Awarded 2018 Nobel Prize in Chemistry

FRANCES ARNOLD

Linus Pauling Professor of Chemical Engineering, Bioengineering and Biochemistry

"I never knew how lucky I was until I actually got here and was inspired by people who think they can solve big, hard, hairy problems. The harder the problem, the more important the problem, the better it is. That always pushed me to do my best and do things that other people couldn't do."

AMY HOFMANN (PhD '10)

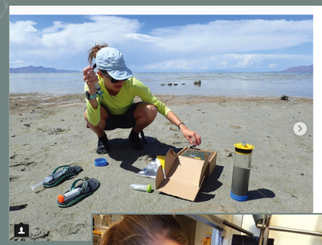
Planetary Chemist, JPL

"I'm a boots-on-the-ground scientist. I like to get my hands dirty, get out there. So, I'm turning gears, I'm doing cool experiments, and I get to go out in the field, all for my job. It's super fun."

ALEX PHILLIPS

Graduate Student in Geology and Planetary Sciences

Phillips created the @women.doing.science Instagram account to showcase the diversity of female scientists. "I knew that female scientists weren't all women in white coats smiling with beakers and pipettes," she says.



women.doing.science • Follow
Great Salt Lake State Park

women.doing.science @miquelaruns is a postdoc at University of Colorado and Caltech interested in how carbonate minerals record modern environmental conditions and how that translates to the past during global warm periods. In the first photo, Miquela is filtering sediment porewater from Great Salt Lake to measure dissolved inorganic carbon isotopes. In the second photo, Miquela uncovers buried giant stromatolites, which formed on the paleo-shoreline of Lake Gosiute in the

65 likes

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California Institute of Technology - Calt...

women.doing.science @juliehofstra is a graduate student at Caltech studying organic chemistry. Julie's research focuses on using earth abundant nickel catalysts to stitch together molecular building blocks using cross-coupling chemistry. Cross-coupling reactions are commonly used in the synthesis of pharmaceuticals and materials! In the first photo, Julie purifies her compounds using column chromatography. Also pictured is her making substrates with her nickel-catalyzed method and growing the purple nickel catalyst.

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ALUMNAE

SARAH STEWART (PhD '02)

Planetary Scientist, 2018 MacArthur Fellow

Stewart, a professor in the Department of Earth and Planetary Sciences at UC Davis, was recognized for her work advancing new theories about how celestial collisions give birth to planets and their natural satellites.

MICHAELEEN DOUCLEFF (BS '98)

Reporter, NPR Science Desk

Doucleff reports for National Public Radio on everything from vaccinations to the microbiome. She was on the team that won a George Foster Peabody Award in 2014 for its in-depth coverage of the Ebola outbreak in West Africa.

FRANCE CÓRDOVA (PhD '79)

Director, National Science Foundation

In 2014, Córdova, an astrophysicist, was confirmed as the 14th director of the National Science Foundation, the culmination of more than three decades in science, technology, and academic leadership roles.

TAMMY MA (BS '05)

Physicist, Lawrence Livermore National Laboratory

A plasma physicist at Lawrence Livermore's National Ignition Facility, Ma was a recipient of a 2018 Early Career Research Program award from the Department of Energy's Office of Science for her work in thermonuclear fusion.

ON THE COVER: At Caltech's 2018 engineering design competition (an annual event), fleets of robot tanks built by undergraduate students climbed hills, captured bases, and shot each other with foam balls in an epic series of battles. In this battle, the Riveters (**Mohar Chatterjee**, **Caroline Paules**, **Diandra Almasco**, and **Hannah Chen**), who named their team in honor of the iconic Rosie the Riveter, emerged victorious, utilizing a track-wheeled tank design topped by flywheel-based cannons.

FULL STEM AHEAD

Women at Caltech

FULL STEM AHEAD

Women at Caltech

They explore the far reaches of the universe, write powerful algorithms, and study the underlying mechanisms of disease. They lead mentoring programs, play soccer, and design robots that slay the competition.

Women come to Caltech for the freedom it offers them to do their best work, to develop and grow, and to pursue world-changing research. These women use science, engineering, and technology to make a difference in the Institute's community of scholars, in their fields of study, and in the world. They inspire the next generation of fearless thinkers.

We invite you to meet some of the extraordinary Caltech scientists and engineers who are leading the way.

"We welcome diverse perspectives and new approaches to problems as the surest means to create knowledge and improve society."

- CALTECH PRESIDENT THOMAS F. ROSENBAUM

PIONEERING WOMEN

In June 1973, Stephanie Charles, Deborah Chung, Sharon Long, and Flora Wu became the first women to earn undergraduate degrees at Caltech.

After transferring to Caltech in 1970 and 1971, all four graduated with honors and pursued careers in STEM fields.

BETSY MITCHELL

Director of Athletics, Physical Education and Recreation

On the launching of the Institute's first official NCAA women's soccer program in the fall of 2017, an initiative she led:

"It's had a tremendous impact on the athletics department. The young women who've come are vocal and vibrant and engaged and are making their mark on campus."

STEPHANIE THREATT

Graduate Student in Biochemistry and Molecular Biophysics; President of Black Students of the California Institute of Technology and the Black Ladies Association of Caltech

Having exposure to cutting-edge research by scientists at the top of their fields informs how I approach my own research. Learning about topics from the the detection of gravitational waves with LIGO to the impact of gut microbiota on complex mental behaviors such as autism is an experience truly unique to Caltech."

CORA WENT

Graduate Student in Physics

Works with Harry Atwater, Howard Hughes Professor of Applied Physics and Materials Science

I knew I wanted to study solar energy, and, being in a large research group, I've learned about the full range of solar energy technologies being studied and how they fit into the broader picture of addressing climate change."

ASHIMA AGARWAL

Undergraduate Student, Electrical Engineering Major

Caltech undergrads, they know what they're doing. I think preparedness builds confidence no matter your gender identity."

DEBORAH BASS

Mission System Manager, Psyche Mission, JPL

There was a mission in 1998 that smashed into Mars. Ten years later, we sent a similar mission, Phoenix. I was overwhelmed with relief when it safely touched down. My job was to ensure the choices made by the engineering side of the house produced the highest quality science possible. Seeing up close the water ice I had viewed only from orbit in previous data sets—those water ice deposits just under the lander—that was a 'holy cow' moment."

JESSIE CHRISTIANSEN

Research Scientist, NASA Exoplanet Science Institute at Caltech

2018 NASA Exceptional Engineering Medal recipient

For many, many centuries, the sciences were dominated by white men, and that's not what the face of science looks like these days. My message is, 'You can do this.' Women can grow up to be scientists. You can be a NASA scientist, you can search for exoplanets, you can find the answers to the questions you have yourself. You don't have to wait for someone else to do it."

As a kid, I saw science as this way to tell crazy stories about volcanoes and black holes and sharks and outer space. The emergence of life, global glaciations, mass extinctions, microbes terraforming the earth over billions of years...if there's a better story out there than the co-evolution of life and our planet, I haven't heard of it."

ELISE CUTTS

Undergraduate Student, Geobiology Major

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