
2007  Committee on Research Award, UCI School of Medicine
2005  ISEA Young Investigator Award, International Society of Exposure Analysis
2003  Samuel J. Tibbitts Fellowship, School of Public Health, UCLA
2000, 2003  Chancellor’s Fellowship, UCLA
2000  PWEA Student Research Award, Pennsylvania Water Environment Association
1999  Graduate Dean's Fellowship, the Penn State University

C. Selected peer-reviewed publications (Selected from 23 peer-reviewed publications).


### D. Research Support

#### Ongoing Research Support

**Health Effect Institute, Walter A. Rosenblith New Investigator Award** (J Wu) 12/1/10-11/30/13

*Adverse Reproductive Health Outcomes and Exposures to Gaseous and Particle Matter Air Pollution in Pregnant Women*

Specific aims are to determine the risks of adverse pregnancy outcomes in women from exposure to local traffic-generated air pollutants, and to ambient concentrations of primary organic aerosols, secondary organic aerosols, and trace metals; examine effect modification of associations by socioeconomic status, smoking, body mass index, diabetes, and hypertension; and determine the risk of adverse pregnancy outcomes in women from polycyclic aromatic hydrocarbon and NOx exposures based on outputs from spatial-temporal models.

Role: PI.

**National Institute of Environmental Health Sciences, R21ES016379** (J Wu) 9/11/08-8/30/11

*Exposure to mobile source air pollution and adverse birth outcomes in the Los Angeles Air Basin*

Specific aims are to determine the association of mothers’ residential exposure to traffic-related air pollutants with low birth weight, preterm delivery, and intrauterine growth restriction in a large retrospective cohort.

Role: PI.

**University of California Transportation Center** (D Houston) 8/1/10 – 12/31/11

*Affordable Housing in Transportation Corridors: Built Environment, Accessibility, and Air Pollution Implications of Near-Roadway Residential Locations*

Specific aim is to evaluate how proximity to major roads affects PAS-measured particle-bound polycyclic aromatic hydrocarbon exposure of individuals living near those roads. The focus is on various low income housing developments and the individuals that live in these houses.

Role: Co-PI.

**University of California Transportation Center** (J Saphores) 8/1/10 – 12/31/11

*Greening freight transportation: An analysis of some social benefits from shifting freight traffic to off-peak hours*

Specific aim is to better assess the social benefits of shifting freight operations off peak with an emphasis on congestion, air pollution, and accidents related to freight trucks. The focus will be on the San Pedro Bay Ports of Los Angeles and Long Beach in Southern California.

Role: Co-PI.

**PHS-NIH Child Health & Human Services: National Children’s Study Contract No. HHSN27555200503415C** (J Swanson) 9/1/10 – 12/31/11

*Validation of Time Activity and Air Pollution Formative Study*

Specific aims are to validate and improve time-location predictions using questionnaire data in relation to personal real-time global positioning system (GPS) tracking, and to validate the use of questionnaires and extant environmental data to predict total personal exposures to traffic-related air pollution.
Role: Co-Investigator.

**The BP/South Coast Air Quality Management District, BPG-46329 (RJ Delfino)** 7/1/09-6/31/11

*Risk of Hospital Encounters for Asthma Among Children From Exposure to Traffic-related Air Pollutants Near the Home*

Specific aim is to examine the risk of emergency department visits and hospital admissions for asthma among children living in north Orange County from exposure to traffic-related air pollution near their homes.

Role: Co-Investigator.

**California Air Resources Board, Contract no 07-310 (RJ Delfino)** 6/30/08 -5/31/11

*In-Vehicle Air Pollution Exposure Measurement and Modeling*

Specific aims are to measure and model in-cabin concentrations of key air pollutants, and apply the results to develop models for use in estimating in-transit exposures of subjects in cohort studies.

Role: Co-PI.

**Pending Research Support:**

None
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.

Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Alpesh Amin, MD, MBA, FAC, SFHM

POSITION TITLE
Professor & Chair, Department of Medicine
Executive Director, Hospitalist Program

eRA COMMONS USER NAME (credential, e.g., agency login)

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, San Diego</td>
<td>B.S.</td>
<td>1985-1989</td>
<td>Bioengineering</td>
</tr>
<tr>
<td>Northwestern University of Medical School, Illinois</td>
<td>M.D.</td>
<td>1990-1994</td>
<td>Medical Doctorate</td>
</tr>
<tr>
<td>University of California, Irvine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of California, Irvine</td>
<td>M.B.A</td>
<td>1998-2000</td>
<td>Masters in Business Administration-Health Care</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

Academic Appointments:

9/09 – present   Professor of Clinical Medicine, Program in Public Health, University of California, Irvine
7/08 – present   Professor of Clinical Medicine, Paul Merage School of Business, University of California, Irvine
7/08 – present   Professor of Clinical Medicine, Department of Medicine, University of California, Irvine
6/08 – present   Chair, Department of Medicine, University of California, Irvine
6/06 – present   Chief, Division of General Internal Medicine, Department of Medicine, University of California, Irvine
7/06 – 6/08 Health Sciences Clinical Professor, Department of Medicine, University of California, Irvine
7/01- present   Vice Chair for Clinical Affairs and Quality Assurance, Department of Medicine, University of California, Irvine
7/98 – present   Founder, Executive Director & Medical Director, Hospitalist Program, University of California, Irvine Health System
7/02 – 6/06 Health Sciences Associate Clinical Professor, Department of Medicine, University of California, Irvine
7/98 – 6/02 Assistant Clinical Professor, Department of Medicine, University of California, Irvine
7/97 – 6/98   Clinical Instructor/Chief Resident, Department of Medicine, University of California, Irvine

Awards and Honors (Selected):

2011   Lean Sigma Prescription for Healthcare Greenbelt Course
2010   2010 Venous Research Award for Quality Improvement and Implementation of Best Practices from the Venous Disease Coalition (VDC)/Vascular Disease Foundation (VDF)
2009   Top 10 Hospitalist, American College of Physicians (ACP) Hospitalist
2009   Physician of Year Award, Indian Medical Association of Southern California
2009   UC Irvine School of Medicine – Department Chair Award of Excellence
2008   Top Hospitalist (Honor Roll), American College of Physicians (ACP) Hospitalist
2008   Laureate Award – American College of Physicians Region II
2006 Alfred Soffer Research Award, American College of Chest Physicians (CHEST)
2006 Society of Hospital Medicine Award:Leadership for the Core Competencies in Hospital Medicine
2003 UCI Primary Care Recognition Award
B. Selected peer-reviewed publications (in chronological order).


2. Daniel D. Dressler, MD, MSc; Michael J. Pistoria, DO; Tina L. Budnitz, MPH; Sylvia C. W. McKean, MD; Alpesh N. Amin, MD, MBA, “The Core Competencies In Hospital Medicine: Development and Methodology,” Journal of Hospital Medicine 2006 Jan/Feb;1(1):48-56


8. Vineet Arora, Margaret C. Fang, Sunil Kripalani, Alpesh N. Amin, “Preparing for „Diastole”: Advanced Training Opportunities for Academic Hospitalists,” Journal of Hospital Medicine, 2006; 1(6): 368-377


31. Amin AN, Lin J, Ryan A. “Need to Improve Thromboprophylaxis Across the Continuum of Care for Surgical Patients,” Adv Ther 2010, Apr 13

C. Research Support.

Name: Palliative Care Teaching for Hospitalists
Funding Agency: Monarch Health Care
Co-Principal Investigator – Alpesh Amin, MD
PI – Solomon Liao, MD
Amount: $202,975 Dates: 2010-2012

Name: Project CLEAR – Changing Lives by Eradicating Antibiotic Resistance
Funding Agency: AHRQ
Co-Investigator & Steering Committee Member- Alpesh Amin, MD
PI – Susan Huang, MD
Amount: $9,831,915 Dates: 2010-2013
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Baker, Dean Bradford

POSITION TITLE
Professor of Medicine, Pediatrics, and Epidemiology
Chief, Occupational and Environmental Medicine

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, Los Angeles</td>
<td>B.S.</td>
<td>1973</td>
<td>Engineering</td>
</tr>
<tr>
<td>University of California, San Diego</td>
<td>M.D.</td>
<td>1977</td>
<td>Medicine</td>
</tr>
<tr>
<td>University of California, Berkeley</td>
<td>M.P.H.</td>
<td>1976</td>
<td>Epidemiology</td>
</tr>
</tbody>
</table>

Please refer to the application instructions in order to complete sections A, B, C, and D of the Biographical Sketch.

A. Personal Statement

I am formally trained in family medicine, occupational and environmental medicine, and environmental epidemiology. I have more than twenty years of research experience in occupational and environmental epidemiology, including being the principal investigator of several community-based epidemiological studies. My research has emphasized two areas. One area has been on the health effects of work organization and psychosocial stressors in the workplace. During the past twenty years, this research has provided the foundation for a large body of research on work-related stress conducted by investigators throughout the world. My colleagues and I at UC Irvine continue research in this area.

