



TEAM **M** MSE

Here comes the sun

Yes, lots of sun and warmer temps are in this and next weeks' forecasts, so hope you can get out and enjoy it a little (safely, of course!). Speaking of Covid, cases on campus are finally on a downward trend(!), so keep up the good work. More bright news: We're excited to announce an exclusive MSE screening of "Picture a Scientist" on Friday, March 12. The film explores gender inequity in the sciences, an obviously important topic. We strongly encourage everyone to watch it. We also have your list of fun and enlightening YouTube and TikTok videos in "MSE Recommends."

So many "sun-sational" things to check out in this issue...

Questions, comments or ideas for TeamMSE? Contact Kristen at krisfres@umich.edu.

We'd love to hear from you!



Campus COVID Status

Cases on campus are decreasing!

Over the past week, U-M COVID-19 cases reversed course and started decreasing. This is obviously great news, **but we're still not out of the woods yet**, so keep up the good work and continue to [get tested regularly through U-M resources](#). This coincides with a similar positive trend occurring statewide, with new cases and positivity rates among the lowest in the country.

Covid vaccine Q&A

In case you missed it, there's a Q&A in today's University Record with two U-M professors of pharmacy who define basic vaccine terms, and how they relate to the Covid virus and vaccines. Check it out [here](#).

Testing available at Pierpont

Convenient, saliva-based testing is available at **Pierpont Commons**,
Boulevard Room (1st floor Mezzanine behind Fireside Cafe) **Monday-Friday**,
9:00 a.m.-4:30 p.m.

[Click here for U-M's COVID-19 Dashboard](#)

Upcoming Events



Seminar Lecturer this Friday: ChE's Xiwen Gong

A ChE assistant professor with a courtesy appointment in MSE, Xiwen Gong will present "Low-dimensional Quantum Emitters and Devices: New Perspectives in Generating Light," this Friday, March 5 at 10:30 a.m.

umich.zoom.us/j/99157594111,
passcode 985079

Jiseok Gim PhD defense: Friday, March 5

A member of the Hovden lab, Jiseok Gim will present "Hierarchical Nanostructure of Natural Biominerals and Man-made Semiconductors" on Friday, March 5, at 1:30 p.m.

Zoom link:

umich.zoom.us/j/97861640341,

passcode 749646

Best of luck, Jiseok!



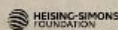
An MSE Exclusive! Screening of "Picture a Scientist" - Friday, March 12



PICTURE A SCIENTIST



AN UPRISING PRODUCTION | IN ASSOCIATION WITH THE WONDER COLLABORATIVE | A FILM BY SHARON SHATTUCK AND IAN CHENEY - PICTURE A SCIENTIST
EXECUTIVE PRODUCER AMY BRAND | EDITED BY NATASHA BEJU | CO-PRODUCERS RENE YADAO AND OLUWASEUN BABALOLA
PRODUCED BY MANETTE POTTLE, IAN CHENEY, SHARON SHATTUCK | DIRECTED BY IAN CHENEY AND SHARON SHATTUCK



pictureascientist.com

Illustrations by Sean McElroy | Poster Design by Ed Morgan

Assistant Professor Ashwin Shahani is hosting a screening of "Picture a Scientist," a film that explores gender inequity across the sciences and the vast challenges facing women and minority scientists. Despite groundbreaking

efforts by the courageous scientists featured in the film and elsewhere, systemic gender bias and racism persist. The goal in making the film was to raise visibility around these critical issues of diversity, equity, and inclusion in science and invite viewers into a deeper conversation about how to make science more inclusive.

[Register by Tuesday, March 9](#) to receive a link to the film that you can watch anytime on Friday, March 12.



Funny

[Honest Trailers](#) - hilarious trailers that tell you the truth about your favorite movies!

[N2 the Talking Cat](#)

[The Wicked Witch of the East, bro!](#)

[That's Just My Baby Dog](#)

Other

[Exploring rare grooves on vinyl](#) - international and historically themed music playlists

[Food wishes](#) - recipe videos

[In a Nutshell series](#) - focuses on minimalist animated educational content, using the flat design style. It discusses scientific, technological, political, philosophical and psychological subjects.

[Inside Edition](#) - often features short, "heart-warming/good news" clips

[Follow @professorbren on TikTok](#)

***Next week's **MSE Recommends** will feature favorite Books.
Add your top reads to the list [here](#).





Dr. Paul Krajewski, a triple MSE alum (BSE '89, MSE '91 and PHD '94) was recently featured on Michigan Alumni's Story Time reading his second children's book, "What's in Your Body?" Krajewski, director of global research and development at General Motors, also wrote "What's in Your Car?" He said he wrote both books to "get kids excited about science and technology." MSE alums truly can do it all!!

