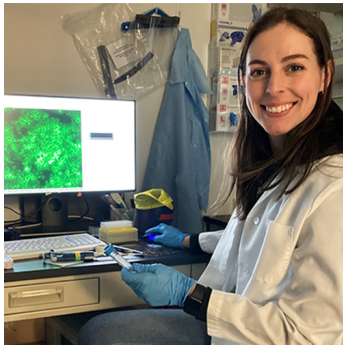


Q&A: How a potential treatment for Alzheimer's disease could also work for Type 2 diabetes

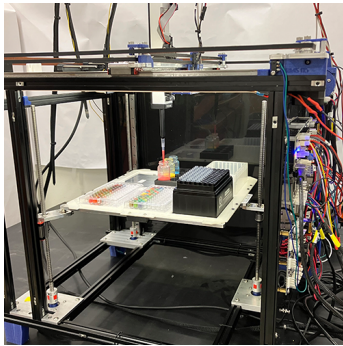
Researchers at the University of Washington, including faculty and students in MoIES, found links between Type 2 diabetes and Alzheimer's disease, which could indicate new therapeutic possibilities in the future.

AI shown to dramatically speed protein engineering

Protein engineering scientists have been able to use machine learning to design proteins that are more



efficient at performing a biochemical task. This approach shortened a process that typically takes months to years of trial and error.



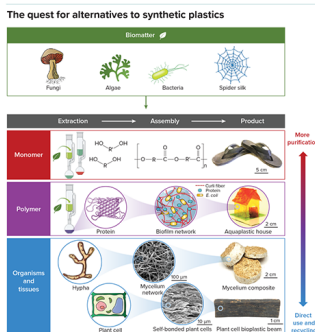
Recruiting robots for materials discovery

Chemical engineers in the Pozzo Research Group are using open-source tools to build modular robots that can run multiple functions of complex experiments. This customizable framework helps alleviate the cost barrier of purchasing multiple, single-purpose commercial machines.



Q & A with a Molecular Engineering graduate student: Abdul Moez

Molecular Engineering graduate student Abdul Moez came to UW to advance materials for clean energy. Through unique training opportunities in data science and access to state-of-the-art research facilities, he's developing autonomous systems to accelerate the fight against climate change.

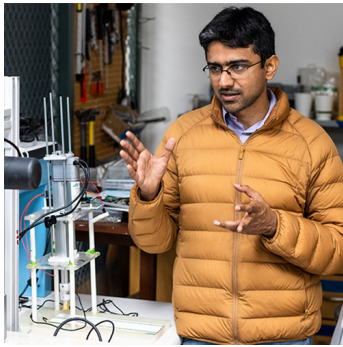


What will it take to make truly compostable plastic?

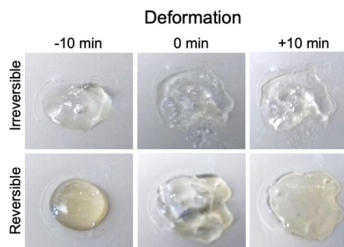
Popular Science -- Materials scientists are cooking up environmentally friendly polymers from natural sources like silk, plant fibers and whole algae. Economics and acceptance remain hurdles.

Advancing clean manufacturing research

ME researchers will work on projects funded by the U.S.



Department of Energy that could improve the manufacturing of composites and electric vehicle batteries.



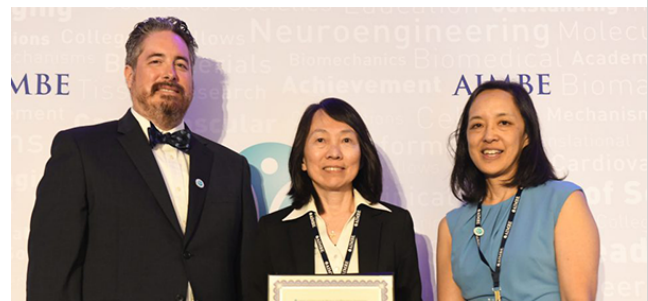
Using computers to design proteins allows researchers to make tunable hydrogels that can form both inside and outside of cells

When researchers want to study how COVID makes us sick, or what diseases such as Alzheimer’s do to the body, one approach is to look at what’s happening inside individual cells. New research led by the University of Washington demonstrates a new class of hydrogels that can form not just outside cells, but also inside of them.

CONGRATULATIONS

Lih Lin inducted into the 2024 class of the AIMBE College of Fellows

Lih Lin, a Molecular Engineering & Sciences faculty member and Electrical & Computer Engineering professor, was inducted into the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows last month.



Waste Reduction Shines at 2024 Alaska Airlines Environmental Innovation Challenge

The C1-Bio team, with MoIE student Ryan Cardiff, won the \$10,000 Herbert B. Jones Foundation Second Place Prize at the 2024 Alaska Airlines Environmental



Innovation Challenge (EIC)
for creating technology that converts
carbon dioxide emissions from industrial
waste into valuable chemicals in a
sustainable way.

PUBLICATIONS

[Mannosylated STING Agonist Drugamers for Dendritic Cell-Mediated Cancer Immunotherapy](#)

ACS Publications

[Organic Electro-Optics and Optical Rectification: From Mesoscale to Nanoscale Hybrid Devices and Chip-Scale Integration of Electronics and Photonics](#)

ACS Publications

[Electrohydrodynamic printing-based heterointegration of quantum dots on suspended nanophotonic cavities](#)

Advanced Materials Technology

[Genetically encoded XTEN-based hydrogels with tunable viscoelasticity and biodegradability for injectable cell therapies](#)

Advanced Science

[Perspective: Nanophotonic electro-optics enabling THz bandwidths, exceptional modulation and energy efficiencies, and compact device footprints](#)

APL Materials

[High throughput multiplexing reactor design for rapid screening of atomic/molecular layer deposition processes](#)

*Journal of Vacuum Science and Technology A**

[Engineering native biological complexity from the inside-out and outside-in](#)

Nature Chemical Engineering

[Machine learning-guided engineering of genetically encoded fluorescent calcium indicators](#)

Nature Computational Science

[Irreversible light-activated SpyLigation mediates split-protein assembly in 4D](#)

Nature Protocols

[CRISPR-Cas tools for simultaneous transcription & translation control in bacteria](#)

Oxford Academic

[De novo design of modular protein hydrogels with programmable intra- and extracellular viscoelasticity](#)

PNAS

[Bacterial cellulose nanoparticles as a sustainable drug delivery platform for protein-based therapeutics](#)

Royal Society of Chemistry

[Liver-targeted polymeric prodrugs of 8-aminoquinolines for malaria radical cure](#)

Science Advances

[Hierarchical assembly of peptoids on MoS₂](#)

ScienceDirect

[Nanofluidic delivery implant sustains localization and maximizes efficacy of intratumoral immunotherapy](#)

Science Direct

*Featured in the AVS April 2024 newsletter

Molecular Analysis Facility

Check out all of the Molecular Analysis Facility capabilities and prices [here](#). Contact uwmaf@uw.edu about working with us!



UW HOME

MOLES INSTITUTE

MAF



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

© 2025 Molecular Engineering & Sciences Institute 4000 15th Ave NE | Seattle, WA 98195

This email was sent to
[Unsubscribe or change your email preferences](#)