# Ji-Eun Park

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## Educations

**University of North Carolina - Chapel Hill**                     Chapel Hill, NC
Doctor of Philosophy in Biostatistics                                      Aug 2019 -

**Weill Cornell Medicine, Cornell University**                          New York, NY
Master of Science in Biostatistics and Data Science                Sep 2017 - Dec 2018

**Ewha Womans University**                                            Seoul, Korea
Bachelor of Science in Economics                                    Mar 2013 - Dec 2016

**University of California, Davis**                                        Davis, CA
Student Exchange Program                                           Sep 2014 - Dec 2014

## Research Experiences

**Graduate Research Assistant**                                     Chapel Hill, NC
Department of Biostatistics, UNC - Chapel Hill                       Aug 2020 - Present

- Method development to test associations between somatic mutational signatures and risk factors

**Graduate Research Assistant**                                     Chapel Hill, NC
Department of Biostatistics, UNC - Chapel Hill                     January 2020 - Aug 2020

- Application research - single-cell trajectory analysis on mice bone-marrow data

**Researcher**                                                 Baltimore, MD (remote)
Environmental Health and Engineering, Johns Hopkins University          May 2019 - Jul 2020

- Application research - Differential expression analysis for effect of air pollution PM2.5 on brain/liver function based on mice transcriptome

**Temporary Researcher**                                   Seoul, South Korea (remote)
JB Lab & Clinic                                                    Aug 2018 - Jan 2020

- Identify the association of salt intake and hypertension, metabolic syndrome, and ARB treatment effect from a 10K+ hypertension patients data attained from a K-MetS study

**Research Assistant**                                               New York, NY
Department of Health Policy & Research, Weill Cornell Medicine          Aug 2018 - Jun 2019

- Subpopulations with higher risk of stroke after myocardial infarction (MI) using causal inference methods

## Research Assistant

New York, NY

March 2018 - Present

Department of Health Policy & Research, Weill Cornell Medicine

**Project 2**
- Microbiome research to determine the effects of aVISTA, Cyclophosphamide and Radiation Treatment effects on human and mice microbiome to understand the treatment effects on breast cancer.

**Project 1**
- Development of a comprehensive workflow for microbiome data analysis based on our analysis

New York, NY

Mar 2018 - Feb 2019

## Leading Project Researcher[1]

New York, NY

Sep 2017 - Aug 2018

Department of Health Policy & Research, Weill Cornell Medicine

- Advisor: Dr. Davide Risso
- Comparing clustering methods for analyzing Single-Cell RNA Sequencing Data

# Publications & Technical Reports

### Publications - Submitted

- Josephine Kang, Karsten Pilones, Camille Daviaud, Jeffrey Kraynak, Maria Rodriguez-Ruiz, Xi Kathy Zhou, Ji-Eun Park, Chenghuiyun Xu, Sandra Demaria, Silvia Formenti, Submitted, **Vista Blockade Immunotherapy in a Multi-Modal Approach to Triple Negative Breast Cancer (TNBC) in Mice and Impact on Microbiome**, *American Society for Radiation Oncology (ASTRO)*

### Publications - In Preparation

- Ji-Eun Park, Markia Smith, Sarah Van Sarah Van Alsten, Andrea Walens, Di Wu, Katherine Hoadley, Melissa Troester, Michael Love, In preperation, **Testing for Difference in Association of Mutational Signatures and Risk Factors with Hierarchical Bayesian Dirichlet-Multinomial Model (Diffsig)**

### Conference & Workshop Papers

- Ji-Eun Park, Wancen Mu, Yining Jiao, Michael Love, Marc Niethammer, Natalie Stanley, **MultImp: Multiomics Generative Models for Data Imputation**

### Technical Reports

- Ji-Eun Park, Yitong Wang, Davide Risso, **Comparing Methods for Analyzing Single-Cell RNA Sequencing Data**, unpublished technical report, Department of Health Policy & Research, Weill Cornell Medicine, 2018 (`https://github.com/jennprk/ClusteringMethods_Single-cell_RNASquencing`)[1]

# Talks & Presentations

## ENAR 2022

Austin, Texas

Mar 2022

Presentation for ENAR

- Introduced on-going research on developing methods for testing association between mutational signatures and risk factors

**ICML Comp Bio Workshop**                                                                                                        Virtual

Poster presentation for ICML Comp Bio Workshop                                                                        Jul 2021

- Introduced a data imputation method for multi-omics with generative models

## Honors & Awards

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| 2022 | **Travel Award,** UNC Chapel Hill, Department of Biostatistics | Chapel Hill, NC |
| 2021 | **ICML Computational Biology Workshop Fellowship,** ICML 2021 | Virtual |
| 2018 | **Best Capstone Project Award,** Weill Cornell Medicine, Graduate School of Medical Sciences | New York, NY |
| 2016 | **Honors Scholarship,** Ewha Womans University | Seoul, Korea |
| 2015 | **Honors Scholarship(top 6%),** Ewha Womans University | Seoul, Korea |
| 2014 | **Student Exchange Program Scholarship at University of California, Davis,** Ewha Womans University | Seoul, Korea |
| 2013 | **Honors Scholarship,** Ewha Womans University | Seoul, Korea |

## Teaching Experiences

**Teaching Assistant, Introduction to Biostatistics**                                                                 Chapel Hill, NC

Department of Biostatistics, UNC Chapel Hill                                                                       Sep 2021 - Dec 2021

**Teaching Assistant, Statistical Learning**                                                                             New York, NY

Department of Healthcare Policy & Research, Weill Cornell Medicine                                   May 2018 - Present

**Teaching Assistant, Foundations Biomedical Applications**                                                New York, NY

Department of Healthcare Policy & Research, Weill Cornell Medicine                       February 2018 - May 2018

**Teaching Assistant, Categorical & Censored Data Analysis**                                            New York, NY

Department of Healthcare Policy & Research, Weill Cornell Medicine                             Nov 2018 - Present

## Technical Skills

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|---|---|
| **Programming** | R, SAS, mySQL, Python, LaTeX |
| **Database Management** | SQL Server, MS Access |

## Research Interests

Statistical Genomics & Genetics, Cancer Genomics, Single-cell RNAseq, Machine Learning

## Professional Membership

- American Statistical Association (ASA)
- Eastern North American Region (ENAR)

- American Heart Association