NOAH SIEGEL

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EDUCATION

University of California, Davis, Davis CA **Sept 18 - Nov 23**
PhD, Immunology; Minor: Bioinformatics
November, 2023
Advisor: Lisa Miller (PI)
GPA: 3.7

California State University, East Bay CA **Aug 15 - May 18**
BS, Biology; Minor: Chemistry
June, 2018
GPA: 3.7

SECURITY CLEARANCE

Secret

TECHNICAL STRENGTHS

Computer Languages: R, Bash, Python
Software & Tools: Snakemake, RShiny, AWS, Slurm, Docker, Git, LaTeX, Microsoft applications
Operating systems: Windows, Linux
Lab bench: DNA/RNA extraction, PCR, NGS Library prep

EXPERIENCE

Anaptysbio Apr 24 - Present

- Built pipelines to analyze genetic and proteomic data
- Provided bioinformatics support to project leads
- Maintained AWS instances for hosting internal and publicly available data analyses

General Dynamics Information Technology Dec 23 - Jan 24

- Contributed to large scale data analysis projects
- Assessed pathogen virulence factors from human samples
- Built whole genome sequencing pipelines

UC Davis Apr 19 - Dec 23

- Led epidemiological studies in rhesus monkeys
- Developed NGS workflows for transcriptomic analysis
- Conducted microbiome analysis in the rhesus monkey model
- Characterized the metabolic profile of the infant rhesus monkey gut microbiome using metabolomics

Tilden Prep Jun 18 - Sept 18

- Taught introductory Physics to High school students and led them through lab practicals

PEER REVIEWED PUBLICATIONS

1. NA Siegel, KA Thongphanh, LA Miller. Helicobacter *pylori* infection in infant rhesus macaque monkeys is associated with an altered lung and oral microbiome. *Scientific Reports* 2024

MANUSCRIPTS IN REVIEW/PENDING SUBMISSION

1. NA Siegel, KA Thongphanh, LA Miller. Effects of Environmental Change on Airway Sensitization: Recent Insights and Future Perspectives. *J Asthma and Allergy* 2025
2. NA Siegel, T Westmont, M Rolston, S Dandekar, H Deshmuhk, LA Miller Early-life antibiotic treatment results in persistent microbiome alterations in association with sex. *mSphere* 2025
3. NA Siegel, DT Dugger, V Kohli, H Ji, MD Pena-Ponce, J Ngo, and LA Miller Transcriptome Analysis of Postnatal Airway Epithelium Reveals a Gene Signature of Differentiation and Host Defense that is Distinct from Adult Airway Epithelium (journal TBD)

HONORS AND AWARDS

P51 Diversity Fellowship

RELEVANT COURSES

Core Courses
Advanced Immunology
Mucosal Immunology
Host-microbe Interactions

Other Courses
Bioinformatics
Biostatistics
Genomics
Single Cell RNA-Seq Analysis
Metagenomics and Metatranscriptomics

PRESENTATIONS AT SCIENTIFIC MEETINGS

1. Noah A. Siegel, Matt Ralston, Taylor Westmont, Alexa Rindy, Hitesh Deshmukh, Lisa A. Miller. *Effect of Neonatal Antibiotic Treatment on the Respiratory Microbiome: Altered Development and Sexual Dimorphism.* Presented at the 2022 American Thoracic Society international conference in San Francisco
2. Noah A. Siegel, Matt Ralston, Taylor Westmont, Alexa Rindy, Hitesh Deshmukh, Lisa A. Miller. *Effect of Neonatal Antibiotic Treatment on the Respiratory Microbiome: Altered Development and Sexual Dimorphism.* Presented at the 2022 Bay Area Microbial Pathogenesis Symposium
3. Noah A. Siegel, Matt Ralston, Taylor Westmont, Alexa Rindy, Hitesh Deshmukh, Lisa A. Miller. *Early Life Antibiotic Treatment Results in Both Transient and Persistent Changes to the Microbiome.* Presented at the 2021 American Thoracic Society international conference (virtual).
4. Noah A. Siegel, Matt Ralston, Taylor Westmont, Alexa Rindy, Hitesh Deshmukh, Lisa A. Miller. *Early Life Microbiome Perturbation Results in Persistent Composition and Functional Changes in Association with Sex.* Presented at the 2021 National Institute of Environmental Health Sciences Microbiome workshop (virtual).
5. Noah A. Siegel, Taylor Westmont, Hong Ji, Lisa A. Miller. *Muc5b Expression in Infant Airway Epithelium is Developmentally Regulated.* Presented at the 2020 University of California, Davis Lung Day conference (virtual).
6. Noah A. Siegel, Taylor Westmont, Daniel Dugger, Hong Ji, Vikram Kohli, and Lisa1 A. Miller. *Developmental Regulation of the MUC5B Mucin Sheds Light on Infant Susceptibility to Infection and reduced Host-defense During Early Life.* Presented at the 2020 American Thoracic Society international conference (virtual).

UNIVERSITY SERVICE

1. Positivity And Wellness for Students (PAWS) Committee — Oct 21 - Aug 23
2. Graduate Group in Immunology Executive Committee — Jun 20 - Jun 21
3. Graduate Group in Immunology Admissions Committee — Jun 19 - Jun 21

ADDITIONAL ACTIVITIES

1. Mentor-mentee coordinator, ESTEME
2. Volunteering experience at Holy Rosary Catholic School