

## [EXTERNAL] Fwd: Lander interview?

---

**From:** Lee McGuire (b) (6)  
:  
**To:** "Koizumi, Kei EOP/OSTP" (b) (6), Kristen Zarrelli  
(b) (6)  
**Date:** Thu, 21 Jan 2021 12:34:48 -0500

Kei- I asked Joel to connect with you here. Joel is another reporter Eric knows well-- he's written several excellent pieces in the past.

[Lee McGuire](#) (He/him/his)  
Chief Communications Officer, Broad Institute of MIT and Harvard  
[Megan Mandosa-Hayes](#), Senior Administrative Assistant

----- Forwarded message -----

**From:** Achenbach, Joel (b) (6)  
**Date:** Thu, Jan 21, 2021 at 12:02 PM  
**Subject:** Lander interview?  
**To:** Lee McGuire (b) (6)  
**Cc:** (b) (6) (b) (6)

Good morning! I've been asked to do a profile of Eric, any chance you can help me set up an interview? Thanks much...Best, Joel

On Mon, Dec 14, 2020 at 5:59 PM Achenbach, Joel (b) (6) wrote:

David, Lee, hi! I am hoping to do a look-back on 2020 and lessons learned. The story would try to estimate the true impact of the pandemic. And would discuss what we've discovered about the resilience of our systems, our scientific process, etc. – do you think Eric would have a few minutes at some point to get on the phone and talk about this? thanks in advance...best, Joel

(b) (6) -cell

## [EXTERNAL] Congratulations

---

**From:** Joseph Palmeri (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Date:** Thu, 21 Jan 2021 19:24:09 -0500  
**Attachments:** smime.p7s (1.86 kB)

Dear Dr Lander,

I set this email to your Broad email address and was instructed to send it here instead. I've copied the text of the message below:

We've never met, but I am a graduate student in the Wittrup lab in the chemical engineering PhD program here at MIT. I wanted to congratulate you on your appointment in the Biden administration - It's exciting to see a fellow member of the MIT community serving as the scientific advisor to the President and director of the OSTP. These last 10 months have often felt hopeless but I am confident that the country is headed in the right direction and science is finally going to be the main driver of our pandemic response.

The entire pandemic I've felt a desire to contribute to the response and have tried to do whatever I could to help, be it distributing calls for testing supplies on social media and department email lists last March or smaller things like breaking down COVID related news for friends and family. This is probably overstepping a bit, but I have some thoughts regarding genomic surveillance. Especially with newly arising variants that demonstrate modest levels of escape from vaccine and natural infection elicited antibody responses, it seems imperative that we ramp up sequencing efforts to monitor for additional variants. Obviously here at MIT, largely due to your leadership, the Broad has become a world class genomics center and we have other smaller sequencing centers around campus. However, it's my understanding that at many other universities this is not the case. One way to scale up our national genomic surveillance abilities would be to provide large grants to establish sequencing cores at most, if not all, mid and top tier research universities across the US. For the duration of the pandemic, SARS-Cov-2 sequencing would be prioritized. Once this pandemic is behind us, these cores would be a huge benefit to the local research community and accelerate research at academic institutions across the country. These grants would represent both an investment in responding to the current pandemic and simultaneously a long term investment in US academic research infrastructure. With vaccine distribution ramping up and the time it would take to establish these cores it feels like this idea is perhaps too little too late, although I imagine the need for global SARS-CoV-2 genomic

surveillance will continue for quite some time. Additionally with continued funding, this network of sequencing cores could also function as part of a larger national genomic surveillance program for any pathogens of interest for years to come.

I just wanted to congratulate you again on your new role and wish you the best.

Sincerely,  
Joseph

P.S. Although I work in a cancer immunotherapy lab now, I had little background knowledge in biology prior to starting grad school. Your recorded online biology lectures were a huge help at the beginning of my PhD - you're a phenomenal educator! I also loved your interview on Lovett or Leave it!

**Joseph Palmeri**

Chemical Engineering Ph.D. Candidate

Wittrup Lab

Massachusetts Institute of Technology

(b) (6) | (b) (6)

## Re: [EXTERNAL] Fwd: Checking in on corporation meeting production

---

**From:** Maria Zuber (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Cc:** "Koizumi, Kei EOP/OSTP" (b) (6)  
**Date:** Tue, 26 Jan 2021 21:05:41 -0500

(b) (5)

Look forward to our discussion tomorrow.

Maria

Sent from my iPad

On Jan 26, 2021, at 8:51 PM, Lander, Eric S. EOP/OSTP (b) (6) wrote:

Hi Maria

(b) (5)

I'll double check with Kei (copied).

Best

Eric

Sent from my iPhone

On Jan 26, 2021, at 8:17 PM, Maria Zuber (b) (6) > wrote:

Hi Eric—

See invitation from Diane Greene to speak @ MIT Corporation mtg w/me Mar 5.

Cheers—

Maria

Begin forwarded message:

**From:** Diane Greene <(b) (6)>  
**Subject:** Re: Checking in on corporation meeting production  
**Date:** January 26, 2021 at 7:58:02 PM EST  
**To:** Maria Zuber (b) (6)

p.s. I was also hoping to get Eric Lander to speak for 10 minutes at the start of the meeting about his role, followed by you. That would be at 10:05 am on the 5th. I wrote to Eric but it bounced since he is no longer receiving email at his Broad account. If you are in touch with him, would you mind asking if this would be possible. People would be so interested to hear from each of you, back-to-back. Thank you.

Diane Greene

Chair, MIT Corporation

Asst: Kathleen Mitchell (b) (6) + (b) (6)

Massachusetts Institute of Technology



**From:** Maria Zuber  
**Sent:** Tuesday, January 26, 2021 6:10 PM  
**To:** Diane Greene  
**Subject:** Re: Checking in on corporation meeting production

Hi Diane—

I discussed the climate session with the senior team this morning and Rafael and the others are very supportive.

I have a list of possible participants and can start with the invites. Is there a schedule for the meeting yet so I can tell

people when they would be needed? If not I can ask them to block the morning of the meeting and we will get back to them soon.

And of course I will be happy to make brief remarks about my new role.

All the best—

Maria

On Jan 25, 2021, at 7:50 PM, Diane Greene (b) (6) wrote:

Hi Maria,

I'm checking in to sync up with you on your portion of the corporation meeting on March 5th.

Have you selected the 6-7 breakout session leaders and topics? I'd appreciate the chance to see them, as I have a good sense at this point, of what corporation member's interests are. I am going to let them express a preference and I'd like to make sure that they are chosen such that we get a natural spread of choices.

I also advertised that each moderator would do a "lightening talk" to be posted as part of your overview for the "pre-read". I am going to send an email advertising the lightening talks and encouraging everyone to watch them.

I've asked the technical people to provide the videos on both vimeo and youtube. vimeo is easier to use but youtube lets you play the video at different speeds. I've also asked them to help us provide a table of contents for the videos so that people can jump to where their interests are.

I hope that they lightening talks prove useful for other things, and of course, the authors are welcome to use them - on their websites, etc. As we get closer, I'll send instructions to the moderators as well. Last time a couple of the sessions suffered from one person dominating the session. I've also asked the technicians to give a countdown to the end of the 45 minute breakout so that people don't just suddenly evaporate as they did last time.

Lastly, if moderators have any pre-reads in addition to their lightening video, I can send those recommendations out as well.

I imagine your life is quite stimulating, even more so than it was!

Thank you very much for managing to squeeze this in.

I hope that you can also say a few words about your new role and what you hope to accomplish. (That would be live, not on video!)

All the best,

Diane

---

Maria T. Zuber

Vice President for Research

E.A. Griswold Professor of Geophysics

Massachusetts Institute of Technology

77 Massachusetts Avenue, 3-234

Cambridge, MA 02139-4307

Phone: (b) (6)

>>[<<](http://orgchart.mit.edu/vice-president-research);

Research Office:

Department of Earth, Atmospheric and Planetary Sciences

Massachusetts Institute of Technology

77 Massachusetts Avenue, 54-518

Cambridge, MA 02139-4307

Phone: (b) (6)

>>[<<](http://www-geodyn.mit.edu);

Not all those who wander are lost.

-- J.R.R. Tolkien

---

---

Maria T. Zuber

Vice President for Research

E.A. Griswold Professor of Geophysics

Massachusetts Institute of Technology

77 Massachusetts Avenue, 3-234

Cambridge, MA 02139-4307

Phone: (b) (6)

>>[<<](http://orgchart.mit.edu/vice-president-research);

Research Office:

Department of Earth, Atmospheric and Planetary Sciences

Massachusetts Institute of Technology

77 Massachusetts Avenue, 54-518

Cambridge, MA 02139-4307

Phone: (b) (6)

>><http://www-geodyn.mit.edu><<;

Not all those who wander are lost.

-- J.R.R. Tolkien

---



## [EXTERNAL] Re: Keynote Speech Invitation - CNAS Event on a National Technology Strategy

---

**From:** Martijn Rasser (b) (6) >  
:  
**To:** Lee McGuire (b) (6) >, "Koizumi, Kei EOP/OSTP"  
(b) (6), Megan Lamberth (b) (6)  
**Date:** Wed, 27 Jan 2021 13:36:42 -0500

Thank you very much, Lee.

Hi Kei, Dr. Lander's OOO message contained his OSTP email so I already emailed him there. Please let me know if Dr. Lander would be interested in giving the keynote and whether you have any questions.

Best,

Martijn

**Martijn Rasser**

Senior Fellow  
Technology and National Security Program  
Center for a New American Security

—  
P. (b) (6)  
1152 15TH Street NW, Suite 950  
Washington, DC 20005

**From:** Lee McGuire (b) (6)

**Sent:** Wednesday, January 27, 2021 1:04 PM

**To:** Koizumi, Kei EOP/OSTP (b) (6); Martijn Rasser  
(b) (6) Megan Lamberth (b) (6)

**Subject:** Fwd: Keynote Speech Invitation - CNAS Event on a National Technology Strategy

Hi Martijn - thanks for this request. Eric is now in his new role and is on leave from the Broad, so I'm sharing this with Kei Koizumi in OSTP.

Lee

---

[Lee McGuire](#) (He/him/his)  
Chief Communications Officer, Broad Institute of MIT and Harvard  
[Megan Mandosa-Hayes](#), Senior Administrative Assistant

----- Forwarded message -----

From: **Martijn Rasser** (b) (6)

Date: Wed, Jan 27, 2021 at 12:44 PM

Subject: Keynote Speech Invitation - CNAS Event on a National Technology Strategy

To: (b) (6), (b) (6)

Cc: (b) (6), (b) (6), (b) (6)

(b) (6), (b) (6)

(b) (6), Megan Lamberth (b) (6)

Dear Dr. Lander,

On behalf of the Center for a New American Security (CNAS), I would like to extend an invitation to **serve as the keynote speaker** at an upcoming event on **why the United States needs a national technology strategy**.

Earlier this month, my colleague Megan Lamberth and I published a CNAS report, "[Taking the Helm: A National Technology Strategy to Meet the China Challenge](#)," which offered an intellectual framework for what a national approach to technology policy might look like.

Sometime in the next several weeks, we plan to hold a virtual public event that will touch on similar themes to our report. With your distinguished career working at the intersection of biology and technology and your new role at the Office of Science and Technology Policy, we would be honored to have you as the keynote speaker.

We're envisioning a **90-minute event** that would look something like this:

Welcome and Introduction - Richard Fontaine, CEO, CNAS 5-7 minutes

Keynote - Dr. Eric Lander, 15-20 minutes

Moderated Q&A with Dr. Lander 10-15 minutes

Panel discussion (planned invitees include, Michael Brown (DIU), Rep. Mike Gallagher (R-WI), former Deputy Director OSTP Lynne Parker, Sue Gordon (former Principal Deputy Director of National Intelligence, Robert Work (former Deputy Secretary of Defense)) 48-60 minutes

We're looking at dates in late February or early March, but would, of course, be willing to work around your schedule.

I appreciate your consideration.

Best,

Martijn

## **Martijn Rasser**

Senior Fellow

Technology and National Security Program

Center for a New American Security

—

P (b) (6)

1152 15TH Street NW, Suite 950

Washington, DC 20005

## Re: [EXTERNAL] Another introduction

---

**From:** Tyler E Jacks (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Cc:** "Koizumi, Kei EOP/OSTP" (b) (6) >, "Lo, Kevin C. EOP/OSTP" (b) (6)  
**Date:** Sun, 31 Jan 2021 14:55:31 -0500  
**Attachments** smime.p7s (1.86 kB)

:

Sounds good. Just let me know.

Best,

Tyler

> On Jan 31, 2021, at 2:53 PM, Lander, Eric S. EOP/OSTP (b) (6) wrote:

>

> Hi Tyler:

>

> Thank you for this great suggestion! (b)(6) PII would be a great person for me to reach out to.

>

> I really appreciate your thinking of me in this.

>

> Since I'm just newly onboard, let me check with my colleagues here about how best to proceed. I may ask you connect us directly.

>

> With best wishes,

> Eric

>

>

> On 1/31/21, 2:48 PM, "Tyler E Jacks" (b) (6) wrote:

>

> Hi Eric-

>

> I am guessing these are even busier times than usual for you with the responsibilities in the new

posts (congrats, again, on all of that).

>

> I just got out of a meeting as part of the Harvard Board of Overseers that featured various things happening at Harvard in the area of climate change. Needless to say, it was an impressive group. However, one person stood out from the crowd that I want to bring to your attention. You may well already know of her, but I believe that you two have not met.

>

> She is (b)(6) PII Professor at the Harvard Law School. (b)(6) PII

Based on her comments during this meeting and other things I've read about her, (b)(6) PII strikes me as an exceptional asset in the governmental approach to climate change policy and implementation. She has a clear-eyed, practical point of view that is, frankly, extremely refreshing. She sees things from the side of needing to make changes to facilitate the transition to the post-carbon economy, but has a sense of reality about what will be needed to make that work in the real world. As an example of walking the line, all of her academic work and scholarship is in the area environment and energy policy changes (b)(6) PII where is trying to bring them into line.

>

> I am guessing that you are going to have a very important voice in the administration's approach to this set of issues, and I wanted to give you the heads up that (b)(6) PII could be someone to connect to.

>

> I am happy to make an introduction.

>

> Best,

>

> Tyler

>

>

>

>

## [EXTERNAL] Op-Ed Woodcock FDA

---

**From:** Phillip A Sharp (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Date:** Mon, 01 Feb 2021 11:27:00 -0500  
**Attachments:** Sharp Sigal DRAFT OP ED JW FOR FDA.docx (15.16 kB); smime.p7s (1.86 kB)

Eric,

I and Ellen Sigal are submitting the Op-Ed below to the Washington Post and other outlets. Janet would be an outstanding commissioner leading the FDA.

Any advice about how to promote this would be appreciated.

Hope you are enjoying the new opportunities.

Phil

The urgency for a vital Biden health appointment

By: Phillip A. Sharp, PhD & Ellen V. Sigal, PhD

President Biden commitment to science is lifelong and even before his inauguration he has shown this through many inspired health-related appointments. However, one of the most important appointments, Commissioner of the U.S. Food and Drug Administration (FDA), has not yet been made.

FDA is charged with critical review and scientific decisions to protect and ensure public health. This includes the review of COVID vaccines, tests, and treatments, as well as life-extending cancer therapies, and the review of medical devices that millions of patients rely on every day.

