

BIOGRAPHICAL SKETCH

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NAME: Claudio, Luz

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

POSITION TITLE: Tenured Professor and Chief of the Division of International Health

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

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Universidad de Puerto Rico	BS	05/1984	Biology
Albert Einstein College of Medicine	MS	06/1988	Pathology
Albert Einstein College of Medicine	PhD	06/1990	Neuropathology

A. Personal Statement

I am well prepared to serve as principal investigator for the proposed grant because I have over 20 years of independent research experience with consistent grant funding. Also, I currently serve as tenured professor and Chief of the Division of International Health, thus I have the administrative resources to lead this program. My work focuses on three main activities: 1) research and communication on environmental health and health disparities, 2) training and mentoring of new biomedical researchers, and 3) creating global health research programs in partnership with developing countries. A unifying theme of my professional activities is the goal to make environmental health easy to write for students and emerging scientists and easy to read and understand for affected communities with the goal to reduce disease produced by environmental exposures locally, nationally and internationally. To this end, I conduct research on the effects of environmental exposures on particularly vulnerable populations, I translate this research into information that can be understood by everyone, I collaborate with community organizations in the assessment and reduction of environmental health risks, I help trainees to pursue careers in biomedical research, and I collaborate with researchers in other countries to achieve similar goals.

1. Claudio L: Our food: packaging and public health. *Environ Health Perspectives* 120: 232-237, 2012
2. Claudio L: Impact of Poverty, Disparity and Injustice on Children's Environmental Health. In: *Textbook of Children's Environmental Health*. Landrigan PJ, Etzel RA, Eds. Oxford Univ Press, Chapter 57, 2014
3. Claudio L: *How to Write and Publish a Scientific Paper: The Step-by-Step Guide*. Write Science Now Publishing Co. 2016
4. Ortega-Garcia JA, Kloosterman N, Alvarez L, Tobarra-Sanchez E, Carceles-Alvarez A, Pastor-Valero R, Lopez-Hernandez FA, Sanchez-Soliz M, Claudio L. Full breastfeeding and obesity in children: A prospective study from birth to 6 years. *Childhood Obesity* 14(5):327-337. doi: 10.1089/chi.2017.0335. Epub 2018 Jun 18. PMID: 29912590, 2018

B. Positions and Honors (selected since 2000)Positions and Employment

2001 – 2008: **Associate Professor**; Department of Community and Preventive Medicine
Mount Sinai School of Medicine, New York NY

2004 – present: **Chief; Division of International Health**, Department of Community and Preventive Medicine, Mount Sinai School of Medicine, New York NY

2009 – 2013: **Tenured Associate Professor**, Department of Preventive Medicine

2013- present: **Tenured Professor**, Department of Environmental Medicine & Public Health
Icahn School of Medicine at Mount Sinai

Honors and Awards (selected for relevance since 2000)

- 2001: **Excellence in the Academy Award**; National Education Association
- 2003: **Distinguished Visiting Scholar**; Education Development Center
- 2004: **Equity Champion**; Educational Equity Concepts presented at the United Nations
- 2007: **Faculty Council Award for Academic Excellence**; Mount Sinai School of Medicine
- 2018: **Award for Outstanding Service to Underserved Communities & Global Health**; Mount Sinai Auxiliary Board
- 2018: **Child Health Advocate Science Award**; Children's Environmental Health Network

Other Experience

- 2000 – 2002: **American Academy of Pediatrics; Consortium on Latino Children's Health**
- 2003 – 2017: **Environmental Health Perspectives, Journal of NIEHS/NIH** Contributing Editor and member of the Editorial Review Board
- 2001 – 2017: **American Journal of Industrial Medicine; Contributing Editor**
- 2002 – 2003: **Academy of Education Development**; Advisory Committee on Science and Gender
- 2003 – 2005: **National Institutes of Health**; Environmental Health Sciences Review Committee of the
- 2010 – 2012: National Institute of Environmental Health Sciences.
- 2003 – 2006: **Healthy Schools Network**; Board of Directors
- 2010 – 2012: **Fogarty International Center, NIH**; Advisory Board
- 2008 – present: **Collegium Ramazzini**: Member of the independent international academy of experts in occupational and environmental health
- 2012 – present: **Institute of Medicine of the National Academies**
Member of Roundtable on Environmental Health Sciences, Research and Medicine
- 2019: **TED Conferences: Why Science Needs Community Engagement** bit.ly/LuzClaudioTEDTalk

