Jonah E. Einson

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EDUCATION

Columbia University: New York, NY PhD Candidate: Biomedical Informatics Fall 2017 - Current

University of Massachusetts: Amherst, MA

Bachelor of Science: Biochemistry and Molecular Biology

Bachelor of Science: Mathematics - Statistics

Commonwealth Honors College

Fall 2013 - Spring 2017

 $Cum\ Laude$

RESEARCH **EXPERIENCE**

Department of Systems Biology, Rabadan Lab, Columbia University

Rotation Student - Spring 2018

Investigated viruses in the peripheral T-Cell lymphoma microenvironment, through genomic signatures.

Department of Systems Biology, Vitkup Lab, Columbia University

Rotation Student - Fall 2017

Studied the ecological dynamics of the human microbiome.

Department of Food Science, Sela Lab, UMass Amherst

Fall 2014 - Spring 2017, including summers

Conducted independent research in microbial ecology, genomics, and food related human health.

PUBLICATIONS Jonah E. Einson*, Asha Rani*, Xiaomeng You, Clifton L. Randell, Allison A. Rodriguez, Tammy Barnaba, Mark K. Mammel, Michael L. Kotewicz, Christopher A. Elkins, David A. Sela, "A vegetable fermentation facility hosts distinct microbiomes reflecting the production environment," Applied Environmental Microbiology (Awaiting submission)

> Xiaomeng You, Jonah Einson, Cynthia Lopez-Peña, Mingyue Song, Hang Xiao, Julian McClements, David Sela, "Food-grade cationic antimicrobial ε -polylysine transiently alters the gut microbial community and predicted metagenome function in CD-1 mice," npj Science of Food

CAPSTONE THESIS

J. Einson, X. You, C. Randell, A. Rodriguez, M. Kotewicz, C. Elkins, M. Mammel, C. Tartera, T. Barnaba, A. Kinchla, D. Sela, "The Environmental Microbiomes of an Industrial Food Fermentation Facility," Undergraduate Research Conference, University of Massachusetts, Amherst MA, April 2017

SELECTED POSTERS

- J. Einson, X. You, C. Randell, A. Rodriguez, M. Kotewicz, C. Elkins, M. Mammel, C. Tartera, T. Barnaba, A. Kinchla, D. Sela, "The Environmental Microbiomes of an Industrial Food Fermentation Facility," Strategic Research Alliance Exposition, University of Massachusetts, Amherst MA, April 2017
- J. Einson, X. You, C. Randell, A. Rodriguez, M. Kotewicz, C. Elkins, A. Kinchla, D. Sela, "The Use of Next-Generation Sequencing to Study Microbial Ecology in Industrial Food Production," CAFE Summer Scholars Poster Session, Amherst MA, September 2016
- J. Einson, X. You, H. Klein, A. Rodriguez, C. Randell, M. Bartlett, D. Sela, "Phyllosphere Microbial Ecology of Succulent Plants in a Greenhouse Environment," ASM Microbe Meeting, Boston MA, June 2016

TEACHING EXPERIENCE

Teaching Assistant

Biochem 526

Fall 2016

Amherst, MA

Assisted running a senior biochemistry lab course. Responsibilities included conducting prep work, aiding in experimental design, and reviewing students' writing.

Supplemental Instruction Leader

UMass Learning Resource Center

Spring 2014 - Fall 2016

Amherst, MA

Attended classes and held biweekly review sessions for Multivariate Calculus.

AWARDS AND

CAFE Summer Scholars Program Summer 2016 A program directed by the SCHOLARSHIPS Center for Agriculture, Food, and the Environment at UMass that provides students an opportunity to conduct research in a mentor's lab for the summer.

> American Society for Microbiology Undergraduate Research Fellowship Summer 2015 A national fellowship awarded to an undergraduate wishing to pursue a Ph.D. Included poster presentation and capstone program at the ASM Microbe Meeting, June 2016.

> Research Assistant Fellowship Spring 2016, Fall 2016 A grant presented by Commonwealth Honors College, to give a student the opportunity to explore independent research under the guidance of a faculty sponsor.

> College of Natural Sciences Dean's List All semesters Award for students who receive a cumulative GPA of 3.5 or greater.

PROFESSIONAL American Medical Informatics Association **MEMBERSHIPS**

Phi Kappa Phi Honors Society

American Society for Microbiology

SKILLS AND

Laboratory: General Biology Lab Techniques, DNA Extraction, PCR, etc. BACKGROUND Computer Programs: Microsoft Word, Power-point, Excel, Inkscape, LATEX

Coding Languages / Environments: R, Python, Perl, Unix

Bioinformatics: Extensive experience implementing open source analysis packages

on a shared computing cluster, and interpreting results

OTHER **ACTIVITIES** Group Leader for Teen Treks: Summer 2017 Led bike trips for small groups of high school aged teens. Responsibilities included planning activities, navigation, budgeting, bike mechanics, etc.