



# COVID-19 Weekly Summary

Vol. 9 June 4, 2020

## MIT ILP UPDATES // COVID-19 RELATED

This is a very brief collection of current resources and information from MIT's Industrial Liaison Program covering a range of issues related to COVID-19 and is offered to help us all navigate during this unprecedented and disruptive time.

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## UPCOMING EVENTS

### MIT ILP WEBINARS

<https://ilp.mit.edu/attend>

- 4 June – Digital Transformation (5 of 6)
- 9 June – Digital Transformation (6 of 6)
- 11 June – Innovations in Management (3 of 4)
- 16 June – COVID-19 & Manufacturing: Digital Twins
- 18 June – Innovations in Management (4 of 4)
- 23 June – Voting in the Midst of COVID-19
- 25 June – An Analytics Approach to COVID-19

### TUESDAY, 16 JUNE, 10:00 AM: THRIVING IN UNCERTAINTY—5 LEADERSHIP ACTIVITIES FOR A NIMBLE RESPONSE

MIT Sloan Executive Education INNOVATION@WORK Webinar Series

Prof. Deborah Ancona, <https://executive.mit.edu/webinars>

Register: [https://mit.zoom.us/webinar/register/6715906083249/WN\\_0lu7QloXTdGjhyX-no2xjoQ](https://mit.zoom.us/webinar/register/6715906083249/WN_0lu7QloXTdGjhyX-no2xjoQ)

### THURSDAY-FRIDAY, 18-19 JUNE, 8:45-5:00 PM: PLASTICS AND THE ENVIRONMENT—SCIENCE MEETS PUBLIC POLICY

MIT Environmental Solutions Initiative (ESI)

Thursday keynote address, a **virtual fireside chat between U.S. Senator Dan Sullivan and California Secretary of State Alex Padilla**, will be **free** and open to the public as part of ESI's People and the Planet series, Register: <https://www.eventbrite.com/e/people-and-the-planet-dan-sullivan-and-alex-padilla-tickets-106240076930>

Plenary address from Rwandan Director General of Environment and Climate Change Juliet Kabera

<https://environmentalsolutions.mit.edu/pesmpp/>

Register (tickets \$25 - \$100): <https://www.eventbrite.com/e/plastics-and-the-environment-science-meets-public-policy-tickets-92074026893>

### TUESDAY, 23 JUNE, 10:00-11:00 AM: INCLUSIVE BUSINESS—INNOVATION & RESILIENCE FOR TODAY'S WORLD

MIT Professional Education Live Webinar and Q&A

Saida Benhayoune (Program Director, MIT D-Lab) and Emile Schmitz (Managing Director, BoP Innovation Center)

Register:

<https://event.on24.com/eventRegistration/EventLobbyServlet?target=reg20.jsp&partnerref=dlab&eventid=2380395&sessionid=1&key=2295E1314768E1394002B43FDC-188C6D&regTag=&sourcepage=register>

## PROJECTS, INITIATIVES, RESEARCH

### ANALYTICS / MASKS: IDSS: RULES OF THUMB FOR REOPENING – PART 3: WHO WAS THAT MASKED MAN?

MIT [Institute for Data, Systems, and Society](#) (IDSS), 29 May 2020

For further details, please contact [Munzer Dahleh](#), [Peko Hosoi](#), [Simon Johnson](#), [Ron Rivest](#), [Emma Tegling](#), [Ferran Vidal](#)  
<https://idss.mit.edu/vignette/rules-of-thumb-for-reopening-3/>

This week's post will focus on face masks. Given that the Center for Disease Control (CDC) recommends six feet of separation between unmasked people, we have been asked to consider the following questions: Should this distance be adjusted when one or both parties are masked? What impact do masks have on R0? And how do masks compare to other forms of PPE such as face shields?

The physics of droplets

There appears to be emerging consensus that viral particles which are transmitted through the air are spread via minute droplets that are emitted when we speak or exhale. Hence, in order to quantify the impact of masks, we first need to understand the fog of potentially contagious droplets surrounding an infected person.

