

Randy Parrish

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EDUCATION

MSPH, Biostatistics Expected May 2021
Rollins School of Public Health (RSPH), Emory University | Atlanta, GA
GPA: 3.75

BS, Biology (Cellular/Physiology Track) May 2019
BA, Mathematics May 2019
University of Louisville (UofL) | Louisville, KY
Minor: Global Public Health | *Cum Laude* | GPA: 3.71

TECHNICAL SKILLS

- R, Python, Bash, AWK, SAS 9.4
- Linux, HPC Cluster, Sun Grid Engine, parallel computing in R/Python
- MS Office, Zotero reference manager, L^AT_EX, B_IB_TE_X

RESEARCH EXPERIENCE

Transcriptome-Integrated Genetic Association Resource (TIGAR) February 2020–Present
Dr. Jingjing Yang | *Emory University* | Atlanta, GA

- preparing/analyzing large multi-omics data in HPC cluster environment
- applying TIGAR tool to GTEx V8 data
- optimizing code to reduce memory consumption and execution time in all TIGAR Python scripts
 - gene expression model training time for TIGAR example data on 1 core reduced from 17+ minutes to <4 for all models

Modeling qPCR Curves August 2018–May 2019
Dr. Gary Cobbs | *UofL* | Louisville, KY

- modified and developed R code to model qPCR curves in order to predict initial absolute concentration of template DNA from raw fluorescence values
- investigated kinetics of primer/probe annealing, processivity in literature
- generated visualizations from model output using ggplot2

Mycobacteriophage Sub-Cluster Distribution & Correlations August 2012–May 2013
Dr. Claire Rinehart | *Western Kentucky University (WKU)* | Bowling Green, KY

- used **Mathematica** to analyze geographic distribution of phages and to generate visualizations
- assessed distribution of phage clusters and examined correlation between geographic distance and genetic distance within each cluster

Mycobacteriophage Isolation & Genome Annotation August 2011–May 2012
Dr. Rodney King & Dr. Claire Rinehart | *SEA-PHAGES @ WKU* | Bowling Green, KY

- isolated a unique mycobacteriophage from the environment
- annotated a section of the genome of a mycobacteriophage with results published in GenBank

RESEARCH OUTCOMES

Tang, S., **Parrish, R.**, Buchman, A. S., De Jager, P. L., Bennett, D. A., Epstein, M. P., Yang, J. (October, 2020). Powerful variance-component method for TWAS identifies novel and known risk genes for Alzheimer's dementia [Poster Presentation]. ASHG Virtual Meeting 2020.

Staples, A. K., King, R. A., Doughty, M. A., **Parrish, M. L.**, Klann, J. K., Rinehart, C. A., ... Hatfull, G. F. (2017). Mycobacterium phage TinaFeyge, complete genome [Direct Submission]. GenBank: KY471266.1. <http://www.ncbi.nlm.nih.gov/nuccore/KY471266.1>.

POSTER PRESENTATIONS

Correlation of geographical distribution of mycobacteriophages with genomic clusters and genome distance <i>12th Annual UT-ORNL-KBRIN Bioinformatics Summit</i> Buchanan, TN Abstract: https://doi.org/10.1186/1471-2105-14-S17-A8	May 2013
Mycobacteriophage sub-cluster distribution and correlation to hydrologic regions <i>BISC and HPCC Research Symposium, WKU</i> Bowling Green, KY	November 2012

EMPLOYMENT

Research Assistant <i>YangLab, Emory University</i> Atlanta, GA	February 2020–Present
Small Group Tutor for Biostatistics & Microbiology <i>REACH Learning Resource Center, UofL</i> Louisville, KY	October 2016–April 2018
Emergency Room Scribe <i>Norton Healthcare & PhysAssist Scribes</i> Louisville, KY	May 2014–September 2014

PROFESSIONAL MEMBERSHIP

American Statistical Association Student Member; Member ID: 207482 • Attended JSM 2017 conference in Baltimore, MD • Attended JSM 2018 conference in Vancouver, CA	July 2017–Present
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COMMUNITY INVOLVEMENT

Humanitarian Emergencies Research Team (HERT) GEB Data Analysis and Visualizations Co-Lead <i>RSPH, Emory University</i>	October 2019–Present
Student Outbreak and Response Team (SORT) Member <i>RSPH, Emory University</i>	October 2019–Present
Summer Institute in Biostatistics (SIBS) Student <i>RSPH, Emory University</i>	June 2017–July 2017
Supplies Over Seas (SOS) Volunteer	July 2017

HONORS

• UofL Dean's List	Fall 2016, Spring 2017, Spring 2018
• UofL Dean's Scholar	Fall 2017
• Kentucky Educational Excellence Scholarship	2013, 2016, 2017
• NCWIT Aspirations in Computing Kentucky Affiliate	2013
• Everett E. Black Scholarship	2013
• Illinois Institute of Technology University Scholarship	2013
• Rose-Hulman Merit Scholarship	2013