Another area of research has been children’s environmental health. I have conducted several epidemiological research studies examining effects on neurological and immunological function of gestational and early childhood exposure to heavy metals and organochlorine chemicals. I am a principal investigator of the Orange County Vanguard Center of the US National Children’s Study, which is a nationwide study that will follow 100,000 children from birth through 21 years of age.

I have made substantial contributions to the development and teaching of methods to conduct community-based epidemiological studies, including serving as the lead editor and primary author of two textbooks on environmental epidemiology – one for the World Health Organization – that are used in multiple countries. I have received several awards for my expertise and contributions, including being recognized as one of the “Best Doctors in America” in occupational and environmental medicine and being elected President of the International Society for Environmental Epidemiology, the leading professional society in the field in the world with member from more than 50 countries.

B. Position and Honors

Positions and Employment

1977-80 Family Medicine Residency, Montefiore Medical Center, New York, NY
1980-81 Occupational Medicine Residency, National Institute for Occupational Safety and Health
1980-82 Medical Officer, National Institute for Occupational Safety and Health; Epidemic Intelligence Officer, US Centers for Disease Control and Prevention
1982-83 Assistant Clinical Professor, Albert Einstein College of Medicine, New York
1982-86 Assistant Professor of Epidemiology and Director, Preventive Medicine Residency Program, School of Public Health, University of California, Los Angeles
1986-93  Associate Professor of Community Medicine, Mount Sinai School of Medicine, New York
1987-90  Director, Research Fellowship in Environmental Epidemiology, Mount Sinai School of Medicine
1990-93  Director, Epidemiology Core, Mount Sinai Environmental Health Sciences Center
1993-present Professor and Chief, Division of Occupational and Environmental Medicine, Department of Medicine, School of Medicine, University of California, Irvine
1993-present Director, Center for Occupational and Environmental Health, University of California, Irvine
1993-present Director, Occupational Medicine Residency Program, University of California, Irvine
1995-2008 Professor, Department of Community and Environmental Medicine, School of Medicine, University of California, Irvine
2008-present Professor, Department of Epidemiology, School of Medicine, University of California, Irvine
2009-present Professor, Department of Pediatrics, School of Medicine, University of California, Irvine

Specialty Certification
1980-1987 American Board of Family Practice
1983-present American Board of Preventive Medicine - Occupational Medicine

Other Professional Experience and Appointments
1986-87 Chair, Occupational Health and Safety Section, American Public Health Association
1986-91 Society for Occupational and Environmental Health Governing Council
1989-91 NIOSH, Occupational Safety and Health Study Section
1991-94 National Institutes of Health, Epidemiology Study Section (EDC 2)
1995-2002 Los Alamos National Laboratory, Review Committee on Environmental, Safety and Health
2000 Chair, Surveillance Research Methods, Special Emphasis Panel, NIOSH
2002, 2003 Special Emphasis Panel on Training, National Institute for Occupational Safety and Health
2001-2006 Elected Secretary-Treasurer, International Society for Environmental Epidemiology
2005 Co-Chair, International Conference on Work Organization and Cardiovascular Disease, International Commission on Occupational Health (ICOH), Newport Beach, CA, USA
2008 Chair, International Conference on Environmental Epidemiology and Exposure Science, Pasadena, CA, USA
2010-2011 Elected President, International Society for Environmental Epidemiology

Awards and Honors
2003 Jean Spencer Felton Award for Scientific Writing, Western Occupational and Environmental Medicine Association
2003 Elected member, Western Association of Physicians
2007-10 Selected annually, Best Doctors in America, Occupational Medicine
2010 Selected, Physicians of Excellence, Orange County Medical Association

C. Selected Peer-reviewed Publications


D. Research Support

Ongoing Research Support

HHSN275200503415C  Baker (PI) and Swanson (PI)   10/05-03/11
National Institute for Child Health and Development
National Children’s Study – Orange County Vanguard Center
Total Direct Costs: $11,540,827

National prospective birth cohort study of 100,000 children followed from their mothers’ pregnancy through 21 years of age to evaluate the impact of multiple environmental and genetic factors on child health and development. Our role as one of seven Vanguard Centers is to participate in planning the study design and protocol, and to implement the study for 1,250 children in Orange County, CA.

Role: PI

Swanson (PI)       10/07-09/12
National Institute for Child Health and Development
National Children’s Study – Southern California Study Center
Total Direct Costs: $25,484,170

National prospective birth cohort study of 100,000 children followed from their mothers’ pregnancy through 21 years of age to evaluate the impact of multiple environmental and genetic factors on child health and development. This contract expands the Orange County Vanguard Center to include San Diego County and San Bernardino County, which will implement the study for additional 1,000 children in each county.

Role: Study Center Co-PI

Swanson (PI)       10/08-09/13
National Institute for Child Health and Development
National Children’s Study – Southern and Central California Study Center
Total Direct Costs: $14,080,049
National prospective birth cohort study of 100,000 children followed from their mothers’ pregnancy through 21 years of age to evaluate the impact of multiple environmental and genetic factors on child health and development. This contract expands the Southern California Study Center to include Kern County, which will implement the study for additional 1,000 children in Kern County.

Role: Study Center Co-PI

59193          Baker (PI)         10/01-09/14
Agency for Toxic Substances and Disease Registries; Association for Occupational and Environmental Clinics
Region IX - UC Pediatric Environmental Health Specialty Unit
Annual Direct Costs: $68,803
Consulting and research unit on children’s environmental health.
Role: PI

T42/CCT918726-0      Baker (PI)        07/95-06/12
National Institute for Occupational Safety and Health
Southern California Education and Research Center
Annual Direct Costs: $ 304,100
Multi-university education and research consortium that provides clinical training and research support for occupational medicine.
Role: PI at UC Irvine and Center Deputy Director

Completed Research Support

R-82943901       Baker (PI)        02/02-12/08
US Environmental Protection Agency
Latent Effects of Gestational Exposure to Heptachlor
Total Direct Costs: $1,365,711
Epidemiological study of 600 young adults with gestational exposure to heptachlor epoxide to evaluate reproductive and immune function.
Role: PI
A. Personal Statement
The proposed work plans to study the utility of naturally occurring flavonoids in the suppression of the age-related inappropriately excessive inflammatory responses induced by endotoxic shock. I have a long-standing interest in oxidative stress (first paper in 1990), excitotoxicity and the aging process (first paper in 1976). I was one of the first scientists to utilize a fluorescent probe in the study of very short-lived reactive oxygen species. I have published papers relating to the role of RNA since 1963, (specifically mRNA since 1967) and the structure of chromatin since 1969. My experience includes behavioral and nutritional research, with an emphasis on aging-related changes. My more recent interest has been in inflammatory processes and their mitigation, specifically as encountered in endotoxic shock. My research has been supported by the NIH since 1971, with one funding gap of six years when I was Head of the Neurochemistry Section in the intramural program of NIEHS. This background should enable me to carry out the research plan described in this application which is very much in line with my interests and expertise.

B. Positions and honors.

Positions and Employment
1963-1965: Research Scientist, Dept. of Pharmacology, Columbia University, NY
1965-1970: Research Biological Chemist, Department of Biological Chemistry and Associate Member, Brain Research Institute, UCLA School of Medicine, Los Angeles, CA
1970-1976: Assistant Prof. of Neurology, University of Colorado Medical Center, Denver.
1976-1978: Associate Professor of Neurology and Pharmacology, University of Colorado Medical Center, Denver, CO
1978-1985: Head, Neurochemistry Section, Laboratory of Behavioral and Neurological Toxicology, National Institute of Environmental Health Sciences, RTP, NC
1978-1985: Associate Professor, Department of Pharmacology, University of North Carolina, Chapel Hill, NC
1987-Date: Professor, Department of Pharmacology, University of California, Irvine, CA
1985-Date: Professor of Toxicology, Program in Toxicology, Division of Occupational and Environmental Health, Department of Medicine, University of California, Irvine, CA

Other Experience and Professional Memberships
2008: NIH Scientific Review Panel, Neurotoxicity and Alcohol Study Section. Integrative, Functional and Cognitive Neuroscience IRG.
2008: NIH Review Panel, NIEHS Superfund Basic Research and Training Program.
2008: NIH Review Panel, NIEHS Superfund Basic Research and Training Program.
2008: Hong Kong University Grants Committee. State Key Laboratory Reviewer.
2009: NIH National Center for Research Resources Special Emphasis Panel COBRE.
2011: NIH Review Panel NIH ZRG-1 IFCN-C: Learning, Alcohol and Neurotoxicology,


C. Selected relevant peer-reviewed publications (out of 2011 total)


D. Prior Research Support

RO1 AG 16794    Bondy (PI)  4/01/99-3/31/10
Deceleration of Brain Senescence by Dietary Melatonin
The hypothesis underlying this application is that dietary melatonin may be of utility in retarding some of the undesirable aspects of brain aging. Arrest or reversal of trends associated with age will be evaluated by comparing patterns of mRNA and proteins from melatonin-treated mice with those from younger animals. Parallel studies using behavioral endpoints will reveal whether molecular changes detected, are reflected by altered cognition or motor strength. The ability of melatonin to restore integrity of mitochondrial functioning and retard age-related mitochondrial DNA deletion will also be evaluated. The principal goal of this study is to contribute to the development of a rational nutritional strategy for delaying progression of brain aging.

