Rolando J. Acosta Nuñez
Manager Biostatistics, Biostatistics & Data Management

CONTACT INFORMATION
🔗 Website   ✉ rolando.acosta@regeneron.com   in LinkedIn   GitHub

EDUCATION

05/2022	**PhD, Biostatistics**
	Harvard University, Cambridge, MA
05/2020	**MA, Biostatistics**
	Harvard University, Cambridge, MA
05/2017	**BS, Computational Mathematics**
	University of Puerto Rico, Humacao, PR

EXPERIENCE

01/2024 – Present

Regeneron Pharmaceuticals, Inc., Tarrytown, NY
Manager Biostatistics, Biostatistics & Data Management

Experienced Biostatistician with a proven track record in designing and analyzing clinical trials and pilot studies, leveraging advanced statistical methodologies to drive impactful decision-making in pharmaceutical development. Splitting my time between the Biostatistical Engineering team and Clinical Hematology, this role involves developing novel digital endpoints through the assessment of wearable devices, while also overseeing the design, analysis, and execution of clinical trials in Hematology Oncology. A skilled collaborator, adept at cross-functional teamwork, regulatory reporting, and innovative statistical research to advance therapeutic innovations.

07/2022 – 12/2023

Regeneron Pharmaceuticals, Inc., Tarrytown, NY
Principal Biostatistics, Biostatistics & Data Management

- Lead the design and analysis of pilot studies in healthy populations, and first-in-human studies in populations of interest, to assess the operating characteristics of novel wearable devices, driving the development of innovative digital endpoints.
- Advanced pharmaceutical innovations through cutting-edge statistical, machine learning, and artificial intelligence methodologies.
- Collaborated extensively with cross-functional teams, including medical, clinical, operations, and regulatory departments to drive project outcomes.

12/2023 – 03/2025

Digital Medicine Society, Boston, MA
Statistical Advisory Committee (SAC) Member

- Served as a SAC member for the Validating Novel Digital Clinical Measures project.

06/2020, 06/2021 and 06/2022

Interamerican University, San Germán, PR
Summer Workshop Instructor

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	• Design and implemented data visualization in R and data wrangling in R courses for the Interamerican university data science summer institute.
	• Course webpage
09/2017 – 05/2022	**Harvard University, Cambridge, MA** Ph.D. Student, Biostatistics
	• Development of statistical methods to monitor human mobility and mortality in the aftermath of natural hazards.
09/2017 – 05/2022	**Alphabet Google, Remote due to Covid-19 Pandemic, MA** Ph.D. Data Science Intern, Google Payments
	• Optimal Search of Heterogeneous Treatment Effects (OSHTE)
09/2019 – 12/2019 and 09/2021 – 12/2021	**Harvard University, Cambridge, MA** Teaching Assistant, Biostatistics
	• BST 260: Introduction to Data Science
	• Prof. Heather Mattie
01/2020 – 05/2020 and 01/2021 – 05/2021	**Harvard University, Cambridge, MA** Teaching Assistant, Biostatistics
	• BST 226: Applied Longitudinal Analysis
	• Prof. Garret Fitzmaurice
06/2020 – 10/2020	**Covid-19 Mobility Network, Remote due to Covid-19 Pandemic, MA** Affiliated Researcher
	• Analyzed mobility patterns for the City of Miami to ascertain the effectiveness of social distancing policies.
	• Group webpage
09/2019 – 05/2020	**Harvard University, Cambridge, MA** Biostatistics Ambassador, Center for Climate, Health, And the Global Environment (C-CHANGE)
	• Biostatistics student ambassador to C-CHANGE
	• Group webpage
09/2019 – 05/2020	**Harvard University, Cambridge, MA** Statistics Consultant, Biostatistics Student Consulting Center (BSCC)
	• Biostatistics student consultant for the BSCC
	• Group webpage
09/2018 – 12/2018	**Harvard University, Cambridge, MA** Teaching Assistant, Biostatistics
	• BST 201: Introduction to Statistical Methods
	• Prof. Paul Catalano
03/2018	**University of Puerto Rico, San Juan, PR** Teaching Assistant, Biostatistics
	• Big Data in Biology: From Genes to the Biosphere
	• Prof. Rafael Irizarry

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	• Course webpage
01/2015 – 05/2017	**University of Puerto Rico, Humacao, PR**
	<u>Undergraduate Research Scientist, Mathematics</u>
	• Explore models for dengue control in Puerto Rico using genetically modified mosquitoes.
06/2016 – 08/2016	**Harvard University, Cambridge, MA**
	<u>Summer Undergraduate Research Intern, Biomedical Informatics</u>
	• A geo-temporal database for the external exposome.
06/2015 – 05/2015	**Harvard University, Cambridge, MA**
	<u>Summer Undergraduate Research Intern, Biostatistics</u>
	• Automated phenotyping of patient EMR data: Feature extraction and selection.
06/2014 – 05/2014	**University of Iowa, Iowa City, IA**
	<u>Summer Undergraduate Research Intern, Biostatistics</u>
	• Assessing the effect of practical considerations when using the CRM in dose finding studies.