With over 400,000 Americans lost to COVID-19, a number strikingly similar to those lost to cancer each year, the individual nominated to lead the agency will face one of the most perilous and serious public health crisis America has ever seen and a disease that ravages our Nation each year. They will enter the agency with the immense challenge to repair what four years of disregard for science has done all while ensuring incredible advancements in treating cancer and other maladies are not jeopardized as we battle the pandemic.

We believe no individual is better positioned to navigate the pandemic and take us forward than current Acting Commissioner of the FDA, Janet Woodcock. Few other individuals would signal the respect President Biden has for the agency than Dr. Woodcock.

In order to restore trust in the FDA, and restore morale within, a permanent leader with expansive experience, medical expertise, and the confidence of agency staff and the American public needs to be nominated in short-order.

Woodcock's qualifications to run the FDA at this vital moment are unimpeachable. She has always been straightforward in her belief in science, innovation, and the important role FDA plays in the lives of patients.

Having served for decades as the Director of the FDA's Center for Drug Evaluation and Research (CDER) she has led the agency to be the global gold standard for regulatory science, innovation and protecting public health. In cancer care the FDA's approval of immunotherapy is one of the most important advances for decades. It has saved the lives of many cancer patients with melanoma, lung cancer and other types of cancer. Over this period, Woodcock's leadership has been visionary. The agency's decisions have protected patients and advanced lifesaving treatments.

Time is of the essence - much at stake and high-profile role of FDA's decisions in the coming months. The absence of a nominee to head the FDA risks being a chink in the armor of the assembling health team. We need confirmed leader that can be activated in a timely manner, and with the knowledge and experience to hit the ground running on day one. Janet woodcock is that leader.

*Phillip A. Sharp, PhD, is a Nobel Laureate and Institute Professor at the Massachusetts Institute of Technology, member of the Department of Biology at the Koch Institute for Integrative Cancer Research and Chairperson of Stand Up To Cancer's Scientific Advisory Committee.*

*Ellen V. Sigal, PhD, is Chairperson and Founder of Friends of Cancer Research.*

**Re: [EXTERNAL] Potential JASON participation on COVID vaccine strategy analysis**

---

**From:** "Lander, Eric S. EOP/OSTP" (b) (6) >  
:  
**To:** David Liu (b) (6), Peter H Fisher (b) (6), Gordon Long (b) (6), Adam Cohen (b) (6), "Stearns, Tim" (b) (6), Ellen D. Williams (b) (6), R. Scott Kemp (b) (6), Sara Sawyer (b) (6), Gerald Joyce (b) (6), Ronald Breaker (b) (6), Steven Block (b) (6), Devon M Caylor (b) (6)  
**Cc:** "Koizumi, Kei EOP/OSTP" (b) (6), "Lo, Kevin C. EOP/OSTP" (b) (6)  
**Date:** Mon, 01 Feb 2021 19:10:28 -0500

David and All:

I appreciate everyone's willingness to brainstorm about this topic.

I'll talk with Kevin about working with you to find a good time that we all (or most of us) might connect on Thurs/Fri.

With much thanks,  
Eric

---

**From:** David Liu (b) (6)  
**Date:** Monday, February 1, 2021 at 6:33 PM  
**To:** Peter H Fisher (b) (6), Gordon Long (b) (6), Adam Cohen (b) (6) >, "Stearns, Tim" (b) (6), "Ellen D. Williams" (b) (6), "R. Scott Kemp" (b) (6), Sara Sawyer (b) (6) >, Gerald Joyce (b) (6), Ronald Breaker (b) (6), Steven Block (b) (6), Devon M Caylor <(b) (6)>  
**Cc:** "Lander, Eric S. EOP/OSTP" (b) (6)



**Subject: [EXTERNAL] Potential JASON participation on COVID vaccine strategy analysis**

All,

As I previewed to this group, Eric Lander (copied here to his .gov email address) is gathering information about the ways that JASON might help analyze key questions about vaccine distribution, vaccine vulnerability to emerging SARS-CoV-2 strains, and other important issues. A potential JASON study, letter report(s), and/or less formal activity might result. There is mutual recognition that time is of the essence in this matter, but that good, rigorous analysis takes time—and clear, well-bounded questions.

A good next step would be to have a call around the end of this week that would allow Eric and JASON to ask questions and determine if there is a path forward.

Eric can propose times that work best for him.

Best,  
David

---

David R. Liu  
Richard Merkin Professor and Director of the Merkin Institute  
of Transformative Technologies in Healthcare  
Director of the Chemical Biology and Therapeutic Sciences Program  
Core Institute Member and Vice-Chair of the Faculty, Broad Institute  
Investigator, Howard Hughes Medical Institute  
Thomas Dudley Cabot Professor of the Natural Sciences  
and Professor of Chemistry & Chemical Biology, Harvard University  
75 Ames Street  
Cambridge, MA 02142

## [EXTERNAL] Photo for AMS Notices article?

---

**From:** Karen Saxe (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Cc:** (b) (6)  
**Date:** Wed, 03 Feb 2021 09:18:33 -0500

Dear Eric,

Hope you are well, and settling in. We would like to put a photo of you in the article to appear in AMS Notices. To do this, we need

- a photo together with permission to publish it
- information about when and where it was taken

Is this something you, or a staff of yours can supply?  
Thank you!  
Karen

---

**From:** Karen Saxe  
**Sent:** Thursday, January 21, 2021 5:26 PM  
**To:** Eric S Lander (b) (6), (b) (6)  
**Cc:** ESLOffice (b) (6)  
**Subject:** RE: Notices version of your talk at the National Math Festival

Thank you Eric. I will make all those changes and submit. I expect it to appear in June, or July.

Thank you so much for doing this for us. I am sure you are pretty busy!

Best,  
Karen

---

**From:** Eric S Lander (b) (6)  
**Sent:** Thursday, January 21, 2021 4:57 PM  
**To:** (b) (6)

Cc: Karen Saxe (b) (6) ESLOffice (b) (6)

Subject: Re: Notices version of your talk at the National Math Festival

David, Karen:

Thanks. I made some light edits to the introduction.

With best wishes,  
Eric

---

**Karen Saxe, PhD**

*Associate Executive Director*

+(b) (6) (t)



700 Pennsylvania Avenue, SE, Suite 570 | Washington, DC 20003-2551 USA



We appreciate your patience during the Coronavirus Emergency as staff is working remotely.

## Tomorrow morning?

---

**From:** "Lander, Eric S. EOP/OSTP" (b) (6)

**To:** Phil Sharp (b) (6)

**Date:** Fri, 12 Feb 2021 17:05:08 -0500

Hi Phil:

What time tomorrow morning would be best for you for my quick question?

With much thanks,  
Eric

## [EXTERNAL] Vaccine availability

---

**From:** "Roberts, Rich" <(b) (6)>  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6) v>  
**Cc:** Eric Lander <(b) (6)>  
**Date:** Mon, 22 Feb 2021 16:46:08 -0500  
**Attachments:** People's Vaccine Letter to President Biden with Signatories PDF.pdf (182.66 kB)

Dear Eric:

I'm glad to be in touch and wish you well in the new job. Hope you get confirmed soon. Attached is the letter I mentioned I would send you. It apparently got released a little earlier than expected and now is publicly available.

Please share as you see fit.

Good luck

Rich

Richard J. Roberts  
New England Biolabs  
240 County Road  
Ipswich, MA 01938-2723  
USA  
Tel (b) (6)  
Fax: (978) 412 9910  
email (b) (6)

## **Open Letter to President Biden: A People's Vaccine—Free and Fair for All—to End the COVID-19 Crisis**

A safe, effective and accessible COVID-19 vaccine is vital to bring an end to today's dual economic and health crisis – so our families are safe, so people can get back to work, so we can live our lives again. No one anywhere is safe from this disease until everyone everywhere is safe.

As a cross-section of leaders from public health, business, faith-based, racial justice and labor organizations, public service, entertainment and economics, we join our voices to call on President Biden to commit to a People's Vaccine, which provides protection as a global public good, freely and fairly available to all, prioritizing those most in need worldwide.

President Biden has tremendous power to help decide *who* gets access to protection from this virus, *when* and *at what cost*. With this power comes an historic opportunity for America to lead again by leveraging the strength, know-how and generosity of our people to combat this disease here at home and wherever it resides.

A People's Vaccine is a medical necessity, an economic priority, and a moral imperative. The COVID-19 virus ruthlessly exploits existing inequalities, disproportionately affecting seniors, frontline healthcare and other essential workers, communities of color, people living in poverty, and people at more risk due to pre-existing conditions. Conflict over access to a vaccine that is distributed based on one's wealth or nationality - rather than on need - will risk millions of lives, delay our economic recovery and exacerbate the crisis. A safe, effective, free and fairly-distributed People's Vaccine is the fastest and most effective way to fight this pandemic, reopen our businesses and schools, protect Americans and our interests, and save lives here in the US and around the world. At a time when millions of Americans and people around the world face the dual-ills of health and economic insecurity, with communities of color facing disproportionate burdens, and where too many households stand only one health crisis away from poverty, it has never been more important to deliver a vaccine that can serve to protect working people.

Toward this end, the technology and know-how to make a COVID-19 vaccine should be shared with the world. Patents should be licensed, data published and technical assistance provided to teach appropriate vaccine production, so that qualified manufacturers everywhere can help expand the world's supply and prevent the type of artificial scarcity which will cost lives and livelihoods at home and abroad.

US taxpayers have already committed more than \$10 billion in public money towards a COVID 19 vaccine. A vaccine paid for *by* the people should work *for* the people and remain *of* the people.

We call on President Biden to:

1. Empower scientists to independently determine - without fear or favor - if each vaccine is safe and effective for approval. Neither politics nor profits have a place in the vaccine approval process.

2. Ensure full transparency and accountability over US funding for the development of COVID-19 vaccines.
3. Guarantee all vaccines are sold at affordable prices, as close to cost as possible, to ensure that the US and other governments can provide protection to people for free.
4. Ensure that companies and research institutions share vaccine technologies and know-how nationally and globally to overcome price and supply barriers, especially for those vaccines developed with taxpayer money.
5. Prevent monopoly control of production in order to mobilize large-scale and decentralized manufacturing of COVID-19 vaccines to adequately supply safe and effective vaccines for people here and around the world.
6. Work collaboratively with world leaders and health authorities worldwide to deliver and implement a fair and equitable global distribution plan for the vaccine and all COVID-19 products and technologies.
7. Prioritize protection for those people most in need and most at risk, including frontline healthcare and social-care workers, essential workers, older people, people with pre-existing conditions at higher risk, and high-transmission communities here and around the world.

\* \* \*

Signed,

**Frederick Abbott** - Edward Ball Eminent Scholar Professor, Florida State University College of Law; Co-Chair of the Global Health Law Committee of the International Law Association

**Joyce Ajlouny** - General Secretary, American Friends Service Committee

**Bisrat Aklilu, PhD** - Senior Development Advisor, Oxfam Board of Directors

**Philip Alston** - John Norton Pomeroy Professor of Law, New York University School of Law; Co-Chair, NYU Center for Human Rights and Global Justice

**Nancy Altman** - President, Social Security Works

**Sharif Aly** - CEO, Islamic Relief USA

**Joe Amon, PhD MSPH** - Director of Global Health and Clinical Professor, Dornsife School of Public Health, Drexel University

**José Andrés** - Founder, World Central Kitchen; Chef/Owner, ThinkFoodGroup

**Armand H. Matheny Antommaria, MD, PhD** - Director, Ethics Center, Cincinnati Children's Hospital Medical Center

**Stuart Appelbaum** - President of the Retail, Wholesale and Department Store Union (RWDSU/UFCW)

**Hale Appleman** - Actor

**Shahzeen Attari, PhD** - Associate Professor, O'Neill School of Public and Environmental Affairs, Indiana University Bloomington

**Ricardo A. Ayala** - Ethicist and Visiting Scholar, Division of Medical Ethics at New York University; Researcher in Business Ethics, University of Amsterdam

**Luke Baines** - Actor

**Brook Baker** - Professor, Northeastern University School of Law; Senior Policy Analyst, Health Global Access Project

**Radhika Balakrishnan, PhD** - Faculty Director, Center for Women's Global Leadership; Professor of Women's and Gender Studies, Rutgers University; President, International Association for Feminist Economics

**Robert Bank** - President and CEO, American Jewish World Service (AJWS)

**Ady Barkan** - Co-founder, Be a Hero PAC; Organizer, Center for Popular Democracy

**Donna Barry, MSN, MPH** - Director, Global Nursing; Assistant Professor, Regis College

**Michele Barry, MD, FACP, FASTMH** - Professor of Medicine and Tropical Diseases, Stanford University; Director, Center for Innovation in Global Health; Senior Associate Dean for Global Health, Stanford University\*

**Monica L. Baskin, PhD** - President, Society of Behavioral Medicine

**Rania Batrice** - Interim Executive Director, March for Science

**Sister Ruth Battaglia** - Congregation of Sisters of St. Agnes

**Alicia Bazzano, MD, PhD, MPH** - Chief Health Officer, Special Olympics, Inc.

**Carol Bellamy** - Former Executive Director, UNICEF (1995-2005)

**Avril Benoît** - Executive Director, Doctors Without Borders / Médecins Sans Frontières USA

**Ven. Bhikkhu Bodhi, PhD** - Chairperson, Buddhist Global Relief

**George Biddle** - Chairman, World Connect



**Paul Bland** - Executive Director, Public Justice

**Sister Pegge Boehm** - Sisters of the Presentation of the Blessed Virgin Mary of Aberdeen, South Dakota

**Ali Bokhari, DO, MPH** - President, American Medical Student Association

**Rabbi Sharon Brous** - Senior and Founding Rabbi, IKAR

**Rev. Jennifer Butler** - Founding Executive Director, Faith in Public Life; Author, *Who Stole My Bible?*

**Kate Campana** - Founder and CEO, The Access Challenge

**Bonnie Campbell** - Former Attorney General of Iowa

**Melanie Campbell** - President and CEO, National Coalition on Black Civic Participation; Convener of the Black Women's Roundtable

**Sister Simone Campbell, SSS** - Executive Director, NETWORK Lobby for Catholic Social Justice

**Sharon Carpenter** - TV Personality and Host

**Marco Castillo** - Co-Director, Global Exchange

**Oscar Chacon** - Executive Director, Alianza Americas

**Martin Chalfie** - University Professor, Columbia University (2008 Nobel Prize in Chemistry)

**R. Alta Charo, JD** - Warren P. Knowles Professor of Law & Bioethics, University of Wisconsin Law School

**Lincoln Chen, MD, MPH** - President Emeritus, China Medical Board Foundation

**Eliza Lo Chin, MD, MPH** - Executive Director, American Medical Women's Association

**Rev. Eugene Cho** - President and CEO, Bread for the World

**Noam Chomsky** - Institute Professor (Emeritus), MIT; Laureate Professor, University of Arizona

**Chelsea Clinton, DPhil, MPH** - Vice Chair, Clinton Foundation; Board Member, Clinton Health Access Initiative; Board member, Alliance for a Healthier Generation

**Jonathan Cohen** - Director, Public Health Program at Open Society Foundations

**Ronald Coleman** - President, New Orleans Chapter of the NAACP

**Chuck Collins** - Director of the Program on Inequality and the Common Good, Institute for Policy Studies

**Misha Collins** - Actor

**Christopher Cox, M.Div.** - Associate Director, Seventh Generation Interfaith Coalition for Responsible Investment

**Ophelia Dahl** - Co-founder and Chair, Board at Partners in Health

**Patricia Davidson, PhD** - Dean and Professor, Johns Hopkins University School of Nursing; Counsel General, International Council on Women's Health Issues; Secretariat, World Health Organizations Collaborating Centers for Nursing and Midwifery