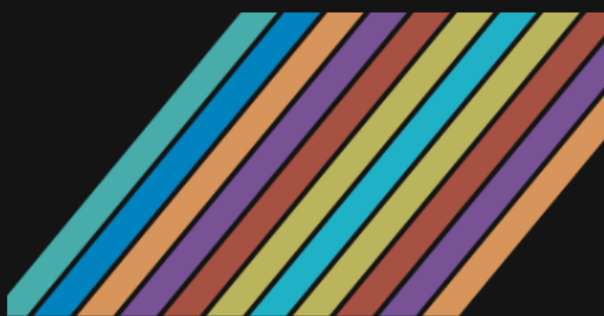


Katharina Maisel (BSE '10), now an assistant professor in the Bioengineering Department at the University of Maryland, recently received an NSF Early CAREER Award. Katharina earned a Ph.D. in biomedical engineering in 2014 from Johns Hopkins University. Her interdisciplinary training combines nanotechnology, mucosal immunology, lymphatic immunology, and immunoengineering. While at U-M she worked in the Kim lab.

DEI News

The next **MSE DEI: Tea Time Tangent** will be **Friday, March 5, from 2-3:00 p.m.** Please sign up/ submit discussion questions [here](#). These are free-form tea time discussions, with a monthly musical theme. All of MSE is welcome!

MSE DEI Tea Time *Tangent*



March 2021

DEI LECTURE SERIES

Driving Change: Privilege, Leadership and Urban Entrepreneurship

MARCH 9

11:15 AM - 12:15 PM | Presented via Zoom

Most of us want to live in a society in which we compete and collaborate as equals – neither advantaged nor disadvantaged by race, ethnicity, gender, sexual orientation, and other differences that historically divide privileged and oppressed.

What can we as individuals, as leaders and as engineers do to level the playing field and ensure that everyone is represented among the people choosing the directions of the future?

Our panel comprises three speakers who served as sources for the [Six Diversity Myths series](#):



[George Halow](#), 31-year Ford engineer and professor of practice in aerospace engineering:
How can the privileged drive change?



[Jennifer Linderman](#), the Pamela Raymond Collegiate Professor of Engineering and Director of the ADVANCE Program: Why don't we have enough women and under-represented minorities in leadership positions, and what can we do about it?



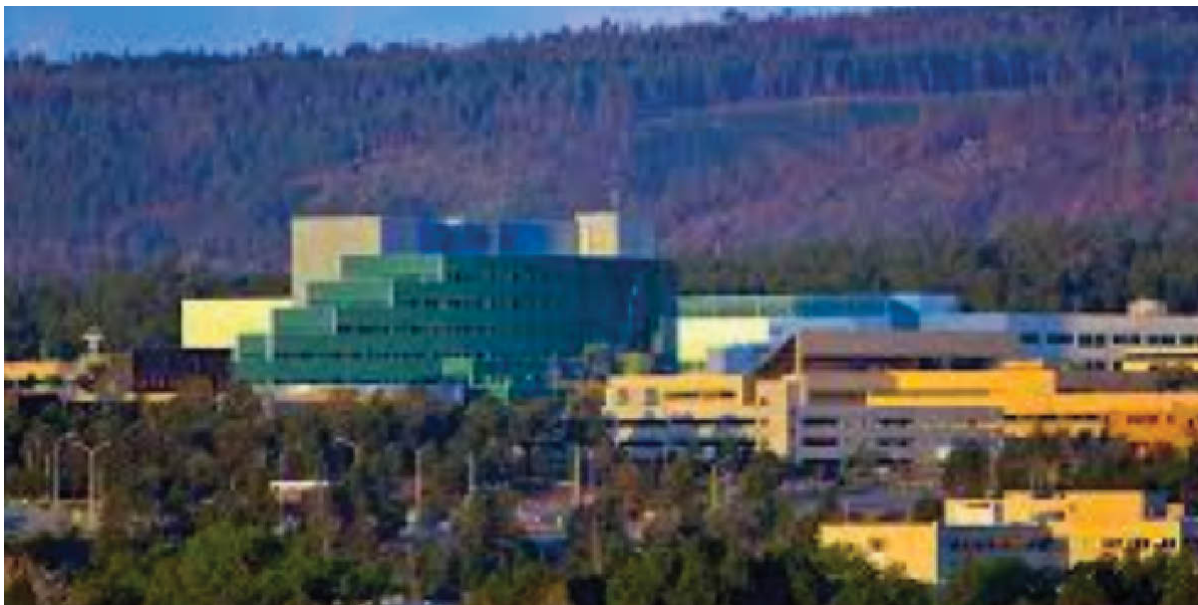
[David Tarver](#), President of the Urban Entrepreneurship Initiative and lecturer in the Center for Entrepreneurship: How could a new generation of tech-aware entrepreneurs empower the sustainable, equitable and multicultural cities of the future?

