



School of  
Physical Sciences |

**BRILLIANT FUTURE**  
THE CAMPAIGN FOR **UCI**

***Bright Past, Brilliant Future: A Year in Review  
with Dean James Bullock***

[ps.uci.edu](http://ps.uci.edu)



# #8

UCI is ranked #8  
among public  
universities nationwide  
by U.S. News & World  
Report



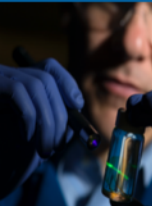
# #1

MONEY magazine  
ranked UCI #1 best  
college in the nation



# #1

#1 in Sierra magazine's  
ranking of the most  
environmentally  
sustainable schools



# #1

#1 on Forbes  
magazine's list of  
America's Best Value  
Colleges



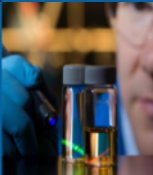
# #1

The New York Times  
ranks UCI #1 in the  
nation doing the most  
for the American  
dream.



# 4

Departments under  
UCI Physical Sciences  
— Chemistry, Earth  
System Science,  
Mathematics, Physics



# 166

Faculty members part  
of UCI Physical  
Sciences



# 3300

Students in UCI  
Physical Sciences



## Legacy of Growth and Success

Building on a long tradition of success in education and research

- Two Nobel Prizes
- \$60 million in research funding in 2019
- Distinguished faculty honored by multiple organizations
- Select areas of growth:
  - Quantum Science – Physics/Chem/Math
  - Climate Change – Solutions that Scale



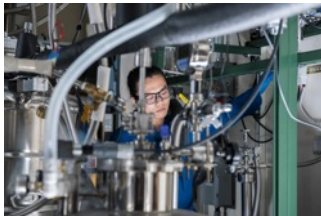
# March 2020: Landscape of Higher Education Drastically Changes

*Covid-19 Impact on Faculty, Students, and Research*

Faculty: Learning to teach remotely; Navigating research

Students: Adapting to remote delivery

Research: Standards for laboratory safety



## COVID-19 RESOURCES, POLICIES & NEWS

### Faculty & Instructors

Find information for faculty and resources and recommendations on remote instruction.

[LEARN MORE](#)

### Researchers

Learn about the latest research safety practices and plans during COVID-19.

[LEARN MORE](#)

### Students

Learn about the latest information and resources available for students.

[LEARN MORE](#)

### Staff

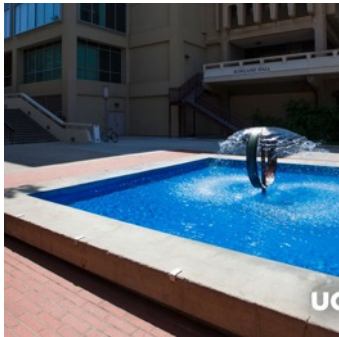
While working from home, learn about available resources to set yourself up for success.

[LEARN MORE](#)



## Our Faculty

- Required remote delivery e-course for all instructors
- Established “Remote Teaching Task Force”
  - Experienced faculty creating “best practices” protocol to ensure that all faculty can deliver remote instruction
  - Development of teaching pedagogy class requirement



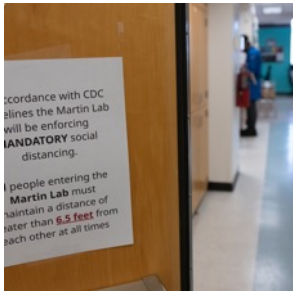
## Our Students

- Setting a standard in education delivery
- Ensuring access – i.e. recorded lab demos, faculty mailed experiments
- Graduate housing COVID-19 resident testing program



## Our Research

- Physical Sciences leads campus in COVID-19 laboratory and research safety
  - Stringent Covid-19 protocols in place
  - Working at 30% capacity in labs
  - Contact tracing program





# On the front lines: COVID19 Research

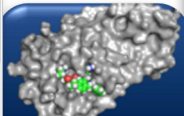


May 15, 2020

## PHYSICIST UNCOVERS LASER TECHNOLOGY THAT COULD TAKE THE TEETH OUT OF COVID-19'S GRIP

When Chris Barly focuses his mind on something, it is with laser precision. The UC Irvine Distinguished Professor of Physics and Astronomy learned from an early age he was drawn to lasers after...

VIEW →



Aug 14, 2020

## UC IRVINE LAB MAKES CORONAVIRUS-CRIPPLING MOLECULE, A FIRST STEP TOWARD A NEW DRUG

A team of UC Irvine chemists have created a molecule that acts as a holey way to learn what an enzyme needed by the coronavirus to reproduce. The recently announced discovery could be an important...

VIEW →



Apr 21, 2020

## CORONAVIRUS AND CLIMATE CHANGE

As the pandemic rages, Department of Earth System Science Chair Eric Rignot defines what coronavirus means for climate change and those who study it.