**Sheila Davis, DNP** - CEO, Partners in Health

**Marie Dennis** - Senior Advisor, Pax Christi International

**Abigail Disney** - Documentary Film Producer, Philanthropist, and Social Activist

**Yacine Djibo** - Founder and Executive Director, Speak Up Africa

**John C. Dorhauer** - General Minister and President, United Church of Christ

**David J. Doukas, MD** - James A. Knight Chair, Humanities and Ethics in Medicine and Director, Program in Medical Ethics and Human Values, Tulane University School of Medicine

**Jason T. Eberl, PhD** - Professor of Health Care Ethics and Philosophy and Director, Albert Gnaegi Center for Health Care Ethics, Saint Louis University

**Malu Fairley-Collins, Rev, BCC, ACPE Certified Educator** - Vice President, Alliance of Baptists

**Paul Farmer, MD, PhD** - Co-founder and Chief Strategist, Partners in Health; Professor, Kolokotronis University; Chair, Department of Global Health and Social Medicine, Harvard Medical School; Chief of the Division of Global Health Equity, Brigham and Women's Hospital

**Phyllis Freeman, JD** - Editor Emerita, Journal of Public Health Policy

**Latanya Mapp Frett** - President and CEO, Global Fund for Women

**Sakiko Fukada-Parr** - Professor of International Affairs, The New School; Director, Julien J. Studley Graduate Programs in International Affairs

**Martha Gaines, JD, LLM** - Distinguished Clinical Professor of Law, University of Wisconsin Law School; Founder, Center for Patient Partnerships

**Jason George** - Actor

**Daniel Gillies** - Actor

**Marcy Goldstein-Gelb** - Co-Executive Director, National Council for Occupational Safety and Health

**Gregg Gonsalves, PhD** - Assistant Professor in Epidemiology of Microbial Diseases, Yale School of Public Health; Associate Professor of Law, Yale Law School; Co-director, Global Health Justice Partnership and the Collaboration for Research Integrity and Transparency

**Bob Goodfellow** - Interim Executive Director, Amnesty International USA

**Kenneth W. Goodman, PhD, FACMI, FACE** - Professor of Medicine and Philosophy and Director, Institute for Bioethics and Health Policy, University of Miami Miller School of Medicine

**Genevieve Gorder** - Designer, Television Personality, Activist

**Lawrence Gostin, JD** - Professor of Global Health Law, Georgetown University; Founding O'Neill Chair in Global Health Law; Director, WHO Center on Public Health Law and Human Rights

**Rebecca L. Gould** - Executive Director, Nebraska Appleseed

**Sharon Groves, PhD** - Vice President, Partner Engagement at Auburn Seminary

**Susan Gunn** - Director, Maryknoll Office for Global Concerns

**Rhiana Gunn-Wright** - Director of Climate Policy, Roosevelt Institute

**Arjun Gupta** – Actor

**Rohini Haar, MD, MPH** - Adjunct Professor, University of California at Berkeley School of Public Health; Research Fellow, Human Rights Center at UC Berkeley School of Law; Medical Advisor, Physicians for Human Rights

**Darrick Hamilton** - Henry Cohen Professor of Economics and Urban Policy and University Professor, The New School

**Rosa Handelman** - TV Writer and Producer, *Little Fires Everywhere*

**Chelsea Handler** - Comedian, Actress, Writer, TV Host, Producer and Activist

**Mona Hanna-Attisha, MD, MPH, FAAP** - Director, Pediatric Public Health Initiative; C.S. Mott Endowed Professor of Public Health, Division of Public Health; Associate Professor, Department of Pediatrics and Human Development, Michigan State University College of Human Medicine

**Lisa Haugaard** - Co-director, Latin America Working Group

**Mary Annaise Heglar** - Climate Justice Writer; Co-creator and Co-host, Hot Take podcast and newsletter

**Michele Heisler, MD, MPA** - Medical Director, Physicians for Human Rights; Professor of Internal Medicine and Public Health, University of Michigan

**Rev. Katharine Henderson, PhD** - President, Auburn Seminary

**Rev. Dr. Susan Henry-Crowe** - General Secretary and General Board of Church and Society, The United Methodist Church

**Claire Holt** - Actor

**Peter Hotez, MD, PhD** - Director, Center for Vaccine Development, Texas Children's Hospital; Dean, National School of Tropical Medicine, Baylor College of Medicine; Professor, Departments of Pediatrics and Molecular Virology & Microbiology, Baylor College of Medicine

**Chaz Howard, Rev. Dr.** - University Chaplain and Vice President for Social Equity and Community, University of Pennsylvania

**Margaret Huang** - President and CEO, Southern Poverty Law Center (SPLC) Action Fund

**Eddie Iny** - Director, Corporate Accountability Program at United for Respect

**Frederick Isasi** - Executive Director, Families USA

**Klaus H. Jacob, PhD** - Geophysicist, The Earth Institute of Columbia University

**Rabbi Jill Jacobs** - Executive Director, T'ruah: The Rabbinic Call for Human Rights

**Saru Jayaraman** - President, One Fair Wage; Co-founder, Restaurant Opportunities Centers (ROC) United; Director, Food Labor Research Center at the University of California, Berkeley

**Sherine Jayawickrama** - INGO Consultant and Former Executive Director, NGO Leaders Forum; Oxfam Board of Directors

**Martha Jeffries** - Film and Television Director, Producer, and Writer; Founding Member, Ocean Collectiv

**Maz Jobrani** - Comedian and Actor

**Robert Johnson** - President, Institute for New Economic Thinking (INET); Senior Fellow, the Roosevelt Institute

**Margarida Jorge** - Campaign Director, Lower Drug Prices Now

**Amy Kapczynski, JD** - Professor of Law, Yale Law School

**Michael Katz, MD** - Carpentier Professor of Pediatrics, emeritus, Columbia University, President of Oxford Maternal and Perinatal Health Institute, University of Oxford, UK

**Kerry Kennedy** - President, Robert F. Kennedy Human Rights

**Vanessa Kerry, MD, MSc** - Co-founder and CEO, Seed Global Health; Director of the Program in Global Public Policy and Social Change, Harvard Medical School; Physician, Massachusetts General Hospital

**Aaron Kesselheim, MD, JD, MPH** - Professor of Medicine, Harvard Medical School; Faculty Member, Brigham and Women's Hospital

**Navina Khanna** - Executive Director, HEAL Food Alliance

**Mary Jo Kilroy** - Former Representative for Ohio's 15th District

**Michael J. Klag, MD, MPH** - Second Century Distinguished Professor and Dean Emeritus, Johns Hopkins Bloomberg School of Public Health

**Kendall Kliewer** - Treasury Director, Avera Health

**Viviana Krsticevic, LLM** - Executive Director, Center for Justice and International Law

**Robert S. Lawrence, MD, MACP** - Professor Emeritus, Center for a Livable Future, Johns Hopkins Bloomberg School of Public Health; Founding Member, Board Member Emeritus, and Past Board Chair, Physicians for Human Rights

**Barbara Lawton** - Former Lieutenant Governor of Wisconsin

**Jennifer Leaning, MD, SMH** - Senior Research Fellow and former Director, FXB Center for Health and Human Rights, Harvard University; Professor of the Practice (retired), Harvard Chan School of Public Health; Associate Professor of Emergency Medicine, Harvard Medical School

**Sander Levin** - Former Representative for Michigan's 9th District and Former Chairman of the Ways and Means Committee; Professor of Practice, University of Michigan's Ford School of Public Policy

**Maggie Lindemann** - Musician

**Natalia Linos, MSc, ScD** - Executive Director, FXB Center for Health and Human Rights at Harvard University; Member of Poor People's Campaign COVID-19 Health Justice Advisory Committee

**Michael C. Lu, MD, MS, MPH** - Dean, School of Public Health, University of California, Berkeley

**Sean Maguire** - Actor

**Tessie San Martin** - CEO, Plan International USA

**Jessica E. Martinez** - Co-Executive Director, National Council for Occupational Safety and Health

**Kate Marvel, PhD** - Climate Scientist and Science Writer; Associate Research Scientist, NASA Goddard Institute for Space Studies (GISS) and Columbia Engineering's Department of Applied Physics and Mathematics

**Abby Maxman** - President and CEO, Oxfam America

**Mariana Mazzucato, PhD** - Professor in the Economics of Innovation and Public Value, University College London (UCL); Founder/Director, UCL's Institute for Innovation and Public Purpose

**Benjamin Mason Meier, JD, LL.M, PhD** - Associate Professor of Global Health Policy, Department of Public Policy, University of North Carolina at Chapel Hill

**Amy L. McGuire, JD, PhD** - Leon Jaworski Professor of Biomedical Ethics Director, Center for Medical Ethics and Health Policy, Baylor College of Medicine

**Tjada D'Oyen McKenna** - CEO, Mercy Corps

**Donna McKay** - Executive Director, Physicians for Human Rights

**Debra Messing** - Actor

**David Michaels, PhD, MPH** - Epidemiologist and Professor, Milken Institute School of Public Health, George Washington University

**Alyssa Milano** - Actor, Producer, and Political Activist

**David Miliband** - CEO, International Rescue Committee

**Ranit Mishori, MD, MHS, FAAFP** - Senior Medical Advisor, Physicians for Human Rights; Professor of Family Medicine, Georgetown University School of Medicine

**Javier Muñoz** - Actor

**Elena Nightingale** - Member and Emerita Scholar-in-Residence, National Academy of Medicine; Adjunct Professor Emeritus of Pediatrics, George Washington University School of Medicine and Health Sciences

**Abel Nunez** - Executive Director, Central American Resource Center

**Michelle Nunn** - President and CEO, CARE USA

**José Antonio Ocampo** - Professor of Professional Geophysicist, The Earth Institute of Columbia University in International and Public Affairs; Director, Economic and Political Development Concentration in the School of International and Public Affairs at Columbia University; Member, the Committee on Global Thought; Co-President, Columbia's Initiative for Policy Dialogue; Chair, Committee for Development Policy

**Raymond Offenheiser** - Director, Pulte Institute of Global Development, Keough School of Global Affairs, University of Notre Dame

**Harriet Jane Olson** - General Secretary/CEO, United Methodist Women

**Ole Petter Ottersen, MD, PhD** - President, Karolinska Institutet in Sweden

**Laura Packard** - Founder, Health Care Voices

**Morris Pearl** - Former Managing Director, BlackRock; Chairperson, Patriotic Millionaires

**Monica E. Peek, MD, MPH, MS** - Associate Professor of Medicine and Director of Research, MacLean Center of Clinical Medical Ethics; Associate Director, Chicago Center for Diabetes Translation Research; Executive Medical Director, Community Health Innovation, The University of Chicago

**Reshma Ramachandran, MD, MPP** - Physician-Fellow, Yale National Clinician Scholars Program

**Jonathan Reckford** - CEO, Habitat for Humanity

**John Regan** - Veteran's Legal Clinic, Legal Services Center, Harvard Law School, Oxfam Board of Directors

**Robert Reich** - Chancellor's Professor, University of California at Berkeley; Former U.S. Secretary of Labor

**Arthur Reingold, MD** - Professor and Division Head of Epidemiology, School of Public, UC Berkeley

**Henry S. Richardson, PhD** - Professor of Philosophy, Georgetown University; Senior Scholar, Kennedy Institute of Ethics

**Les Roberts, PhD** - Professor, Program on Forced Migration and Health, Columbia University Mailman School of Public Health

**Richard J. Roberts** - Chief Scientific Officer, New England Biolabs; Co-recipient 1993 Nobel Prize in Prize in Physiology or Medicine

**Emily Robinson** - Actor

**Dani Rodrik, PhD** - Ford Foundation Professor of International Political Economy, John F. Kennedy School of Government, Harvard University; President-Elect, International Economics Association; Co-director, Economics for Inclusive Prosperity

**Joseph S. Ross, MD, MHS** - Professor of Medicine and Public Health, Yale School of Medicine

**Kristin Rowe-Finkbeiner** - Co-founder and Executive Director/CEO, Moms Rising

**Leonard Rubenstein, JD, LL.M.** - Professor of the Practice, Johns Hopkins Bloomberg School of Public Health

**Mark Ruffalo** - Actor

**John Ruggie, PhD** - Berthold Beitz Professor in Human Rights and International Affairs, Harvard Kennedy School of Government; former UN Special Representative of the Secretary-General on Business and Human Rights

**Mohammed Zaher Sahloul, MD** - Co-founder and President, MedGlobal; Associate Professor, University of Illinois in Chicago, Founder, Syria Faith Initiative

**Angela Sanbrano** - Co-Executive Director, National Day Laborer Organizing Network

**Claudine Schneider** - Former Representative for Rhode Island's 2nd District

**Bill Schultz, JD** - Former General Counsel, Department of Health and Human Services; Former Deputy Commissioner, FDA; Board of Trustees, Partners in Health; Leadership Council, Yale School of Public Health; Board Co-chair, National Health Law Project; Board Member, Center for Science in the Public Interest



**Jamey Shachoy** - Chief Tax Officer, Accenture; Oxfam Board of Directors

**Sekou Siby, DBA** - Executive Director, Restaurant Opportunities Center (ROC) United

**Gayle Smith** - President and CEO, the ONE Campaign

**Rev. Jason Smith** - Congregational Engagement Specialist, Alliance of Baptists

**Anthony D. So, MD, MPA** - Professor of the Practice and Director, Innovation + Design Enabling Access (IDEA) Initiative, Johns Hopkins Bloomberg School of Public Health\*

**Ben Sollee** - Musician; Activist

**Paul B. Spiegel MD, MPH** - Director, Johns Hopkins Center for Humanitarian Health; Professor of Practice, Department of International Health and Johns Hopkins Bloomberg School of Public Health

**Rev. Sharon Stanley-Rea, DMin** - Director of Refugee & Immigration Ministries (RIM) for the Christian Church (Disciples of Christ)

**Joseph Stiglitz, PhD** - Nobel Laureate in Economics; University Professor, Columbia University; President, Columbia's Initiative for Policy Dialogue; Chief Economist and Senior Fellow, the Roosevelt Institute

**Chadwick Stokes** - Musician; Activist

**Eric Stover** - Faculty Director, Human Rights Center; Adjunct Professor of Law and Public Health, University of California, Berkeley

**Cheryl Strayed** - Award-winning author of 4 books, including #1 New York Times bestselling memoir *Wild*; Podcast host

**Rev. Cathy Tamsberg** - Secretary of the Alliance of Baptists

**Rev. Adam Russell Taylor** - Executive Director, Sojourners

**Bishop Efraim Tenderso** – Secretary General and CEO, World Evangelical Alliance

**Geoff Thale** - President, Washington Office on Latin America (WOLA)

**Rev. Liz Theoharis** - Co-chair, Poor People's Campaign: A National Call for Moral Revival; Director, the Kairos Center for Religions, Rights, and Social Justice at Union Theological Seminary

