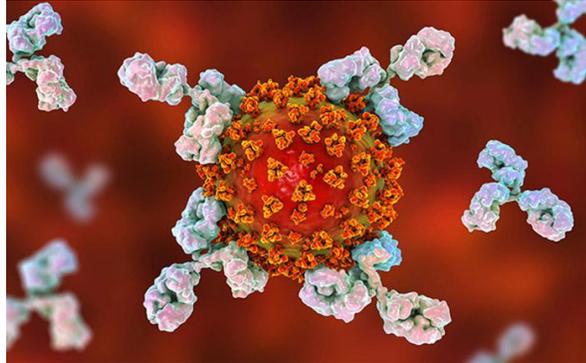




## QI Responds to COVID-19

We are constantly updating [QI Responds](#), the Qualcomm Institute's portal for new stories and research related to COVID-19. Follow our webpage for updates and announcements.



Some of the research spaces in QI are continuing to operate in a limited capacity to address the rapidly-evolving needs during this public health crisis, and QI research teams are ready to collaborate with new partners to meet demand and find new solutions. Please [contact us](#) today if you need assistance with any urgent COVID-19 projects.

### **New Algorithm Analyzes the Genetic Building Blocks of Immunity**

Scientists with the [Qualcomm Institute](#) and [Jacobs School of Engineering](#) have developed a new gene prediction algorithm, called MINING-D, that could help researchers investigate the genetic clues behind the variation of symptoms shown in COVID-19 patients — information that is key to creating a versatile and effective vaccine.

[Read more.](#)

### **High-tech Evaluation Could Help Improve Low-tech Masks**

Nanotechnology may not be the first thing people think of when sewing a homemade face mask, but it may help make home-sewn masks more effective. As the need to wear face coverings as a public health precaution becomes a new normal, nanofabrication experts QI are working together with the community to examine the efficacy of improvised masks using scanning electron microscopy. The scanning electron microscope is a powerful research tool and is available for community use. To schedule an appointment, reach out to the [Nano3 staff](#).

[Read more.](#)

### **New Rapid Response Platform Connects Clinicians with Resources and Answers to COVID-19 Questions**

Everything about the COVID-19 pandemic is new: the virus's transmission to humans, the stay-at-home orders, the challenges many responders are facing. With so much in flux, providers are being asked to find new solutions. In response, a group of UC San Diego faculty, with the help of hundreds of students and community volunteers, has stepped up to create an online portal called [Earth 2.0 COVID-19 Rapid Response](#).

[Read more.](#)

## Introducing QI ENRICH



QI is proud to announce the launch of [QI Enrich](#), an educational initiative at the intersection of industry and academia. QI Enrich offers programs for students, academic personnel, and industry professionals to expand their knowledge and skills in areas such as big data and machine learning, cloud computing, and complex systems research.

[Explore the website.](#)

### Upcoming Online-Only Events from QI Enrich



#### [Business Intelligence with Tableau: 3-Day Online Workshop](#)

Date: May 27 - 29, 2020

Time: 8:30am - 12:30pm

Description: Learn business intelligence with Tableau to share insights across your organization & make better decisions.



#### [QI Academy Final Presentations](#)

Date: June 4, 2020

Time: 5:00pm - 6:30pm

## FUNDING OPPORTUNITIES

Federal agencies and private foundations continue to release funding solicitations and accept proposal submissions. If you need help preparing a grant application, QI proposal writer Molly Wofford is ready to assist and help expedite the process. Contact her at [mwofford@eng.ucsd.edu](mailto:mwofford@eng.ucsd.edu) to learn more about how she can help you find funding for your project.

### COVID-19 Funding

The university's list of [COVID-19 research opportunities](#) is updated every Monday and is also a resource for finding faculty collaborators with relevant research experience.

#### [NSF: Mind, Machine, and Motor Nexus \(M3X\)](#)

Deadline: Ongoing

Funding: \$250,000 to \$1M

#### [NATO Science for Peace and Security \(SPS\) Program](#)

Deadline: June 1, 2020

Funding: \$150,000 -- \$300,000

#### [NSF: Multimodal Sensor Systems for Precision Health Enabled by Data Harnessing, Artificial Intelligence, and Learning \(SenSE\)](#)

Deadline: June 8, 2020

Funding: \$750,000 for three years.

#### [NIH](#)

#### [R21: Exploratory/Developmental Bioengineering Research Grants \(EBRG\)](#)

Deadline: June 16, 2020

Description: The QI Academy is a unique experiential learning program where, over the course of two quarters, students are guided by online instruction while being led by QI faculty and research mentors to complete a research project internship. Come see the QI Academy students' final presentations!



