



INSTITUTE FOR NANO-ENGINEERED SYSTEMS



NSF to fund revolutionary center for optoelectronic, quantum technologies

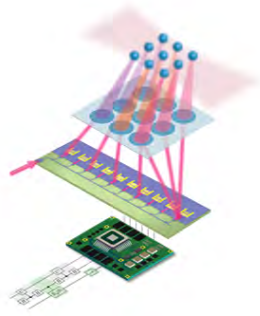
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[NanoES welcomes new faculty](#)

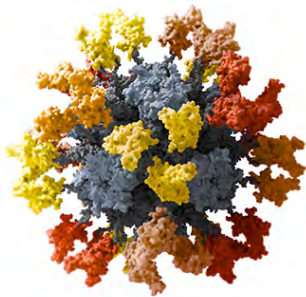
NanoES is thrilled to welcome eight new faculty members for the 2021-22 academic year. With research ranging from the development of bio-inspired, lightweight sensors to engineering infrastructure for quantum systems, these faculty members are poised to help develop solutions to grand challenges in information processing, energy, health, and interconnected life.

RESEARCH HIGHLIGHTS



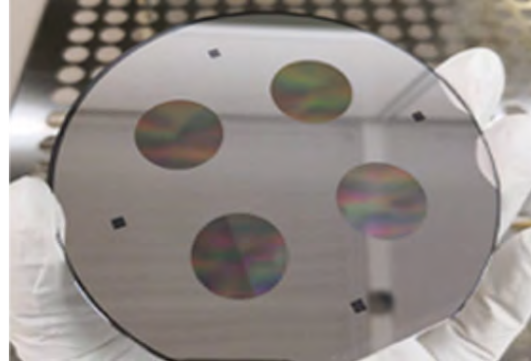
[UW-led team receives \\$5M award to help bring quantum computing into the real world](#)

A multi-institutional research team led by Electrical & Computer Engineering Professors [Mo Li](#), [Arka Majumdar](#) and [Karl Böhringer](#) is developing a powerful, miniaturized optical control engine, called PEAQUE, which will greatly increase capacity and speed of quantum computers.



[Antibody findings spark ideas for pan-coronavirus vaccine](#)

[David Veessler](#) and his team published a paper in the journal *Science* characterizing a rare human antibody that can neutralize several different coronaviruses and might aid in the design of a broadly protective beta-coronavirus vaccine.



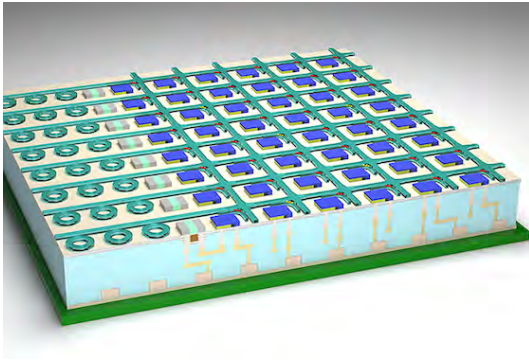
[Small Business awards from DARPA and NASA fuel growth of UW spinout Tunoptix](#)

The Seattle-based optics startup, co-founded by Karl Böhringer and Arka Majumdar, is developing next-generation meta-optics imaging systems for use on satellites or aircrafts where weight, size and power are critical.



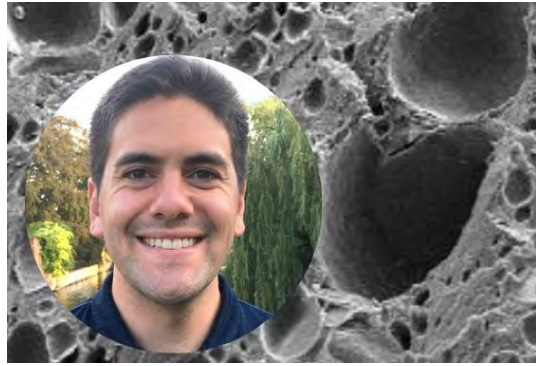
[Tiny structures, big impact](#)

[Miqin Zhang](#) is working to improve cancer treatment with nanoparticles made from the same material found in crustacean shells.