**Liz Tigelaar** - TV Writer, Producer, and Author - *Little Fires Everywhere*

**Aisha Tyler** - Actor, Comedian, Director, and Talk show host

**Gabrielle Union** - Actor

**Kristin Urquiza, MPA** - Co-founder and Chief Activist, Marked by COVID

**Baldemar Velasquez** - Founder and President, Farm Labor Organizing Committee (FLOC)

**Sten Vermund, MD, PhD** - Pediatrician and Infectious Disease Epidemiologist; Dean and Professor, Yale School of Public Health

**Anjelika Washington** - Actor

**Randi Weingarten** - President, American Federation of Teachers (AFT)

**Michael Weinstein** - President, AIDS Healthcare Foundation

**Robert Weissman** - President, Public Citizen

**Amy Westervelt** - Environmental Print and Radio Journalist; Founder, Critical Frequency Podcast Network; Host of the popular podcast “Drilled”

**Forest Whitaker** - Artist; Social Activist; Founder/CEO, Whitaker Peace & Development Initiative

**Bradley Whitford** - Actor

**Katharine Wilkinson, DPhil** - Climate Author, Strategist, Teacher; Principal Writer and Editor-in-Chief, Project Drawdown

**James Winkler** - President, National Council of Churches (NCC)

**Lynn Woolsey** - Former Representative for California’s 6th District

**Sam Worthington** - CEO, InterAction

**Matthew K. Wynia, MD, MPH** - Director, Center for Bioethics and Humanities and Professor, University of Colorado School of Medicine and Colorado School of Public Health; Advisory Council, Physicians for Human Rights\*

**Alicia Yamin, JD, MPH** - Senior Fellow, Petrie-Flom Center for Health Law Policy, Biotechnology and Bioethics at Harvard Law School (PFC); Senior Scholar, Global Health Education and Learning Incubator at Harvard University (GHELI); Adjunct Lecturer on Global Health and Population, Harvard T.H. Chan School of Public Health; Senior Advisor on Human Rights, Partners in Health

**Muhammad Yunus** - 2006 Nobel Peace Prize Laureate; Founder, Grameen Bank

**Monette Zard** - Allan Rosenfield Associate Professor of Forced Migration and Health and Director of the Forced Migration and Health Program, Heilbrunn Department of Population and Family Health, Columbia University Mailman School of Public Health

**Jane Zelikova** - Co-founder, 500 Women Scientists; Chief Climate Scientist, Carbon180; Researcher, University of Wyoming; Co-founder, Hey Girl Productions

**Josh Zinner** - CEO, Interfaith Center on Corporate Responsibility (ICCR)

**Johnny Zokovitch** - Executive Director, Pax Christi USA

\*Affiliation for identification purposes only

**[EXTERNAL] Questions about Dr. Lander's advocacy of IVF and PGD as a means of choosing which embryos should continue living...**

---

**From:** Terry Jeffrey (b) (6)  
**To:** (b) (6) (b) (6) OSTP Press Office  
(b) (6) >, MBX OSTP Engagement  
(b) (6) > (b) (6)  
(b) (6) (b) (6)  
**Date:** Thu, 25 Feb 2021 15:39:45 -0500  
**Attachments** JOHN MCLAUGHLIN'S 'ONE ON ONE-01-03-2000.PDF (44.97 kB)

Dr. Eric S. Lander  
Founding Director  
Broad Institute of MIT and Harvard  
415 Main Street  
Cambridge, Mass.

(b) (6)  
(b) (6)

Dr. Eric Lander:

I am working on a story about multiple statements you have made advocating—as an alternative to actually editing human genes--the use of in vitro fertilization (IVF) followed by pre-implantation genetic diagnosis (PGD) as a means of choosing which of the embryos created

through IVF should actually be implanted in the mother's womb and which should not.

On its face, this is a form of eugenics: It is a means of choosing which human beings should live and which should not based on a judgement about their genetic worthiness.

On Jan. 28, I sent a letter to you via the White House Office of Science and Technology Policy that asked you questions about an interview you did on John McLaughlin's "One on One" that was broadcast in January 2000.

In that interview--according to the Federal News Service transcript (see attached PDF of full transcript and the excerpt below)--the issues of altering human genes and in vitro fertilization both came up. You very clearly indicated that you opposed genetic alteration. You said: "We certainly better not do that." But then you suggested as an alternative--that you said was "less ethically troubling"--that people use in vitro fertilization to create embryos outside the womb, and then "do a genetic test before they decide which embryo to reimplant, and then select the embryo that didn't pick up that genetic defect."

Specifically, you had this exchange with McLaughlin:

*Lander: "We certainly better not do that. If you today want to deal with the transmission of a genetic trait to an offspring, there is a choice of in vitro fertilization and selecting which embryo to reimplant. That's a procedure that's already used."*

**McLaughlin:** *“Well, you’re talking about a physical trait. I’m not talking about that.”*

**Lander** *“No, I’m talking about genetic disease. Suppose you have a genetic disease and you’re going to transmit it to half your offspring. What some people do today is they can fertilize in vitro—out of the body—do a genetic test before they decide which embryo to reimplant, and then select to reimplant the embryo that didn’t pick up that genetic defect. And I think that’s a much less ethically troubling way to approach the question.”*

**McLaughlin:** *“Than do what?”*

**Lander:** *“Well, then to actually get in there and try to change the sequence of the human genome, because once you get in there and start manipulating the genes, I think there’s not going to be limits. People will say, ‘We’ll just fix up some genetic defect. Let’s go try to make improvements.’ And I’m deeply, deeply opposed to the idea of our trying to modify the human genome.”*

The Office of Science and Technology Policy subsequently told me, in a telephone conversation, that you “cannot” answer any questions until after you have been confirmed.

Since then, I have found additional and more recent instances in which you have advocated in vitro fertilization and PGD as an alternative to genetically altering embryos.

One example is the essay—“Brave New Genome”—that you published in the July 2, 2015 edition of the New England Journal of Medicine. In that essay, you write:

*“The most common argument for germline editing concerns preventing devastating monogenic diseases, such as Huntington’s disease. Though avoiding the roughly 3600 rare monogenic disorders caused by known disease genes is a compelling goal, the rationale for embryo editing largely evaporates under careful scrutiny. Genome editing would require making IVF embryos, using preimplantation genetic diagnosis (PGD) to identify those that would have the disease, repairing the gene, and implanting the embryo. Yet it would be easier and safer simply to use PGD to identify and implant the embryos that aren’t at risk: the proportion is high in the typical cases of a parent heterozygous for a dominant disease (50%) or two parents who are carriers for a recessive disease (75%). To reduce the incidence of monogenic disease, what’s needed most is not embryo editing, but routine genetic testing so that the many couples who don’t know they are at risk can avail themselves of PGD.”*

In that same essay, you again argued against—at least at that point in time—actually editing the genes of human embryos. You wrote the following:

*“The final issue concerns morality—what’s right and wrong and how we ought to live as a society. Although scientists may be reluctant to debate ethics, we have a responsibility to do so and insights to offer. How would routine genome editing change our world? Would we come to regard our children as manufactured products? Would marketers shape genetic fashions? Would the ‘best’ genomes go to the most privileged? If we cross this threshold, it’s hard to see how we could ever return. ...*

“The discussions that will begin this fall may solidify a broad international consensus that germline editing should be banned—with the possible exception of correcting severe monogenic disease genes, in the few cases in which there is no alternative. For my own part, I see much wisdom in such a position, at least for the foreseeable future. A ban

could always be reversed if we become technically proficient, scientifically knowledgeable, and morally wise enough and if we can make a compelling case. But authorizing scientists to make permanent changes to the DNA of our species is a decision that would require broad societal understanding and consent.

“It has been only a decade since we first read the human genome. We should exercise great caution before we begin to rewrite it.”

In December 2015, you spoke at and published a paper for the “International Summit on Human Gene Editing.”

In that paper, you wrote: “The truth is—and this should be said here—if we really care about helping parents avoid cases of genetic disease, germline editing is not the first, second, third, or fourth thing that we should be thinking about. What we should be thinking about is that the vast majority of people who have children with a recessive disease were never aware they were carriers. Most such recessive disease arises unexpected in a family. The most important thing is to make genetic diagnostics available so they could know they are carriers and be able to avail themselves of PGD. This would be the most effective option both from a societal basis and from helping the largest number of parents.”

In that same paper, you went on to say: “With rare Mendelian diseases, the vast majority of situations can currently be addressed by in vitro fertilization and PGD. There are some compelling cases, although they are rare, and if we wish to avoid devastating genetic diseases, the best thing to do from a population point of view, from a public health point of view, from a caring-about-parents-point-of-view, is to make sure that parents have easy access to genetic testing so that they know that they are at risk and can use conventional PGD.”

In your actual presentation at the International Summit on Gene Editing, which was videotaped, you made the same essential points. You said:



*“The truth is, and this should be said here, if we really care about avoiding cases of genetic disease, germline editing is not the first, second, third or fourth thing that we should be thinking about.*

*“What we should be thinking about is that the vast majority of people who have children with a recessive disease were not aware they were carriers, and making available genetic diagnostics so that they could know and be able to do preimplantation gen—PGD—would be the most effective thing from a societal basis and from taking care of parents in general. Most such recessive disease arises unexpected in a family. It’s important that we think about how we want to devote our resources here.*

...

*“So, in summary, what have I told you? The decisions to be made about whether and where to use human germline editing involve many value judgments, but they do have to be informed by just the facts of the genetic architecture of disease. Rare Mendelian diseases, the vast majority of situations, can currently be addressed by IVF and PGD. There are some compelling cases, although they are rare. And if we wish to avoid devastating genetic diseases, the best thing to do from a population point of view, from a public health point of view, from a caring-about-parents point of view, is make sure that parents have access easily to genetic testing so that they know they are at risk.”*

Finally, you did a Jan. 2, 2020 podcast with former U.S. Attorney Preet Bharara. The podcast was posted online under the headline: “Playing God (with Eric Lander).” In that podcast you again recommended using pre-implantation genetic testing as a means of choosing which embryo to implant in a mother’s womb. In that podcast you noted that you had “many colleagues” at the Broad Institute “who are carrying a genetic

disease and they have healthy children who didn't inherit it because they took advantage of in vitro fertilization with genetic diagnostics to just pick the embryos that wouldn't inherit it.

You had the following exchange with Preet Bharara:

***Preet Bharara:** "So, we've been talking about good things that CRISPR can do. What are some misuses, and should we be concerned about those misuses, and how much?"*

***Eric Lander:** "Oh yeah, of course. I got to say that the other topic of editing babies, using CRISPR to do germ-line modification of embryos, has been a topic of enormous concern to the scientific community. You know, if you want to **prevent** genetic diseases, you can already do that in many, many ways. The main reason that children with genetic disease are born to families today, is the family never knew they were carriers. If you really cared about that, you'd start with genetic screening. And we don't have routine genetic screening. Beyond that, there's something called in vitro fertilization with pre-implantation genetic diagnostics. That is, you do standard in vitro fertilization, you fertilize a bunch of eggs with some sperm, and you let them grow up a little bit in the Petri plate and you pull off one cell, and you ask, when you genetically, when you genotype that cell, 'Is this embryo carrying the genetic disease or not?' And you just re-implant those that don't carry the genetic disease.*

***"So, I have many colleagues even here at the Broad, who are carrying a genetic disease and they have healthy children who didn't inherit it because they took advantage of in vitro fertilization with genetic diagnostics to just pick the embryos that wouldn't inherit it."***

Here are my questions for you:

1—Do you still believe it is ethically acceptable to engage in eugenics by creating human embryos through in vitro fertilization (IVF) and then

subjecting them to pre-implantation genetic diagnostics (PGD) to separate those who have a “genetic defect” from those who do not, and then only implanting in a mother’s womb—and, thus, allowing to continue in life--embryos that did not “inherit” that genetic defect”?

3—What would you do with the unused human embryos who were determined to have a “defect” and thus denied implantation in their mother’s womb?

I would also welcome any comments you would like to make about this issue and your statements in defense of choosing babies through in vitro fertilization and preimplantation genetic diagnostics.

Terry Jeffrey

Editor-in-Chief

CNSNews.com

(b) (6) [Redacted]

[Redacted]

Cc.

White House Office of Science and Technology Policy, Press

(b) (6) [Redacted]

[Redacted]

Kate Mulherin, Assistant

(b) (6) [Redacted]

Nicole Brellenthin, Assistant

(b) (6) [Redacted]

[Redacted]

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

**JOHN MCLAUGHLIN'S "ONE ON ONE"**

**GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GENOME RESEARCH**

**SUBJECT: HUMAN GENOME**

**TAPED: FRIDAY, DECEMBER 17, 1999 BROADCAST: WEEKEND OF JANUARY 1-2, 2000**

Federal News Service

January 3, 2000, Monday

Copyright 2000 Federal News Service, Inc.

**Section:** MAJOR LEADER SPECIAL TRANSCRIPT; International News

**Length:** 5191 words

**Body**

---

MR. **MCLAUGHLIN**: The new millennium's greatest advance in medicine. Barely 50 years ago, in 1953, scientists James Watson and Francis Crick published their landmark study on the structure of life's basic ingredient -- deoxyribonucleic acid -- better known as DNA. Watson and Crick gave us the key to DNA crime-solving, genetically engineered farm crops, genetic medicine, cloning, and now the unlocking of the secrets of the human genome.

What's ahead? Will cloned organs replace a human donor's organs for transplants? Will inherited disease be eradicated through genetic engineering? Who decides when genetic manipulation is okay and when it should be outlawed? We'll ask Dr. Francis Collins, director of the National Human Genome Research Institute, and Dr. **Eric Lander**, director of the Whitehead Massachusetts Institute of Technology Center for Genome Research.

ANNOUNCER: Brought to you in part by ADM. Feeding the world is the biggest challenge of the new century. Outside the U.S. you'll find 96 percent of the world's population. Inside you'll find the means to feed them. ADM -- supermarket to the world.

MR. **MCLAUGHLIN**: Dr. Francis Collins, will you explain for our viewers what the human genome project is and why it is important?

DR. COLLINS: Well, it is an audacious effort to read our own instruction book. It is a project which aims to determine the complete sequence of all of the human DNA -- the hereditary material -- and also to compare that to the DNA of other organisms in order to help us understand what it all means.

MR. **MCLAUGHLIN**: What does "genome" mean?

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

DR. COLLINS: Genome is just all of the DNA, all of the instructions. I have a genome. Yours and mine are very similar. The mouse has a genome that's about 70 percent the same as yours and mine. Each organism has its own genome.

MR. **MCLAUGHLIN**: What's your budget?

DR. COLLINS: Current budget for the NIH -- the National Institutes of Health -- effort on the human genome project is about \$300 million a year.

MR. **MCLAUGHLIN**: I see \$3 billion on my research here. Is that for the whole cooperative venture?

DR. COLLINS: That was the projected cost of this project over a 15-year period. It actually seems that we're going to get to our goals at somewhat less cost than that. This is a project which, I'm happy to say, is not only ahead of schedule but somewhat under budget.

MR. **MCLAUGHLIN**: Who sponsors it?

DR. COLLINS: Sponsored internationally. The U.S. has taken the lead on this effort. In the U.S., the National Institutes of Health is the lead agency, but the Department of Energy is also a sponsor. But we have important collaborators in Britain, in Japan, in France, in Germany.

MR. **MCLAUGHLIN**: Dr. Lander, what is your role in genetic research?

DR. LANDER: I'm one of the directors of the Human Genome Centers that are participating as part of this international consortium to get the sequence of the human and other genomes.

MR. **MCLAUGHLIN**: When this project is completed, what will we have a better knowledge of?

