CURRICULUM VITAE

JUAN DAVID RAMIREZ-GONZALEZ, PhD
Tampa, FL, USA
Tel: (+1) 332-234-4161
jdramirez85@gmail.com

I am a microbiologist and tropical infectious disease specialist with over 16 years of experience researching parasitic diseases, including *Trypanosoma cruzi*, *Leishmania* spp., and *Giardia*. My work focuses on developing molecular tools for high-sensitivity pathogen detection, exploring genetic evolution and transmission dynamics, and understanding host-microbiota interactions. I also investigate the genomics and ecology of vector species in tropical environments. I currently serve as a Professor at the College of Public Health at the University of South Florida (USA) and at the Universidad del Rosario (Colombia). With more than 300 peer-reviewed publications, an H-index of 55, and over 10,000 citations, I have made significant contributions to the fields of diagnostic innovation and pathogen-vector-host biology. My research has been supported by competitive international grants and featured in leading journals such as *The Lancet Infectious Diseases*, *Cell*, and *PLOS Neglected Tropical Diseases*. I am an editorial board member for several prominent journals and actively mentor students and early-career scientists. I am deeply committed to promoting research integrity, global health, and inclusion through international collaborations and capacity building in low- and middle-income countries.

Education

2003-2008	Bachelor of Science in Microbiology - Universidad de los Andes, Bogotá – Colombia
2008-2009	Master of Biological Sciences – Tropical Parasitology. Faculty of Sciences – Universidad de los Andes, Bogotá – Colombia
2009-2012	Doctor of Philosophy in Biological Sciences – Tropical Parasitology. Faculty of Sciences – Universidad de los Andes, Bogotá – Colombia

Academic Appointments

April 2013 – July 2016	**National Institutes of Health (NIH)** **National Institute of Allergy and Infectious Diseases (NIAID)** Laboratory of Parasitic Diseases (Postdoctoral Fellow) Bethesda, MD, USA.
April 2014 – October 2017	**Universidad del Rosario (Assistant Professor)** Faculty of Natural Sciences Director, Research Center for Microbiology and Biotechnology Bogota, Colombia
November 2017 – October 2023	**Universidad del Rosario (Associate Professor)-*Part time since 2021 (0.1 FTE)*** Faculty of Natural Sciences Bogota, Colombia
December 2023 – Present	**Universidad del Rosario (Full Professor) -*Part time since 2021(0.1 FTE)*** School of Sciences and Engineering Bogota, Colombia
November 2021 – July 2025.	**Icahn School of Medicine at Mount Sinai (Associate Professor)** Department of Pathology, Molecular and Cell based Medicine Molecular Microbiology Laboratory (Assistant Director) New York, NY, USA.

August 2025 – Present. **University of South Florida (Full Professor)**
College of Public Health
Tampa, FL, USA.

Honors, Awards and Certifications

1. Honors and Awards:

   a. Bachelor´s degree fellow Universidad de los Andes (2007-2008).
   b. Master´s degree fellow Universidad de los Andes (2008 – 2009).
   c. Doctoral fellow Universidad de los Andes (2009 – 2012).
   d. Best talk in oral presentation on the XI International conference of Molecular epidemiology and evolutionary genetics of infectious diseases – MEEGID, New Orleans –USA. 2012.
   e. Medal of honor in Natural, Physical and Exact Sciences, Fundacion Alejandro Angel Escobar – Colombia. 2013.
   f. PEW Latin-American fellow 2014 (2014-2016)

2. Certification:

   a. Department of Health, State of New York. Certificate of Qualification as Laboratory Director (2022-2025).