### [Big Data Summer Camp 2020 - Online](#)

Date: June 15 - August 7, 2020

Time: 9:00am - 3:00pm

Description: Week-long hands-on Big Data summer camp for high school students. Online.

## QI MIXER

We hope you can join us for a fun, virtual QI Mixer on Thursday, May 21! Everyone is welcome. See the details below.

Date: Thursday, May 21, 2020

Time: 3:30 - 4:30 p.m.

Platform: Zoom; <https://ucsd.zoom.us/j/97806666450>

Features:

- Updates from the Director
- Test Your Knowledge with Trivia – play as a team or individually!
- A special musical performance by Albert Liang, son of QI Research Artist in Residence Lei Liang. Listen as Albert imagines defeating the novel coronavirus in a new piece he composed himself.

There will be prizes for trivia winners!

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Funding: \$275,000 over two years.

[NEH: Digital Projects for the Public](#)

Deadline: June 19, 2020  
(applications become available April 30)

Funding: \$30,000 up to \$300,000

[NSF Program on Fairness in Artificial Intelligence \(AI\) in Collaboration with Amazon](#)

Deadline: July 13, 2020

Funding: \$750,000 to \$1.2M

[NSF: Science of Science - Doctoral Dissertation Research Improvement Grants \(SOS DDRIG\)](#)

Deadline: September 9, 2020

Funding: \$20,000 in direct costs

[NSF: Computational and Data-enabled Science and Engineering \(CDS&E\)](#)

Deadline: September 15, 2020

Funding: up to \$500,000

[Sony: Focused Research Award and Faculty Innovation Award](#)

Deadline: September 15, 2020

Funding: \$150,000/yr

## LATEST STORIES FROM QI

### The Psychedelic Science of Pain

Psilocybin, a powerful psychedelic, helped QI research scientist Albert Lin rid himself of debilitating phantom limb pain following the loss of his lower right leg. Now, Lin, Director of the Center for Human Frontiers at QI, is one of a number of partners launching the Psychedelics and Health Research Initiative. Its mission is to study the potential of psilocybin and other related compounds to promote healing and help manage pain.

[Read more.](#)



### The Software That's Saving Corals

A powerful visual analytics platform is translating photographs of coral reefs into navigable 3D maps that allow researchers to delve into the depths of these critically important and delicate ecosystems.

Developed by Vid Petrovic, a computer scientist and software

engineer with the [Cultural Heritage Engineering Initiative](#) at the UC San Diego [Qualcomm Institute](#), the platform, called Viscore, is being used by researchers at Scripps Institution of Oceanography to study coral reefs around the world.

[Read more.](#)

## QI AT HOME

As we grapple with the stay-at-home orders in effect because of COVID-19, we want to remind our friends and our community who we are. At the heart of QI is an interdisciplinary, collaborative and innovative spirit and we would welcome photos and videos that show that. Please send them to [qi-communications@eng.ucsd.edu](mailto:qi-communications@eng.ucsd.edu).



Albert Liang, son of QI Research Artist in Residence Lei Liang, imagines defeating the novel [#coronavirus](#) in a new piece he composed himself. A little composer in the making, maybe? <https://bit.ly/2KHw7IS>. Copyright 2020 by Albert Liang (ASCAP).

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Natasha Balac, director of the Interdisciplinary Center for Data Science at QI, is sewing cloth face masks from home. The CDC currently recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain. The measure may help people who unknowingly carry COVID-19 from spreading it to others.

Recently, Balac sent some of her homemade masks at the Nano3 facility at QI for evaluation. The Nano3 team is using a high-tech scanning electron microscope to evaluate cloth face masks. [Read more](#).

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QI research scientist Tom DeFanti is caring for some beautiful hibisci at home.

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QI research scientist Dominique Rissolo built his older son a reading hut while under shelter-in-place orders at home. He began collecting wood and scrap lumber from around UC San Diego before campus closure and created a "little hideout" for his eldest. When finished, the hut will feature a living roof with California native flowers and grasses, and art from a children's studio in a Maya town in Mexico. The hut joins a companion hideout for Rissolo's younger son.

## SOCIAL MEDIA HIGHLIGHTS



While it's not business as usual at QI due to COVID-19, you can get a glimpse of some of the interdisciplinary, collaborative and innovative work that goes on inside Atkinson Hall in this video produced for Triton Day 2020. Video by QI's Alex Matthews. [Facebook post 5/8/2020](#).

DAD, DRY YOUR EYES &  
GET IN THE CAR--  
IT'S TIME TO HIT I-5  
& ROAD-TRIP YOUR  
YOUNGEST TO THIS  
SOUTHERNMOST U. OF  
CALIFORNIA CAMPUS

What is UC San Diego?  $\Psi$  Our campus was the answer to a question on [Jeopardy!](#)  
[Facebook post 5/11/2020](#)