DR. LANDER: We'll have a knowledge of all the building blocks that make up a human being. There are about 100,000 genes, and there are the parts that you use to make your hair, your eyes, your heart, your muscles. And in a sense, it's been amazing we could do medicine at all without knowing the basic parts list was.

MR. **MCLAUGHLIN**: Inherited physical traits? Hair?

DR. LANDER: Inherited physical traits from predispositions to heart disease, to cancer, to asthma, to many other rarer genetic diseases, all of which tell us about how the body really works.

MR. **MCLAUGHLIN**: What about intelligence, personality and even character? Will you be able to discover things about that?

DR. LANDER: It's an open question. I think most of the focus in human genetics today is on much more disease-oriented research that can benefit people more directly.

MR. **MCLAUGHLIN**: Will we have the basic knowledge to modify this genetic structure?

DR. COLLINS: I think the intention from a medical perspective -- and I'm a physician, so I'll advocate for the purpose of this being that -- we should be able to understand the hereditary contributions to virtually every disease, and that will give us an opportunity to develop therapies for diseases that are much more effective than what we currently have.

As to changing the basic structure of the human genome in a way that would be affecting future generations, I think none of us are very enthusiastic about that. We don't understand the risks that would be involved. There are intense philosophical debates about whether that would be a good idea or not.

MR. **MCLAUGHLIN**: We might enter a few of those as this program proceeds. But at this point, let me ask you this. There is a convergence going on, is there not, there's a convergence going on between genetics and cybernetics?

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

You have something in your program called -- or working with you in the program called the GenBank; is that correct?

DR. LANDER: That's right.

MR. **MCLAUGHLIN**: What is the GenBank?

DR. LANDER: The GenBank is a database that collects all the information about the sequences of the genomes of many different organisms. And you can do remarkable studies with it. You find that when you compare different organisms, humans and mice have basically the same sets of genes. Not just that; humans and yeast use the same sets of genes to run their cells.

MR. **MCLAUGHLIN**: Well, who runs the GenBank?

DR. LANDER: It's a project of the National Institutes of Health through its National Center for Biotechnology Information.

MR. **MCLAUGHLIN**: What does it link together?

DR. LANDER: It links together research going on in thousands of laboratories in the world, to deposit their data every day into it, and tens of thousands of scientists around the world who reach into it to pull out information for their own studies.

MR. **MCLAUGHLIN**: Using computers?

DR. LANDER: All using computers --

MR. **MCLAUGHLIN**: What kind of computers?

DR. LANDER: Oh, everything from little PCs to large supercomputers.

MR. **MCLAUGHLIN**: To the Cray Supercomputer, correct?

DR. LANDER: Every type of computer is running on genetic data, trying to make inferences about it.

MR. **MCLAUGHLIN**: What are they going to catalogue and store, Dr. Collins?

DR. COLLINS: In this database? Well, everything we can learn about genes, their sequence, and their function. So not only are we interested in getting the letters of the code put into this database, where anybody with an Internet connection can have access to it; we want to understand how it works.

MR. **MCLAUGHLIN**: Do they already engage in warehousing of DNA- based pair sequences? I'm referring to food.

DR. COLLINS: There are certainly genome sequences from plants in the database --

MR. **MCLAUGHLIN**: And animals?

DR. COLLINS: And animals and people and yeast.

DR. LANDER: Bacterias, everything.

MR. **MCLAUGHLIN**: So I show here 18,000 -- already -- plant and animals species.

DR. COLLINS: That's right.

MR. **MCLAUGHLIN**: Their pair sequences are already now codified and warehoused in that center.

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

DR. LANDER: Well, pieces of the sequence --

DR. COLLINS: Yeah.

DR. LANDER: -- many thousands of organisms. The number of organisms for which we have the total, complete genetic code is still on the order of dozens.

MR. **MCLAUGHLIN**: Now you two are mapping the human genetic code, correct?

DR. LANDER: That's right.

MR. **MCLAUGHLIN**: But is it not true that species at all levels are being mapped in the GenBank?

DR. COLLINS: That data is being deposited there, or the work is being done in laboratories all over the world. But GenBank is sort of the common place where everybody puts their results, in order to make the most out of them.

MR. **MCLAUGHLIN**: So we can say that there is this convergence of cybernetics and genetics that's making it possible for the advances that we have seen -- you have seen this year, because you mapped one chromosome, did you not?

DR. COLLINS: That's right. The first human chromosome -- happens to be Chromosome 22 -- was published, its complete sequence, just two weeks ago. And that is a milestone of, I think, a very significant sort. We've never seen a whole human chromosome. We've never even seen a whole mammalian chromosome at one time. And there it is, all laid out in front of us -- rather exciting.

MR. **MCLAUGHLIN**: How many chromosomes are there?

DR. COLLINS: The human has 24. So this is one of a set, and it's one of the smaller ones.

But you know, in another two and a half years, we will have all of those chromosomes completed. And just six months from now we'll have all of that information in draft form, covering about 90 percent of the human sequence.

MR. **MCLAUGHLIN**: I think we have that on the screen, available for us. You tell me whether these figures are correct.

Mapping the human genome, finished sequence, 15 percent; draft sequence, 25.3 percent, due in spring 2000. Is that correct?

DR. COLLINS: That is correct.

DR. LANDER: All right.

MR. **MCLAUGHLIN**: Let's tie this down a little bit more. What have you found out in mapping the chromosome that you have successfully done?

DR. COLLINS: Oh, a host of interesting details that you could not have guessed at without having the whole chromosome in front of you. So where are the genes? Are they located in certain places? Are they randomly distributed? Where are the repetitive sequences, that is, the part of the genome that happens many times over? How does that relate to the tendency of this chromosome to rearrange and cause birth defects? All of those things came out of this study that you couldn't have guessed at by just looking a piece at a time.

MR. **MCLAUGHLIN**: Let's talk about the practical applications of what is now being done and the exhilarating prospect of what lies ahead. You're going to have designer medicines developed from this genetic research, are you not, where we use our knowledge of genetics to create a drug therapy designed to work efficiently with a particular individual for a specific illness, correct?



JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

DR. COLLINS: That's right. That's right.

MR. **MCLAUGHLIN**: That's called somatic medicine.

DR. COLLINS: Well, not ---

MR. **MCLAUGHLIN**: Somatic genetic medicine, I guess.

DR. LANDER: Well, there are many kinds of medicine that can come out of an understanding of human genetics. Once we know the basis of a disease, sometimes you can treat by changing a diet. Sometimes you may treat by making a small-molecule pharmaceutical in a bottle. And then there are other ideas for treating that might involve a gene therapy.

I think the common thread that knits it all together is that in the past we've tried to solve many diseases without actually knowing what's wrong. But now we can say, for example, some people with heart disease have that heart disease for a very specific reason. Some molecule that's supposed to soak up a lipoprotein, a fat particle, doesn't do its job very well, there's not enough of it. And so you try to make a drug that'll increase that.

Or some people get Alzheimer's disease because of a particular sticky protein that gloms onto something else, and you try to make a drug that interferes with it.

MR. **MCLAUGHLIN**: Your knowledge of the genetic structure permits a pharmaceutical company of researchers to put together a drug that will meet the deficiencies in that gene as you have examined it, correct?

DR. LANDER: Give or take.

MR. **MCLAUGHLIN**: Okay. No argument about that. There are -- there's no dispute about that.

DR. LANDER: I think that's right.

MR. **MCLAUGHLIN**: I mean, designer drugs, and we're talking about biopharmaceuticals, are okay, and everybody accepts that.

DR. COLLINS: Right, and every pharmaceutical company has a genomics division trying to make this happen as fast as they can. This is their future. This is our future.

MR. **MCLAUGHLIN**: If you can find way for a biopharmaceutical manufacturer to develop a drug to, say, inhibit or to correct Alzheimer's disease, no one's going to fight that.

DR. LANDER: I can't imagine it.

MR. **MCLAUGHLIN**: Or Tay Sachs or Cystic Fibrosis.

DR. COLLINS: More power to them.

MR. **MCLAUGHLIN**: Okay. What are the other practical applications? What I show here is cloning of organs from individuals' own genes to replace failing organs. Can you speak to that?

DR. COLLINS: So I think you're talking more about a stem cell kind of approach where you try to replace a liver, for instance, that's no longer doing what's it's supposed to or perhaps the bone marrow has failed or developed a cancer and you want to replace that with normal bone marrow. There are people working on trying to reprogram some of your cells into becoming other types of cells to compensate in that way.

MR. **MCLAUGHLIN**: Can you clone ahead and bank in the event that you need it, if you're an individual?

DR. COLLINS: "Clone ahead" as in the future, not cloning your head? Okay. (Laughter.)

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

MR. **MCLAUGHLIN**: Oh -- oh.

DR. COLLINS: There are certainly people suggesting that that could be a real possibility, that you might want to bank some of your bone marrow against the time where you might need it because you develop leukemia or some other form of disease where having that ready to be used is --

MR. **MCLAUGHLIN**: Are there other cloning options that you could do in advance of any disease taking over -- or you may know from your research what you are prone to -- can you clone in advance to stay ahead of it and correct it when it occurs?

DR. LANDER: Well, if you know in advance you might be predisposed to heart disease --

MR. **MCLAUGHLIN**: Yes.

DR. LANDER: -- there are a whole lot of other things you probably ought to be doing first.

DR. COLLINS: (Laughs.)

DR. LANDER: You probably ought to be changing diet, you probably ought to be developing drugs that slow down those degenerative problems --

MR. **MCLAUGHLIN**: I know, but I'm going to you as a geneticist and I say I want to clone something that's going to correct this disorder that is approaching.

DR. COLLINS: Well, you may want to clone it, but it's not clear that that is a good solution for it today. We don't know how to clone something that would fix up your heart or fix --

MR. **MCLAUGHLIN**: All right. Now we enter the area where there is real sensitivity, and that is altering genes to prevent inherited diseases from being passed along to one's children.

DR. LANDER: Yeah.

MR. **MCLAUGHLIN**: This is deep genetic manipulation.

DR. COLLINS: Germ line.

MR. **MCLAUGHLIN**: Germ line.

DR. COLLINS: Right.

MR. **MCLAUGHLIN**: Now tell me about that, and what do you see ahead?

DR. COLLINS: Well, the big ethical dilemma is whether that is a pathway we should go down.

MR. **MCLAUGHLIN**: No, I don't want to hear about that now. What I want to hear about is what do you foresee coming within the immediate future, that is the next 10 or 15 years.

DR. COLLINS: Well, I think these are connected, because I think the ethical dilemmas are so strong that we won't do this in the next 10 or 15 years; we will not interfere with the human sequence that's going to be passed to a future generation because we don't know what we're doing.

DR. LANDER: We certainly better not do that. If you today want to deal with the transmission of a genetic trait to an offspring, there is a choice of *in vitro* fertilization and selecting which embryo to reimplant. That's a procedure that's already used.

MR. **MCLAUGHLIN**: Well you're talking about a physical characteristic. I'm not talking about that.

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

DR. LANDER: No, I'm talking about genetic disease. Suppose you have a genetic disease and you're going to transmit it to half your offspring. What some people do today is they can fertilize *in vitro* -- out of the body -- do a genetic test before they decide which embryo to reimplant, and then select to reimplant the embryo that didn't pick up that genetic defect. And I think that's a much less ethically troubling way to approach the question.

MR. **MCLAUGHLIN**: Than to do what?

DR. LANDER: Well, then to actually get in there and try to change the sequence of the human genome, because once you get in there and start manipulating the genes, I think there's not going to be limits to it. People will say, "We'll just fix up some genetic defect. Let's go try to make improvements." And I'm deeply, deeply opposed to the idea of our trying to modify the human genome.

MR. **MCLAUGHLIN**: You know, they said the same thing when electricity arrived on the scene: "This is going to cause all manner of problems. We are unleashing a Pandora's box." You're echoing that type of alarmist thinking.

DR. LANDER: No, I think changing human heredity is a very different thing.

MR. **MCLAUGHLIN**: But you're at the primitive stage of development; you're at the earliest possible stage and you're already saying that.

DR. LANDER: Yeah, but if electricity were a bad idea, we could always turn it off. But once you introduce genes into the human germ line, they're going to be transmitted for all generations. There's no product recall here. It's a different ethical question.

DR. COLLINS: I have to agree, this is not a technology, this is ourselves, this is humanity. Are we going to take the chance of altering our entire character as a race for all time in the future? You can't just go back and change it later on. I think that is the strongest possible argument that this is different than any other kind of technology that's been contemplated, we ought not to go down that path.

MR. **MCLAUGHLIN**: If you can genetically change once, why can't you genetically change twice on the same patient?

DR. LANDER: Oh! You say do a recall.

MR. **MCLAUGHLIN**: Do a recall.

DR. LANDER: Take everybody who inherited that gene, and whether they want to or not, demand that they come and have their genome changed? I'm not willing to have a society that could do that to people. Once it's out there, it's out there. We'd better think really carefully.

MR. **MCLAUGHLIN**: We'll be right back.

(Announcements.)

MR. **MCLAUGHLIN**: Let us put aside the ethical and the moral and the religious considerations connected with deep gene manipulation for purposes of arresting and correcting disease/germ transmission lines, okay? Do I have that right?

DR. COLLINS: (Nods.)

MR. **MCLAUGHLIN**: Okay. What is the burden on you, what is the amount of work involved, what is the challenge to you, were you to actually set that as your goal? How -- what is the volume, what is the number, what can you communicate to our audience to describe -- what is it, billions or trillions of possible variants for various diseases? You've got 300 -- you know how many strains there are of variants producing, for example, cystic fibrosis?

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

DR. COLLINS: So take a simple disease, like cystic fibrosis -- we already have counted up about 850 ways for that one single gene to be misspelled and cause this disease. And that's one gene out of maybe 80,000 genes across the genome, each one of which probably has some possible role in disease. So the combinatorial possibilities, as far as flaws in the genome, are substantial.

And you and I all have them. There are no perfect specimens.

MR. **MCLAUGHLIN**: So one problem with any kind of deep gene manipulation -- germ line -- we're talking about germ line control or modulation -- would be just assembling all the data, which is in itself extremely formidable, right? There are millions of variants that have to be discovered as our knowledge improves, and that has to be stored, and it has to be identified, one strain from another, to determine what is producing the malfunctioning, correct?

DR. LANDER: And that's only the start of the problem, because once you know what misspelling there is in a gene, you've still got to figure out --

DR. COLLINS: Misspelling?

DR. LANDER: A misspelling. A gene has DNA letters, and if one of them's wrong, it can make a misspelling of the gene. It produces the wrong product.

But the problem is, it may be a product that's very disadvantageous under some circumstances, but in a different environment, or in combination with other genes, it might be a good thing. What we really don't understand is how all those genes work together, how the 100,000 parts work together. And so before you actually go in and manipulate a gene, just scientifically you'd need to know about the whole complex, how it works together.

MR. **MCLAUGHLIN**: You know who Arthur Caplan is?

DR. COLLINS: Oh, yes.

MR. **MCLAUGHLIN**: Who is he?

DR. COLLINS: He's an ethicist at the University of Pennsylvania.

MR. **MCLAUGHLIN**: Do you hold him in high regard?

DR. COLLINS: He's a very well-known and respected bio-ethicist.

MR. **MCLAUGHLIN**: By you, too?

DR. COLLINS: Yeah.

MR. **MCLAUGHLIN**: All right.

