

BIOGRAPHICAL SKETCH

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NAME: Suárez-Torres, José

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

POSITION TITLE: Executive Director, Fundación Cimas del Ecuador

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 Central del Ecuador, Quito, Ecuador	MD	07/1973	Medicine
University of Minnesota, Minneapolis, MN	MPH	12/1978	Public Health
University of Minnesota, Minneapolis, MN	PhD	07/1984	Epidemiology

A. Personal Statement

I am a physician and epidemiologist with experience conducting community-based health research. My work is centered on **understanding social, economic, environmental and cultural variables in the explanation of health-disease**. I have more than 30 years of experience in directing and administering regional and nationwide studies in Ecuador. I started my research career within an Endemic Goiter and Endemic Cretinism Prevention Research Program 45 years ago, which was conducted in the county of Pedro Moncayo, where we are implementing the ESPINA projects. I received international training in Public Health and Epidemiology and worked as Director of the Health Promotion Institute at the Ecuadorian Ministry of Health, as a consultant for international organizations and as a professor at Ecuadorian and US universities. As Director of Fundación Cimas for the last 20 years, I have been providing technical support to the local governments of rural counties in Ecuador in the design of their local development and territorial ordination plans, health councils, and in the development of participatory action research activities.

One important contribution has been the development of a local information geo-referenced system in Pedro Moncayo county (SILC, acronym in Spanish for Sistema de Información Local Comunitaria, *FIRST PRIZE International Contest on Innovative Solutions in Public Health based on TICs for the reduction of health inequalities for Latin American and the Caribbean. PAHO, IDRC Canada, University of Toronto*). It provides historical and spatial information on socio-economic, demographic and health factors. It facilitated the selection and recruitment of participants of the ESPINA study.

I have focused on understanding the complex relationship associated with the expansion of flower plantations, and the high use of pesticides, which has been addressed by the NIH funded Secondary Exposure to Pesticides among Children and Adolescents study (ESPINA – Study of Secondary Exposure of Pesticides on Children, Adolescents and Young). As a co-investigator and PI for the subcontract in Ecuador of ESPINA, I have played an important role in the scientific, technical and inter-institutional coordination with the research team at the University of California San Diego, with the Ministry of Health, and Institutional Review Boards in Ecuador to obtain approval and authorization for the execution of the project. I have been central to the study engagement of study participants and their families, as well as with community authorities, and coordinating an effective and efficient data collection and examinations. As part of ESPINA, I hired and trained the research team in Ecuador, and directed the data collection in Pedro Moncayo County, organization and shipment of all biospecimens collected and creation of datasets. I look forward to continuing to work with Dr. Suarez and ESPINA co-investigators on this important project.

Ongoing and recently completed projects:

1R01ES025792-06A1 (MPI: Suarez JR, Moore R)

5/10/2022-2/31/2027

NIH/NIEHS

Cyclical alterations in neurocognitive performance and mood over two years in relation to pesticide spray seasons among adolescent and young adult participants of the ESPINA study

This project builds on the ESPINA 2022 examination and proposes to assess whether pesticide spray seasons are associated with cyclical alterations in mental health symptoms and cognitive performance assessed over two years using a smartphone-based assessment platform, and to test whether pesticide exposure biomarkers are related to elevated depressive and externalizing symptoms and decreased cognitive performance.

Role: Co-I and Subcontract PI (Ecuador)

R01 ES025792-01A1 (PI: Suarez, JR)

09/01/2015-03/31/2021

NIH/NIEHS

The ESPINA Study Follow-up Examination in 2016: Environmental Pollutants and Child/Adolescent Development

The major goals of this project are to determine the longitudinal associations of sub-clinical exposures to pesticides with child development among participants living in agricultural communities in Ecuador as part of the longitudinal "Secondary Pesticide Exposures among Children and Adolescents" (ESPINA) study.

Role: Co-I and Subcontract PI (Ecuador)

R01 ES030378 (PI: Suarez, JR)

09/15/2020-06/30/2025

NIH/NIEHS

The 2020 ESPINA study follow-up Exam: Fungicides, Insecticides, Inflammation and Child Development

The major goals of this project are to determine the longitudinal associations of sub-clinical exposures to fungicides and insecticides with systemic and liver-specific inflammatory markers and neurobehavior among adolescent participants living in agricultural communities in Ecuador as part of the longitudinal "Secondary Pesticide Exposures among Children and Adolescents" (ESPINA) study.

Role: Co-I and Subcontract PI (Ecuador)

B. Positions, Scientific Appointments, and Honors

Positions and Scientific Appointments

1987-1990	Director, Research Institute for The Development of Health, (Iides), Ministry of Health, Quito, Ecuador
1989	Consultant, The International Labor Organization and Ministry of Labor of Ecuador, Quito, Ecuador
1989 – 2014	General Coordinator, Ecuador of the Minnesota Studies in International Development of the University of Minnesota, Minneapolis, MN
1990-1991	Project Director, "Environment and Health in Ecuador", Fundación Natura
1991-1992	Consultant, Gtz-Conade Long Term Planning Group, Quito, Ecuador
1992-1995	Fulbright Visiting Scholar, University of Washington and Evergreen State College, Olympia, WA
1992	Consultant, Wash and Pritech Project "Environmental Health Assessment: An Integrated Methodology for Rating Environmental Health Problems. A Case Study Conducted in Quito and Pedro Moncayo, Ecuador"
1995-1996	Technical Director, Ecuadorian Health Care Reform Unit, National Health Council
1995-2002	Clinical Assistant Professor, MIRT program, Division of Epidemiology, University of Washington, Seattle, WA
1995 – 2014	General Coordinator, EQWA Collaborative Program of the Consortium of Public Universities of the State of Washington
1997 – 2021	Executive Director, Fundación Cimas del Ecuador
2016	Coordinator to UNICEF Joint Program on Food and Nutrition, Imbabura Province.
1992 – 2024	Country Coordinator, Minnesota Studies in International Development, University of Minnesota

