

## Biography

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*Oladele A. Ogunseitan, Ph.D., M.P.H.*

Oladele (Dele) Ogunseitan is professor of Public Health and founding Chair of the department of Population Health and Disease Prevention at the University of California, Irvine, where he is also professor of Social Ecology. He is currently the Director of Research Education and Workforce Development for the NIH-funded *Institute for Clinical and Translational Science*. He directs the evaluation core of the CDC-funded *Orange County Partnerships to Improve Community Health*. He serves on the Board of Directors of the Systemwide University of California Global Health Institute. After undergraduate and graduate training at the University of Ife, Nigeria, he earned his doctorate in microbiology at the university of Tennessee, and his Master of Public Health at the university of California, Berkeley, where he also earned a certificate in International Health. He is alumni faculty fellow of the Belfer Center for Science and International Affairs at the Kennedy School of Government, Harvard University. He earned a certificate in teaching by case-method from Harvard School of Public Health. He is a member of the Hoover Medal Board of Award, and he is the in-coming Chair of the Materials and Society committee of *The Minerals, Metals and Materials Society*. He currently serves on the Board of Directors of the Association of Schools and Programs in Public Health (ASPPH). In 2012, he won the ACE Leadership Excellence Award from the international OpenCourseWare Consortium. He researches the nexus of industrial development, environmental quality and human health. He is the author of *Microbial Diversity* (Blackwell-Wiley, 2005) and editor of *Green Health* (Sage, 2011). He was the founding editor of *African Journal of Environmental Science and Technology*. His articles have appeared in *Science*, *The Lancet Global Health*, *Bulletin of the World Health Organization*, *Environmental Health Perspectives*, *Environmental Management*, and *Environmental Science & Technology*.

## BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.

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

NAME: OGUNSEITAN, OLADELE

eRA COMMONS USER NAME (agency login): OOGUNSEITAN

POSITION TITLE: Chair, Department of Population Health & Disease Prevention

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

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Ife, Ile-Ife	BS	06/1980	Microbiology
University of Ife, Ile-Ife	MS	06/1983	Microbiology
University of Tennessee, Knoxville, TN	PHD	06/1988	Microbiology
UC Berkeley, Berkeley, California	MPH	06/1998	Environmental Health Science
University of California, Berkeley, CA	Other training	06/1998	Certificate in International Health
Harvard School of Public Health, Boston, MA	Other training	01/2014	Certificate in Teaching By Case Method

### A. Personal Statement

As founding Chair of the Department of Population Health and Disease Prevention, Program in Public Health at UC Irvine, I am responsible for implementing curricula, research education, and career development at the undergraduate and graduate levels in public health, including the largest undergraduate program in public health in the United States, a Master of Public Health with emphases in Sociocultural Diversity and Health, Epidemiology, and Environmental Health, and Ph.D. in Public Health with concentrations in global health and disease prevention. I coordinate research education, training and career development for the NIH-funded Institute for Clinical and Translational Science (ICTS), overseeing NIH pre-doctoral (TL1) and postdoctoral (KL2) training programs. I was appointed twice (1998-2000) as a Josiah Macy Jr. Foundation Fellow. I have dedicated my research career to understand the environmental risk factors contributing to adverse human health impacts of development across national boundaries. Eighteen students have earned their Ph.D. degrees under my supervision, and I have supervised 8 postdoctoral trainees who are in research-related careers in government agencies, academia or corporate institutions committed to improving the quality of our environment. I serve on the Board of Directors for the University of California Systemwide Global Health Institute; and on the Board of Directors of the Association of Schools and Programs in Public Health. I served on the State of California's Green Ribbon Science Panel (2009–2012). I am currently working on a project funded by the Centers for Disease Control and Prevention, with a coalition of agencies and cities – Orange County Partnerships to Improve Community Health (OC-PICH) to reduce the burden of chronic diseases broadly and to eliminate disparities in preventive health care in particularly vulnerable communities.

### B. Positions and Honors

#### Positions and Employment

1992 - Assistant, Associate, Full Professor of Social Ecology, University of California, Irvine, CA  
 1999 - 2000 Faculty Fellow, Harvard University, Kennedy School of Government, Cambridge, MA  
 1999 - 2000 Investigator, Marine Biological Laboratory, Woods Hole, MA  
 2004 - Professor of Public Health, University of California, Irvine, CA  
 2004 - 2004 Institute Faculty, International Institute for Applied Systems Analysis, Laxenburg  
 2008 - Chair, Department of Population Health & Disease Prevention, University of California, Irvine, CA

2008 - Director of Research Education, Training and Career Development, UC Irvine Institute for Clinical and Translational Science, CA