DR. COLLINS: He's a bit of a gadfly, but he's a good guy.

MR. **MCLAUGHLIN**: He what?

DR. COLLINS: He's a bit of a gadfly. He covers a lot of territory, but he's a good guy.

MR. **MCLAUGHLIN**: All right. I will see that he gets a copy of this tape -- (laughter) -- and he'll communicate directly with you.

DR. COLLINS: And he won't disagree with respect -- with my characterization.

MR. **MCLAUGHLIN**: All right. This is what Caplan says: "Some genetic diseases are so miserable and awful that at least some genetic intervention with the germ line seems obligatory."

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

He's talking here about cancer, presumably; he's talking about Alzheimer's. If people know that they can inhibit the transmission of Alzheimer's, don't you think he is correct in saying that there is a demand, a natural demand, an irresistible demand for that action to be taken?

DR. LANDER: There's an irresistible demand to work on and cure Alzheimer's, but the particular solution he's recommending, I think, is the wrong one.

MR. **MCLAUGHLIN**: Why?

DR. LANDER: Because you are going in, making a modification you can't control, you don't know the effects of it, you'll never be able to take it back from the human population, when in fact, there are other approaches. Understanding the pathology of the disease and giving medicine. Selecting what embryo to reimplant. All of these things don't have permanent consequences. And I think Caplan is flat- out wrong to suggest that we should take that extreme case, especially at our very early stages in --

MR. **MCLAUGHLIN**: Isn't it possible that no bio-pharmaceutical could be developed to arrest a disease, but that gene therapy at the level that we're talking about, interventionist gene therapy, germ line therapy, could do it? Would you not then reconsider it?

DR. COLLINS: I think, John, the problem is that that germ line gene therapy would not be shown effective until you had already gone too far down a path that you couldn't reverse. After all, it would take generations to know whether this works. And if the answer was, oh, we cured Alzheimer's disease, but everybody is dying of something else at age 35 because of a change we made without realizing the consequences, what have we done?

MR. **MCLAUGHLIN**: We're practically at the end of our time, but I want to ask you this. What do you see as the most impressive development on line in the upcoming millennium? We're thinking only in terms of years and decades. What about thinking in terms of centuries and millenniums? Where do you think it's going to end?

MR. LANDER: Oh, I don't think it's going to end. I think --

MR. **MCLAUGHLIN**: It's not going to end.

DR. LANDER: So far we see no evidence of it ending. The challenge ahead right now is we've spent this first millennium just understanding the parts. The next millennium is about figuring out how they work together. We don't know how the body does all its complex tasks. And we don't know how to understand it as a circuit. When we understand that, we'll be able to understand how to design medicines in really exquisite ways. That's the work of the next century, and I'm pretty optimistic about it.

DR. COLLINS: I agree. I think we'll understand human biology at a level that has previously completely eluded us. It will take decades to do that. Let's not imagine, however, that we'll understand all of what it means to be human. I rebel against the notion that we're going to end up with a purely deterministic view of ourselves. It ain't that way. There's a lot more to humanity than DNA sequencing.

MR. **MCLAUGHLIN**: We'll be right back.

(Announcements.)

MR. **MCLAUGHLIN**: Who will decide how best to manipulate genes? Will it be UNESCO? We'll answer that question in a moment, but first, here are the profiles of our distinguished guests.

Born, Staunton, Virginia; 49 years of age; wife, Diane (sp); two daughters. University of Virginia, B.S. summa cum laude. Yale University, Ph.D., physical chemistry. University of North Carolina, Chapel Hill, Doctor of Medicine. North Carolina Memorial Hospital, Chapel Hill, internship and residency, four years. Yale University of School of Medicine, fellow in human genetics and pediatrics, three years. University of Michigan, professor of internal medicine and human genetics, 15 years, currently on leave. Co-discoverer in 1989 of the gene for cystic fibrosis.

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

U.S. National Academy of Sciences and U.S. Institute of Medicine, member. National Institutes of Health, the National Human Genome Research Institute, director, six years and currently. Hobbies: playing the guitar, riding motorcycles.

Francis Sellars (sp) Collins.

Born, Brooklyn; 42 years of age; wife, Laurie (sp); three children. Princeton University B.A., Phi Beta Kappa. Oxford University, Ph.D., mathematics; Rhodes Scholar. Harvard Business School, professor of mathematics and economics, nine years. Millennium Pharmaceuticals, a public biopharmaceutical company, co-founder and board member, six years and currently. Massachusetts Institute of Technology -- MIT -- director of the Whitehead/MIT Center for Genome Research and professor of biology, 10 years and currently. U.S. National Academy of Sciences and U.S. Institute of Medicine, member.

Winner, the MacArthur Prize Fellowship, the so-called "genius grant." Hobbies: hiking, woodworking, blueberry picking and golden retrievers.

Eric Stephen (sp) Lander.

MR. **MCLAUGHLIN**: Is it blueberry picking?

DR. LANDER: Love blueberry picking in New Hampshire. Great blueberries. The best.

MR. **MCLAUGHLIN**: There are a lot of other things going on in New Hampshire these days, though, isn't there?

DR. LANDER: (Chuckles.) Indeed.

MR. **MCLAUGHLIN**: A branch of the U.N. -- UNESCO -- proposes to declare the human genome public property and to make any alterations to that genome the equivalent of defacing public property, to whit a crime. UNSECO has a draft proposal urging member states to adopt this position.

Should the U.S. sign-on to the UNESCO draft? I ask you, Dr. **Eric Lander**.

DR. LANDER: I haven't read the draft exactly, but the spirit, I would sign-on to. If we're ever going to make changes, it better be to repeal the ban that we've had in place for quite some time, so that if we're ever going to make changes, it's for a darn good reason. I would sign on.

MR. **MCLAUGHLIN**: Don't you think it's premature to place germ line therapy off limits?

DR. LANDER: No, just the contrary. It's premature to think that should allow anybody to go try it today. We should start with a ban on it, I think, and then reverse it only if there's darn good reason.

MR. **MCLAUGHLIN**: Do we have absolute knowledge that there are negative consequences, any consequences whatsoever, to eradicating mental or physical illness through gene manipulation?

DR. LANDER: Absolutely.

MR. **MCLAUGHLIN**: Do we have any certain knowledge?

DR. COLLINS: We have not done that in humans, and that's why we don't have certain knowledge that it would be dangerous. But we modify the germ line in mice all the time, and things happen that you don't expect. Things happen in other genes that you didn't intend to target. This is not a technology that's refined so you can go in and change one letter and everything else is left exactly the way it was. We have all sorts of uncertainties in this technology that we haven't got control of yet. And do you want to be the person that we try out our technology when we don't quite know what we're doing? It's too early for that.

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

MR. **MCLAUGHLIN**: Well, there was a teenage boy who chose to accept that risk, and people regard that as a noble experiment. He died. Do you know of whom I speak?

DR. LANDER: Jesse Gelsinger.

MR. **MCLAUGHLIN**: Where?

DR. COLLINS: That was not a germ line gene therapy experiment. That was a somatic gene therapy experiment. This would never have changed the consequences to his offspring, if he had lived to have them. This was an experiment where into his liver a gene was placed.

MR. **MCLAUGHLIN**: What kind of experiment it was is not important, it was the intention of going forward with it which is correcting disorder, horrendous disorder like cancer or Alzheimer's.

DR. LANDER: Right. But in those experiments there is a pretty high probability of success. When we modify genes in the germ line in mice, 50 percent of the time we have a surprise as to what goes on; it's not what we expected. With those sort of odds, we don't belong in people today.

MR. **MCLAUGHLIN**: Well don't you think you're being pessimistic in thinking that this cannot be a self-correcting, self-improving process --

DR. LANDER: No, no! Let's do it first -- show we can do it right in mice.

MR. **MCLAUGHLIN**: You're like Columbus in the Dominican Republic first arriving on the America -- heading towards America.

DR. LANDER: No, no --

DR. COLLINS: John, I don't think either Eric or I are saying that a germ line approach to human illness might some day be manageable and safe, but it sure isn't now.

MR. **MCLAUGHLIN**: Thanks so much for being my guests, Dr. Francis Collins and Dr. **Eric Lander**.

END REGULAR SEGMENT PBS SEGMENT FOLLOWS

PBS SEGMENT

MR. **MCLAUGHLIN**: Who should have access to this genome information? Should it be patented? I ask you.

DR. LANDER: Well, everybody in the world should have access to this information. It's the infrastructure for doing science and for doing medicine. And the whole premise of this international project is to make it available to everybody on pretty open terms.

MR. **MCLAUGHLIN**: In the instance of that young adolescent who died when he got biopharmaceutical medicines derived from gene research, there was a total rejection of the idea that the pharmaceutical manufacturers, I guess, and others should reveal data, because it was proprietary and it had commercial advantage. What do you say to that?

DR. COLLINS: Well, actually, they do have to reveal all that to the FDA, but that's kept behind a veil of secrecy because of proprietary considerations.

MR. **MCLAUGHLIN**: Do you want full disclosure?

DR. COLLINS: I sure want full disclosure of anything that goes wrong. Any adverse effect everybody ought to know about right away.

MR. **MCLAUGHLIN**: Do you want patenting?

JOHN MCLAUGHLIN'S "ONE ON ONE" GUESTS: DR. FRANCIS COLLINS, DIRECTOR, NATIONAL HUMAN GENOME RESEARCH INSTITUTE; AND DR. ERIC LANDER, DIRECTOR, MIT CENTER FOR GE...

DR. COLLINS: I do not want patenting of the basic genome sequence --

MR. **MCLAUGHLIN**: Do you want patenting?

DR. LANDER: Of the basic sequence? No. When you make a discovery that's a therapeutic, sure, but only when you've got something you can really bring value to.

END

**Load-Date:** January 4, 2000

---

End of Document



## [EXTERNAL] Re: Follow up

---

**From:** Tyler E Jacks (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Cc:** "Lo, Kevin C. EOP/OSTP" <(b) (6)>  
**Date:** Fri, 26 Feb 2021 10:29:24 -0500  
**Attachments:** smime.p7s (1.86 kB)

Hi-

I have an open window between 2 and 3 today, if that might work. Otherwise, I would have to wait to 5:15 or later. This weekend can work as well.

Let me know.

Best,

Tyler

On Feb 26, 2021, at 10:02 AM, Lander, Eric S. EOP/OSTP <(b) (6)>  
wrote:

Hi Tyler:

Following up on our last conversation, would you have time to talk for 15 min later today?

Best,  
Eric

## RE: [EXTERNAL] Virtual Intro

---

**From:** "Rudzinski, Christina - 0200 - MITLL" (b) (6)  
**To:** "Schmoyer, Michael W. EOP/OSTP" (b) (6), Andrew Weber (b) (6)  
**Date:** Fri, 05 Mar 2021 12:29:54 -0500  
**Attachments** smime.p7s (5.54 kB)  
:

Andy, thank you so much!

Michael, thank you for agreeing to continue the conversation and for the report; I look forward to reading it in detail shortly. To close the loop, Jaymie connected us to Andy, and Bill Streilein is part of the core team we have exploring the Pandemic Early Warning topic and in the Division Office with me in our BioTechnology and Human Systems Division. If you can suggest a few dates/times or point me to an Administrative Assistant, I can work to set up a discussion at your convenience and will pull in Bill and a few others to join us.

Best regards,  
Christina

-----Original Message-----

**From:** Schmoyer, Michael W. EOP/OSTP <(b) (6)>  
**Sent:** Friday, March 5, 2021 11:55 AM  
**To:** Andrew Weber <(b) (6)> Rudzinski, Christina - 0200 - MITLL (b) (6)  
**Subject:** RE: [EXTERNAL] Virtual Intro

Hi Andy-

Thanks for the connect /and/ I look forward to catching up with you soon as well! Congrats on the VAX!!

Hello Christina-

It is a pleasure to meet you! I am very interested in hearing more about what you're doing. I had some preliminary conversations with Bill Streilein and Jaymie Durnan along these lines several months ago

as we were building up to a National Summit we had in November; related, I've attached the public-facing report to this message.

My best,  
Michael

Michael W. Schmoyer, PhD  
Assistant Director for Health Security Threats

Office of Science and Technology Policy (OSTP) Executive Office of the President The White House

(O) (b) (6) (C) (b) (6) (V) (b) (6)  
(U) (b) (6) / (SIPR) (b) (6) / (JWICS)  
(b) (6) <https://www.whitehouse.gov/ostp/>

NOTE: The body of this email or attached documents may contain sensitive information relating to the Committee on Foreign Investment in the U.S (CFIUS). This email and its attachments may be exempt from public disclosure under the Freedom of Information Act, 5 U.S.C. 552(b). Public disclosure of this information is further prohibited by section 721(c) of the Defense Production Act, 50 U.S.C. app. 2170(c). Criminal penalties may apply.

-----Original Message-----

From: Andrew Weber (b) (6)  
Sent: Thursday, March 4, 2021 3:33 PM  
To: Schmoyer, Michael W. EOP/OSTP (b) (6); Christina Rudzinski (b) (6)  
Subject: [EXTERNAL] Virtual Intro

Hello Michael,  
I hope March is off to a good and healthy start. I'm in a great mood because I got vaccinated today!  
I'd like to introduce you to Christina Rudzinski at MIT Lincoln Lab. She is and the lab are leading some really great work related to pandemic early warning, and it would be worthwhile to learn more about it.  
I look forward to catching up soon.  
Best,  
Andy

## [EXTERNAL] NYT Falling Short on Science

---

**From:** Maria T. Zuber (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6), Frances H. Arnold  
(b) (6), William H. Press (b) (6)  
**Cc:** "Koizumi, Kei EOP/OSTP" (b) (6), "Zarrelli, Kristen M.  
EOP/OSTP" (b) (6)  
**Date:** Mon, 15 Mar 2021 17:04:28 -0400  
**Attachments** smime.p7s (1.86 kB)

:

<https://www.nytimes.com/2018/01/26/opinion/falling-short-on-science.html>

---

Maria T. Zuber

Vice President for Research  
E.A. Griswold Professor of Geophysics  
Massachusetts Institute of Technology  
77 Massachusetts Avenue, 3-234  
Cambridge, MA 02139-4307  
Phone (b) (6)

<http://orgchart.mit.edu/vice-president-research>

Research Office:  
Department of Earth, Atmospheric and Planetary Sciences  
Massachusetts Institute of Technology  
77 Massachusetts Avenue, 54-518  
Cambridge, MA 02139-4307  
Phone: (b) (6)  
<http://www-geodyn.mit.edu>

Not all those who wander are lost.

-- J.R.R. Tolkien

---

## RE: Portman detailed concerns

---

**From:** "Koizumi, Kei EOP/OSTP" (b) (6)

**To:** David Goldston (b) (6)

**Date:** Thu, 01 Apr 2021 17:02:09 -0400

Thank you, David. I think it would be useful to send your concerns to other bodies mentioned in the bill: OMB (OFFM), State Department, and the National Science Foundation, as a start. Your comments are very useful to us as we formulate our own comments on the bill.

Kei

Kei Koizumi

*(he/him)*

Acting Director and Chief of Staff

Office of Science and Technology Policy

(b) (6)

---

**From:** David Goldston (b) (6)

**Sent:** Tuesday, March 30, 2021 9:30 AM

**To:** Koizumi, Kei EOP/OSTP (b) (6)

**Subject:** [EXTERNAL] Portman detailed concerns

Kei,

Hope things are good with you. Per your request, here's a document that lays out the biggest (but not only) concerns with the Portman bill. If you don't have them, I can also forward you the AAU/APLU docs from last summer that this builds on, even though they need to be updated a bit. Let me know if there are others in the Administration information should also be sent to. Making sure that EFA does not become a vehicle for Draconian security policy is obviously a big priority for us.