[Bringing light into computers to accelerate AI and machine learning](#)

Mo Li is part of a multi-institutional research team, which has received a four-year grant from the NSF to develop a new type of computer chip that uses laser light for AI and machine learning computation.



[New funding for nano-bubbled plastics](#)

A team led by Mechanical Engineering Professor [Lucas Meza](#) was awarded an NSF research grant to study and develop nanostructured foam plastics that are both light and tough.

CONGRATULATIONS



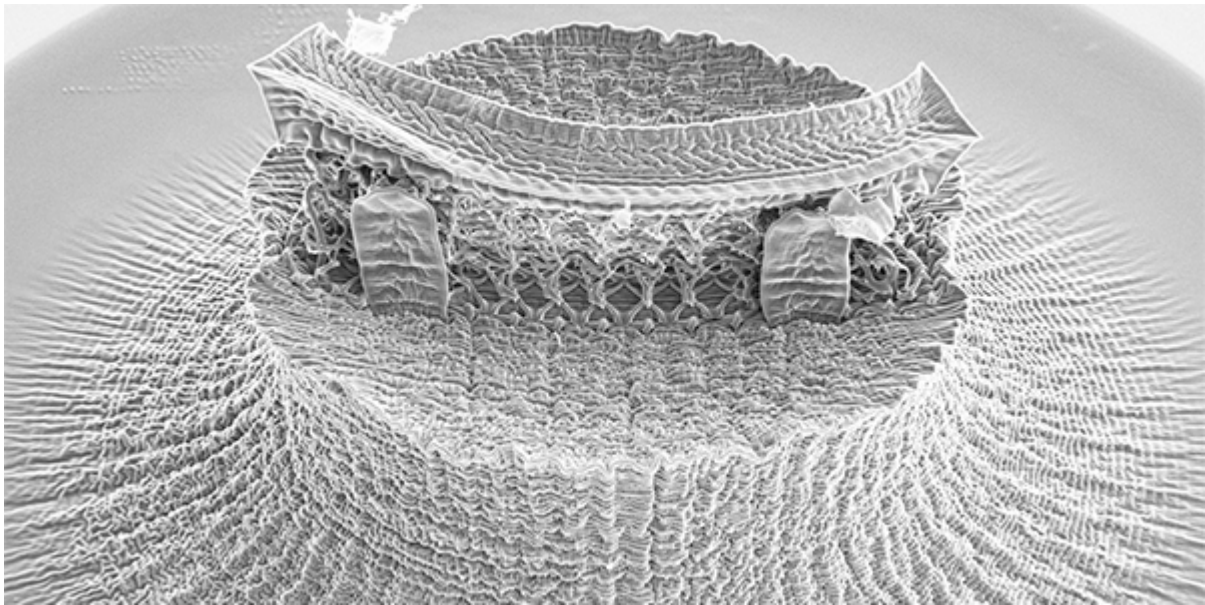
[David Veesler named Howard Hughes Medical Institute investigator](#)

Veesler's lab studies the structure and function of macromolecular complexes involved in the pathogenesis of infectious diseases to provide avenues for creating vaccines and therapeutics.



[Matthew Yankowitz wins NSF CAREER Award](#)

The five-year award will provide funding to support Yankowitz's research investigating and controlling novel topological states of matter in twisted van der Waals heterostructures.



Celebrating beauty at the nanoscale

Zainab Patel, a graduate student in Lucas Meza's mechanical engineering lab, received an honorable mention for her submission - Nano wrinkled head - to the 2021 National Nanotechnology Coordinated Infrastructure 'Plenty of Room at the Bottom' image contest!

RECENT PUBLICATIONS

[Long wavelength infrared imaging under ambient thermal radiation via an all-silicon metalens](#)

Optical Materials Express

[The 2021 flexible and printed electronics roadmap](#)

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[1D Self-Healing Beams in Integrated Silicon Photonics](#)

ACS Photonics

[Injectable Natural Polymer Hydrogels for Treatment of Knee Osteoarthritis](#)

Advanced Healthcare Materials

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