C. Contribution to Science

1. Scholarly Work on Training and Mentoring: Relevant to the proposal submitted here, are my training and mentoring activities, which are extensive and impactful. A central focus of my work as a researcher and mentor has been training students from disadvantaged backgrounds to achieve careers in the medical and biomedical research fields. I have served as principal investigator of several highly successful Training Programs for Minority Students (T35 ES07298-15 and 1R25HL108857-07) for over 20 years. I am also the PI of the International Exchange Program for Minority Students, which has been continuously funded for 15 years (T37 MD001452-15). Together, these programs have served over 200 minority scholars, most of whom are women. The focus of these programs has been to address health disparities at all fronts nationally and internationally. I have conducted evaluations of some of the training programs that I have conducted. The central findings of those evaluations have shown that the mentoring component of the design has been impactful for research training participants.

1. Claudio L.: Reaching out to the next generation of scientists. National Education Association Journal 17: 77-86, 2001
2. Claudio L.: Building self-reliance in environmental science: The ITREOH experience. Environmental Health Perspectives 111: A460-463, 2003
3. Peres F, Claudio L. Fifteen years of occupational and environmental health experiences in Brazil, Chile and Mexico: A report from the Mount Sinai ITREOH Program. Am J Industrial Med 56: 29-37, 2013
4. Krawczyk N, Claudio L. Outcomes of Global Public Health Training Program for US Minority Students: A Case Report. Ann Glob Health. 2017 May - Aug;83(3-4):605-612. doi: 10.1016/j.aogh.2017.08.001. PMID: 29221535 Epub 2017

2. Scholarly Work on Health Disparities and Community Health: I have over 25 years of experience as an independent researcher working to understand how social and environmental factors contribute to health disparities. One example of this is our work in pediatric asthma. With my students and community partners, I published the first paper to clearly show how communities with low socioeconomic status (SES) had rates of asthma that were many times higher than communities with high SES. Central findings from this work showed the interrelation between race, income, language barriers, housing quality, special education and access to medical care and their contribution to asthma disparities. Our findings influenced policy makers and non-government organizations to bring attention to communities that were most affected by environmental exposures and asthma. I continue to direct projects within this context locally, nationally and internationally.

1. Claudio L, Stingone J: Components of recommended asthma care and the use of long-term control medication among urban children with asthma. *Medical Care* 47: 940 – 947, 2009
2. McGee S, Claudio L. Nativity as a Determinant of Health Disparities among Children. *J J Immigr Minor Health*. doi: 10.1007/s10903-017-0667-4. PMID: 29094273, 2018
3. Claudio L, Gilmore J, Roy M, Brenner B. Communicating environmental exposure results in a community-based participatory research study. *BMC Public Health* 784. doi: 10.1186/s12889-018-5721-1, 2018
4. Basal E, Placidi D, Carver S, Renzetti S, Giorgino A, Cagna G, Zoni S, Fedrighi C, Montemurro M, Oppini M, Conversano M, Guazzetti S, Wright RO, Smith D, Claudio L, Lucchini RG. Metabolic outcomes in Southern Italian preadolescents residing near an industrial complex: The role of residential location and socioeconomic status. *Intl J Env Res & Publ Health*. 16: 1-16, 2019

3. Use of Big Data Science in Epidemiology: There is increased interest by the NIH to use big data in biomedical research. My trainees and I are developing strategies to use big existing databases to further address health disparities, particularly as they pertain to the interaction between environmental and social factors. In addition, I am co-PI of the Community Research Education and Engagement for Data Science program (CREEDS) (R25EB020393) which is part of NIH's Big Data to Knowledge (BD2K) initiative. Through this work, I have helped develop a training program on big data science in an effort to increase the numbers of women and minorities in the field. We expect that this approach will influence research in population health.

1. Deierlein AL, Peat K, Claudio L. Comparison of the nutrient content of children's menu items at US restaurant chains, 2010-2014. *Nutr J* 14: DOI 10.1186/s12937-015-0066-4, 2015
2. Stingone JA, McVeigh KH, Claudio L. Association between prenatal exposure to diesel particulate matter and perchlorethylene with children's 3rd grade standardized test scores. *Environmental Research* 148:144-153, 2016
3. Stingone JA, Pandey OP, Claudio L, Pandey G. Using machine learning to identify air pollution exposure profiles associated with early cognitive skills among U.S. children. *Environ Pollut*. 2017 Nov; 230:730-740. doi: 10.1016/j.envpol.2017.07.023. Epub 2017 Jul 18. PMID: 28732336, 2017
4. Lett LA, Stingone JA, Claudio L. The Combined Influence of Air Pollution and Home Learning Environment on Early Cognitive Skills in Children. *Int J Environ Res Public Health*. 2017 Oct 26;14(11). pii: E1295. doi: 10.3390/ijerph14111295. PMID: 29072589

