

EDUCATION

University of Pittsburgh

PhD, Joint Carnegie Mellon - University of Pittsburgh Computational Biology

Pittsburgh, PA

2022 – Current

University of Washington

Graduate Certificate, Software Development and Design

Bothell, WA

2021 – Current

University of Washington

BS, Biochemistry, minor: Applied Math

Seattle, WA

2013 – 2017

RESEARCH EXPERIENCE

Seattle Children's Research Institute

Research Scientist II

Seattle, WA

2017 – 2022

- Genetic Risk Variants in Type 1 Diabetes
- SH2B3 T cell driven autoimmunity

University of Washington Pathology

Undergraduate researcher

Seattle, WA

2016 – 2017

- Mathematical modeling of aging + fitness in population dynamics
- The Hare that Never Got Caught: Age Structure in Predator-Prey Dynamics

University of Washington Pediatrics

Undergraduate researcher

Seattle, WA

2015 – 2017

- Gene discovery in epileptic encephalopathies
- Next generation sequencing and analysis

PUBLICATIONS

- [1] E. J. Allenspach *et al.*, “**Germline SAMD9L truncation variants trigger global translational repression**”, *Journal of Experimental Medicine*, vol. 218, no. 5, 2021.
- [2] E. J. Allenspach *et al.*, “**The autoimmune risk R262W variant of the adaptor SH2B3 improves survival in sepsis**”, *The Journal of Immunology*, vol. 207, no. 11, pp. 2710–2719, 2021.
- [3] A. S. Chau *et al.*, “**Heme oxygenase-1 deficiency presenting with interstitial lung disease and hemophagocytic flares**”, *Pediatric Rheumatology*, vol. 18, no. 1, pp. 1–9, 2020.
- [4] S. Petrovski *et al.*, “**Germline de novo mutations in GNB1 cause severe neurodevelopmental disability, hypotonia, and seizures**”, *The American Journal of Human Genetics*, vol. 98, no. 5, pp. 1001–1010, 2016.

SKILLS

- **Next Generation Sequencing:** Library preparation, Pipeline development and documentation
- **Genetic Engineering:** CRISPR-Cas9 and lentiviral methods in mammalian cells
- **Molecular Biology:** Quantitative gene expression (qPCR, western blot), multi-color (12+) flow cytometry, mammalian tissue culture and protein engineering/production

SCRIPTING LANGUAGES

- **Python**
- **R**
- **C++**
- **Matlab**
- **HTML/CSS**
- **Java**
- **Javascript**

TEACHING & LEADERSHIP

- **Staff Advocate** at Seattle Children's Research Institute
Research Staff Development Committee 2017 – 2022
- **Peer Teaching Assistant** at University of Washington
Plant and Animal Physiology (BIOL 220) Fall 2015