RO1 ES 7992.    Bondy (PI)  4/1/96-3/31/07.
Aluminum-Iron Interactions and Neurological Disease
The major goal of this research was to relate the property of aluminum salts to be neurotoxic and to potentiate inflammatory and oxidant events in neural tissue, with their potential as a factor in the progression of certain neurological diseases.
BIOGRAPHICAL SKETCH
Provide the following information for the key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Detrano</td>
<td>Professor of Radiological Sciences</td>
</tr>
</tbody>
</table>

**eRA COMMONS USER NAME**
RobertDetrano

**EDUCATION/TRAINING** *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York University, New York, NY</td>
<td>B.A.</td>
<td>1968</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Polytechnic Institute of Brooklyn</td>
<td>Ph.D.</td>
<td>1972</td>
<td>Physics</td>
</tr>
<tr>
<td>University of Rome, Italy</td>
<td>M.D.</td>
<td>1978</td>
<td>Medicine</td>
</tr>
</tbody>
</table>

A. **Personal Statement**

I have been trained as a cardiologist and have longstanding research experience in cardiac epidemiology, having completed a long term NHLBI funded cohort study, South Bay Heart Watch (17 years) and in large contract studies like MESA. I have been living, teaching and researching in China for most of the past five years and have published several peer reviewed reports from this work. I speak Mandarin fluently (self taught) and can teach in Mandarin. I have made numerous academic contacts in Yunnan Province, in Beijing and in Shanghai. I have spent most of the past three years giving free clinical care, teaching village doctors and researching hypertension in Yunnan villages. I have founded and am president and clinical director of the China California Heart Watch, a not for profit 501 C3 public charity whose mission is to bring attention and care for the cardiac health issues of Yunnan farmers.

B. **Positions and Honors**

<table>
<thead>
<tr>
<th>Year(s)</th>
<th>Position</th>
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<tbody>
<tr>
<td>1984-85</td>
<td>Clinical and Research Associate, Department of Medicine, Cleveland Foundation, Cleveland, OH</td>
</tr>
<tr>
<td>1985-90</td>
<td>Assistant Professor of Medicine, Department of Medicine, University of California, Irvine</td>
</tr>
<tr>
<td>1985-90</td>
<td>Staff Cardiologist; Chief, Heart Station; Chief, Wards and Clinics; and Chief, Echocardiography, VA Medical Center, Long Beach, CA</td>
</tr>
<tr>
<td>1990-95</td>
<td>Associate Professor of Medicine, Harbor-UCLA Medical Center/Research and Education Institute (REI) Torrance, CA</td>
</tr>
<tr>
<td>1990-2006</td>
<td>Associate Director for Research, Saint John’s Cardiovascular Research Center, Torrance, CA</td>
</tr>
<tr>
<td>1995-2006</td>
<td>Professor of Medicine, Harbor-UCLA Medical Center, Torrance, CA</td>
</tr>
<tr>
<td>2006-present</td>
<td>Professor of Radiological Sciences and Medicine, University of California, Irvine, CA.</td>
</tr>
<tr>
<td>2006-present</td>
<td>President of China California Heart Watch, <a href="http://www.chinacal.org">www.chinacal.org</a></td>
</tr>
<tr>
<td>2006-present</td>
<td>Visiting Professor, Peking University, Beijing, China</td>
</tr>
</tbody>
</table>

C. **Selected peer-reviewed publications or manuscripts in press (in chronological order).**


D. Research Support

Ongoing Research Support
RO1 HL63963-04 (Detrano) 09/01/04-08/31/10
US DHHS/NIH/NHLBI
“Long Term Effects of Subclinical CAD on Cardiac Function”
The primary objective is to examine the effect of baseline calcium and seven-year change in calcium extent on the function of the heart in the now elderly SBHW cohort.

**Completed Research Support**

N01 HC-45205 (Detrano) 12/01/06-09/30/08  
US DHHS/NIH/NHLBI  
“Longitudinal Studies of Coronary Heart Disease Risk Factors in Young Adults Study (CARDIA)”

The CARDIA study started in December 1983 as a study of the distribution and evolution of risk factors for cardiovascular disease during young adulthood in black and white men and women.

N01-HC-95169 (Detrano) 01/15/99-08/14/08  
US DHHS/NIH/NHLBI  
“Subclinical Cardiovascular Disease Study (MESA) - Electron Beam Computed Tomography Reading Center”

The primary objective of the EBCT Reading Center will be to develop a protocol that minimizes the known sources of measurement error and thus achieves reproducibility and accuracy, to assure continuity of accuracy by meticulous quality control during scan acquisition and interpretation.

1 R01 HL072403-01 (Criqui) 03/10/03 - 02/28/07  
US DHHS/NIH/NHLBI (Subcontract from University of California, San Diego)  
“Aortic Calcium and Coronary Events in the Multiethnic Study of Atherosclerosis”

The purpose is to read CT scans to detect coronary calcifications.

1 RO1 HL071205-01A1 (Rotter) 07/1/03-06/30/08  
NIH (Subcontract from Cedars Sinai Medical Center)  
“MESA Family Study”

The goal of this study is to locate and identify genes contributing to the genetic risk of subclinical cardiovascular disease (CVD) and evaluate the impact of lifestyle and environment on the expression of these genetic components of CVD.

NO1-AG-1-2100 (Gudnason) 08/01/01-02/01/06  
US DHHS/NIH (Subcontract from Icelandic Heart Association)  
“Icelandic Heart Association - AGES Study”

The purpose is to read CT scans to assess brain structure and function, and cardiovascular structure and function.

200-2002-00613 (Detrano) 11/06/03-09/12/07  
CDC (Subcontract from Cerner Corporation, Minneapolis Medical Research Foundation, Park Nicollet Institute, Abbott Northwestern Hospital, Miriam Hospital & Washington University)  
“Sun Study”

The goals are to monitor the incidence of metabolic and other medical complications related to the treatment of HIV infection and attendant prolonged survival.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. Allan Hubbell</td>
<td>Professor of Medicine and Public Health</td>
</tr>
<tr>
<td></td>
<td>Executive Vice Dean, School of Medicine</td>
</tr>
</tbody>
</table>

**EDUCATION/TRAINING** (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
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<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baylor University, Waco, TX</td>
<td>BA</td>
<td>1971</td>
<td>Biology</td>
</tr>
<tr>
<td>Baylor College of Medicine, Houston, TX</td>
<td>MD</td>
<td>1974</td>
<td>Medicine</td>
</tr>
<tr>
<td>University of California, Irvine/Long Beach, CA</td>
<td>Residency</td>
<td>1978</td>
<td>Internal Medicine</td>
</tr>
<tr>
<td>University of California, Los Angeles, CA</td>
<td>MSPH</td>
<td>1983</td>
<td>Public Health</td>
</tr>
</tbody>
</table>

**A. Personal Statement**

My research focuses on the cancer control needs of medically under-served populations and health policy options to address those needs. Examples include studies of cancer–related knowledge, attitudes, and preventive practices among Latinos and Pacific Islanders – special populations that reside in large numbers in California. These studies have documented opportunities for education about the risk factors, signs, and symptoms of cancer and about the value of cancer prevention services. My research team has developed culturally sensitive cancer prevention programs to improve knowledge about cancer and to increase screening in these populations. In various leadership roles, I have had the opportunity to mentor students, residents, and faculty members in research. I have also provided oversight for complex research and educational enterprises such as described in this proposal.