4. Scholarly Work on Global Health and International Collaborations: I have developed and sustained fruitful international collaborations that expand the research and training programs that I have pursued over the years. Central to this was the International Training in Research on Environmental and Occupational Health (ITREOH TW00640), which resulted in the training of 52 experts in Mexico, Brazil and Chile. This cadre of investigators continues to serve as collaborators to research and training programs and has resulted in numerous collaborative publications and grants. These achievements are the basis of my appointment as Chief of the Division of International Health since 2004.

1. Peres F, Rodrigues KM, da Silva Peixoto Belo MS, Moreira JC, Claudio L. Design of risk communication strategies based on risk perception among farmers exposed to pesticides in Rio de Janeiro State, Brazil. *Am J Industrial Med* 56: 77-89, 2013
2. Froes Asmus CIR, Camara VM, Raggio R, Landrigan PJ, Claudio L. Positive correlation between pesticide sales and central nervous system and cardiovascular congenital abnormalities in Brazil. *Int J Environ Health Res*. 2017 Oct;27(5):420-426. doi: 10.1080/09603123.2017.1373272. Epub 2017 Sep 6. PMID: 28877591, 2017
3. Burgos S, Tenorio M, Zapata P, Cáceres DD, Klarian J, Alvarez N, Oviedo R, Toro-Campos R, Claudio L, Iglesias V. Cognitive performance among cohorts of children exposed to a waste disposal site containing heavy metals in Chile. *Int J Environ Health Res*. 2017;27:117-125. doi: 10.1080/09603123.2017.1292494. PMID: 28245674, 2017
4. Carceles-Alvarez A, Ortega-Garcia JA, Lopez-Hernandez FA, Fuster-Soler JL, Ramis R, Kloosterman N, Castillo L, Sanchez-Soliz M, Claudio L, Ferris-Tortajada J. Secondhand smoke: A new and modifiable prognostic factor in childhood acute lymphoblastic leukemias. *Environ Res* 178; 1-9, <https://doi.org/10.1016/j.envres.2019.108689>, 2019

Additional publications can be found here:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/1TAKB5dIxjQ7/bibliographahy/48757028/public/?sort=date&direction=ascending>

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing

T37MD001452 (Claudio, L) 07/01/05 – 12/31/23

NIH/NCMHD

International Exchange Program for Minority Students

Training program with Latin American countries particularly Mexico, Chile and Brazil. Minority students from the US are paired with mentors in these countries who have themselves been trained in public health research.

5 R25 EB020393 (Kovatch, P, Claudio L, Sharp A) 9/30/2015 – 6/30/2020

NIH/NIBIB

Community Research Education and Engagement for Data Science (CREEDS)

To create courses and training programs in the use of data science in health research and to increase the numbers of minority and women researchers using data science.

1 U2R TW 010088 (Woskie, S, Claudio L subcontract) 10/1/2015 – 9/30/2020

FIC/NIH

GEOHealth Hub: Improving Agricultural Health in Southeast Asia- Thailand

To provide environmental and occupational health training for researchers and health care providers from Thailand and other countries in Southeast Asia.

1R25HL108857 (Claudio, L) 06/01/2011 – 07/31/2021

NIH/NHLBI

Short-term Research Training Program for Minority Students

To nurture minority students' interests in science and medicine by enhancing their research capacity through multidisciplinary education using community-based strategies to reduce cardiopulmonary disease.

Completed Research Support (selected for relevance over the past five years)

1 D43 ES 018745

NIH/FIC/NIEHS (Claudio, L) 9/1/2009 – 8/31/2016

Training in Environmental Health to Reduce Chronic Disease in Latin America

The goal of this training grant is to train health professionals in Latin America to implement research and service programs that identify, treat and prevent chronic disease of environmental origin.

1 D43 TW00640 (Claudio, L) 5/01/95 – 2/29/2013

NIH/FIC

Mount Sinai International Training and Research in Environmental and Occupational Health (ITREOH) Fogarty International Center

Ford Foundation

1075-0501-04 (Claudio, L) 03/01/07 – 02/28/11

Study of the Relative Contribution of Socioeconomic Status and Race/Ethnicity on Health Outcomes in Children.

To assess factors that determine health disparities in different populations.