David

## [EXTERNAL] Hoping you might be able to help out your old friends at MIT

---

**From:** Tyler E Jacks (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Cc:** Kristala L Jones Prather (b) (6) >, Laura Carter (b) (6), Jill Altshuler (b) (6) > Sara Staats (b) (6) >  
**Date:** Sat, 03 Apr 2021 10:29:41 -0400  
**Attachments** smime.p7s (1.86 kB)

:

Dear Eric-

I hope that this note finds you well.

I am writing on behalf of myself and Kris Prather from the Department of Chemical Engineering. We have been asked by Deans of Science and Engineering to co-chair a new effort focused on advancing life sciences and engineering research at MIT.



We believe your perspective both from your experiences at MIT and now in Washington would be invaluable and hope you are willing to participate in a 45-minute Zoom interview. I am copying the consultants, Jill Altshuler and Sara Staats, on this e-mail, so that they can follow up to find a convenient time and answer any further questions you may have.

We would very much appreciate your engagement in shaping the future of life sciences and engineering at MIT.

Best,

Tyler



## [EXTERNAL] contact

---

**From:** Maria T. Zuber (b) (6)  
**To:** Nick Wigginton (b) (6), "Koizumi, Kei EOP/OSTP"  
(b) (6)  
**Cc:** Frances H. Arnold (b) (6)  
**Date:** Mon, 05 Apr 2021 18:26:57 -0400  
**Attachments** smime.p7s (1.86 kB)

:

Connecting Nick and Kei to start the IPA process with UMich.  
Also, Kei, Nick needs a comms contact re: website overhaul.

Regards—

Maria

---

Maria T. Zuber

Vice President for Research  
E.A. Griswold Professor of Geophysics  
Massachusetts Institute of Technology  
77 Massachusetts Avenue, 3-234  
Cambridge, MA 02139-4307  
Phone: (b) (6)  
><http://orgchart.mit.edu/vice-president-research><

Research Office:  
Department of Earth, Atmospheric and Planetary Sciences  
Massachusetts Institute of Technology  
77 Massachusetts Avenue, 54-518  
Cambridge, MA 02139-4307  
Phone (b) (6)  
><http://www-geodyn.mit.edu><

Not all those who wander are lost.

-- J.R.R. Tolkien

---



## [EXTERNAL] RE: Pandemic EW and Human Performance

---

**From:** "Rudzinski, Christina - 0200 - MITLL" (b) (6)  
**To:** "Wack, Edward - 0200 - MITLL" (b) (6), "Schmoyer, Michael W. EOP/OSTP" (b) (6)  
**Date:** Fri, 16 Apr 2021 15:58:17 -0400  
**Attachments** 2021\_04\_16 Pandemic Early Warning-Schmoyer.pptx (6.52 MB); smime.p7s (5.54 kB)  
:

Michael,

Yes, thank you again!

Attached is the chart deck. It is marked draft/limit distribution only because it is a work in progress and we also don't want to step on any toes. If you feel something specific is useful for internal discussions, use your discretion. We welcome feedback and suggestions for areas where specific examples might help with clarifying our message or the needed development to you or others.

Looking forward to engaging in the future. Enjoy the long weekend!

Christina

---

**From:** Wack, Edward - 0200 - MITLL (b) (6)  
**Sent:** Friday, April 16, 2021 3:04 PM  
**To:** Schmoyer, Michael W. EOP/OSTP (b) (6)  
**Cc:** Rudzinski, Christina - 0200 - MITLL (b) (6)  
**Subject:** Re: Pandemic EW and Human Performance

Michael,

Thank you again for meeting with us. It continues to help us hone our thinking.

As if we didn't have enough on our plates in trying to solve the pandemic problem, our division at Lincoln Lab is also charged with coordinating the lab's activities in combatting climate change, not only for the DoD, but across the Federal government.

Is there someone at OSTP that you think it would be useful for us to speak with about our ideas? We're building off the Lab's strengths in systems analysis, sensing, signal processing, and decision support systems. Combating climate changes needs all of these, particularly in addressing cross-sector issues, as well as helping state and locals figure out mitigation and adaptation approaches.

Thanks,  
Ed

---

**From:** "Schmoyer, Michael W. EOP/OSTP" (b) (6)  
**Date:** Friday, April 16, 2021 at 2:14 PM  
**To:** Christina Rudzinski (b) (6), Edward Wack (b) (6), Jeffrey Palmer (b) (6) "Caceres, Rajmonda - 0001 - MITLL" (b) (6) >, "Streilein, William - 0200 - MITLL" (b) (6) Adam Norige (b) (6) >, Jonathan Pitts (b) (6) Benjamin Ervin (b) (6) >, Diane Jamrog (b) (6), (b) (6), (b) (6), "Dettman, Joshua - 0223 - MITLL" (b) (6) "Comolli, James - 0223 - MITLL" (b) (6)  
**Subject:** RE: Pandemic EW and Human Performance

[Executive Order on Ensuring a Data-Driven Response to COVID-19 and Future High-Consequence Public Health Threats | The White House](#)

-----Original Appointment-----

**From:** Rudzinski, Christina - 0200 - MITLL (b) (6) >  
**Sent:** Thursday, April 1, 2021 1:27 PM  
**To:** Rudzinski, Christina - 0200 - MITLL; Schmoyer, Michael W. EOP/OSTP; Wack, Edward - 0200 - MITLL; Palmer, Jeffrey - 0200 - MITLL; Caceres, Rajmonda - 0001 - MITLL; Streilein, William - 0200 - MITLL; Norige, Adam - 0221 - MITLL; Pitts, Jonathan - 0221 - MITLL; Ervin, Benjamin - 0222 - MITLL; Jamrog, Diane - 0222 - MITLL (b) (6); Dettman, Joshua - 0223 - MITLL; Comolli, James - 0223 - MITLL  
**Subject:** [EXTERNAL] Pandemic EW and Human Performance  
**When:** Friday, April 16, 2021 1:00 PM-2:30 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:**  
>><https://mitl.zoomgov.com> (b) (6)

Discussion with Michael Schmoyer on LL pandemic study and OSTP updates and summary of human performance and human-machine teaming.

Hi there,

Christina Rudzinski is inviting you to a scheduled ZoomGov meeting.

[Join Zoom Meeting](#)

Phone one-tap: US: (b) (6) or  
(b) (6)

Meeting URL: >><https://mitll.zoomgov.com>(b) (6)

Meeting ID: (b) (6)

Passcode: (b) (6)

**Join by Telephone**

For higher quality, dial a number based on your current location.

Dial:  
US: (b) (6) or (b) (6)

Meeting ID: (b) (6)

Passcode: (b) (6)

[International numbers](#)

**Join from an H.323/SIP room system**

H.323: (b) (6) (US West)  
(b) (6) (US East)

Meeting ID: (b) (6)

Passcode: (b) (6)

SIP: (b) (6)

Passcode: (b) (6)



**(b) (4)**

**Discussion with Michael Schmoyer**



**DRAFT // Not for Further Distribution**

(b) (4)



(b) (4)

(b) (4)

(b) (4)

(b) (4)

(b) (4)

(b) (4)

(b) (4)

(b) (4)



(b) (4)

(b) (4)

(b) (4)

(b) (4)

(b) (4)

(b) (4)

(b) (4)

(b) (4)



(b) (4)

**From:** Google Calendar on behalf of "Hal Abelson" (b) (6)  
**Sent:** Mon, 10 May 2021 19:44:15 -0500  
**To:** Young, Jessica L. EOP/OSTP  
**Subject:** [EXTERNAL] Accepted: MIT RAISE initiative discussion @ Wed May 19, 2021 3pm - 3:30pm (EDT) (Young, Jessica L. EOP/OSTP)  
**Attachments:** invite.ics

Hal Abelson has accepted this invitation.

### MIT RAISE initiative discussion

**When** Wed May 19, 2021 3pm – 3:30pm Eastern Time - New York

**Where** ><https://pitc.zoomgov.com/>(b) (6)  
(map)

**Calendar** Young, Jessica L. EOP/OSTP

**Who**

- Young, Jessica L. EOP/OSTP - organizer
- Hal Abelson - creator
- Cynthia Breazeal
- Jeff Freilich
- (b) (6)
- (b) (6)
- Eric Klopfer
- Lynch, Justin R. EOP/OSTP
- Parker, Lynne E. EOP/OSTP
- (b) (6) - optional

[><https://www.zoomgov.com/>(b) (6)]

Hi there,

Jessica Young is inviting you to a scheduled ZoomGov meeting.

Join Zoom Meeting

One tap mobile:

US: (b) (6) or (b) (6)

Meeting URL:

><https://pitc.zoomgov.com/>(b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

Join by Telephone

For higher quality, dial a number based on your current location.

Dial:

US: (b) (6) or (b) (6) or (b) (6) or (b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

International numbers

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account (b) (6) because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).

**From:** Google Calendar on behalf of "Eric Klopfer" (b) (6)  
**Sent:** Mon, 10 May 2021 18:09:43 -0500  
**To:** Young, Jessica L. EOP/OSTP  
**Subject:** [EXTERNAL] Accepted: MIT RAISE initiative discussion @ Wed May 19, 2021 3pm - 3:30pm (EDT) (Young, Jessica L. EOP/OSTP)  
**Attachments:** invite.ics

**Eric Klopfer has accepted this invitation.**

### MIT RAISE initiative discussion

**When** Wed May 19, 2021 3pm – 3:30pm Eastern Time - New York

**Where** ><https://pitc.zoomgov.com> (b) (6)  
(map)

**Calendar** Young, Jessica L. EOP/OSTP

**Who**

- Young, Jessica L. EOP/OSTP - organizer
- Eric Klopfer - creator
- (b) (6)
- (b) (6)
- Cynthia Breazeal
- Jeff Freilich
- Lynch, Justin R. EOP/OSTP
- Parker, Lynne E. EOP/OSTP
- (b) (6) - optional

><https://www.zoomgov.com> (b) (6)

Hi there,

Jessica Young is inviting you to a scheduled ZoomGov meeting.

Join Zoom Meeting

One tap mobile:

US: (b) (6) or (b) (6)

Meeting URL:

><https://pitc.zoomgov.com> (b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

Join by Telephone

For higher quality, dial a number based on your current location.

Dial:

US: (b) (6) or (b) (6) or (b) (6) or (b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

International numbers

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account (b) (6) because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More.](#)

**[WARNING: UNSCANNABLE EXTRACTION FAILED]Re:  
[EXTERNAL] ai.gov and MIT**

---

**From:** Jeff Freilich (b) (6)  
**To:** "Young, Jessica L. EOP/OSTP" (b) (6)  
**Cc:** "Lynch, Justin R. EOP/OSTP" (b) (6)  
(b) (6) " (b) (6)  
**Date:** Mon, 10 May 2021 15:44:10 -0400  
**Attachments** smime.p7s (1.87 kB)

:

Hi Jessica,

I'll check and get back to you!

Thanks,

Jeff

Jeff Freilich  
Massachusetts Institute of Technology  
(b) (6)  
Cell: (b) (6)  
><https://www.linkedin.com/in/mishuma/><  
><https://mit.zoom.us>(b) (6)  
he/him/his

On May 10, 2021, at 15:39, Young, Jessica L. EOP/OSTP (b) (6)  
wrote:

Hi Jeff,  
Apologies for the inconvenience - we've had an internal scheduling conflict pop up this  
Thursday. Would it be possible to reschedule our meeting?

Our calendars are open next Tuesday and Wednesday anytime after 12pm ET. Would any time in those windows work for Cynthia, Hal, Eric, and Hae Won? If not, we can find the next mutually available time that would be convenient on your side.

Apologies again, and thanks for your help coordinating,  
Jessica

---

**From:** Young, Jessica L. EOP/OSTP  
**Sent:** Friday, May 7, 2021 10:19 AM  
**To:** 'Jeff Freilich' (b) (6)  
**Cc:** Lynch, Justin R. EOP/OSTP (b) (6) (b) (6)  
**Subject:** Re: [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Hi Jeff,

Thanks for confirming! We've saved 5/13 at 4pm Eastern for the call. Our preference would be to use Zoom Gov to avoid any issues on our end. I've just shared a calendar invite with Cynthia and you, that can be shared with Hal, Eric and Hae Won.  
(If you'd like to send me their email address, I'm also happy to directly add them to the invitation.)

Looking forward to the discussion,  
Jessica

**From:** Jeff Freilich (b) (6)  
**Sent:** Thursday, May 6, 2021 11:35 PM  
**To:** Young, Jessica L. EOP/OSTP (b) (6)  
**Cc:** Lynch, Justin R. EOP/OSTP (b) (6); (b) (6)  
**Subject:** [WARNING: UNSCANNABLE EXTRACTION FAILED]Re: [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Jessica,

Please reserve Thursday, May 13th at 4pm EDT for an introductory call with the principal investigators of the MIT RAISE initiative: Cynthia Breazeal, Hal Abelson, Eric Klopfer and Hae Won Park (still confirming with Hae Won).

I assume a Zoom call will work? >><https://mit.zoom.us> (b) (6) <

Looking forward!

Jeff

On May 6, 2021, at 18:50, Jeff Freilich (b) (6) > wrote:

Thanks, Jessica. I've alerted the four PIs on this project, including Cynthia, and I'm trying to get something nailed down ASAP.

Jeff Freilich  
Massachusetts Institute of Technology  
(b) (6)  
Cell: (b) (6)  
>>[<<](https://www.linkedin.com/in/mishuma/);  
>><https://mit.zoom.us/>(b) (6)  
he/him/his

On May 6, 2021, at 17:30, Young, Jessica L. EOP/OSTP (b) (6) > wrote:

Hi Cynthia,  
We're looking forward to speaking soon and learning more about the RAISE initiative! (I'm shifting you and Lynne to bcc you spare your inboxes.)

Jeff,  
Thank you for helping us find an ideal time to meet. Would any of the following times work next week?

- Monday: 3-4pm
- Tuesday: 1-2pm, 4-5pm
- Wednesday 10-11am, 2-3pm
- Thursday or Friday: 3-5pm

Best,  
Jessica

**From:** Cynthia Breazeal <(b) (6)>  
**Sent:** Thursday, May 6, 2021 5:11 PM  
**To:** Parker, Lynne E. EOP/OSTP (b) (6)  
**Cc:** Cynthia Breazeal (b) (6); Jeff Freilich (b) (6) Lynch, Justin R. EOP/OSTP <(b) (6)>; Young, Jessica L. EOP/OSTP



(b) (6)

**Subject:** Re: [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Awesome! Jeff will help with schedule on ours

Jeff, let's be sure to include Hal, Eric and Hae won

Looking forward to it!

cynthia

On May 6, 2021, at 5:01 PM, Parker, Lynne E. EOP/OSTP (b) (6) wrote:

Hi Cynthia!

Great to hear from you. I hope you're doing well.

Yes, we would love to talk with you about the RAISE initiative. I'm copying a couple of colleagues in my office – Justin Lynch, who heads up our AI education efforts, and Jessica Young, who heads up our responsible AI efforts. They can also help with the scheduling at our end. Looking forward to talking with you soon!