In this analysis we will consider asymptomatic people only; a sneeze can release hundreds of millions of viral particles into the air at hundreds of miles per hour in which case all bets are off. However, under normal breathing conditions, each exhaled tiny droplet slowly settles under gravity while diffusing away from the infected person. These two effects — settling and diffusion — can be used to address the key question in determining the shape and extent of the droplet cloud, namely: how far does a droplet diffuse before it hits the ground?

More IDSS COVID-19 Collaboration (Isolat) research at: <https://idss.mit.edu/research/idss-covid-19-collaboration-isolat/>

### IMMUNE SYSTEM / BRAIN: HOW COULD COVID-19 AND THE BODY'S IMMUNE RESPONSE AFFECT THE BRAIN?

[Picower Institute](#) for Learning & Memory

<https://picower.mit.edu/news/how-could-covid-19-and-body-immune-response-affect-brain>

Though the most immediately threatening symptoms of Covid-19 are respiratory, neuroscientists are intently studying the pandemic from the perspective of the central nervous system. Clinical [research](#) and case [reports](#) provide mounting evidence of impacts on the brain.

To get ahead of the possible long-term neurological problems from infection, multiple labs in The Picower Institute for Learning and Memory at MIT have begun pursuing research to

determine whether and how it affects the brain either directly or via the body's heightened immune response. If it indeed does, that would be consistent with a history of reports that infections and immune system activity elsewhere in the body may have long-term impacts on mental health.

While some scientists, for instance, suspect a role for infectious diseases in neurodegenerative disorders such as Parkinson's disease or dementias, **Picower Institute member [Gloria Choi](#)** and Harvard immunologist Jun Huh have meticulously traced the pathway by which infection in a pregnant mother can lead to autism-like symptoms in her child and how, counterintuitively, infection in people with some autism spectrum disorders can temporarily mitigate behavioral symptoms. With deep expertise in neuro-immune interactions, as well as in the neural systems underlying the sense of smell, which is reported to be lost in some Covid-19 patients, Choi is planning several collaborative coronavirus studies.

"With these various suspected neurological symptoms, if we can determine the underlying mechanisms by which the immune system affects the nervous system upon the infection with SARS-CoV-2 or related viruses, then the next time the pandemic comes we can be prepared to intervene," says Choi, Samuel A. Goldblith Career Development Assistant Professor of Applied Biology in the Department of Brain and Cognitive Sciences.

Like Choi, **Picower Professor [Li-Huei Tsai](#)** is also planning studies of the neurological impact of Covid-19. Tsai's studies of Alzheimer's disease include investigation of the blood-brain barrier, which tightly gates what goes into and out of the brain through the circulatory system. Technologies that her lab is developing with collaborators including MIT Institute Professor **[Robert Langer](#)** put the team in a unique position to assess whether and how coronavirus infection might overrun or evade that safeguard.

"It is critical to know how the coronavirus might affect the brain," Tsai said. "We are eager to bring our technology to bear on that question."

#### Neuro-immune interactions

Choi is considering three lines of coronavirus research. Together with **Picower Institute colleagues Newton Professor [Mriganka Sur](#)** and **Assistant Professor [Kwanghun Chung](#)**, she hopes to tackle the question of anosmia, the loss of smell. Choi has studied the olfactory system in mice since her graduate and postdoctoral days. Moreover, a key finding of her neuroimmunology research is that because neurons express receptors for some of the signaling molecules, called cytokines, emitted by immune system cells, those interactions can directly affect neural development and activity. Working in mouse models, the team plans to ask whether such an impact, amid the immune system's heightened response to Covid-19, is occurring in the olfactory system.