**B. Positions and Honors**

**Positions**

- 1979-81 Assistant Clinical Professor of Medicine, University of California, Irvine, CA
- 1981-89 Assistant Professor of Medicine, University of California, Irvine, CA
- 1989-97 Associate Professor of Medicine, University of California, Irvine, CA
- 1993-2001 Chief, Division of General Internal Medicine and Director, Center for Health Policy Research, University of California, Irvine, CA
- 2001-08 Chair, Department of Medicine University of California, Irvine, CA
- Present Executive Vice Dean (2010--), Senior Associate Dean for Academic Affairs (2008--), Professor of Medicine (1997--) and Public Health (2007--), Senior Research Fellow, Center for Health Policy Research (2001--), University of California, Irvine, CA

**Other Recent Experience**

- 2003-present Chair, Program Steering Committee, University of Guam/Cancer Research Center of Hawaii Minority Institution/Cancer Center Partnership (U54 CA03008)
- 2002-present Member, Program Steering Committee, California State University, San Diego/University of California, San Diego Cancer Center Minority Institution/Cancer Center Partnership (U54 CA92081)
- 2005-07 Chair, Special Emphasis Panel for Planning Grants for Minority Institution/Cancer Center Collaborations (P20); Cooperative Planning Grants for Comprehensive Minority Institution/Cancer Center Partnerships (U56); and Comprehensive Minority Institution/Cancer Center Partnerships (U54), National Cancer Institute
- 2009 Chair, External Review of Comprehensive Minority Institution/Cancer Center Partnerships (U54) Program, National Cancer Institute,
Other Recent Experience (continued)

2010  Member, Special Emphasis Panel for Sustainable Community-Linked Infrastructure (ARRA RC4), National Institutes of Health
2010  Chair, Special Emphasis Panel for Feasibility Studies for Collaborative Interaction for Minority Institution/Cancer Center Collaborations (P20)

Recent Honors

2004  Community Health Research Leadership Award, Center to Reduce Cancer Health Disparities, National Cancer Institute
2005  Governor’s Guahan (Guam) Award for Outstanding Contributions to the Island of Guam and her people in Cancer Prevention and Control
2005  Honorary Matai (Chief) for contributions to improving cancer control for Tongans, Samoans and Chamorros, Pacific Islander Cancer Control Network
2009  Outstanding Community Service Award, Society of General Internal Medicine

C. Selected Peer-reviewed Publications (selected from 101 publications)

Most relevant to the current application


Additional recent publications of importance to the field


Additional recent publications of importance to the field (continued)


D. Research Support

**Current**

Name: Women’s Health Initiative Memory Study (CT 22775)  
Funding Agency: Wake Forest University School of Medicine  
Role: Principal Investigator (subcontract)  
Total Direct Costs: $179,112; Current Year: $4,171  
Dates: June 1996 – June 2011  
This grant is evaluating the effect of hormone replacement therapy on the mental status of postmenopausal women.

**Recently Completed Research**

Name: Women’s Health Initiative: Clinical Center for the Clinical Trial and Observational Study  
Funding Agency: National Heart, Lung, and Blood Institute (N01 WH 4-2107)  
Role: Principal Investigator  
Total Direct Costs: $10,870,779  
Dates: October 1994 - September 2010

Name: Pacific Islander Cancer Control Network (U01 CA86073)  
Funding Agency: National Cancer Institute  
Role: Principal Investigator  
Total Direct Costs: $2,736,353  
Dates: April 2000 – March 2007
BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Kornhauser, Elliott

POSITION TITLE
Associate Clinical Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
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<tbody>
<tr>
<td>University of Toronto, Canada</td>
<td></td>
<td>1970-72</td>
<td>Pre Med</td>
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<tr>
<td>University of Toronto, Faculty of Medicine, Canada</td>
<td>M.D.</td>
<td>1972-76</td>
<td>Medicine</td>
</tr>
<tr>
<td>McMaster University, Canada</td>
<td></td>
<td>1976-77</td>
<td>Internal Medicine Internship</td>
</tr>
<tr>
<td>University of California, Irvine</td>
<td>M.B.A.</td>
<td>1992-94</td>
<td>Executive MBA Program</td>
</tr>
<tr>
<td>University of California, Los Angeles</td>
<td>M.P.H.</td>
<td>1996-97</td>
<td>Masters in Public Health</td>
</tr>
<tr>
<td>University of California, Irvine</td>
<td></td>
<td>1999-98</td>
<td>Occupational Medicine Residency</td>
</tr>
</tbody>
</table>

A. Positions and Honors.

Positions and Employment
1998-present  Associate Clinical Professor, Center for Occupational and Environmental Health, Dept. of Medicine, University of California at Irvine, Irvine, CA
1996-1998     Residency in Occupational and Environmental Medicine
1995-1996     Physician in Charge, General Medicine and Administration, CIGNA Healthcare, Orange, CA
1990-1995     Chief of Staff, Physician in Charge, General Medicine and Administration, CIGNA Healthcare, Laguna Hills, CA
1985-1990     CIGNA Healthcare, Westminster, CA, General Medicine
1980-1985     Private Practice, Huntington Beach, CA, General Medicine, ER Physician, Humana Hospital, Huntington Beach, CA
1978-1980     Center Medical Clinic, Huntington Beach, CA, General Medicine, ER Physician, Humana Hospital, Huntington Beach, CA

Other Experience and Professional Memberships
1990-present  American College of Physician Executives
1996-present  American College of Occupational and Environmental Medicine

Certifications
American Board of Preventive Medicine – Occupational Medicine
**NAME**
Luderer, Ulrike

**POSITION TITLE**
Associate Professor

**eRA COMMONS USER NAME**
ULRIKELUDERER

**EDUCATION/TRAINING** (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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<tbody>
<tr>
<td>Brown University, Providence, RI</td>
<td>AB</td>
<td>1984</td>
<td>French Civilization</td>
</tr>
<tr>
<td>Brown University, Providence, RI</td>
<td>ScB</td>
<td>1984</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>Northwestern University, Chicago, IL</td>
<td>PhD</td>
<td>1991</td>
<td>Neurobiology/Physiology</td>
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<tr>
<td>Northwestern University, Chicago, IL</td>
<td>MD</td>
<td>12/1992</td>
<td>Medicine</td>
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<tr>
<td>Evanston Hospital, Northwestern University, Evanston, IL</td>
<td>residency</td>
<td>1/93-12/95</td>
<td>Internal Medicine</td>
</tr>
<tr>
<td>University of Washington, Seattle, WA</td>
<td>residency</td>
<td>1/96-7/98</td>
<td>Occupational Medicine</td>
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<tr>
<td>University of Washington, Seattle, WA</td>
<td>MPH</td>
<td>7/1998</td>
<td>Occupational Medicine</td>
</tr>
<tr>
<td>University of Washington, Seattle, WA</td>
<td>post-doc</td>
<td>7/98-8/99</td>
<td>Reprod/develop toxicology</td>
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</table>

**A. Positions and Honors**

**Positions and Employment**

7/98-8/99 Senior Fellow, Department of Environmental Health, University of Washington, Seattle, WA. Mentor, Dr. Elaine Faustman

8/99-6/06 Assistant Professor, Division of Occupational and Environmental Medicine, Dept of Medicine, University of California, Irvine, CA

7/06-present Associate Professor, Division of Occupational and Environmental Medicine, Dept of Medicine; secondary appointments in Dept of Developmental and Cell Biology and Program in Public Health; member Chao Family Comprehensive Cancer Center and Developmental Biology Center, University of California, Irvine, CA

4/10-present Co-Director Environmental Toxicology Graduate Program, Dept of Medicine, University of California Irvine

**Other Experience**

7/99-5/00 National Research Council Subcommittee on Methyl Bromide

10/00-9/06 U.S. Environmental Protection Agency Science Advisory Board Environmental Health Committee.

9/01-12/01 NTP/NIEHS Center for the Evaluation of Risks to Human Reproduction. Expert Panel on 1- and 2-Bromopropane

7/03-8/06 World Health Organization, IPCS, planning group member and chapter coordinator for Environmental Health Criteria document on “Principles for Evaluating Health Risks to Children Associated with Exposure to Chemicals.”


8/06-9/07 U.S. Environmental Protection Agency Science Advisory Board Review Panel on Ethylene Oxide Carcinogenicity Assessment

8/07-present California Environmental Contaminant Biomonitoring Program Scientific Guidance Panel. Panel Chair, 5/10-present.

1/08-present **Mutagenesis**, Editorial Board

2011 Ad hoc reviewer, NIH Loan Repayment Program

**Professional Memberships:** Society of Toxicology, Endocrine Society, Society for the Study of Reproduction, American College of Occupational and Environmental Medicine
Honors
Chief Resident, University of Washington, Occupational and Environmental Medicine Program, 1997-98
Occupational Physicians Scholarship Fund awardee, 1996-97, 97-98
Evanston Hospital Internal Medicine Intern of the Year, 1993-94
Fellow, Northwestern University Medical Scientist Training Program, 1985-92
Magna cum laude, Tau Beta Pi Engineering Honor Society, Brown University, Providence, RI, 1984

B. Selected Peer-reviewed Publications (Selected from 25 journal articles, 6 book chapters, and 1 book)


18. Tsai-Turton M, **Luderer U**. 2006 Opposing Effects of Glutathione Depletion and FSH on Reactive Oxygen Species and Apoptosis in Cultured Preovulatory Rat Follicles. *Endocrinology* 147:1224-1236. PMID: 16339198


C. Research Support

**Ongoing Research Support**

“Modulation of PAH ovarian toxicity by biotransformation enzyme polymorphisms.”
Principal Investigator: Ulrike Luderer
Agency: NIH/National Institute of Environmental Health Sciences
Type: R21 ES016846. Period: 8/15/09-7/31/11
The goals of this project are to understand how polymorphisms in genes encoding biotransformation enzymes interact with environmental exposure to polycyclic aromatic hydrocarbons to affect fertility-related endpoints in women.