Honors

- 2014 Award, First Prize for Latin American and the Caribbean in the international contest: "Public eHealth and Equity in Latin America and the Caribbean project: the role that information and communication technologies (ICT) can play in supporting the agenda oriented to health equity, sponsored by "People, Health Equity and Innovation Research Group (Phi Group) " School of Public Health, University of Toronto, and the area "Knowledge Management and Communication" from the Pan American Health Organization (PAHO), Washington DC, and the International Center for Research Development (IDRC), Ottawa (www.esacproject.net).
- 2008 Distinguished International Academician, University of Minnesota
- 2006 Distinguished Leadership Award for Internationals, University of Minnesota

C. Contributions to Science

1. My work has sought to understand the factors associated with learning difficulties of children in poverty and the search for simple solutions in rural marginal populations were identified in research processes conducted in different parts of Ecuador.
 - a. Stuecher U. and **Suárez, J.** (2000) Research in Special Education From the Perspective of a Country in Development: Ecuador, *Exceptionality*, 8:4, 289-298. doi: 10.1207/S15327035EX0804_7
2. The interrelationships of economic development, environmental impacts and the health conditions of population has been addressed by nation wide studies.
 - a. **Suárez, J.** et al. La Situación de la Salud en el Ecuador 1962-1985. Quito: Publicación MSP/OPS/ININMS, 1987.
 - b. **Suárez, J.** et al Medio Ambiente y Salud en el Ecuador, Siglo XX, El Cóndor, la Serpiente y el Colibrí", OPS/OMS, Quito, Ecuador. 2002
 - c. **Suárez J.** and Lopez D. Development, Environment and Health in Crisis. The Case of Ecuador. *Latin American Perspectives*, 1997, 24(3):83-103.
 - d. **Suárez-Torres, J.**, Suárez-López, J.R., López-Paredes, D. et al. Agroecology and Health: Lessons from Indigenous Populations. *Curr Envir Health Rpt.* 2017, 4, 244–251.
3. Identification of potential impacts of pesticides on child development
 - a. Chronister BNC, Justo D, Wood RJ, Lopez-Paredes D, Gonzalez E, Suarez-Torres J, Gahagan S, Martinez D, Jacobs DR, Checkoway H, Jankowska MM, **Suarez-Lopez JR.** Sex and adrenal hormones in association with insecticide biomarkers among adolescents living in ecuadorian agricultural communities. *Int J Hyg Environ Health.* 2024; Jun;259:114386. PMCID: PMC11421858.
 - b. Chronister, B.N., Gonzalez, E., Lopez-Paredes, D., Suarez-Torres, J., Gahagan, S., Martinez, D., Barros, J., Jacobs, D.R., Checkoway, H., **Suarez-Lopez, J.R.** Testosterone, estradiol, DHEA and cortisol in relation to anxiety and depression scores in adolescents. *J. Affect. Disord.* 2021; 294, 838–846. PMCID: PMC8992006.
 - c. Phillips S, **Suárez-Torres J**, Checkoway H, Lopez-Paredes D, Gahagan S, Suarez-Lopez JR 2021. Acetylcholinesterase activity and thyroid hormone levels in Ecuadorian adolescents living in agricultural settings where organophosphate pesticides are used. *Int J of Hyg and Env Hlth* (In Press).
 - d. Suarez-Lopez JR, Hood N, **Suárez-Torres J**, Gahagan S, Gunnar MR, López-Paredes D. Associations of acetylcholinesterase activity with depression and anxiety symptoms among adolescents growing up near pesticide spray sites. *Int J Hyg Environ Health.* 2019;222(7):981-990.
4. Identification of potential impacts of pesticides on agroecological production
 - a. Chronister BNC, Yang K, Yang AR, Lin T, Tu XM, Lopez-Paredes D, Checkoway H, **Suarez-Torres J**, Gahagan S, Martinez D, Barr D, Moore RC and Suarez-Lopez JR. Glyphosate, 2,4-D and DEET biomarkers in relation to neurobehavioral performance in Ecuadorian adolescents in the ESPINA cohort. *Environmental Health Perspectives.* 2023; Oct;131(10):107007. PMCID: PMC10566341

- b. Suarez-Lopez JR, Hong V, McDonald KN, **Suárez-Torres J**, López D, De La Cruz F. Home proximity to flower plantations and higher systolic blood pressure among children. *Int J Hyg Environ Health*. 2018;221(8):1077-1084. doi:10.1016/j.ijheh.2018.08.006
 - c. **Suárez-Torres J**, Suárez-López JR, López-Paredes D. et al. Agroecology and Health: Lessons from Indigenous Populations. *Curr Envir Health Rpt*. 2017, 4, 244–251.
5. Identification of epidemiological factors on epilepsy and endemic goiter in rural indigenous communities
- a. Placencia M, **Suárez J**, Crespo F, et al. A large-scale study of epilepsy in Ecuador: methodological aspects. *Neuroepidemiology*. 1992;11(2):74-84. doi:10.1159/000110915
 - b. Placencia M, Shorvon SD, Paredes V, Bimos C, Sanders J, **Suárez J**, and Cascante S. Epileptic seizures in an Andean Region of Ecuador. Incidence and prevalence. *Brain*. 1992; 115(3): 771-782.
 - c. Fierro-Benitez, R., Ramirez, I and **Suárez J**. Effect of iodine correction early in fetal life on intelligence quotient. In *Human Development and Thyroid Gland. Relation to Human Cretinism*. J.D. Stambury and Editor. Plenum Press. New York, 1972.