#### INFECTION / PROTEINS: KIESSLING GROUP

<https://chemistry.mit.edu/chemistry-news/combating-covid-19-with-chemistry/>

<https://chemistry.mit.edu/profile/laura-l-kiessling/>

Group Lab: <http://kiesslinglab.com/>

A feature of enveloped viruses, including coronaviruses, is their high levels of glycosylation. Viral glycosylation plays multiple roles in virus pathology, and infection by the novel SARS-CoV-2, the virus that causes COVID-19, is mediated by the viral spike glycoprotein (S). Viruses have glycosylation patterns that differ from those of the host, so they can be recognized by host proteins. [Professor Laura Kiessling](#) and her research group are investigating whether human carbohydrate-binding proteins (lectins) limit viral infection. Human lectins are present at mucosal barriers, including in the lung. The levels of these proteins can differ between individuals in response to age or polymorphisms (changes in the genetic coding) that alter their production or stability.

The [Kiessling Group](#) anticipates that these lectins can function in vitro as tools to capture virus and in vivo as immunomodulators. Thus, understanding those lectins that can bind coronaviruses from human patients will lay the groundwork to elucidate fundamental aspects of human immune responses to the virus. Moreover, because the lectins the group proposes to examine are human proteins, they do not expect them to have problematic effects. If they block viral infectivity (or effectively modulate immune responses), they are unlikely to have major deleterious effects such as toxicity or immunogenicity.

## **POLICY / HEALTH, EDUCATION: STATE AND LOCAL POLICY RESPONSES TO COVID-19—LESSONS FROM EVIDENCE**

J-PAL, <https://www.povertyactionlab.org/blog/5-15-20/state-and-local-policy-responses-covid-19-lessons-evidence>  
<https://www.povertyactionlab.org/covid19>

Increasing access to the social safety net  
 Increasing access to health insurance and care during a pandemic  
 Improving virtual and online learning while schools are closed  
 Resources for further reading

The COVID-19 pandemic has caused enormous health, social, and economic challenges. J-PAL North America has curated a set of randomized evaluations that tested specific policy options related to the social safety net, health, and education. Our goal is to provide actionable evidence to inform state and local leaders' policy responses to challenges during the COVID-19 pandemic. Please note that we do not have research evidence specifically for responding to a pandemic. We generalize from existing evidence in different contexts to provide policy recommendations and considerations for state and local governments responding to this situation.

Via our [State and Local Innovation Initiative](#), we are able to provide pro bono technical assistance to state, local, or tribal leaders who would like to tailor and apply evidence in their local context. Our team can help you analyze whether evidence is likely to be relevant in your context and provide implementation details from the original studies. Please contact [Rohit Nainpally](#) to learn more.

## STUDENT PROJECTS / INITIATIVES ETC. / COVID-19

### ***Closing social distance with social media by highlighting a volunteer science movement***

<https://picower.mit.edu/news/closing-social-distance-social-media-highlighting-volunteer-science-movement>

Like thousands of other scientists around the country in mid-March, [Picower Institute](#) postdoc [Shruti Muralidhar](#) suddenly found herself at home rather than in the lab because of the need to maintain social distancing amid a rapidly surging Covid-19 pandemic. After some “separation pangs,” she found herself asking – how can I help with what is happening now?

With a strong interest in science communication and social media, she was never far from Twitter. That’s how she saw a tweet by a colleague and connection at the Broad Institute that galvanized her into action. Neuroscientist Michael Wells, a fellow science communication enthusiast she had worked with, put out this call to action: “CALLING ALL SCIENTISTS: Help me in creating a national database of researchers willing and able to aid in local COVID-19 efforts. This info will be a resource for institutions/govt agencies upon their request.” [The Covid-19 National Scientist Volunteer Database](#) was born.

Within a few days thousands of scientists had signed up and thousands more have since. Muralidhar joined, too, taking on a leadership role on the team as a Social Media Lead. As a postdoctoral associate, she studies the role of inhibitory interneurons in memory extinction in the lab of Picower Professor Susumu Tonegawa. But helping coordinate an expert response to the pandemic has given her a chance to channel her experience and expertise as a science communicator.

“I figured this seems like a good way to keep myself busy and not go crazy when I’m not doing experiments,” Muralidhar said. “The volunteers that I have met and have formed relationships with over the last month or so have been very amazing people.”