“Oxidative stress drives ovarian aging: modification by genetics and environment.”
Principal Investigator: Ulrike Luderer
Agency: NIH/National Institute on Aging
Type: R21 AG032087. Period: 9/1/08-8/31/10
The goals of this project are to understand the interactions of decreased antioxidant capacity, increased oxidative stress, and exposure to environmental toxicants in ovarian aging.

**Completed Research Support during the Past 3 Years**

“Susceptibility to ovarian cancer is related to biotransformation capacity.”
The goals of this project are to understand how lack of the transcription factor Nrf2 modulates ovarian surface epithelial cell sensitivity to DNA damage and apoptosis induced by benzo[a]pyrene.

“Knockout of the Transcription Factor Nrf2 Decreases Male Fertility: Role of Oxidative Stress.”
Principal Investigator: Ulrike Luderer
Agency: UC Irvine Academic Senate Council on Research, Computing, and Library Resources
Type: Single Investigator Innovation Grant #SIIG-2006-2007-16. Period: 7/1/07-6/30/08
The goals of this project are to define the lesions that decrease fertility in male Nrf2-/- mice and to delineate the role of oxidative stress.

“Glutathione: Protecting Ovarian Follicles from Oxidant Injury.”
Principal Investigator: Ulrike Luderer
Agency: NIH/NIEHS Type: K08 ES10963. Period: 3/14/02-11/30/07
The goals of this project are to test the effects of biochemical or genetic depletion or supplementation of the antioxidant glutathione on ovarian follicular atresia in vivo and in vitro.
BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME
Meyskens Jr., Frank L.

POSITION TITLE
Professor of Medicine, Biological Chemistry, and Public Health

EDUCATION/TRAINING
(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, San Francisco, CA</td>
<td>B.S.</td>
<td>1967</td>
<td>Biology</td>
</tr>
<tr>
<td>University of California, San Francisco, CA</td>
<td>M.D.</td>
<td>1972</td>
<td>Medicine</td>
</tr>
<tr>
<td>House Staff Training (Interim First Year Resident), University of California Moffet Hospital, San Francisco, CA</td>
<td></td>
<td>1972-1974</td>
<td></td>
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<tr>
<td>Clinical Associate, Medicine Branch, NCI, Bethesda</td>
<td></td>
<td>1974-1975</td>
<td></td>
</tr>
<tr>
<td>Clinical Associate, Laboratory of Tumor Cell Biology, NCI, Bethesda</td>
<td></td>
<td>1975-1977</td>
<td></td>
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A. Personal Statement
I have been conducting basic and clinical research involving human melanoma since 1978. In the past 15 years I have been a leader in the investigation of redox regulation of transcriptional factors in this disease. In the 5 years we have focused on mechanistic studies of NOS/NO as a basis for the development of therapeutic prevention and treatment of this cancer. This application emphasizes experimental therapeutics at the animal level and is a logical evolution of our work and takes advantage also of an enormous expertise at UC Irvine related to NOS. We are also positioned to bring these results to clinical trial as we have a large Pigmented Lesion Clinic, see over 250 new patients with early melanoma per year and have an active trials program that spans the continuum from prevention (A randomized trial of Lovastatin in patients with dysplastic nevi) to treatment of metastatic disease (several phase II and a phase I trial).

B. Positions and Honors

Positions and Employment

1977-1981 Assistant Professor of Medicine (Hematology Oncology), University of Arizona, Tucson, AZ
1984-1989 Associate Professor of Molecular and Cell Biology, University of Arizona, Tucson, AZ
1984-1989 Director for Cancer Prevention and Control, Arizona Cancer Center, Tucson, AZ
1985-1989 Professor of Medicine (Hematology Oncology), University of Arizona, Tucson, AZ
1989 Professor of Medicine and Biological Chemistry; Director, Chao Family Comprehensive Cancer Center, University of California, Irvine, Irvine, CA
1999-2004 Associate Dean of Research, College of Medicine, University of California, Irvine, Irvine, CA
2004-2007 Senior Associate Dean of Health Sciences, University of California, Irvine, Irvine, CA
2007-2009 Associate Vice Chancellor of Health Sciences, University of California, Irvine, Irvine, CA

Other Experience and Professional Memberships

1974 Board Certified, Internal Medicine, American Board of Internal Medicine
1982 Board Certified, Oncology, American Board of Internal Medicine
1982, 85, 88, 92 Co-Chair, 1st, 2nd, 3rd and 4th International Conferences on Modulation and Mediation of Cancer by Vitamins, Tucson, AZ
1986-1990 Board of Scientific Counselors (Chair, 1990), DCPC, NCI
1997-2004 President, International Society of Chemoprevention
2007-2010 President, Pam American Society for Pigment Cell Research
2007 - Associate Chair of Cancer Control and Prevention, SWOG

Honors
1968  Dean’s Prize in Research, University of California, San Francisco, CA
1989  Grace A. Goldsmith Award, American College of Nutrition
1990  NCI – Year 2000 Award
2006  Inaugural Salmon Awardee in Translational Research, Arizona Cancer Center
2006  Distinguished Career Achievement Award, American Society of Preventive Oncology
2008  AACR Cancer Prevent Awardee
2009  Elected to Royal Society of Medicine (Oversees Fellow)

C. Selected peer-reviewed publications (in chronological order)

Most relevant to the current application

D. Research Support

Ongoing Research Support

P30 CA-62203-14S (Meyskens) 08/01/02-01/31/12
University of California, Irvine
Cancer Center Support Grant
Center grant to support UCI Cancer Center.
Role: PI

CCOP-07004 (Meyskens) 06/01/07-05/31/12
SWOG- Associate Chair for Cancer Control and Prevention
Serve as co-P.I of DCL grant. and is ultimately responsible for the fiscal and scientific oversight and integrity of the proposed project. He will develop and drive the scientific agenda for cancer prevention and control and make decisions in keeping with the overall priorities of the Group.
Role: PI

5 N01 CN35160-5 (Meyskens) 10/01/03-09/29/12
NIH/NCI
Phase I and Phase II Clinical Trials of Chemopreventive Agents
The overall objective of this project is to conduct multiple early phase (Phase I and Phase II) clinical trials for candidate cancer preventive agents using the extant infrastructure that has been developed over the past decade at the UCI NCI-designated Chao Family Comprehensive Cancer Center. The main focus of these trials is to assess the cancer preventive potential of various compounds by evaluating their effects on biological or imaging endpoints.
Role: PI

5 R01 CA088078-05 (Meyskens) 09/30/02-08/31/12
NIH/NCI
Phase III Colon Cancer Prevention Trial
The long-range objective of our work is to develop safe and effective drugs to prevent colon cancer, which is the fourth most common incident cancer in America with over 58,000 people dying of the disease in the year 2000. This trial was completed and reported in 2008 and patients are now in long term follow-up.
Role: PI

5 U01 CA072294-11 (Meyskens) 08/31/04-09/29/10
NIH/NCI
Bowman-Birk Inhibitor and Oral Leukoplakia
To conduct phase IIa and IIb chemoprevention studies of BBIC in oral leukoplakia. Phase IIa was completed in 9/98 and a randomized phase IIb trial started in 10/00. which was completed in april 2010. The study results are being analyzed and will be reported later this year. A further no cost extension will be requested
Role: PI

Completed Research Support(recent)

U19 CA81886 (Meyskens) 09/30/99-09/29/07
NIH/NCI
Chemoprevention of Familial Prostate Cancer
Role: PI
CURRICULUM VITAE
Dana B. Mukamel, Ph.D.

EDUCATION

<table>
<thead>
<tr>
<th>University</th>
<th>Degree</th>
<th>Year</th>
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<tr>
<td>University of Rochester</td>
<td>Ph.D. (Economics)</td>
<td>1993</td>
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<tr>
<td>Massachusetts Institute of Technology</td>
<td>M.S. (Technology &amp; Policy)</td>
<td>1977</td>
</tr>
<tr>
<td>Tel Aviv University, Israel</td>
<td>B.S. (Chemistry)</td>
<td>1974</td>
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FELLOWSHIPS

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<tr>
<th>Source of Award</th>
<th>Institution</th>
<th>Purpose</th>
<th>Year(s)</th>
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<tr>
<td>National Research Service Award</td>
<td>University of Rochester</td>
<td>NIH Training</td>
<td>1991-1993</td>
</tr>
<tr>
<td>AHRQ Predoctoral Fellow</td>
<td></td>
<td>Grant</td>
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FACULTY APPOINTMENTS

2005-Present  Professor, Department of Medicine, Division of General Internal Medicine & Primary Care, University of California, Irvine
2003-2005    Associate Professor, Department of Medicine, Division of General Internal Medicine & Primary Care, University of California, Irvine
1999-2003    Associate Professor, Department of Community and Preventive Medicine, University of Rochester
1993-1999    Assistant Professor, Department of Community and Preventive Medicine, University of Rochester
2003-Present Senior Fellow, Health Policy Research Institute, University of California, Irvine
2005-Present Faculty Associate, Center for Healthcare Management and Policy, Paul Merage School of Business, University of California, Irvine
2006-2011    Adjunct Professor, Department of Community and Preventive Medicine, University of Rochester
2004-2006    Adjunct Associate Professor, Department of Community and Preventive Medicine, University of Rochester

LECTURESHPES AND VISITING PROFESSORSHIPS

2007        Visiting Faculty Scholar, The University of Iowa, College of Public Health
2003-2006    Visiting Associate Professor, Department of Health Systems Management, Faculty of Health Sciences, Ben-Gurion University of the Negev, Israel
1999        Dozor Visiting Professor, Ben-Gurion University of the Negev, Israel
HONORS AND AWARDS

2010 Winner of the Betty J. Cleckley Minority Issues Research Award awarded by the Gerontological Health Section of the American Public Health Association for manuscript entitled “Racial Disparities in In-Hospital Death and Hospice use Among Nursing Home Residents” Zheng NT; Mukamel DB; Cai S; Temkin-Greener H.