### **Other Experience and Professional Memberships**

2012 - 2018 Member, Hoover Medal Board of Award  
 2013 - 2016 Member, Board of Directors, Association of Schools and Programs of Public Health  
 2014 - Member, Board of Directors, UC Global Health Institute  
 2014 - Member, Expert Panel, Intergovernmental Platform on Biodiversity & Ecosystem Services  
 2014 - 2016 Vice Chair and Chair, Materials and Society Committee (TMS)

### **Honors**

1987 Enrichment Award, American Institute for Biological Sciences  
 1987 Institute of International Education, STEP Award  
 1988 Enrichment Award, American Association for the Advancement of Science  
 1999 Visiting Resource Person, UNESCO-ASM  
 2000 Josiah Macy Jr. Foundation Fellow, Marine Biological Laboratory  
 2002 Industrial Ecology Fellow, AT&T Foundation  
 2002 Professor of the Year, School of Social Ecology  
 2006 President's Award, American Society for Civil Engineering (Orange County Chapter)  
 2007 Exceptional Mentoring, Associated Graduate Students, UC Irvine  
 2007 Excellence in Teaching, Annual Celebration of Teaching  
 2007 Best Publication in Five Year Period, UC Toxic Substances Research and Teaching Program  
 2011 Outstanding Mentor, American Society for Microbiology  
 2012 Outstanding Contribution to Health and Human Services, 211 Orange County  
 2012 ACE Leadership Award, OpenCourseWare Consortium  
 2014 League of Materials Superhero, The Minerals Metals and Materials Society

### **C. Contributions to Science**

1. Health and Environmental Impacts of Chemicals in Consumer Products – The use of toxic substances in consumer products was long assumed to be a necessity, either to protect desirable functions or to keep products affordable for profitable mass retail. Typically, the adverse impacts of such toxic substances are recognized when symptoms have accumulated, and damage is irreversible. In the past 20 years, my research projects have sought to evaluate such adverse impacts, develop strategies for remediation, and recommend alternative less toxic substances to replace toxic staples. I served as the Principal Investigator of a Biocomplexity in the Environment –Materials Use, Science, Engineering and Society (NSF-MUSES) grant that explored the multidisciplinary research questions associated with toxic materials use and disposal in electronic waste, and their impacts on human health and ecosystem functions. Principal Investigator on a UC Systemwide multi-campus project entitled “UC-SMART Products: Selecting Materials to Achieve Reduced Toxicity Products” funded by the Office of the President. My specific role in these multidisciplinary collaborative projects was to provide quantitative data on various aspects of toxic impacts and to conduct leaching assessments and modeling. I also directed the UC Systemwide Lead Campus Component of the Toxic Substances Research & Teaching Program entitled Research and Education in Green Materials (REGM), with a mission to advance multidisciplinary research and education on the assessment of the impact of toxic chemicals on ecosystem functions and human health. The ultimate goal is to provide scientific justification for the invention, assessment, and adoption of less-toxic “green” materials as alternatives to toxic substances. To translate the research outcomes into effective policy, I served on the State of California’s Green Ribbon Science Panel (2009 – 2013) to support the Department of Toxic Substances Control in the implementation of the landmark “Safer Consumer Products Law” effective October 1st 2013. I am also active at the national and international levels as the current Vice Chair of the Materials and Society committee of The Minerals Metals and Materials Society (TMS). In 2014, TMS Foundation selected me in a national traveling exhibition as a League of Materials Superhero. The following articles are selected representatives of accomplishments on this project.

