Andrew Hederman

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Education
Dartmouth College (Hanover, NH)
- Biological Engineering Ph.D. Candidate   **2019-Present**
- Advisor: Margaret Ackerman, Ph.D.

University of Connecticut (Storrs, CT)
- B.S. Biomedical Engineering   **2017**

Professional Experience

Dartmouth College (Hanover, NH)

My research is focused on computational immunology to understand infectious diseases. My research uses computational methods including deep learning and machine learning to develop predictive models for patient responses to vaccine and antibody therapies using a variety of large biological datasets. My work focuses on applying cutting edge deep learning approaches to further understand the antibody response to infectious diseases to inform new therapeutic development.

Kite, A Gilead Company (Gaithersburg, MD)   **2018-2019**
Senior Research Associate, Cell Biology

Was involved in the development of a new site for Kite focused on personalized neoantigen T cell therapies for patients with solid tumor cancers. A member of the TCR bioassay team which is tasked to screen, characterize, validate, and prioritize neoantigen specific TCRs. This involves TCR identification, TCR specificity and functionality determination, viral generation and production, and further in vitro functional testing of engineered TCRs.

Kite, A Gilead Company (Santa Monica, CA)   **2017-2018**
Research Associate, T Cell Biology

Performed research as a member of the T Cell Biology team working on the development of numerous CAR T cell products. Work included full in vitro characterization of CAR T cells including CAR T cell generation, functional characterization assays. Research projects included T cell biology discovery experiments alongside pipeline candidate experiments.

Merrimack Pharmaceuticals (Cambridge, MA)   **Summer 2016**
Immuno-Oncology Research Intern

Conducted immuno-oncology research. Developed all necessary experimental protocols, conducted various in vitro and in-vivo experiments, examined human primary specimens, and conducted data analysis to present results at weekly meetings. Research included cell culture, automated liquid handler technology, human whole blood purification, primary cell culture, flow cytometry, Luminex, use of electronic lab notebook, and data analysis using FlowJo, R, Excel, and MATLAB.

Academic Research Experience (Storrs, CT)   **2013-2017**

Conducted immuno-oncology research in the Wiemer Lab (Dr. Andrew Wiemer) at the University of Connecticut School of Pharmacy. Research concentrated on immunotherapy with a specific focus on cancer malignancies. Research implemented cell culture, primary cell culture, flow cytometry, western blots, ELISA, and BSL 2 lab practices.

Technical Skills
Coding Languages: Python, R, C++, C, Bash Scripting, Linux HPC Clusters
Other: Deep Learning (PyTorch/TensorFlow)**,** Machine Learning, Bioinformatics, Multivariate Statistics