PUBLICATIONS

- Turner S, Chen C, **Acosta RJ**, et al. Methods for analytical validation of novel digital clinical measures: A simulation study. *medRxiv*. doi: https://doi.org/10.1101/2024.11.29.24318211. Dec 2024.
- Loewinger G, **Acosta RJ**, Mazumder R, Parmigiani G. Optimal ensemble construction for multistudy prediction with applications to mortality estimation. *Statistics in Medicine*. doi: 10.1002/sim.1006. *Feb 2024.*
- **Acosta RJ**, et al. All-cause excess mortality across 90 municipalities in Gujarat, India, during the Covid-19 pandemic (March 2020 - April 2021. PLOS Global Public Health. doi: 10.1371/journal.pgph.0000824. *Aug 2022.*
- **Acosta RJ**, Irizarry RA. A Flexible Statistical Framework for Estimating Excess Mortality. *Epidemiology*. doi: 10.1097/EDE0000000000001445. *May 2022.*
- Kiang MV, **Acosta RJ**, et al. Sociodemographic and geographic disparities in excess fatal drug overdoses during the COVID-19 pandemic in California: A population-based study. *The Lancet Regional Health Americas*. doi: 10.1016/j.lana.2022.100237. *Mar 2022.*
- Nazrul I, Shkolnikov VM, **Acosta RJ**, et al. Excess deaths associated with Covid-19 pandemic in 2020: Age and sex desegregated time series analysis in 29 high income countries. *British Medical Journal*. doi: 10.1136/bmj.n1137. *May 2021.*
- **Acosta RJ**, Kishore N, Irizarry RA, Buckee C. Quantifying the dynamics of migration after Hurricane Maria in Puerto Rico. *PNAS*. doi: 10.1073/pnas.2001671117. *Dec 2020.*

ABSTRACTS AND PRESENTATIONS

- Gait Assessment with Digital Health Technologies in Parkinson's Disease with Levodopa Treatment. *Digital Health Technologies Summit at Regeneron*. New York, USA. Oral presentation. May *2025.*
- Validation of Shoebox PureTest Audiometry in Regeneron Employees. *Digital Health Technologies Summit at Regeneron*. New York, USA. Poster presentation. May *2025.*
- Gait Assessment with Digital Health Technologies in Parkinson's Disease with Levodopa Treatment. *SCOPE Summit*. Florida, USA. Oral presentation. February *2025.*

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- Gait Assessment with Digital Health Technologies in Parkinson's Disease with Levodopa Treatment. *International Congress of Parkinson's Disease and Movement Disorders*. Pennsylvania, USA. Poster presentation. *September 2024*.
- Prognostic Utility of Peripheral Myeloid Cells for Clinical Outcome in Patients with Non-Small Cell Lung Cancer (NSCLC) with Cemiplimab. *World Conference on Lung Cancer (WCLC)*. California, USA. Poster presentation. *September 2024*.
- Gait Assessment with Digital Health Technologies in Parkinson's Disease with Levodopa Treatment. *Digital Health Technologies Summit at Regeneron*. New York, USA. Poster presentation. *May 2024*.
- Developing Biomarkers for Auditory Science. *Digital Biomarkers in Clinical Trials Summit at Roche*. Basel, Switzerland. Oral presentation. *May 2023*.
- Developing Biomarkers for Auditory Science. *Digital Health Technologies Summit at Regeneron*. New York, USA. Oral presentation. *May 2023*.

PATENTS

- **Title:** Systems and Methods for Reducing Sample Sizes.
  Patent Number: US20240379195A1
  Date Issued: May 9, 2024
  Patent Office: United States Patent and Trademark Office (USPTO)
  Description: Machine learning and artificial intelligence models coupled with vast datasets can be used to make clinical trials shorter, cheaper, and smaller without loss of any scientific rigor. In this patent we present work that combines machine learning models and external datasets to augment clinical trials.