Research Information

A. Research Support

1. Past
   a. Drugs for Neglected Diseases Initiative, Molecular diagnosis of Chagas disease in Clinical Trials, Role: Co-I (2014-2020).
   b. Pew Charitable Trust Foundations, *Leishmania* and *Giardia* phylogenomics and disease, Role: PI (2014-2016).
   c. Scottish Funding Council-GCRF Small Grants Fund (Grant number: SFC/AN/12/2020). Role: Co-PI (2019-2020).
   d. Newton Fund, Royal Academy of Engineering. (Transforming Systems through Partnership). Role: PI (2020-2022).
   e. Colombian Ministry of Science, Climate change and parasitic diseases. Role PI (2020-2024)

2. Current
   a. Wellcome Trust Fund. Crafting a genomic surveillance strategy for Chagas Disease, Role: PI (2023-2026).
   b. National Institutes of Health R01. Pathogen Surveillance program in the Mount Sinai Health System, Role: Co-I (2021-2024).
   c. National Institutes of Health R01. PASCO: Clinical trial for enhancing the understanding in the pathophysiology of COVID-19. Role: Co-I (2021-2024).
   d. National Institutes of Health R01. Data-Driven Diagnosis and Prediction of Heart Disease Outcomes in Chagas Disease with Ethical and Explainable AI/ML Models. Role: Co-PI. (2024-2026).

3. Pending
   a. National Institutes of Health R01. Genomic Landscape of Chagas Disease in High-Risk Populations across Texas and New York, Role: PI.
   b. National Institutes of Health R01. Capturing the genome variation to determine global population structure, transmission dynamics and molecular basis of drug resistance in *Giardia.* Role: PI.

c. National Institutes of Health R01. Determining the mechanisms of *Ascaris*-induced gastric injury. Role: Co-I.
d. National Institutes of Health R01. Epidemiological and Genomic Insights into the Pathogenesis of Dengue Virus and Vector Competence in Colombia. Role: Co-I.
e. National Institutes of Health R01. Optimizing Chagas Disease screening in an at-risk US population of Latin American immigrants and their descendants. Co-I.

B. National Scientific and Professional Participation

1. Journal Editorial Boards

a. Parasite, Epidemiology and Control (Elsevier), https://www.sciencedirect.com/journal/parasite-epidemiology-and-control/about/editorial-board (2019-present)
b. Frontiers in Tropical Diseases (Frontiers), https://www.frontiersin.org/journals/tropical-diseases/editors (2021-present)
c. Advanced Biology (Wiley), https://onlinelibrary.wiley.com/page/journal/27010198/homepage/2771_edbd.html (2023-present)
d. Parasites and Vectors (Springer Nature), https://parasitesandvectors.biomedcentral.com/about/editorial-board (2024-present)
e. BMC Infectious Diseases (Springer Nature), https://bmcinfectdis.biomedcentral.com/about/editorial-board (2024-present)

2. Professional Societies

a. American Society of Hygiene and Tropical Medicine (2021-present)
b. American Society of Microbiology (2021-present)
c. Latinamerican Society of Parasitology (2019-present)
d. Colombian Society of Parasitology (2019-present)

C. Publications

a. Published:

A total of 300 publications can be found on PubMed:
https://www.ncbi.nlm.nih.gov/myncbi/juan%20david.ramirez%20gonzalez.1/bibliography/public/

b. Book Chapters

1. Ramírez JD and Guhl F. Molecular epidemiology of parasitic diseases: The Chagas disease model. Book: Epidemiology: Current perspectives on research and practice. Edited by Nuno Lunet. 2012. ISBN 978-953-51-0382-0
2. Jimenez P, Jaimes JE, Ramírez JD. Trypanosoma cruzi. Book: Handbook of foodborne diseases. Edited by Dongyou Liu. 2018. ISBN 9781315230917
3. Cruz-Saavedra L, Paniz-Mondolfi A, Ramírez JD, Benaim G, Sordillo EM. The role of tryptophan in Chagas disease and other trypanosomatid infections. Book: Biophotonics, tryptophan and disease. Edited by Laura A. Sordillo and Peter P. Sordillo. 2022. ISBN 978-0-12-822790-9

Invited Lectures

a. International

August 2018 The impact of *Blastocystis* and intestinal polyparasitism in the gut microbiota: A comprehensive analysis in Colombian patients. XV International Congress of Parasitology-ICOPA, Korea.

August 2018 A comprehensive review of the *Trypanosoma cruzi* molecular epidemiology. XV International Congress of Parasitology-ICOPA, Korea.