- a. Ogunseitan OA. Public Health and Environmental Benefits of Adopting Lead-Free Solders. JOM (Warrendale, Pa.: 1989). 2007; 59(7):12.
  - b. Ogunseitan OA, Schoenung JM, Saphores JD, Shapiro AA. Science and regulation. The electronics revolution: from e-wonderland to e-wasteland. Science. 2009 Oct 30;326(5953):670-1. PubMed PMID: [19900918](#).
  - c. Ogunseitan OA, Schoenung JM. Human health and ecotoxicological considerations in materials selection for sustainable product development. MRS bulletin / Materials Research Society. 2012; 37:356.
  - d. Ogunseitan OA, Lam CW, Schoenung JM. Selecting Materials to Achieve Reduced-Toxicity Products (SMART-Products). Environmental toxicology and chemistry / SETAC - Globe. 2013; 4(9).
  - e. Li, J., X. Zeng, M. Chen, O.A. Ogunseitan, and Ab Stevels. "Control-Alt-Delete": Booting Solutions for the E-Waste Problem. Environmental Science & Technology. 2015; 49(12): 7095 – 7108.
2. Development of Metrics for Human Health X Environment Interactions – One of the most challenging research questions in environmental science is the weighting or valuation of ecosystem services, especially with progressive problems such as loss of biodiversity, pollution, and global climate change. In 2005, I published a widely acclaimed single-authored article entitled "Topophilia and the Quality of Life" in Environmental Health Perspectives, generally considered to be the top peer-reviewed journal that publishes original research in public health. The journal commissioned a special interview with me, and an editorial essay was published with the article. This research tested, for the first time, the hypothesis that individual preferences for qualitative environmental factors are significantly associated with quality of life as defined by a new latent construct defined as topophilia and the World Health Organization's internationally validated instrument for quality of life (WHO-QOL-25/00). The publication continued the line of work that I began during a sabbatical leave at Harvard University (Belfer Center for Science & International Affairs, Environment & Natural Resources Program, Kennedy School of Government). An influential follow-up of our research on this topic area was published in 2011 with my former graduate student, Dr. Hipp. We investigated the hypothesis that perception of mental restorativeness is significantly modified by objective and perceived environmental conditions. We discovered that perceived restorativeness is significantly constrained on days with temperatures above the monthly average and during high tides, proxies for warming and sea level rise associated with modeled climate change scenarios. Constraints on human experience of natural environmental systems could exacerbate mental health impacts. Several news organizations featured the research results and the implications for policies to protect natural environments. Yale School of Forestry & Environmental Studies selected the article for a feature essay.
- a. Ogunseitan OA. Topophilia and the quality of life. Environ Health Perspect. 2005 Feb;113(2):143-8. PubMed PMID: [15687050](#); PubMed Central PMCID: [PMC1277856](#).
  - b. Ogunseitan OA. Green Health. Ogunseitan, editor. Thousand Oaks, California, USA: Sage Publications; 2011. 584p.
  - c. Ogunseitan OA. Encyclopedia of Environmental Health. Nriagu J, editor. New York: Elsevier; 2011. WHO-QOL Instrument and Environmental Health Assessment; p.768-776.
  - d. Hipp AJ, Ogunseitan OA. Effect of Environmental Conditions on Perceived Psychological Restorativeness of Coastal Parks. Journal of environmental psychology. 2011; 31(4):421.
  - e. Aoyagi, H. Ogunseitan, OA. Toxic Releases and Risk Disparity: A Spatiotemporal Model of Industrial Ecology and Social Empowerment. International Journal of Environmental Research and Public Health. 2015; 12(6), 6300-6318; doi:10.3390/ijerph120606300.
3. Translational Science of Disease Prevention – I am the inaugural director of research education, training, and career development for the NIH-funded UC Irvine Institute for Clinical and Translational Science. I have focused attention on identifying gaps in translation, especially in disease prevention and global environmental health. The following publications exemplify my recent work in this topic area.
- a. Ogunseitan OA, Allgood JM, Hammel SC, Schoenung JM. Translating the materials genome into safer consumer products. Environ Sci Technol. 2013 Nov 19;47(22):12625-7. PubMed PMID: [24171451](#).