RSVP

DEI Student Allies Mailbox

Share your feedback on the DEI program and/or ask the DEI student allies questions: <https://forms.gle/98uKGHPbcAMzCF3B7>

Internship/Job Opportunities

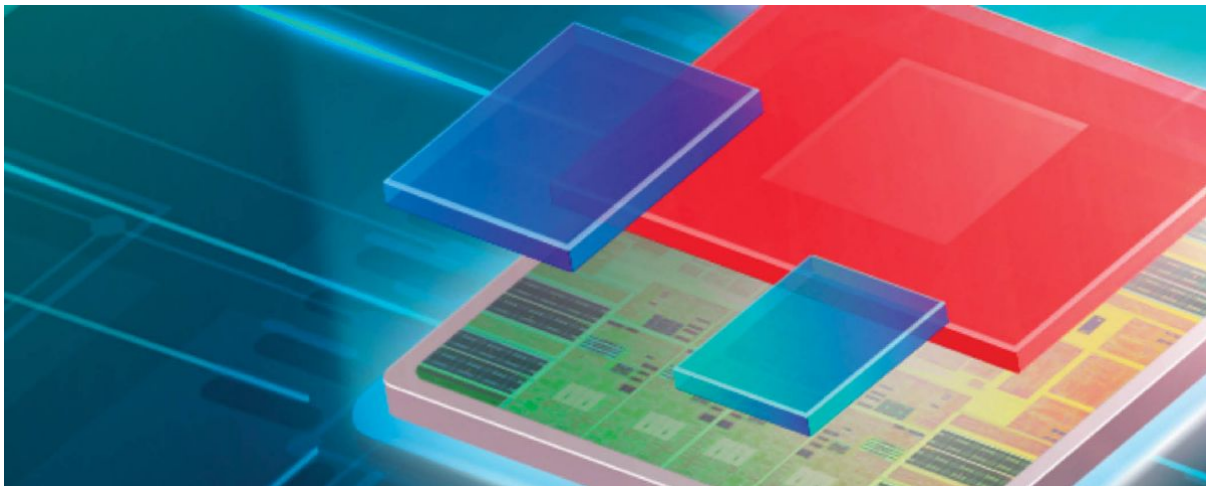


Los Alamos National Laboratory looking for Advanced Electron Microscopy Postdoc

The Nuclear Materials Science Group (MST-16) at that Los Alamos National Laboratory (LANL) is looking to fill a postdoctoral research position that is focused on high-resolution analytical and *in situ* (S)TEM development utilizing our new monochromated, probe-corrected 300kV Titan Themis (S)TEM. *In situ* observation (characterization) and control (synthesis) of materials is a strong component of LANL plans for programs focusing on the ageing and lifetimes of materials and the performance and resilience of material in extremes. Emphasis is on the characterization of materials under actual

conditions of use, materials undergoing phase transitions or corrosion, or materials obtained under controlled and directly observed synthesis processes. The successful candidate will be expected to both develop relevant lines of research to meet the programmatic objectives of the position and interact closely or assist with a number of projects across groups and divisions to develop and adapt microscopy capabilities to address LANL materials development needs. The position will be awarded to the candidate demonstrating exceptional talent with a successful collaborative and scientific track record.

[Click here](#) to learn more about the position, including how to apply.



Taiwan Semiconductor hiring engineers for June start date

[TSMC](#) is currently hiring hundreds of new semiconductor engineers (mostly Process Engineers for their Fabrication Facilities) this Summer 2021.

TSMC is currently building a [\\$12 billion fab facility](#) in Phoenix, AZ.

A large reason for this is due to [Apple's transition to TSMC to build their M1 chips](#).

TSMC is hiring for a targeted start date of June 2021 where additional details include:

