



INSTITUTE FOR NANO-ENGINEERED SYSTEMS

WINTER 2022

A FORCE FOR REPRODUCIBLE SCIENCE

The UW Biofabrication Center is partnering with Agilent Technologies in pursuit of automated, reproducible research.

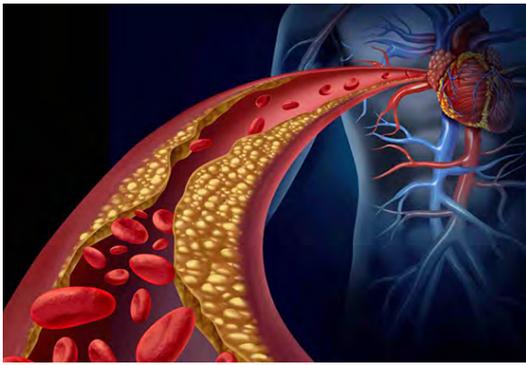
LEARN MORE



[NanoES faculty among world's most influential researchers](#)

UW professors David Baker, David Cobden, David Veessler and Xiaodong Xu make Web of Science's 2021 list of Highly Cited Researchers.

RESEARCH HIGHLIGHTS



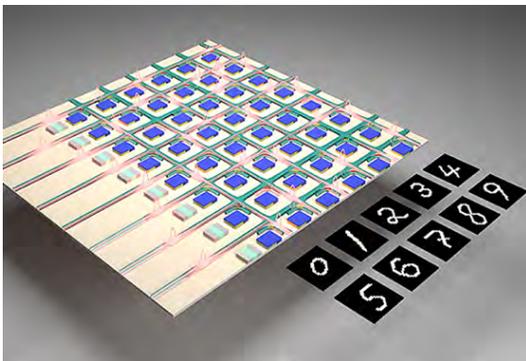
[UW researchers developing miniaturized imaging device to treat heart attack, stroke](#)

An interdisciplinary research team, led by Electrical and Computer Engineering Professor [Arka Majumdar](#), was awarded \$3.6 million in funding from the National Science Foundation to use meta-optics to develop a dramatically smaller endoscope that can image previously inaccessible areas of the heart and brain.



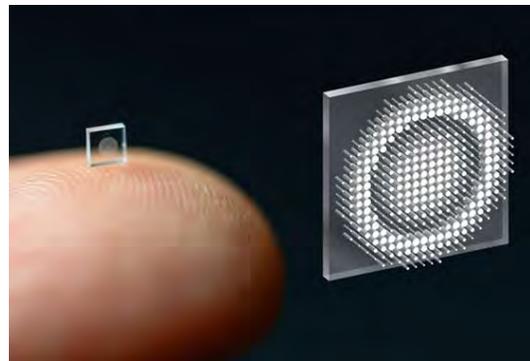
[Fast, cheap test can detect COVID-19 virus' genome without need for PCR](#)

Bioengineering Professor [Barry Lutz](#) and his research team have developed a new test for COVID-19 that combines the speed of over-the-counter antigen tests with the accuracy of PCR tests that are processed in medical labs and hospitals.



[Harnessing noise in optical computing for AI](#)

Researchers in the lab of ECE Professor [Mo Li](#) have developed a way to use stray photons generated by optical computing lasers ("noise") to help enhance the creativity of artificial intelligence and potentially reduce the environmental impacts of AI and machine learning.



[Researchers shrink camera to the size of a salt grain](#)

Researchers at the UW and Princeton University have developed an ultracompact camera that relies on metasurfaces, fabricated at the [Washington Nanofabrication Facility](#), to produce full-color images on par with a conventional camera lens 500,000 times larger in volume.



Wearable device can detect and reverse opioid overdose

UW researchers, including Allen School Professor [Vikram Iyer](#), developed a prototype device that can recognize respiration patterns and administer naloxone, a potential antidote.



Nanotechnology startup Somalytics aims to detect eye and body movement using sensors embedded in paper

The company has developed ultrathin, flexible sensors built from tiny carbon nanotubes.

CONGRATULATIONS



Mo Li named 2021 Optica Fellow

Li is recognized for contributions to nanophotonics, optomechanics and integrated acousto-optics.



Arka Majumdar named iCANX young scientist

This annual award recognizes a select group of young scientists who have made outstanding contributions on a global scale in frontier fields like microelectronics, information technology, new materials, biomedicine, intelligent manufacturing, Internet of Things, and artificial intelligence.

WASHINGTON NANOFABRICATION FACILITY



Northwest Nanotechnology Infrastructure announces seed grant

Select recipients will receive grants of up to \$10k for work to be conducted in the Washington Nanofabrication Facility or the Molecular Analysis Facility at UW. Open to new academic users. Apply by March 1, 2022.

RECENT PUBLICATIONS

[IMPDH1 retinal variants control filament architecture to tune allosteric regulation](#)

Nature Structural & Molecular Biology

[Neural nano-optics for high-quality thin lens imaging](#)

Nature

[Iron oxide nanoparticle targeted chemo- immunotherapy for triple negative breast cancer](#)

Materials Today

[Harnessing optoelectronic noises in a photonic generative network](#)

Science Advances

[Functional liquid metal nanoparticles: Synthesis and applications](#)

Materials Advances



[CONTACT US](#) | [PRIVACY](#) | [TERMS](#)

© 2022 Institute for Nano-Engineered Systems | Seattle, WA

This email was sent to corinsr@uw.edu
[Unsubscribe or change your email preferences](#)