Leslie Myint

PhD candidate in Biostatistics

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Education

Johns Hopkins Bloomberg School of Public Health

PhD candidate - Biostatistics

Expected graduation: May 2018

Johns Hopkins University

Bachelor of Science

May 2013

Majors: Biomedical Engineering, Applied Mathematics and Statistics
Minor: Computer Science

Research

Statistical Methods for High-Throughput Biology

June 2014 - present

JHSPH - Advisor: Dr. Kasper Daniel Hansen

Pre-processing methods for mass spectrometry data for metabolomics applications and statistical methods for analyzing massively parallel reporter assays

Evidence-Based Data Analysis

July 2015 - present

JHSPH - Advisors: Dr. Jeffrey Leek and Dr. Leah Jager

Conducted and analyzed randomized trials on the Coursera platform to understand data analyst behavior

Computational Biology Laboratory

September 2011 - May 2013

JHU - Advisor: Dr. Feilim Mac Gabhann

Studied peripheral arterial disease using computational models of VEGF distribution in mice and humans

Internship: Institute of Genetic Medicine

May - October 2012

JHU - Advisor: Dr. Steven Salzberg

Performed an in-depth comparison of two widely used sequence alignment programs: Bowtie2 and BWA

REU: Modeling and Simulation in Systems Biology

May - August 2011

Virginia Bioinformatics Institute - Advisors: Dr. Shernita Lee, Dr. Reinhard Laubenbacher

Worked with two other students to develop a computational model of iron metabolism in lung epithelial cells exposed to fungus

Summer Undergraduate Research Fellowship

May - July 2010

Fox Chase Cancer Center - Advisor: Dr. Warren Kruger

Studied Schizosaccharomyces pombe yeast genetics

Publications

Published

2. Kang, Joon Y., Amin H. Rabiei, **Leslie Myint**, and Maromi Nei. "Equivocal Significance of Post-Ictal Generalized EEG Suppression as a Marker of SUDEP Risk." Seizure: The Journal of the British Epilepsy Association. doi:10.1016/j.seizure.2017.03.017.
1. **Myint, Leslie**, Andre Kleensang, Liang Zhao, Thomas Hartung, and Kasper D. Hansen. 2017. "Joint Bounding of Peaks Across Samples Improves Differential Analysis in Mass Spectrometry-Based Metabolomics." Analytical Chemistry 89 (6): 3517–23. doi:10.1021/acs.analchem.6b04719.

Preprints

2. **Myint, Leslie**, Dimitrios G. Avramopoulos, Loyal A. Goff, and Kasper Hansen. 2017. "Linear Models Enable Powerful Differential Activity Analysis in Massively Parallel Reporter Assays." bioRxiv. doi:10.1101/196394.
1. **Myint, Leslie**, Jeffrey T. Leek, and Leah R. Jager. 2017. "Explanation Implies Causation?" bioRxiv. https://doi.org/10.1101/218784.

In press

1. Anne K. Monroe, **Leslie Myint**, Richard Rutstein, Stephen Boswell, Judith Aberg, Allison Agwu, Kelly Gebo, Richard Moore. 2017. "Factors Associated with Gaps in Medicaid Enrollment among People with HIV and the Effect of Gaps on Viral Suppression." Journal of Acquired Immunodeficiency Syndromes.

Presentations

Joint Preprocessing of Samples Improves Power in Differential Analysis for Mass Spectrometry-Based Metabolomics

Invited Talk: JHU Biophysics

December 2017

Shiny Applications for Teaching and Dungeons and Dragons
Invited Talk: Baltimore UseR Group
September 2017

A Method for Joint Processing of Mass Spectrometry-Based Metabolomics Data for Improved Differential Analysis
Poster: ENAR, Washington D.C.
March 2017

Software

yamss: Tools for the analysis of high-throughput metabolomics data. An R package released through the Bioconductor project.
https://www.bioconductor.org/packages/yamss

mpra: Tools for the analysis of data from massively parallel reporter assays. An R package released through the Bioconductor project.
https://www.bioconductor.org/packages/mpra

Teaching

Johns Hopkins Bloomberg School of Public Health

Instructor

- Statistical Thinking for Informed Decision Making (2 semesters)
  I developed this course as part of the Gordis Teaching Fellowship, a school-wide award that provides funds to design and teach an undergraduate class. A news article-motivated introduction to major biostatistical areas, including causal inference, survey sampling, and survival analysis.

Teaching Assistant

- Public Health Biostatistics (3 semesters)
- Introduction to R for Public Health Researchers (1 course)
- Statistical Methods in Public Health (3 quarters)
- Data Analysis Workshop (2 courses)
- Statistics for Genomics (1 quarter)
- Statistics for Laboratory Scientists (2 quarters)
- Summer Institute: Statistical Reasoning in Public Health (2 courses)

Tutor

- Statistical Methods in Public Health (2 quarters)
- Center for Talented Youth
  Mentored a high school CTY Cogito Research Award Recipient

Johns Hopkins University

Teaching Assistant

- Introduction to Java (1 semester)

Awards

Helen Abbey Award, JHSPH
May 2017
Excellence in teaching: website

Service

2017: Referee - Observational Studies

2018: Referee - American Journal of Epidemiology

Other Experience

Johns Hopkins Biostatistics Center

July 2016 - August 2017

JHSPH - Advisor: Carol Thompson, MS

Consulting work for multiple groups within the Johns Hopkins Medical Institution

Siemens Competition

2016 - 2017

Served as a Stage I, II, and finalist judge to evaluate entries in Computer Science, Mathematics, Bioinformatics, Cell/Cancer Biology, and Genetics

Techincal Skills

Programming languages

- R
- Stata
- Python
- Java
- Matlab

Application development

- Shiny
- HTML
- CSS
- Javascript
- d3.js

Other

- Git
- RMarkdown
- Adobe Photoshop