- b. Ogunseitan OA. The Basel Convention and e-waste: translation of scientific uncertainty to protective policy. *Lancet Glob Health*. 2013 Dec;1(6):e313-4. PubMed PMID: [25104585](#).
  - c. Dmitrieva J, Chen C, Greenberger E, Ogunseitan OA, Ding Y. Gender-specific expression of the DRD4 gene on adolescent delinquency, anger and thrill seeking. *Social Cognitive and Affective Neuroscience*, 2011, 6 (1): 82-89.
  - d. Caiozzo V, Cooper DM, Cramer S, Galassetti P, Mulnard R, Nguyen D, Ogunseitan D, Olshansky E, Pontello A, Schneider M. The institute for clinical and translational science at UC Irvine: building an inquisitive environment where everything is questioned and there is no status quo. *Clin Transl Sci*. 2014 Aug;7(4):291-4. PubMed PMID: [24898787](#); PubMed Central PMCID: [PMC4134744](#).
  - e. Ogunseitan OA. The Asbestos Paradox: Global Gaps in the Translational Science of Disease Prevention. *Bulletin of the World Health Organization*. 2015 May; 93:359.
4. Ecological Assessments of Environmental Quality – As the “unseen” biological fabric underlying life on Earth, disentangling the forms and functions of prokaryotes has become an extremely important research topic for understanding global scale ecosystem issues, including epidemics and global climate change. My book entitled *Microbial Diversity* generated considerable praise in many published reviews, and has been acquired or adopted internationally by institutions on all continents. The late Distinguished Professor Lynn Margulis, member of the National Academy of Sciences and recipient of the National Medal of Science contributed the preface to the book. World-renowned biologist, Professor Edward O. Wilson of Harvard University also reviewed and published a comment on the book. Formal reviews of the book have appeared in prestigious academic journals, including the *Quarterly Review of Biology* (University of Chicago). My aim is to elucidate the contributions of microbial diversity to environmental processes.
- a. Ogunseitan OA. *Microbial Diversity*. New York: Wiley-Blackwell; 2005. 308p.
  - b. Chern, EC, Tsai DW, Ogunseitan OA. Deposition of Glomalin-Related Soil Proteins and Sequestered Toxic Metals into Watersheds. *Environmental Science & Technology*. 2007; 42:3566 – 3572.
  - c. Ogunseitan OA. Genetic transduction in freshwater ecosystems. *Freshwater Biology*. 2008; 53(6):1228.
  - d. Pollack K, Balazs K, Ogunseitan O. Proteomic assessment of caffeine effects on coral symbionts. *Environ Sci Technol*. 2009 Mar 15;43(6):2085-91. PubMed PMID: [19368218](#).
  - e. Canizares-Gonzalez R, Benitez E, Ogunseitan OA. Molecular analyses of Beta-glucosidase diversity and function in soil. *European Journal of Soil Biology*. 2011; 4(1):1.
5. Knowledge Gaps in International Environmental Health – On of the pressing challenges in global sustainability science is the dissemination of tangible research results to overcome sociocultural and political gaps in knowledge and the use of such knowledge in technology transfer. I have focused my attention on Africa, and our work on the costs of lead poisoning was influential in the complete phase-out of leaded gasoline, and the framing of adaptation mechanisms in response to global climate change.
- a. Ogunseitan OA. Framing Environmental Change in Africa: Cross Scale Institutional Constraints on Progressing from Rhetoric to Action Against Vulnerability. *Global environmental change: human and policy dimensions*. 2003; 13:101.
  - b. Ogunseitan OA. Assessments of Regional and Global Environmental Risks. Jaeger J, Farrell A, editors. Washington, DC: Resources for the Future; 2006. Chapter 10, Designing better environmental assessments for developing countries: Lessons from the U.S. Country Studies Program.
  - c. Ogunseitan OA, Smith TR. The cost of environmental lead (Pb) poisoning in Nigeria. *African Journal of Environmental Science and Technology*. 2007; 1(2):27.
  - d. Ogunseitan OA, Smith TR. Social and ecological mediators of environmental lead (Pb) exposure in Nigeria. *African Journal of Environmental Science and Technology*. 2007; 1(3):53.
  - e. Ogunseitan, OA. Russian Roulette with Rotterdam Convention. *JOM – The Minerals Metals and Materials Society*. 2015. In Press.

## **D. Research Support**

### **Ongoing Research Support**

2014/01/01-2019/01/01

1 DP7 DE024888-01, NIH

Fruman, David (PI)

Graduate Professional Success in the Biomedical Sciences (UCI-GPS-Biomed)

NIH-Broadening Experiences in Scientific Training - The goal is to transform the culture of graduate education and postdoctoral training. Ensures that trainees acquire the skills needed to become outstanding scientists and multi-skilled professionals who are able to work in academic or non-academic science-related careers.

Role: Co-Principal Investigator

2014/01/01-2019/01/01

1U58DP005861-01, CDC

Barrett, Dolores (PI)

Orange County Partnerships to Improve Community Health - The objective is to address previously identified community gaps and needs within a defined jurisdiction to reduce the prevalence of chronic disease and related risk factors.

Role: Co-Principal Investigator

2015/08/15-2019/08/14

1UL1TR001414-01, 1TL1TR001415-01 and 1KL2TR001416-01, NIH

Cooper, Dan (PI)

Institute for Clinical and Translational Science - The ICTS is mandated to transform existing research to improve medical care and public health and to train the next generation of clinical researchers.

Role: Co-Principal Investigator

### **Completed Research Support**

2012/01/01-2015/01/01

1P20CA174188-01, NIH

Hubbell, Allan (PI)

CSUF and UCI-CFCCC Partnership for Cancer Health Disparities Research - The overall goal is to establish a collaborative partnership between investigators at CSUF and UCI-CFCCC that will increase cancer health disparities research at both institutions. By doing so, the Partnership will contribute to reducing and eventually eliminating disparities.

Role: Key Personnel

2014/01/01-2015/01/01

DTSC 13-T3834, California Department of Toxic Substances Control

Malloy, Tim (PI)

Implementation of AB1879 - To assist DTSC establish a research framework for alternatives analysis.

Role: Co-Principal Investigator

2010/01/01-2015/01/01

UL1 TR000153, NIH

Cooper, Dan (PI)

Institute for Clinical and Translational Science - The ICTS is mandated to transform existing research to improve medical care and public health and to train the next generation of clinical researchers.

Role: Co-Principal Investigator