2009 Winner of the Betty J. Cleckley Minority Issues Research Award awarded by the Gerontological Health Section of the American Public Health Association for manuscript entitled “Pressure ulcer prevalence among Black and White nursing home residents in NY: Evidence of racial disparity” Cai S, Mukamel DB, Temkin-Greener H.

2009 AcademyHealth annual meeting – abstract on “Impact of Work Environment and Processes on Risk of Pressure Ulcers in NYS Nursing Homes” Temkin-Greener H, Cai S, Zheng N, Zhao H, Mukamel DB., was chosen most outstanding abstract.

2007 Aetna Susan B. Anthony Award for “Excellence in Research on Older Women and Public Health” awarded by the Gerontological Health Section of the American Public Health Association for manuscript entitled “Urinary Incontinence in Community-Living Older Women: Does Socioeconomic Status Affect Help Seeking and Receiving Treatment” Yue Li, PhD, MS, Xueya Cai, MA, Laurent Glance, MD, Dana B. Mukamel, PhD.

2007 AcademyHealth annual meeting – abstract on “Gender Differences in Healthcare-Seeking for Urinary Incontinence and the Impact of Socioeconomic Status: A Study of the Medicare Managed Care Population” Li Y, Glance LG, Mukamel DB, was chosen as one of the most outstanding research submitted to the meeting.

2006 AcademyHealth annual meeting – abstract on “When racial disparities disappear: Is it a good news story?” was chosen as one of the most outstanding research submitted to the meeting.


2004 Doctoral student, Yue Li, received the Student Award from the Medical Care Section of the American Public Health Association for “Misspecification Issues in Risk Adjustment and Constructing Outcome-Based Quality Indicators”, Yue Li, Andrew Dick, PhD, Dana B. Mukamel, Ph D.


2001 Academy for Health Services Research and Health Policy Annual Meeting: Abstract entitled “End of Life Care in Managed Care: Place of Death in the PACE Program” – most outstanding abstracts.

1997 James G. Zimmer New Investigator Award for Excellence in Research in Aging and Disability, American Public Health Association, Gerontological Health Section.

1993 David W. Stewart Assistant Professor of Health Policy
MEDICAL SCHOOL SERVICE AND ADMINISTRATIVE ASSIGNMENTS

2010  Department of Medicine Research Committee
2007  Ad Hoc Appointment and Promotion Committee for Director of the Program in Nursing Science
2007  Ad Hoc Appointment and Promotion Committee for the Program in Nursing Science
2007  Ad Hoc Committee to propose a Department of Public Health
2007-2009  Search Committee for Director of the Public Health Program
2005  Search Committee for Biostatistician
2004-2005  Committee on Graduate Curriculum in Public Health
2004-present  Institutional Review Board, Committee C
2004  Seminar Committee, co-chair – Center for Health Policy Research
2003  Co-Chair, Health Services Outcomes Research Task Force
2003  Member, Research Strategic Plan Committee
2003  MD/PHD Program Selection Committee
2002-2003  Acting Director, Division of Health Services Research, DC&PM
2002-2003  Member of search committee for Division Chief, Community and Oral Disease Prevention, Eastman Dental Center
2001-2002  DCP&M Web Committee
1999-2003  DC&PM Educational Policy Group
1999-2003  DC&PM Seminar Committee
1999-2003  DC&PM Information Systems Committee
1999-2003  DC&PM Aging Concentration Planning Group
1999-2002  DC&PM Data Lab Committee
1995-1999  Medical Faculty Council.
1996-2003  Chair, Dissertation defense
1993-1995  Committee on Graduate Studies.
6/93-12/93  Senior staff to the Rochester Interim Health Committee chaired by Dr. Paul Griner.

RESEARCH ACTIVITIES

1.  **Research areas:**

   **Aging and Long-term Care:**
   1.  Competition and regulations in nursing home markets.
   2.  Quality of care in nursing homes.
   3.  Development of risk adjusted outcome measures for nursing homes.
   4.  Studies of the PACE program: quality of care, end of life practices
   5.  End-of-Life Care

   **Quality of care:**
   1.  The use of quality report cards by patients, physicians and HMOs.
   2.  The impact of report cards on quality of care.
   4.  The effect of competition on observable and unobservable quality of hospital and nursing home care.
5. Racial disparities in access to high quality cardiac surgeons.

2. **Research Grants**

   **Previous Grants (completed)**

1. **R01 AG023077** Team Performance and Quality of Care in Nursing Homes. NIA. PI: Helena Temkin-Greener, 9/01/05-08/31/10. Total Costs: $1,240,996.
2. **R03 AG029608-01** A Test of the Validity of the “Nursing Home Compare” of Physical Function. PI: Yue Li, PhD, 02/15/07-01/31/10.
3. **VUMC33338-R** Study of California’s New Medi-Cal Reimbursement System for Nursing Homes. California Alliance to Advance Nursing Homecare, Inc. PI: John Schnelle, 01/01/07-02/28/08.
4. **NNI-37265** Understanding & Improving Diabetes Care for Ethnic Minorities, Novonordisk. PI: Sherrie Kaplan, 1/10/05-12/31/08.
5. Care Planning and Resident Outcomes in Nursing Facilities – University of Kansas School of Nursing, Roma Lee Taunton, PhD, RN, FAAN, Principal Investigator.
6. **R01 AG020644** Racial Disparities in Access to High Quality Cardiac Surgeons among the Elderly, NIA and NCMHD (9/30/03-8/31/07) Total cost: $722,097, score=125, 0.3 percentile.
7. **R01 HS 13617-01** Are Volume Standards Accurate Measures of Quality? AHRQ, score 1 percentile. (09/30/03-09/29/06). PI: Laurent Glance, MD.
8. **20050687** Identifying Culture Change in Nursing Homes, The Commonwealth Fund. (7/31/05-6/30/06). Total cost: $36,000. PI: Dana Mukamel.
11. Evaluating Health Outcomes of Veterans in VA and Community Nursing Homes – The Veterans Administration, PI: Dan Berlowitz, Bedford VA. Total cost: $ 375,400 (20% FTE)
13. **R01 HS09803** The Use of Quality Report Cards by Patients, Physicians & Managed Care Organizations – Agency for Health Care Policy and Research, (score= 174, 4.7 percentile)(9/98-9/00), Total Costs: $274,182 (45% FTE), PI: Dana Mukamel.
14. **R01 AG15965** Changes in Quality of Care in Nursing Homes: Health Outcomes vs. Amenities– NIA. (score =208, 9.8 percentile AHCPR study section) (9/98-8/01), Total Costs: $377,779 (30% FTE), PI: Dana Mukamel.
15. **End of Life Practices in PACE – The Rockefeller Brothers Foundation, PI: Dana Mukamel, (12/15/99-12/15/00) Total costs: $50,000.**
17. **Project to Improve Pneumococcal Immunizations - Center for Disease Control. PI: Nancy Bennett MD, (12/96-12/00) Total Costs: $151,581 (5% FTE)**
19. Project Eye Watch, Welch Alleyn grant for diabetic retinopathy. PI: George Bresnick, M.D., $1,120,364 - 10/1/91-6/30/96. (25% FTE)
20. Pepper Center Grant. PI: George Abraham M.D. $1,120,364 - 10/1/91-6/30/96. (25% FTE)

Current Grants
As Principal Investigator:
2. R01 AG023177 Nursing Homes Response to Quality Indicators’ Publication – NIA, (5/1/04-4/30/11) Total Costs: $1,361,805, 7.9 percentile.

As Co-Principal Investigator:
1. R01 NR010727 End Of Life Quality of Care in Nursing Homes, NINR. PI: Helena Temkin-Greener, 9/30/2008-7/31/2012. Total Costs: $1,794,646.

