

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 <i>(if applicable)</i>	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 in this role because I have over 20 years of independent research experience with consistent grant funding. I currently serve as tenured professor of Environmental Medicine and Public Health, and Chief of the Division of International Health at the Mount Sinai Icahn School of Medicine. 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 and training 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 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. Some ongoing funded projects include:

1R25HL108857 (Claudio, L) 06/15/2011 – 05/31/2023
NIH/NHLBI

Short-term Research Training Program for Minority Students

To nurture minority students' interests in science and medicine by enhancing their research capacity in a way that supports multidisciplinary education using community-based strategies to reduce cardiopulmonary

T37MD001452 (Claudio, L) 07/08/2005 – 12/31/2023
NIH/ NCMHD

Global Health Disparities Research Training Program

Minority students from the US are paired with mentors in countries where Dr. Claudio has research collaborations, who have themselves been trained in public health research.

D43TW011403 (Claudio, L) 8/15/2020 – 5/31/2025
NIH/FIC

International Training in Environmental Health over the Lifespan

A collaborative research and training program with the National University in Costa Rica to support research in environmental and climate health.

Under Review (Claudio, L) 7/01/2023 – 6/30/2025
Community Health Information Equity Forum

Citations:

1. 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
2. Claudio L: *How to Write and Publish a Scientific Paper: The Step-by-Step Guide*. Write Science Now Publishing Co. 2016
3. 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
4. Claudio L: TED Talks: Why science needs community engagement. May 6, 2019

B. Positions, Scientific Appointments, and Honors (Since 2000)

Positions and Scientific Appointments

- 2013- present: **Tenured Professor**, Department of Environmental Medicine & Public Health
Icahn School of Medicine at Mount Sinai
- 2009 – 2013: **Tenured Associate Professor**, Department of Preventive Medicine
Chief; Division of International Health, Department of Community and Preventive Medicine, Mount Sinai School of Medicine, New York NY
- 2004 – present: **Associate Professor**; Department of Community and Preventive Medicine
- 2001 – 2008 **Associate Professor**; Department of Community and Preventive Medicine

Honors

- 2019: **TED Residency**: Why science needs community engagement
- 2018: **Child Health Advocate Science Award**; Children's Environmental Health Network
- 2018: **Award for Outstanding Service to Underserved Communities & Global Health**; Auxiliary Board
- 2007: **Faculty Council Award for Academic Excellence; Mount Sinai School of Medicine**
- 2004: **Equity Champion; Educational Equity Concepts presented at United Nations**
- 2003: **Distinguished Visiting Scholar; Education Development Center**
- 2001: **Excellence in the Academy Award**; National Education Association

Appointments

- 2022 – present: **The Rachel Carson Council**: National Advisory Council
- 2021 – present: **New York City Mayor's Office of Climate & Environmental Justice**: Advisory Board
- 2012 – present: **Institute of Medicine of the National Academies**
Member of Roundtable on Environmental Health Sciences, Research and Medicine
- 2008 – present: **Collegium Ramazzini**: Member of the independent international academy of experts in occupational and environmental 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**
- 2006 – 2010: **Fogarty International Center, NIH**; Advisory Board
- 2003 – 2006: **Healthy Schools Network**; Board of Directors
- 2003 – 2005: **National Institutes of Health**; Environmental Health Sciences Review Committee of the National Institute of Environmental Health Sciences.
- 2002 – 2003: **Academy of Education Development**; Advisory Committee on Science and Gender
- 2000 – 2002: **American Academy of Pediatrics**; **Consortium on Latino Children's Health**

C. Contributions 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 the biomedical research fields. I have served as principal investigator of several highly successful Training Programs for Minority Students (T35 ES07298 and 1R25HL108857) for over 20 years. I am also the PI of the International Exchange Program for Minority Students, which has been continuously funded since 2005 years (T37 MD001452). 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 an impact for advancing research training among participants.

- a. Claudio L: Reaching out to the next generation of scientists. National Education Association Journal 17: 77-86, 2001
- b. Claudio L: Building self-reliance in environmental science: The ITREOH experience. Environmental Health Perspectives 111: A460-463, 2003
- c. Peres F, Claudio L. Fifteen years of occupational and environmental health experiences in Brazil, Chile and Mexico: A report from the Mount Sinai School of Medicine ITREOH Program. Am J Industrial Med 56: 29-37, 2013
- d. 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 20 years of experience as an independent researcher working to understand how social and environmental factors contribute to health disparities. 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. 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 community organizations to bring attention to the communities that were most affected by asthma and environmental exposures.

- a. McGee S, Claudio L. Nativity as a Determinant of Health Disparities among Children. J Immigr Minor Health. doi: 10.1007/s10903-017-0667-4. PMID: 29094273, 2018
- b. 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
- c. Araya F, Stingone JA, Claudio L. Inequalities in exposure to ambient air neurotoxicants and disparities in markers of neurodevelopment in children by maternal nativity status. Internat J Environ Res Public Health 18 (14) 7512; <https://doi.org/10.3390/ijerph18147512>, 2021
- d. Korin MR, Araya F, Idris MY, Brown H, Claudio L. Community-based Organizations as effective partners in the battle against misinformation. Front Public Health 15 March 2022. <https://doi.org/10.3389/fpubh.2022.853736>

3. Use of Big Data Science in Epidemiology: There is increased interest in using big databases 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.

- a. 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
- b. 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
- c. 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. 26;14(11). pii: E1295. doi: 10.3390/ijerph14111295. PMID: 29072589, 2017
- d. Li Y-C, Hsu H-H L, Chun Y, Chiu P, Arditi Z, Claudio L, Pandey G, Bunyavanich S. Machine learning-driven identification of early-life air toxics combinations associated with childhood asthma outcomes. J Clinical Investigation, 2021, DOI: 10.1172/JCI152088

4. Scholarly Work on Global Health and International Collaborations: I have developed and sustained fruitful international collaborations that expand my research and training programs beyond our borders. Central to

this was the International Training in Research on Environmental and Occupational Health (ITREOH TW00640) which resulted in training of 52 experts in Mexico, Brazil and Chile. This cadre of investigators are now my collaborators in research and training projects that have resulted in numerous research studies, publications and grants. These achievements are the basis of my appointment as Chief of the Division of International Health since 2004.

- a. 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
- b. 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 Apr;27(2):117-125. doi: 10.1080/09603123.2017.1292494. PMID: 28245674, 2017
- c. Galvan-Portillo M, Sánchez E, Cárdenas-Cárdenas LM, Karam R, Claudio L, Cruz M, Burguete-García AI. Dietary patterns in Mexican children and adolescents: Characterization and relation with socioeconomic and home environment factors. *Appetite* 121: 275-284. doi:10.1016/j.appet.2017.11.088. 2018
- d. Ortega-Garcia JA, Ruiz-Marin M, Carceles-Alvarez A, Campillo I Lopez F, Claudio L. Social distancing at health care centers early in the pandemic helps to protect population from COVID-19. *Environ Res* 189; <https://doi.org/10.1016/j.envres.2020.109957>, 2020

Additional publications can be found here:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/1TAKB5dIxiJQ7/bibliographay/48757028/public/?sort=date&direction=ascending>