

NanoDay 2022
Friday, October 14, 11-11:40 (Zoom)

PhD Student Panel: Discovering stem cells to coding to quantum

Moderator: Kristin Field, Director of Education and Professional Development at the Singh Center for Nanotechnology

Different careers require different amounts of education. After a college undergraduate degree, some people go on to study in PhD programs to learn how to be experts in specific areas of science, technology, engineering and math (STEM). This type of graduate training allows students to focus on particular STEM topics of interest and to learn how to be expert researchers in something new to the world.

Meet four students who are working on their PhD degrees in engineering. They will share a little bit of their STEM passion and highlight interesting components of their chosen fields.

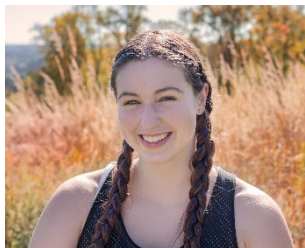
This session is appropriate for anyone interested in learning a little about how things are discovered in STEM and meeting students who will contribute to the future discoveries of our world.



Joseph Lance Casila

Session focus: Using stem cells for tissue engineering/regenerative medicine

Joseph is currently a 2nd year PhD Bioengineering student at Penn. I do most of my experiments at the Children's Hospital of Philadelphia. I came from a tiny island in the Pacific called Guam where I majored in Chemistry, Math, and Biology. Outside of academics, I like to play tennis, go canoeing/kayaking (back when I was in Guam), and karaoke.



Anastasia (Anna) Neuman

Session focus: Coding STEM: how technology is pushing scientific discovery forward

Anna is currently in the 4th year of her PhD in Chemical Engineering. She is from Maryland, but is a born and raised Eagles fan (go birds!) and loves cooking, reading, and playing field hockey. Her father works as a chef and her mother works as a middle school history teacher, so they were both surprised when she went into STEM, but she is so glad she did! Anna's PhD work is in computational polymer physics (which she will explain more in her presentation!), but she has also worked for a biotechnology company trying to cure neurodegenerative diseases and a government lab creating treatments for nerve agent poisoning.

Noah Johnson and Nima Leclerc

Session focus: Scaling quantum technologies of the future



Noah Dylan Johnson is an engineer and physicist whose research focuses on nanofabrication of devices that utilize quantum mechanics to perform computation in new and fascinating ways. He is currently a graduate student at The University of Pennsylvania in Electrical and Systems Engineering. Previously he received a Master's degree from the University of Chicago in Molecular Engineering, a Fulbright Research Scholarship in Australia focused on quantum engineering, and a Bachelors of Science from the University of Wisconsin at Madison in Physics and Mathematics. Outside of the lab, Noah enjoys spending time with his dog, Daisy, growing vegetables and mushrooms in his apartment, and playing basketball at courts around the city.



Nima Leclerc is a PhD student and Dean's Fellow in electrical engineering at the University of Pennsylvania. His research focuses on the development of scalable silicon-based quantum processors with applications in efficient drug and protein design. Leclerc graduated with a B.S. in materials science and engineering from Cornell University in 2020. During his time at Cornell, he worked at Caltech, Lawrence Berkeley National Laboratory, and the startup companies PsiQuantum and Kepler, developing next-generation quantum technologies. During the COVID-19 pandemic, he co-founded the non-profit #savethefrontline to distribute PPE to underserved communities in New York City.