December 2020 Comparative genomics of *Blastocystis*. XV Latinamerican Congress of Parasitology, Panama

December 2020 Genomic plasticity of *Leishmania braziliensis* and *Leishmania panamensis*. XVII Colombian Congress of Parasitology and Tropical Medicine, Colombia.

November 2020 Genomic and transcriptomic plasticity in Neotropical *Leishmania* parasites. Seminar Series Universidade Estadual Paulista, Brazil.

November 2020 Comparative genomics of *Trypanosoma cruzi* I. Mexican Symposium of Chagas Disease, Mexico.

December 2020 Molecular epidemiology and comparative genomics of *Blastocystis*. National congress of tropical medicine, Panama.

April 2021 Molecular diagnosis of Chagas disease and Leishmaniasis, National Science Symposium, National Institute of Health, Colombia.

March 2021 Molecular diagnosis of SARS-CoV2, Universidad de Magdalena, Colombia.

August 2022 Molecular epidemiology of *Blastocystis* using Next Generation Sequencing in Colombia. XVI International Congress of Parasitology-ICOPA, Denmark.

August 2022 Parasitomics: Implications in diagnostics and evolution. XVI International Congress of Parasitology-ICOPA, Denmark.

March 2023 Implementing genomic surveillance for Chagas disease and leishmaniasis. 30th annual meeting of the German Society of Parasitology. Germany

May 2024 Crafting a genomic surveillance strategy for Chagas disease. 11th Chagas disease research Platfrom. DNDi. Argentina

b. National

June 2024 The Next-Generation Sequencing Revolution: Fostering the Integration of Bench Science and Clinical Practice in Tropical Medicine. Baylor College of Medicine. Tropical Medicine Seminar Series.

Teaching Information

A. Educational Leadership Roles

a. Director PhD program of Biomedical Sciences, Universidad del Rosario, Colombia, (2015-2021). The director of the PhD program in Biomedical Sciences oversees program direction, develops curriculum, and supports students through advising and mentorship to ensure academic and research success.

b. Associate Director of Medical Education in the Microbiology Fellowship at the Icahn School of Medicine at Mount Sinai (2021-present). Responsibilities include organizing research activities for fellows and fostering the quality of the program.

B. Didactic coursework

1. Courses Taught at Universidad del Rosario, Colombia.

   a. General Microbiology
   Presenter *Second Year Biology students* *36 hours* *2014-present*
   b. Advanced Microbiology, Universidad del Rosario, Colombia
   Presenter *Postgraduate students* *48 hours* *2014-present*
   c. Ecology and Evolution of Infectious Diseases, Universidad del Rosario, Colombia
   Presenter *Postgraduate students* *48 hours* *2014-present*
   d. General Parasitology, Universidad del Rosario, Colombia
   Presenter *Second Year Biology students* *36 hours* *2014-present*
   e. Molecular Biology of Infectious Diseases, Universidad del Rosario, Colombia
   Presenter *Postgraduate students* *48 hours* *2014-present*
   f. Environmental Health, Universidad del Rosario, Colombia
   Presenter *Postgraduate students* *48 hours* *2014-present*
   g. Immunology, Universidad del Rosario, Colombia
   Presenter *Postgraduate students* *48 hours* *2014-present*

2. Courses Taught at the Icahn School of Medicine at Mount Sinai, USA

   a. Diagnostic Parasitology
   Presenter *Pathology Residents* *8 hours* *2021-present*
   b. Molecular Diagnostics
   Presenter *Pathology Residents* *8 hours* *2021-present*

C. Non-didactic Teaching

1. Undergraduate and Postgraduate Mentoring at Universidad del Rosario, Colombia; Universidad de Salamanca, Spain and the Icahn School of Medicine at Mount Sinai, USA ***under my mentoring***.

Postdoctoral fellows: 5
PhD students: 12
Master students: 26
Undergraduate students: 15

Service Contributions

A. Administrative assignments and committees

1. Assistant director, Molecular Microbiology Laboratory, Department of Pathology, Molecular and Cell-based Medicine, Mount Sinai Health System, New York, NY.
2. Clinical director, Centro de Investigaciones en Microbiologia y Biotecnología, Universidad del Rosario, Colombia