### **Covid-19 National Scientist Volunteer Database**

<https://covid19sci.org/>

[https://twitter.com/COVID19\\_NSVD](https://twitter.com/COVID19_NSVD)

We have curated a database of scientists from all 50 states, DC, Puerto Rico, and Guam who are eager to volunteer our time, expertise, equipment, and consumables to help YOU respond to the COVID-19 crisis. Our members include experts in scientific testing, bioinformatics, and data management, as well as key contacts willing to donate lab space and testing supplies.

Our team has aggregated our membership contact information, location, and skill sets into this easy-to-use centralized database. A preview of the database with contact information redacted can be [found here](#).

Help spread the word to other scientists as well as the decision-makers in your city, county, and state government who can turn this database into action.

**Shruti Muralidhar, PhD**

Social Media Lead

Postdoctoral associate, Picower institute, MIT

**Michael F. Wells, PhD**

Creator and co-director

Postdoctoral Fellow, Broad Institute of Harvard &amp; MIT

**PAPERS, ARTICLES, PRESENTATIONS, TALKS****DEPARTMENT OF BIOLOGY:*****Plant Solutions for the COVID-19 Pandemic and Beyond: Historical Reflections and Future Perspectives***[Jing-Ke Weng](#), Associate Professor of Biology; Member, Whitehead Institute;<http://wenglab.wi.mit.edu/>

Mol Plant. 2020 Jun 1;13(6):803-807. Epub 2020 May 20, DOI: 10.1016/j.molp.2020.05.014

<https://doi.org/10.1016/j.molp.2020.05.014>

...Here, I reflect on the COVID-19 pandemic from the perspective of plant science. First, plants have served as the main source of medicine for humans since the beginning of our species. Some of the earliest modern medicines are indeed plant natural products for treating infectious diseases. Plants have a lot to offer for treating COVID-19 and other infectious diseases, but it will require interdisciplinary research efforts to fully realize this potential. Second, the countermeasures that were quickly deployed against COVID-19 this time, including disease detection and potential treatments, are resulted from previous science and technology development in broad disciplines. This strongly advocates for not just maintaining but significantly increasing societal funding into basic sciences, including plant science, in order to better prepare us for future pandemics and other societal challenges. Last but not least, the global COVID-19 crisis has exposed several weaknesses of human nature, and in many ways echoes other looming crises, such as climate change and food insecurity. Plant science could contribute to the solutions of these problems, but such effort needs to be integrated into a global grand strategy yet to be established.

***Rescue Therapy for Severe COVID-19 Associated Acute Respiratory Distress Syndrome (ARDS) With Tissue Plasminogen Activator (tPA): A Case Series***

**Barrett, Christopher D. MD** 1,2; Oren-Grinberg, Achikem MD3; Chao, Edward MD, FACS4; Moraco, Andrew H. MD5; Martin, Matthew J. MD, FACS6; Reddy, Srinivas H. MD, FACS4; Ilg, Annette M. MD3,7; Jhunhunwala, Rashi MD, MA1; Uribe, Marco MD4; Moore, Hunter B. MD, PhD8; Moore, Ernest E. MD, FACS8,9; Baedorf-Kassis, Elias N.10; Krajewski, Megan L.3; Talmor, Daniel S. MD, MPH3; Shaefi, Shahzad MD, MPH3; **Yaffe, Michael B. MD, PhD**, FACS1,2 Trauma Acute Care Surg. 2020 May 14. Online ahead of print.

doi: 10.1097/TA.0000000000002786, <https://pubmed.ncbi.nlm.nih.gov/32427773/>[https://journals.lww.com/jtrauma/Abstract/9000/Rescue\\_Therapy\\_for\\_Severe\\_COVID\\_19\\_Associated.97875.aspx](https://journals.lww.com/jtrauma/Abstract/9000/Rescue_Therapy_for_Severe_COVID_19_Associated.97875.aspx)



The COVID-19 pandemic has led to unprecedented stresses on modern medical systems, overwhelming the resource infrastructure in numerous countries while presenting a unique series of pathophysiologic clinical findings. Thrombotic coagulopathy is common in critically ill patients suffering from COVID-19, with associated high rates of respiratory failure requiring prolonged periods of mechanical ventilation. Here we report a case series of five patients suffering from profound, medically refractory COVID-19 associated respiratory failure who were treated with fibrinolytic therapy using tissue plasminogen activator (tPA, Alteplase). All five patients appeared to have an improved respiratory status following tPA administration: one patient had an initial marked improvement that partially regressed after several hours, one patient had transient improvements that were not sustained, and three patients had sustained clinical improvements following tPA administration.

