

Benjamin P. Foster

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Academic and Professional Work Experience

Histology Research Technician — Janelia Research Campus, Ashburn, VA (January 2019 - Present)

- Developed skills in Python programming, animal handling, perfusion, sectioning, dissections, immunohistochemistry, *in-situ* hybridization, expansion microscopy, tissue clearing, protocol development, results presentation, protocol development, and confocal microscopy

Study Support Associate — Charles River Labs, Frederick, MD (June 2016 - January 2019)

- Provided husbandry support for ~500 lines of transgenic zebrafish.
- Developed skills in microinjections and colony management

Undergraduate Researcher — Katie Wiens' Lab, Christopher Newport University (August 2012 - May 2015)

- Developed skills in colony management, dissections, tissue processing, experimental design, results presentation
- Synthesized and presented results at the Society for Neuroscience undergraduate poster session

Education

B.S. in Neuroscience — Christopher Newport University, Newport News, VA (2015)

Research Publications

Isabel Espinosa-Medina, Daniel Feliciano, Carla Belmonte-Mateos, Rosa Linda Miyares, Jorge Garcia-Marques, **Benjamin Foster**, Sarah Lindo, Cristina Pujades, Minoru Koyama, Tzumin Lee. TEMPO enables sequential genetic labeling and manipulation of vertebrate cell lineages, *Neuron* (2022), <https://doi.org/10.1016/j.neuron.2022.10.035>

Conference Presentations

Generation of a transgenic rat for inactivation of neuronal regions. Oral presentation. Janelia Association of Research Scientists Summer Retreat 2019

Neural Innervation of Zebrafish Heart. Poster. 2014 Society for Neuroscience Faculty for Undergraduate Neuroscience

Teaching Experience

- 2021 – Present **Volunteer Educator** - RESET: Raise Excitement for Science, Engineering, and Technology, worked with primary school students in local schools with hands on experiments
- 2019 - 2020 **Volunteer Educator** - Elevating Quality Of Life Skills, Sarah Ali Svoboda, worked with immigrants to develop English fluency and practical life skills

Research Interests

- Decision Making
- Systems Neuroscience
- Brain-Machine Interfaces
- Chronic Neural Interfaces
- Neural Prosthetics
- Sensory-Motor Learning

Research Projects

- Generation of a transgenic rat line for inactivation of neuronal regions.
- Visualization and manipulation of vertebrate cell lineages through sequential genetic labeling in a CRISPR/Cas9 and gRNA cascade system.
- Innervation of Zebrafish Hearts and the Possible Implications of Nervous Pathway Presence on Cardiac Regeneration.

Honors and Awards

- Christopher Newport University Travel Award (2014)