



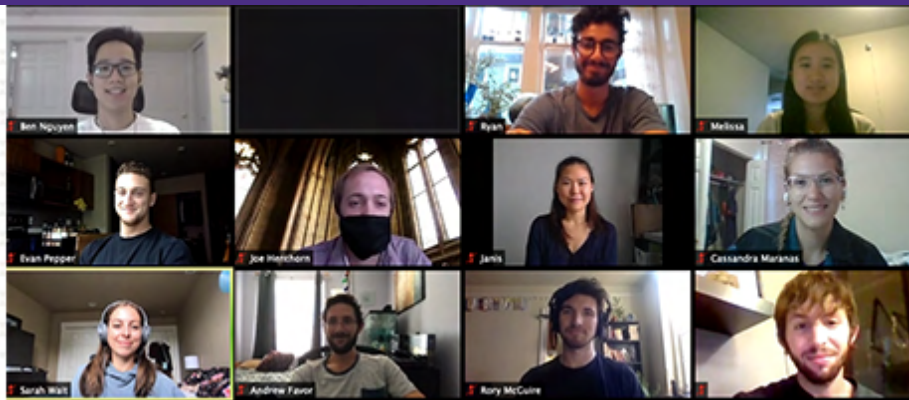
UNIVERSITY of WASHINGTON



MOLECULAR ENGINEERING & SCIENCES INSTITUTE

FALL 2020

## INSTITUTE NEWS

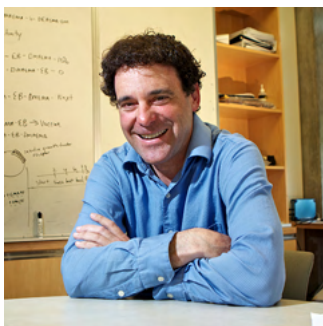


### UW MoIE welcomes new Ph.D. cohort

We are thrilled to welcome our newest cohort of MoIE doctoral students to the UW! Though this might not be the circumstances under which they envisioned starting graduate school, we applaud them for their resilience and flexibility.

[MEET THE 2020 COHORT](#)





### **Perspective: Think small for big impact**

MoES director [Patrick Stayton](#) and University of Chicago Pritzker School of Molecular Engineering dean Matt Tirrell discuss the impact of, and the need for, interdisciplinary molecular engineering programs in a [perspective for the journal \*Advanced Functional Materials\*](#).

## DIVERSITY, EQUITY & INCLUSION AT MOES



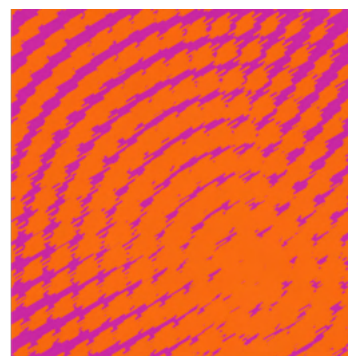
### **“Experiences of Black STEM in the Ivory” event examines inequities, calls for action**

Five institutions, including MoES, organized a virtual conference on racial inequity in STEM. Students, faculty and staff shared their perspectives on the barriers facing Black scholars and inspired participants to act.



### **What needs to change in academia to increase the number of Black scientists and engineers?**

According to MoES faculty member and chemical engineering professor James Carothers, there are several things faculty can do to help, including changing how impact is evaluated, making diversity efforts everyone’s job, and holding institutions accountable.

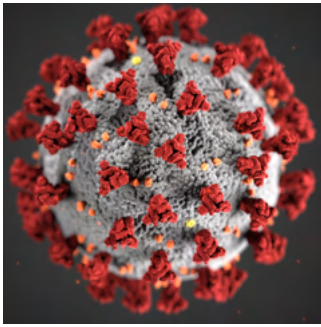


### **Amplified: Race and reality in STEM**

We are collaborating with the Gladstone Institutes on a new seminar series that gives speakers a national platform to have candid conversations around race and diversity in STEM fields.

Past seminars include [Gaslighting in the Academy](#) and [How Racialized STEM Education Stifles Innovation](#).