As Investigator:
1. R01 HS016737 Improving Trauma Outcomes Using Hospital Performance Reports. PI: Laurent Glance, 04/01/07-03/31/12. UCI Total Costs: $81,589.
2. DK-069846 Reducing Diabetes Disparities Using Community Coaches, NIDDK. PI: Sheldon Greenfield, UCI, 04/01/07-03/31/11. Total Costs: $2,683,326.
3. R01 AG032264 State Nursing Home Technical Assistance Programs: Variation & Impact on Quality, NIA PI: Yue Li, 10/01/08-09/30/12. UCI Total Costs: $308,238
4. HC 0103 Barriers to Access to LTC for MS patients, National Multiple Sclerosis Society. PI: Ekaterina Noyes, 07/01/09 –06/30/12. UCI Total costs: $101,531.
5. NIA Physician Referral & Mental Disorder Related Disparities in PCI or CABG Surgery, PI: Yue Li, 07/01/10 –06/30/12. UCI Total Costs: $$133,137.

As Consultant:

Grants under Review:
As Principal Investigator:
1. NIA Implications of staff turnover in nursing homes, PI: Dana Mukamel.
As Multiple Principal Investigator:

1. **NINR** Improving Palliative and End-of-Life Care in Nursing Homes, PI: Helena Temkin-Greener.

As Investigator:

1. **NIA** Accept EISEP: Cost-Effectiveness of In-home Services Program for the Elderly, PI: Ekaterina Noyes.
2. **NIA** Volume-Outcome Associations in Nursing Home Care: Learning vs Selection Effect. PI: Yue Li.

As Consultant:

1. **NIA** The effect of payer status on nursing home residents’ hospitalizations. PI: Shubing Cai.

3. **Training Grants**

1. NRSA Training Program, Agency for Healthcare Quality and Research, 2003, Principal Investigator (pre- and post-doctoral training).

**INVITED TALKS**


3. Mukamel DB. “Quality Report Cards: The Good, the Bad and the Ugly”, Visiting Faculty Scholar, University of Iowa, 2007.


17. Mukamel DB. “Place of Death in PACE.” The Finger Lakes Geriatric Education Center and The Community Coalition for Long Term Care, Third Annual Symposium, Caring for Patients at the End-of-Life, Monroe Community Hospital, 2001.


PRESENTATIONS


18. Pesis-Katz I, Quinn J, Mukamel D. “Resident-Care Activities for Heart Failure Management in Nursing Homes as Reported by Directors of Nursing: Results from a Pilot Study”, AcademyHealth Annual Research Meeting, Boston, MA, June 2010.


25. Temkin-Greener H; Zheng NT; Cai S; Zhao H; Mukamel DB. “Nursing Home Work Environment and Organizational Performance: Association with Deficiency Citations” NYS Society on Aging, Rochester, NY, October 2009.


32. Cai S, Mukamel DB, Temkin-Greener H. “Racial disparity in pressure ulcer prevalence among NYS nursing home residents” AcademyHealth Annual Research Meeting, Chicago, IL, June 2009.


42. Friedman SM; Mukamel DB; Steinwachs DM “Prevalence of Depression during the Year following Admission to Long-Term Care”, American Geriatric Society, 2008.


116. Mukamel DB, Temkin-Greener H. “End of Life Care in Managed Care: Place of Death in the PACE Program.” Academy for Health Services Research and Health Policy, Atlanta, June 2001.


136. Mukamel DB. "Risk Adjusted Outcome Measures and Quality of Care in Nursing Homes," Association for Health Services Research, Atlanta GA, June 1996.

137. Mukamel DB. “Barriers to Preventive Specialty Care in a Managed Care Population”, Association for Health Services Research, Atlanta, GA, June 1996.


PUBLICATIONS – PEER REVIEWED


57. Temkin-Greener H, Bajorska A, Mukamel DB. “Disenrollment from an Acute/Long-Term Managed Care Program (PACE)”, *Medical Care* 2006; 44(1):31-38.


68. Glance LG, Osler TM, Mukamel DB, Dick AW. “Use of a Matching Algorithm to Evaluate Hospital CABG Performance as an Alternative to Conventional Risk Adjustment”, Medical Care 2007; 45(4)292-299.


71. Li Y, Glance LG, Cai X, Mukamel DB. "Are Patients with Co-Existing Mental Disorders More Likely to Receive CABG Surgery From Low-Quality Cardiac Surgeons The Experience in New York State?” Medical Care 2007; 45(7):587-593.


100. Temkin-Greener H, Zheng NT, Cai S, Zhao H, Mukamel DB. “Nursing Home Environment and Organizational Performance: Association with Deficiency Citations” Medical Care 2010; 48(4):357-64. [PMCID: PMC2925404]


104. Li Y; Cai X; Mukamel DB; Glance L. "The Volume-Outcome Relationship in Nursing Home Care: An Examination of Functional Decline among Long-Term Care Residents" Medical Care 2010; 48(1):52-7.


Submitted for publication in peer reviewed journals:


5. Temkin-Greener H, Zheng NT, Cai S, Mukemel DB. “Nursing Home Work Environment and the Risk of Pressure Ulcers and Incontinence”


Editorials, Letters and Other Publications (not peer reviewed):


Reports (not peer reviewed):


MEMBERSHIP AND PARTICIPATION IN NATIONAL ADVISORY AND HEALTH COUNCILS; RESEARCH REVIEW COMMITTEES AND EXPERT PANELS


5. CA Healthcare Foundation - Evaluation of Quality Information and Rating for the NHs Project, 2009.


12. NIH Study Section: Health Services Organization and Delivery, October 2006.

13. National Advisory Board for the study on Assessing Florida’s Innovations to Improve Nurse Staffing and Quality of Care in Nursing Homes, February 2006.


25. Consultant to New York State on risk adjustment systems to be mandated for all hospitals in the state for quality report cards, 1999.


27. Grant review for the Agency for Health Care Policy and Research- 1997.


SERVICE TO PROFESSIONAL SOCIETIES


3. AcademyHealth Annual Research Meeting, Long-Term Care Theme Leader, 2009.

5. Secretary, Gerontological Health Section, American Public Health Association, 2005-2007.


10. Abstracts Review for the Gerontological Health Section, American Public Health Association, 1997 - present.

**JOURNAL REVIEWS AND EDITORIAL BOARDS**


2. Reviewer for Journals:

<table>
<thead>
<tr>
<th>Journal of Aging &amp; Social Policy</th>
<th>Journal of Aging &amp; Social Policy</th>
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<tbody>
<tr>
<td>American Journal of Public Health</td>
<td>Journal of the American Geriatric Society</td>
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<td>Annals of Internal Medicine</td>
<td>Journal of Gerontology: Social Sciences</td>
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<td>Health Affairs</td>
<td>Journal of Health Economics</td>
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<td>Health Economics</td>
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<td>Medical Care Research and Review</td>
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<td>Inquiry</td>
<td>Milbank Quarterly</td>
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<td>International Journal of Healthcare Financing &amp; Economics</td>
<td>Pharmocoeconomics &amp; Outcomes</td>
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<td>International Journal of Quality</td>
<td>Social Science &amp; Medicine</td>
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<td>Journal of Aging &amp; Health</td>
<td>The Gerontologist</td>
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**CONSULTATIONS**


2. VNS, ASPE funded project entitled "Assessing Home Health Care Quality for Post-Acute and Chronically Ill Patients", 2006.


EDUCATIONAL CONTRIBUTIONS

1. **Medical Students**
   - 2000-2003 Taught (lectures and labs) in MMI, Part II.
   - 1999-2003 Member of the Health Economics Theme design group.
   - 1998-1999 Co-directed a working group on aging in the Introduction to Community Medicine course for first year medical students. Course met weekly for 1-2 hours for 18 weeks.
   - 1997 Developed and co-taught a weeklong course on “The Impact of Managed Care on the Financing and Organization of the Health Care System.” Course met for 3 hours every day.
   - 1996 Co-taught a 2-day elective to fourth year medical students on “Graduate Medical Education in a Time of Shrinking Resources.”
   - 1995 Developed proposal for and designed a new course for third year medical students about the financing and organization of health care services in the U.S.
   - 1995 Co-directed “Introduction to Community Medicine,” a course given to approximately 100 first year medical students. Course included 5 lectures, 10 weeks of practica in about 20 different community organizations and 2 recall sessions. Designed and implemented 6 new group practica which were not available in previous years.
   - 1994 Taught 1 class and participated in planning for all classes of “Introduction to Community Medicine.”

2. **Graduate Students**
   - 1999-2003 Director, Ph.D. Program in Health Services Research & Policy
   - 1999-2003 Co-Director Aging Concentration

**Courses:**
- 2003 Co-Director, Health Care for the elderly: Financing and Organization – course for MPH and PHD students.
- 2002 Reading course in health services and financing for the elderly (1 student)
- 2000-2003 Guest lectures in “Introduction to the US Health Care System”
- 2000-2003 Co-Director, Seminar in Health and Health Care of the Elderly
Co-Director, Health and Health Care of the Elderly seminar series for MPH, Ph.D. and Post Doctoral students.

Co-taught “Aging, Chronic Illness, and Health Care.”

Guest lecture in “Aging, Chronic Illness and Health Care.”