## **POLICY / ECONOMICS: FUNDING PANDEMIC RELIEF—MONETISE NOW**

MIT Golub Center for Finance and Policy , 15 May 2020

[Deborah J. Lucas](#), [Sloan Distinguished Professor of Finance](#) and Director, MIT Golub Center for Finance and Policy

Refet A. Gürkaynak, Professor of Economics and Department Chair, Bilkent University

<https://gcfp.mit.edu/funding-pandemic-relief-monetise-now/> (Reposted with permission from [VOXEU](#).)

In advanced economies the current macroeconomic policy scene is dominated by three interrelated challenges: rapidly meeting the unprecedented spending needs to respond to the COVID-19 crisis, holding government debt to a sustainable level, and avoiding deflation. This column argues that monetizing some of the pandemic-related debt would be the best way to address all three issues simultaneously, even if it risks some future above-target inflation. It proposes a particular mechanism for debt monetization, with the proceeds used to fund the partial replacement of lost wages through the banking system. The proposed mechanism effectively monetizes the cost of the program, in contrast to central banks' current debt purchase programs, which for the most part have not yet resulted in monetization.

Massive efforts to support health systems, meet citizens' subsistence needs, and preserve business establishments in the face of the COVID-19 pandemic have caused government spending in many countries to skyrocket. While there is unusually broad agreement that aggressive fiscal policies are necessary, there is also growing concern over the consequences of the precipitous rise in already high government debt levels that may be slowing the adoption of further beneficial but costly interventions. Meanwhile, the pandemic has exacerbated an existing macroeconomic concern, the risk of continued below-target inflation, or now even disinflation, in the face of sharply curtailed demand.

Economic policymakers therefore face three interrelated challenges: (1) To provide large amounts of debt-funded assistance quickly due to the pandemic; (2) to avoid accumulating unsustainable levels of government debt; and (3) to head off deflationary pressures.

## PHILOSOPHY / DIGITAL LIFE: WHAT THE PANDEMIC TELLS US ABOUT PERSONAL IDENTITY

We have become more used to seeing others through screens and software, but we are embodied beings and digital communication can feel lacking. What effect will this have on us?

By [Kieran Setiya](#), [Professor of Philosophy](#)

7 May 2020, New Statesman

<https://www.newstatesman.com/science-tech/social-media/2020/05/lockdown-physical-digital-communication-alienation-loneliness-philosophy>

Like many of us these days, I spend half of my life online. There's no point fighting it. If I want to connect with anyone beyond my nuclear family, I have to do it virtually. We Skype and Zoom and FaceTime. Chances are, if I have seen you in the last month or two, I saw an image of you on a computer screen and heard your voice through headphones — the same way you experienced, or failed to experience, me.

Our evacuation to the internet sparks urgent, practical questions. What about those who lack sufficient access to the World Wide Web? How far can online interaction meet our emotional needs? But there are more contemplative questions, too. What will happen to our sense of identity as we interface with others, increasingly, as avatars and not beings in physical space? Will we embrace our disembodiment, or recoil from it?...

... The stress of social distancing and the palpable inadequacy of virtual interaction manifest a basic truth of personal identity: we are embodied beings, not streams of consciousness. In craving contact with each other, we crave physical not just psychological proximity. When we communicate through our screens, we feel the absence of others even as they share their thoughts. That's why Zoom is bittersweet.

It isn't easy to predict the effects of this deprivation. Will it foster the illusion of freedom from the body, the dream of digital escape? Or will it induce us to cherish our analogue lives? Our organic vulnerability plays out in newspapers and on screens, its scale disturbing and as yet uncertain. So, we shelter in place. I hope our isolation leads us to appreciate what we really are, as well as what it means to be with others, in person — as bodies, and not just minds.