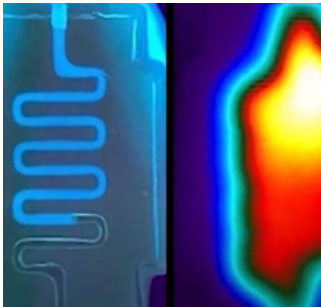
## RESEARCH HIGHLIGHTS



### **MoIES faculty receive NSF EAGER award to develop new SARS-CoV-2 antibody test**

A team lead by chemical engineering professor [James Carothers](#) and chemistry professor [Jesse Zalatan](#), will create an inexpensive, highly-accurate platform to rapidly detect SARS-CoV-2-specific antibodies in patient samples, helping public health officials track the spread of COVID-19, respond to outbreaks, and support the development of diagnostics, treatments, and vaccines.

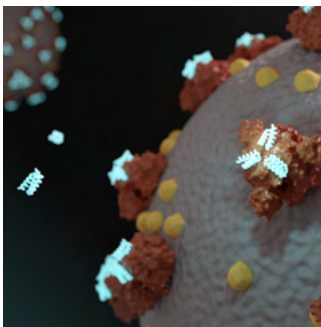
[NSF Award](#) | [MoIES Announcement](#)



### **Can 3D printing and heat be used to drive genetic wiring of artificial tissues?**

Bioengineering professor [Kelly Stevens](#) and colleagues created a new tool to control gene expression in 3D-printed genetically-engineering cells using heat.

[Science Advances](#) | [UW Medicine Newsroom](#)



### **De novo design of SARS-CoV-2 miniprotein inhibitors**

Researchers in the [Baker lab](#) designed synthetic proteins to bind the Spike protein on SARS-CoV-2 which could be developed into COVID-19 therapeutics.

[Science](#) | [Institute for Protein Design Release](#)

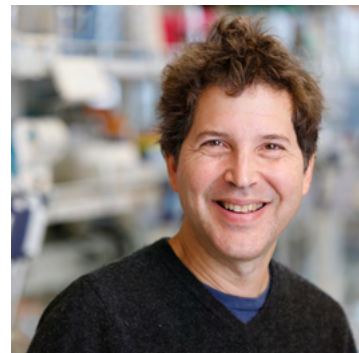
## CONGRATULATIONS



**[Christine Luscombe](#)**



**[MoIE alum receives](#)**



**[David Baker awarded](#)**

### [elected to Washington State Academy of Sciences](#)

Luscombe was recognized for her considerable research contributions, including the development of controlled polymerization reactions for conjugated polymers for organic electronics applications.

### [Graduate School Dissertation Award](#)

[Dr. Dan Lee](#) was awarded the 2020 Distinguished Dissertation Award in mathematics, physical sciences and engineering from the UW Graduate School for his dissertation, "Synthesis of novel backbone functional polymers."

### [Breakthrough Prize in Life Sciences](#)

[UW Institute for Protein Design](#) director David Baker was recognized for developing technology to design of proteins never seen before in nature, including novel proteins that have the potential for therapeutic intervention in human diseases.

## MOLECULAR ANALYSIS FACILITY



### **From clean energy postdoc to microscopy and nanomechanical testing expert**

MAF staff scientist Dr. Micah Glaz shares how he's helped MAF users characterize nanomaterials and COVID's impact on the facility. [Check out our Q&A with Micah.](#)



### **UW nanotechnology infrastructure gets a boost from National Science Foundation**

NSF awarded the UW and Oregon State University a [five-year \\$5 million grant](#) to support nanofabrication and nano characterization facilities.

## UPCOMING EVENTS

### **October 8 | Molecular Engineering Poster Session**

MoES, University of Chicago's Pritzker School of Molecular Engineering, and the Royal Society of Chemistry are hosting a virtual poster session via Twitter for molecular engineering researchers to share their work, network, and engage in scientific discussions. [DETAILS](#)

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**October 13, 1 – 2:20 PM PDT | Special Seminar: DEI efforts in MoIES**

The newly formed MoIES Diversity Committee is hosting a seminar to provide MoIES students, faculty and leadership with the opportunity to openly discuss diversity, equity, and inclusion (DEI) as it pertains to the Molecular Engineering Ph.D. program. Attendance limited to MoIES faculty and students.

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**October 21, 10 – 11 AM PDT | Cultural Tax: The cost of being the only or the few**

In this latest event from the [Amplified series](#), Tyrone Porter, professor of Biomedical Imaging and Instrumentation Cellular and Biomolecular Engineering at UT Austin, shares what he’s learned about an often invisible price Black STEM students and professionals pay when entering spaces. [REGISTER](#)



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