Reading courses in health economics and econometrics (4 graduate students, 3 undergraduate students).

Guest lecture on “Health Care Financing for the Disabled” to the Core Course offered by Strong Center for Developmental Disabilities.

Taught “Health Economics” to MPH, graduate students, fellows, nursing, and MBA students. Class meets during fall semester (13 weeks) for 3 hours per week.

Advisor to MPH and Ph.D. students:

Thesis Supervision:

MPH Thesis Supervision – 13 students (6 as chair of committee)

Ph.D. Thesis Supervision – 13 students (9 as chair)

Member of Advancement to Candidacy Committee for the Ph.D. for Sabina Ohri, 2006

Mentor to clinicians with K awards – 3

3. Undergraduate Students

2007-present Health Policy

4. Other

2004 Faculty Forum for undergraduate students – UC Irvine
2004 Guest Lecturer on Quality of Managed Care, Graduate School of Management, University of California, Irvine
2001 Organized a pre-conference workshop on “Data Resources for Researchers in Gerontology, Aging, and Long Term Care” at the annual meeting of the American Public Health Association
1999-2006 One week intensive course on quality of care measurement and assessment, taught to MPA and PHD students at Ben Gurion University, Israel
1993 Organized a 5 seminar series on Health Reform and presented 2 of the seminars.
# CURRICULUM VITAE

**Roberto Tapia-Conyer, MD, MPH, MSc, DrSc**

## I. EDUCATION

### a. Academic background

<table>
<thead>
<tr>
<th>Year</th>
<th>Degree</th>
<th>Institution</th>
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<tr>
<td>1999-2003</td>
<td>Doctor of Sciences</td>
<td>Universidad Nacional Autónoma de México</td>
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<td>Mexico City, Mexico</td>
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<td>Centers for Disease Control and University of California</td>
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<tr>
<td></td>
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<td>Berkeley, CA.</td>
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<tr>
<td>1984-1985</td>
<td>Master of Science in Health Service Administration</td>
<td>Harvard School of Public Health</td>
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<tr>
<td></td>
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<td>Harvard University</td>
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<tr>
<td></td>
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<td>Cambridge, MA.</td>
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<tr>
<td>1983 - 1984</td>
<td>Master of Public Health</td>
<td>Harvard School of Public Health</td>
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<tr>
<td></td>
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<td>Harvard University</td>
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<tr>
<td></td>
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<tr>
<td>1972-1977</td>
<td>Medical Doctor</td>
<td>Universidad Nacional Autónoma de México</td>
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### b. Board certification

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<tr>
<td>2001 to date</td>
<td>Public Health Specialist</td>
<td>Certified by the Public Health Board</td>
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<td>National Academy of Medicine</td>
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II. AFFILIATIONS

2005 to date  Member of Alpha Omega Alpha Honor Medical Society

2001 to date  Member of the Academia Mexicana de Cirugía (Mexican Academy of Surgery)

1996 to date  Member of the Academia Mexicana de Ciencias (Mexican Academy of Sciences)

1994 to date  Member/Fellow-level III (Highest category) Researcher of the Sistema Nacional de Investigadores de Consejo Nacional de Ciencia y Tecnología (National Researchers’ System of the National Council for Science and Technology)

1992 to date  Member of the Academia Nacional de Medicina (National Academy of Medicine)

1987 to date  Member of the Sociedad Mexicana de Salud Pública (Mexican Public Health Association), elected as President for the term 1997-1998

III. APPOINTMENTS

a. Private Health Organizations

2007 to date  General - Director (CEO)Carlos Slim Health Institute
None-profit private-research Institute
Mexico
b. Academic

2007 to date
Adjunt Professor
Program Public Health
College of Health Sciences
University of California-Irvine

2004 to date
Tutor for the Master and Doctorate of Sciences Programs
Master and Doctorate Programs of Medical, Odontological and Health Sciences
School of Medicine
Universidad Nacional Autónoma de México
Mexico

1980 to date
Senior Professor
School of Medicine
Universidad Nacional Autónoma de México
Mexico

2001-2003
Titleholder Professor on Public Health and Preventive Medicine
Academia Nacional de Medicina y Escuela Superior de Medicina del Instituto Politécnico Nacional (National Academy of Medicine and the Superior School of Medicine of the National Polytechnic Institute)
Mexico

c. Public Health Services

1997 -2006
Vice-Minister of Prevention and Health Promotion
Ministry of Health
Federal Government
Mexico
1991-1997  General Director of Epidemiology
Ministry of Health
Federal Government
Mexico

1985-1991  Director of Epidemiological Surveys
Ministry of Health
Federal Government
Mexico

1981-1982  Chief of Department
Center of Primary Health Care Studies
Universidad Nacional Autónoma de México
Mexico

1986-1990  Professor
Instituto Nacional de Salud Pública (National Institute of Public Health)
Mexico

1985  Assistant Professor
Master of Public Health Program
Harvard School of Public Health
Harvard University
Cambridge, MA

1984  Research Assistant
Institute for Health Research
Harvard University
Cambridge, MA
1978-1980  Titleholder Professor (Acting)
            School of Medicine
            Universidad Nacional Autónoma de México
            Mexico

Has also dictated more than 300 conferences and seminars in Mexico and internationally.

d. Other professional appointments

2009 to date  Member of advisory committee of WHO Influenza Global Action Plan
              WH. Geneva, Switzerland.

2008 to date  Member of the Strategic and technical Advisory Group on tuberculosis.
              World Health Organization (WHO). Geneva, Switzerland.

2003 to date  Member of the Board of Directors of the Public Health Institute.
              Oakland, CA, USA

1995 to date  Member of the Editorial Committee of *La Gaceta Médica de México*
              Journal of the Academia Nacional de Medicina (National Academy of
              Medicine)
              Mexico

1992 to date  Member of the Editorial Committee of *Salud Pública de México*, Journal
              of the Instituto Nacional de Salud Pública (National Institute Health)
              Mexico

1997 to 2008  Member of the Technical Advisory Group on Vaccines and
              Immunizations. Panamerican Health Organization (PAHO)
              Washington, D.C. USA


2003 - 2008 Member of the National Advisory Council for the California Health Benefits Review Program.

2001 - 2008 Member of the Stop TB Coordinating Board Executive Committee. World Health Organization

2001 - 2006 Member of the Board of Advisors of the California - Mexico Health Initiative

1997 - 2000 Member of the Group of Experts on Essential Public Health Functions. World Health Organization

1992 - 2000 Member of the Editorial Committee of Archives of Medical Research


1988 Consultant to the Association of Universities Programs in Health Administration, for the project: Design and elaboration of a handbook based on case methodology to be applied to epidemiology

1987 Consultant to the Rockefeller Foundation for the Project: Development of strategies and integration of an Advisory Council on Epidemiology (Mexico)

1986 Consultant to the Kellogg’ s Foundation in technical assistance for
Information System’s management (Latinamerica)

1985 Consultant to The Pathfinder Fund for the project: Development of Epidemiology Programs (Boston, Mass. USA)

IV. PUBLICATIONS

a. Books (selected)


b. Chapters in books (selected)


1997 to date  Member of the Technical Advisory Group on Vaccines and Immunizations. Panamerican Health Organization (PAHO)
Washington, D.C. USA


c. Articles (selected)

Has published more than 180 research articles and reviews in scientific journals, being among the most relevant the following:


woman living in Mexico City: cross-sectional analyses of a prospective study), BMC Public Health 2009, 9:9


V. AWARDS AND HONORS
2004  Distinguished Professor Award for 25 years of teaching  
School of Medicine  
Universidad Autónoma de México  
Mexico

2003  Distinguished Citizen Award in recognition to the contributions made to  
Public Health Research  
Guanajuato’s State Government  
Mexico

2002  "Académico Dr. Gonzalo Castañeda" Award  
For his piece entitled "Nosocomial infections of chirurgical wound in  
Mexico"  
Academia Mexicana de Cirugía (Mexican Academy of Surgery)  
Mexico

2002  National Research Prize  
For his piece entitled: “ Nosocomial infections of chirurgical wound in  
Mexico"  
Fundación Glaxo SmithKline (Glaxo SmithKline Foundation)  
Mexico

2000  Medal to the Sanitary Merit  
Sociedad Mexicana de Salud Pública (Mexican Public Health  
Association)  
Mexico

1999  Medical Research Prize "Dr. Jorge Rosenkranz 1998" on Epidemiology  
For his piece entitled: “ Clinical and epidemiological characteristics of  
the Helicobacter pylori infection in Mexico”  
Mexico
1996  "José Ruiloba" Prize on Epidemiology
      For his piece entitled: "Seroepidemiologic survey on Lyme’s Borreliosis in the Mexican Republic"
      Asociación Mexicana de Infectología y Microbiología Clínica (Mexican Association of Infectology and Clinical Microbiology)
      Mexico

1993  "Miguel Alemán Valdez" Research Prize
      Fundación Miguel Alemán (Miguel Aleman’s Foundation)
      Mexico