## MANAGEMENT / WORK: MAKING REMOTE WORK WORK

MIT researcher [Kristine Dery](#) shares how to make remote work an opportunity for employees to excel.

Sloan Management Review, 26 May 2020, <https://sloanreview.mit.edu/audio/making-remote-work-work/>

As companies adjust to the reality that the sudden shift to remote work we experienced in March and April of 2020 is unlikely to shift back with anything like the same suddenness, leaders are faced with a new challenge: how to make remote work a permanent and productive part of their long-term workforce strategies.

Enter [Kristine Dery, research scientist and program manager for the MIT Center for Information Systems Research \(CISR\)](#). Dery's research on the employee experience of remote and distributed work has a great deal to teach organizational leaders. To start, focus on the words employee experience. For many of us, remote work has been a matter of survival — it's how we and our organizations are coping with the social distancing required by the COVID-19 pandemic. As we rushed out of our offices and into our living rooms and kitchens, we mainly focused on carrying on the work we were accustomed to doing in a collocated office environment. Well, as it turns out, replicating office protocols in our homes does not make for a particularly rewarding employee experience.

So Dery urges us to take a fresh look at remote work and how it can become not just something we suffer through, but something that actually helps us excel. This means working with your employees to iterate designs for physical spaces and operational processes that work; it means adopting new management techniques; and it may mean being willing to revisit how you communicate and how you lead. Listen to the full episode to learn more — link to podcast and transcript: <https://sloanreview.mit.edu/audio/making-remote-work-work/>

#### ***CISR 2020 Research Project: [Digitizing Work to Work Digitally](#)***

Digital technologies not only enable us to eliminate work that is not value-adding (the junk), but also to re-design work to unlock value for employees (and therefore customers) in new ways. Companies are breaking knowledge work processes into components, many of which are then capable of being digitized. In this way work components become visible, can be easily shared, and are able to be linked and re-organized in ways that were never possible before. This research is designed to gain further insights into how companies are digitizing work, and also to understand more about what it means to be working digitally.

#### **SUPPLY CHAINS: WHO GETS WHAT WHEN SUPPLY CHAINS ARE DISRUPTED?**

When companies cannot meet the full demands of their customers, leaders need to set clear decision criteria and the mechanisms to back them up.

[Yossi Sheffi](#) (Elisha Gray II Professor of Engineering Systems at MIT and director of the MIT Center for Transportation and Logistics)

27 May 2020, Sloan Management Review, <https://sloanreview.mit.edu/article/who-gets-what-when-supply-chains-are-disrupted/>

The COVID-19 pandemic has upended normal life and many supply chains. Between hoarding (such as toilet paper), unexpected demand surges (such as yeast, for baking), and spot supply shortages (because of factories or warehouses closed due to infection or mandate), some products are in short supply. The most tragic examples, of course, involve shortages of ventilators, personal protective equipment, and pharmaceutical supplies required to care for people infected with the coronavirus.

When disaster strikes, suppliers, original equipment manufacturers, and retailers may find that they cannot offer all their products or fulfill all their customer orders. They must decide who gets what. But how?

Past disruptions reveal the ways companies on both ends of the supply chain have handled such challenges, both in terms of the tactics they employed and the considerations they used for their decisions. These examples illustrate the diverse approaches executives can use to determine who gets what.

**Six Tactics for Managing Supply Shortfalls:** <https://sloanreview.mit.edu/article/who-gets-what-when-supply-chains-are-disrupted/>

## MIT-RELATED STARTUPS

**MIT Startup Exchange:** <https://startupexchange.mit.edu/>

### AZENTIVE

Palm Springs, CA, <https://www.azentive.com/>  
<https://www.azentive.com/azentivenaturalsunlight/>  
<https://www.linkedin.com/company/azentive/>

AZENTIVE offers human and technology solutions that will help create a more profitable and sustainable business.