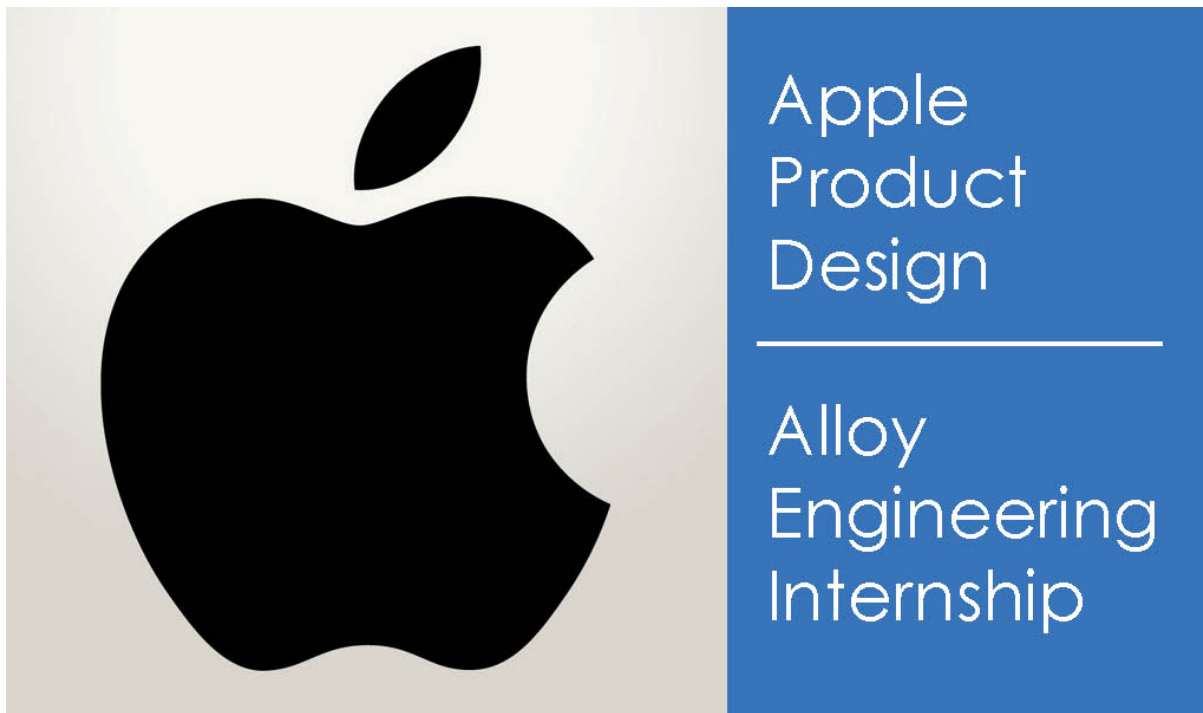
- TSMC will pay to relocate the employee to Taiwan
- TSMC will provide corporate housing to the employee during their stay in Taiwan
- TSMC will have the employee work in Taiwan on 7nm chip technology, starting June 2021, for 18 months. After 18 months, the employee will relocate to

Phoenix, AZ in order to start working in the 5nm fab facility.

-TSMC starting salary is approx. \$80-90k (with up to \$110k for Masters, PhD Students, or a candidate with extensive experience in the semiconductor industry) - which is above market salary for this position.

This is a groundbreaking opportunity for new engineers to pioneer a career at TSMC, as they will be directly involved in the first group of individuals to work at the Phoenix facility by setting up and troubleshooting the first semiconductor technology out of that facility.

Submit resume to Matt Sharkey: sharkeym@broadleafresults.com



[Alloy Engineering Product Design Internship at Apple](#)

Apple is currently seeking enthusiastic Metallurgical and Materials Science Engineering students that will provide support to alloy design, engineering, failure analysis, microstructural characterization, and materials modeling and validation activities for all hardware product lines. The intern position will be available as early as September 2021, concluding before September 2022.

As a member of a cross-functional Product Design team at Apple, you will help create the next generation of the world's finest hardware devices. You will work closely with a team of metallurgists to conceive, design, test, and

validate metals and products that will re-define the user experience. You will also work with cross-functional teams within Apple and with outside vendors to fabricate and characterize alloys and components.

While we can employ students for the summer of 2022 for this program, we strongly prefer candidates who are available for more than one semester during the fiscal year (e.g. winter + summer) for the most effective and impactful internship experience.

Required Experience

- Working towards a BS, MS or PhD in Metallurgy, Materials Science or related Engineering field*
- Flexibility and comfort working in a quickly changing environment
- Strong oral, written, and visual communication skills
- Strong physical metallurgy background
- Ability to work in fast paced, team-based environment
- Self-motivating, creative, proactive, and resourceful

Desired Experience

- Metallographic sample preparation and mechanical testing
- Light optical microscopy and scanning electron microscopy (SEM)
- Fractography and failure analysis of metals and alloys
- Laboratory experience with metal alloys and structure-property relationships
- Computational thermodynamics and materials design

***You must be enrolled in school or have applied to graduate school to qualify for an internship. Recent graduates who have NOT applied to graduate school are not eligible.*

Contact

Please send questions and resumes to Isabel Yang at isabel_yang@apple.com, and include “Alloy Engineering Internship” in the email subject.

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