VIEW →



May 5, 2020

## BACTERIA SELF-QUARANTINE, TOO, AND THIS ABILITY IS HELPING UCI RESEARCHERS DEVELOP A TREATMENT FOR CORONAVIRUS

Professor Albert Grigoriadis couldn't have known it, but research he and a team of scientists published last year in December would, just a few months later, prove him and his lab to...



Apr 23, 2020

## UCI FACULTY CREATE CURRICULA FOR KIDS WORLDWIDE CONFINED BY CORONAVIRUS

Irvine, Calif., April 23, 2020 — On this Earth Day, the United Nations is announcing the start of a new environmental education program for the world's 1.3 billion youth who are confined to their homes to prevent the spread of COVID-19 and unable to physically attend school.

VIEW →



Jun 3, 2020

## ENDING CORONAVIRUS LOCKDOWNS QUICKLY CAN BE MORE COSTLY THAN RELAXING THEM GRADUALLY

Irvine, Calif., June 3, 2020 — "We're all in this together" is a commonly heard phrase during this global pandemic, as much of the world practices social distancing. And now researchers at the University of California, Irvine and other institutions have shown that...

VIEW →



Apr 26, 2020

## FINDING EFFECTIVE FACE MASK FABRIC FOR DIY PROTECTIVE COVERINGS — "BANDANAS USELESS"

The air that pours into your lungs when you breathe heavily, or exhale, at about 10 centimeters a second. But it's often not just air you're breathing. There can be dust, pollen, acid and bacteria in air, and now, testing made the prospect that people and when they cough and sneeze and talk, there can be the...

VIEW →



# Embracing Diversity & Inclusion Efforts

## Racial Justice at the Forefront

- Create Outreach & Inclusion Office
  - Goal is to create Access into our community; Outreach to underrepresented communities; represent Inclusion within our community
- Alignment with *UCI Black Thriving Initiative*



# Towards a more diverse & inclusive faculty

- Advancing Faculty Diversity Initiative
  - UCOP Grant awarded to school in 2019
- Faculty: 40% women, 20% URM; 2% Black
- Increased diversity in faculty hiring
  - Faculty onboarding process to include implicit bias training
  - Faculty mentoring program
    - Collegial code of conduct



## Our Students

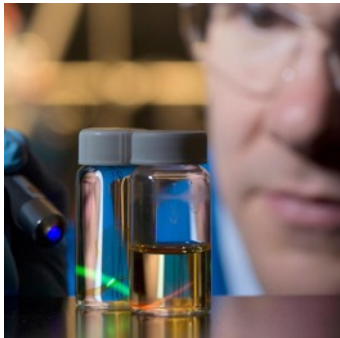
- Creating sense of community for students
  - Peer mentoring (i.e. PACE)
  - BLM and Diversity mixers, townhalls, reading groups
  - Emphasis on closing the achievement gaps in STEM
- Collaborating with Schools of Engineering and Information & Computer Science
  - Recruit from HBCU's & CSU's





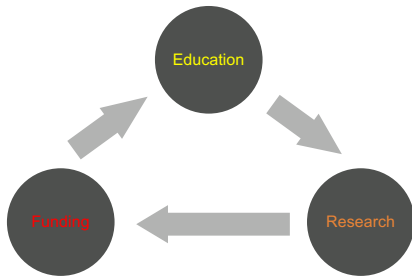
## Research

- Diverse faculty hiring will lead to more diverse laboratory groups
- Onboarding protocol for implicit bias and how to run an inclusive laboratory



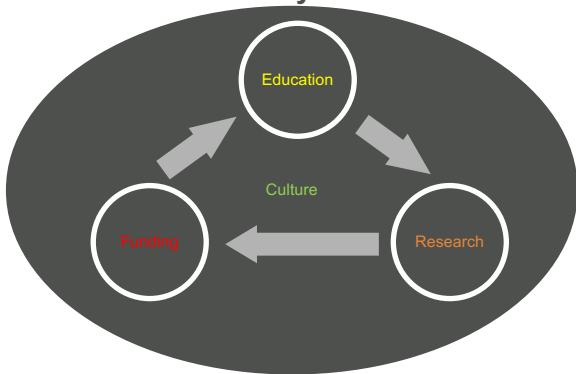


# The Future of Physical Sciences





# The Future of Physical Sciences



## Physical Sciences Moving Forward.....

- While remote learning is not ideal, we are learning how to enhance curriculum delivery that will benefit everyone in the school
- Continue to focus on culture & diversity as a priority
- Research continues to progress
  - COVID-19 research thrust
  - Climate Change solutions
  - Eddleman Quantum Institute
- Creation of Dean's Executive Cabinet, our school's premier advisors





## Dean's Executive Cabinet



Michl Binderbauer



Julie Hill



John Gerace



John Evans



Andy Policano