We are currently focused on a simple and targeted technology that is being overlooked to aggressively attack COVID-19, contributing to:

- Improved Healthcare worker and patient health and faster recoveries, and
- Rapid sterilization from SARS-CoV-2 and other viruses in large spaces.

### RAN BIOTECHNOLOGIES

Beverly, MA, <https://www.ranbiotechnologies.com/>

RAN Biotechnologies is a team of chemists, biologists and technologists developing smart chemicals to reinforce the work of other scientists. We innovate in the lab – and iterate for the scientific market.

Materials & tech to detect microbes in environment.

## HOW A STARTUP BORN AT MIT BUILT A COVID-19 MASS TESTING SITE IN NIGERIA

MIT Legatum Center for Development & Entrepreneurship

Written by: Elizabeth MacBride, Journalist in Residence, MIT Legatum Center and Founder of Times of Entrepreneurship.

<https://legatum.mit.edu/resources/how-a-startup-born-at-mit-built-a-covid-19-mass-testing-site-in-nigeria/>

**Genevieve Barnard Oni (Sloan MBA; Legatum Fellow 2018-19)** realized the scope of the pandemic and the extent of her power to help as she was sending messages to China. She hit send. A woman in China would respond, with mundane but important information: Order numbers for test kits. Delivery dates.

“She would respond sometimes to me at 3 a.m.,” Genevieve says. “It felt like this cool connection. We’re all in this together to get the test kits where they need to be.”

Where they needed to be was Lagos, Nigeria, where she lives part-time with her husband and business partner, **Oluwasoga Oni (MS SDM '16; Legatum Fellow 2015-16)**— who goes by “Soga.”

When COVID-19 struck, they were at the heart of Nigeria’s need. The duo, along with two other co-founders, were running a diagnostic services startup in Nigeria. By April 23, they had helped set up and started operating the country’s first booth-based mass testing site, a facility where they collect swabs and send them to labs for testing. Working in Ota, Ogun State, they have collected more than 500 samples. As cases in West Africa are expected to rise, they hope to open more testing sites, and have received funding for one more.

“What we saw early in the epidemic is that we’re going to need to be able to test a lot more people,” said Soga. “We collect more samples than anywhere in the state. We’re hoping to be able to do a lot more of those.”

There have been 7,526 cases in Nigeria, according to the Johns Hopkins coronavirus tracker. But the Nigerian government has been criticized for slow testing, and The New York Times reported on an outbreak in Kano that appears to be larger than official numbers suggest.

“There’s a tension between wanting to stop the spread ... but there’s a recognition that people are losing their livelihood,” said Soga. “It’s an impossible situation. In Nigeria, the country cannot afford to be locked down.”

They met in Boston, when Soga was studying at MIT. He’d had what he calls a quarterlife crisis after being in the working world for a few years and discovering that he wanted more meaning in what he did. (Disclosure: I’m a fellow at the Legatum Center for Development & Entrepreneurship, where Soga was also a fellow). Genevieve, meanwhile, was working at Babson College after a stint working in the public health sector in Uganda. They had their first date in Central Square. They discovered they had a mutual interest in global health and entrepreneurship. “It was definitely a niche interest,” Genevieve says with a laugh. “For our second date, Soga invited me to class.”

The couple still jokes about how the other sticks out in their respective hometowns. “I am one of three black people in Dover, (Mass.),” says Soga, who was born in his father’s hospital in Ikare-Akoko.

The two co-founded **MDaaS, Medical Devices As A Service**, along with Opeyemi Ologun and Joseph McCord, in 2016. They have raised a total of \$1.4 million. A \$1 million round last year was lead by Consonance Investment Managers, with participation from, among others, Techstars, FINCA Ventures, the Fund for Africa's Future and Greentree Investment Co...

<https://legatum.mit.edu/resources/how-a-startup-born-at-mit-built-a-covid-19-mass-testing-site-in-nigeria/>

**See:**

**MDaaS Global** (Lagos, Nigeria): <https://www.mdaas.io/> and <https://www.linkedin.com/company/mdaas/>

And **Covid-19 Testing Guide**: <https://covid19.mdaas.io/>