Lynne

**From:** Cynthia Breazeal (b) (6)

**Sent:** Thursday, May 6, 2021 11:36 AM

**To:** Parker, Lynne E. EOP/OSTP (b) (6)

**Cc:** Cynthia Breazeal (b) (6) Jeff Freilich (b) (6)

**Subject:** [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Hi Lynne!

I hope you are safe and well.

We say this announcement with interest. I have a new MIT-wide initiative on Responsible AI for Social Empowerment and Education (RAISE) that has a huge broad educational and outreach effort on AI, ethical design, and its societal implications. For K12, voc-tech/community college, and adult workforce

Would love to set up a time to discuss how we can help your effort. We have a lot of curricular materials for K12 and several impact programs to reach K12 underserved and under-resourced communities nationwide.

best

cynthia

On May 5, 2021, at 8:22 PM, Hal Abelson (b) (6) wrote:

The White House has just launched [ai.gov](https://ai.gov), which is meant to bring AI to the general public. One of the focus areas is computing classroom resources  
>>>><https://www.nsf.gov/news/classroom/computing.jsp><<<<;;  
including a resource site by NSF.

Let's get [aieducation.mit.edu](https://aieducation.mit.edu) listed here.

== Hal

Hal Abelson

(b) (6)

Prof. of Comp. Sci. and Eng.

MIT Dept. of Elec. Eng. and Comp. Sci.

--

Jessica Young

Policy Advisor for AI

Office of Science and Technology Policy

Executive Office of the President

Cell (b) (6)

**[WARNING: UNSCANNABLE EXTRACTION FAILED]Re:  
[EXTERNAL] ai.gov and MIT**

---

**From:** Jeff Freilich (b) (6)  
**To:** "Young, Jessica L. EOP/OSTP" (b) (6)  
**Cc:** "Lynch, Justin R. EOP/OSTP" (b) (6)  
(b) (6) (b) (6) Hal Abelson (b) (6)  
(b) (6) (b) (6)  
**Date:** Mon, 10 May 2021 18:05:32 -0400  
**Attachments** smime.p7s (1.87 kB)

:

Hi Jessica,

The PIs are able to meet with you next Wednesday, May 19th from 3-4pm.

Please send a new invite with the Zoom link to everyone?

- Cynthia Breazeal (b) (6)
- Hal Abelson (b) (6)
- Eric Klopfer (b) (6)
- Haewon Park (b) (6)
- Jeff Freilich (b) (6)

Thank you!

Jeff Freilich  
Massachusetts Institute of Technology  
(b) (6)  
Cell: (b) (6)  
><https://www.linkedin.com/in/mishuma/><  
><https://mit.zoom.us>(b) (6)  
he/him/his

On May 10, 2021, at 15:39, Young, Jessica L. EOP/OSTP (b) (6)

wrote:

Hi Jeff,

Apologies for the inconvenience - we've had an internal scheduling conflict pop up this Thursday. Would it be possible to reschedule our meeting?

Our calendars are open next Tuesday and Wednesday anytime after 12pm ET. Would any time in those windows work for Cynthia, Hal, Eric, and Hae Won? If not, we can find the next mutually available time that would be convenient on your side.

Apologies again, and thanks for your help coordinating,  
Jessica

---

**From:** Young, Jessica L. EOP/OSTP

**Sent:** Friday, May 7, 2021 10:19 AM

**To:** 'Jeff Freilich' (b) (6)

**Cc:** Lynch, Justin R. EOP/OSTP (b) (6) (b) (6)

**Subject:** Re: [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Hi Jeff,

Thanks for confirming! We've saved 5/13 at 4pm Eastern for the call.

Our preference would be to use Zoom Gov to avoid any issues on our end.

I've just shared a calendar invite with Cynthia and you, that can be shared with Hal, Eric and Hae Won.

(If you'd like to send me their email address, I'm also happy to directly add them to the invitation.)

Looking forward to the discussion,  
Jessica

**From:** Jeff Freilich (b) (6)

**Sent:** Thursday, May 6, 2021 11:35 PM

**To:** Young, Jessica L. EOP/OSTP (b) (6)

**Cc:** Lynch, Justin R. EOP/OSTP (b) (6) (b) (6)

**Subject:** [WARNING: UNSCANNABLE EXTRACTION FAILED]Re: [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Jessica,

Please reserve Thursday, May 13th at 4pm EDT for an introductory call with the principal investigators of the MIT RAISE initiative: Cynthia Breazeal, Hal Abelson, Eric Klopfer and Hae Won Park (still confirming with Hae Won).

I assume a Zoom call will  
work? >><https://mit.zoom.us/>(b) (6)

Looking forward!

Jeff

On May 6, 2021, at 18:50, Jeff Freilich (b) (6) wrote:

Thanks, Jessica. I've alerted the four PIs on this project, including Cynthia, and I'm trying to get something nailed down ASAP.

Jeff Freilich  
Massachusetts Institute of Technology  
(b) (6)  
Cell: (b) (6)  
>><https://www.linkedin.com/in/mishuma/><<;  
>><https://mit.zoom.us/>(b) (6)  
he/him/his

On May 6, 2021, at 17:30, Young, Jessica L. EOP/OSTP (b) (6) > wrote:

Hi Cynthia,  
We're looking forward to speaking soon and learning more about the RAISE initiative! (I'm shifting you and Lynne to bcc you spare your inboxes.)

Jeff,  
Thank you for helping us find an ideal time to meet. Would any of the following times work next week?

- Monday: 3-4pm
- Tuesday: 1-2pm, 4-5pm
- Wednesday 10-11am, 2-3pm
- Thursday or Friday: 3-5pm

Best,  
Jessica

**From:** Cynthia Breazeal (b) (6)  
**Sent:** Thursday, May 6, 2021 5:11 PM  
**To:** Parker, Lynne E. EOP/OSTP (b) (6)  
**Cc:** Cynthia Breazeal (b) (6); Jeff Freilich (b) (6) Lynch, Justin R. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6)  
**Subject:** Re: [EXTERNAL] [ai.gov](#) and MIT

Awesome! Jeff will help with schedule on ours

Jeff, let's be sure to include Hal, Eric and Hae won

Looking forward to it!

cynthia

On May 6, 2021, at 5:01 PM, Parker, Lynne E. EOP/OSTP (b) (6) wrote:

Hi Cynthia!

Great to hear from you. I hope you're doing well.

Yes, we would love to talk with you about the RAISE initiative. I'm copying a couple of colleagues in my office – Justin Lynch, who heads up our AI education efforts, and Jessica Young, who heads up our responsible AI efforts. They can also help with the scheduling at our end. Looking forward to talking with you soon!

Lynne

**From:** Cynthia Breazeal (b) (6)  
**Sent:** Thursday, May 6, 2021 11:36 AM  
**To:** Parker, Lynne E. EOP/OSTP (b) (6)  
**Cc:** Cynthia Breazeal (b) (6); Jeff Freilich (b) (6)  
**Subject:** [EXTERNAL] [ai.gov](#) and MIT

Hi Lynne!

I hope you are safe and well.

We say this announcement with interest. I have a new MIT-wide initiative on Responsible AI for Social Empowerment and Education (RAISE) that has a huge broad educational and outreach effort on AI, ethical design, and its societal implications.  
For K12, voc-tech/community college, and adult workforce

Would love to set up a time to discuss how we can help your effort. We have a lot of curricular materials for K12 and several impact programs to reach K12 underserved and under-resourced communities nationwide.

best

cynthia

On May 5, 2021, at 8:22 PM, Hal Abelson (b) (6) > wrote:

The White House has just launched [ai.gov](https://ai.gov), which is meant to bring AI to the general public. One of the focus areas is computing classroom resources  
>>>><https://www.nsf.gov/news/classroom/computing.jsp><<<<;;  
including a resource site by NSF.

Let's get [aieducation.mit.edu](https://aieducation.mit.edu) listed here.

== Hal

Hal Abelson

(b) (6)

Prof. of Comp. Sci. and Eng.

MIT Dept. of Elec. Eng. and Comp. Sci.

--

Jessica Young

Policy Advisor for AI

Office of Science and Technology Policy

Executive Office of the President

Cell (b) (6)





## [EXTERNAL] Accepted: MIT RAISE initiative discussion

---

**From:** (b)(6) F Reilich MIT  
**To:** "Young, Jessica L. EOP/OSTP" (b) (6)  
**Date:** Mon, 10 May 2021 18:59:35 -0400  
**Attachments:** ATT00001.ics (0 bytes); reply.ics (0 bytes)

## Re: [EXTERNAL] The Engine/MIT w/ Jason Matheny Zoom & David Goldston

---

**From:** Helen C Haislmaier (b) (6)  
**To:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**Date:** Tue, 11 May 2021 11:47:20 -0400

Thanks for getting back to me, Jason.

Let's confirm 2pm on May 18<sup>th</sup> if that still works for you.

Kindest regards,

Helen

**Helen Haislmaier**  
Program Coordinator  
MIT Washington Office/Federal Relations  
Cell: (b) (6)

---

**From:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**Date:** Monday, May 10, 2021 at 9:43 PM  
**To:** Helen C Haislmaier (b) (6)  
**Subject:** RE: [EXTERNAL] The Engine/MIT w/ Jason Matheny Zoom & David Goldston

Thanks, Helen. May 18 @ 2 or 4 also work for me.  
Best wishes,  
Jason

---

**From:** Helen C Haislmaier (b) (6)  
**Sent:** Monday, May 10, 2021 10:27 AM  
**To:** Matheny, Jason G. EOP/OSTP (b) (6)  
**Subject:** Re: [EXTERNAL] The Engine/MIT w/ Jason Matheny Zoom & David Goldston

Hi Jason,

Thanks so much for getting back to me. Unfortunately, that time doesn't work for Michael any more. Do any of the other options work for you? If not, let's go ahead and confirm May 13 at noon with just Orin and David.

Many thanks,

Helen

**Helen Haislmaier**  
Program Coordinator  
MIT Washington Office/Federal Relations  
Cell (b) (6)

---

**From:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**Date:** Saturday, May 8, 2021 at 9:58 PM  
**To:** Helen C Haislmaier (b) (6)  
**Subject:** RE: [EXTERNAL] The Engine/MIT w/ Jason Matheny Zoom & David Goldston

Thanks, Helen, and apologies for the rescheduling. Let's go with May 13 @ noon.  
Best wishes,  
Jason

---

**From:** Helen C Haislmaier (b) (6)  
**Sent:** Friday, May 7, 2021 12:32 PM  
**To:** Matheny, Jason G. EOP/OSTP (b) (6)  
**Subject:** Re: [EXTERNAL] The Engine/MIT w/ Jason Matheny Zoom & David Goldston

Hi Jason,

Sorry to bug you again but I just thought I would send some more dates in case you're able to reschedule the Engine meeting for one of them:

May 10<sup>th</sup>: 10am - 2pm  
May 12: noon - 1:30 pm  
May 13: Any time before 2pm  
May 14: noon - 1pm  
May 18: 12:30 - 5:30pm  
May 19: 9:00 - 10:45am  
May 20: 11:30am - 2:30pm  
May 21: 1:30 - 3:00pm  
May 24: 10am - 2:00pm

June 1<sup>st</sup>: Any time after 10am

Happy to look at other dates if none of the above work.

Thanks so much for checking your calendar again.

Kind regards,

Helen  
**Helen Haislmaier**  
Program Coordinator  
MIT Washington Office/Federal Relations  
Cell: (b) (6)

---

**From:** Helen C Haislmaier (b) (6)  
**Date:** Tuesday, May 4, 2021 at 11:44 AM  
**To:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**Subject:** Re: [EXTERNAL] The Engine/MIT w/ Jason Matheny Zoom & David Goldston

Hi,

We quite understand. Would any of these work? If you can give me a couple of options, I'll confirm with the Engine folks and get back to you.

May 10<sup>th</sup>: 10am - 2pm  
May 12: noon – 1pm  
May 13: Any time before 2pm  
May 14: 3-4pm

Many thanks,

Helen  
**Helen Haislmaier**  
Program Coordinator  
MIT Washington Office/Federal Relations  
Cell (b) (6)

---

**From:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**Date:** Tuesday, May 4, 2021 at 11:38 AM  
**To:** Helen C Haislmaier (b) (6)

**Subject:** Declined: [EXTERNAL] The Engine/MIT w/ Jason Matheny Zoom & David Goldston

My apologies – something time-sensitive came up here. Can you let me know some options to reschedule for next week?

## Re: [EXTERNAL] NSPM-33

---

**From:** Maria T. Zuber (b) (6)  
**To:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**Date:** Mon, 17 May 2021 15:17:08 -0400  
**Attachments:** smime.p7s (1.86 kB)

Hi JASON—

In discussion with Eric I have updated the memo and it is attached. Happy to set up time to discuss after you

have read it or to help however needed in addressing how to move forward.

Best wishes—

Maria



May 16, 2021

To: Eric S. Lander

From: Maria T. Zuber

Subject: Recommended next steps regarding NSPM-33 and JCORE Memo

(b) (5)

**(b) (5)**



**(b) (5)**

**(b) (5)**

## [EXTERNAL] Presidential medals of science and technology

---

**From:** Vint Cerf (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Date:** Tue, 01 Jun 2021 06:47:42 -0400  
**Attachments:** smime.p7s (3.99 kB)

Dear Eric,

congratulations on your senate confirmation! I am sure you have much on your plate. Just to add to it, have you been briefed on the situation with the National Medals of Science and Technology (NSTMF)? I sit on the Board of the National Science and Technology Medals Foundation and we look forward to resumption of the annual White House ceremonies. There is a huge backlog. Your immediate predecessor, Kelvin Droegemeier, tried to organize an online catch up process but things got too complicated.

I believe that Andy Rathmann-Noonan, executive director of the NSTMF, has been in touch with the key people at NSF and at USPTO and also at OSTP. This is just to draw your attention to one more thing :-))

vint

--

Please send any postal/overnight deliveries to:

Vint Cerf  
1435 Woodhurst Blvd  
McLean, VA 22102  
(b) (6)

until further notice

**[WARNING: UNSCANNABLE EXTRACTION FAILED]Re:  
[EXTERNAL] ai.gov and MIT**

---

**From:** Jeff Freilich (b) (6)  
**To:** "Young, Jessica L. EOP/OSTP" (b) (6), "Lynch, Justin R. EOP/OSTP" (b) (6)  
**Cc:** (b) (6) (b) (6)  
**Date:** Fri, 04 Jun 2021 12:23:50 -0400  
**Attachments** smime.p7s (1.87 kB)

:

Hi Jessica and Justin,

Cynthia Breazeal asked if we might schedule a follow-up conversation about MIT RAISE with you (and with Lynne, if she's available) since we ran out of time during our last call?

Please suggest some options and I'll coordinate from the MIT side?

Thank you!

Jeff

Jeff Freilich  
Massachusetts Institute of Technology  
(b) (6)  
Cell: (b) (6)  
><https://www.linkedin.com/in/mishuma/><  
><https://mit.zoom.us/>(b) (6)  
he/him/his

On May 10, 2021, at 18:05, Jeff Freilich (b) (6) wrote:

Hi Jessica,

The PIs are able to meet with you next Wednesday, May 19th from 3-4pm.

Please send a new invite with the Zoom link to everyone?

Cynthia Breazeal (b) (6)  
Hal Abelson (b) (6)  
Eric Klopfer (b) (6)  
Haewon Park (b) (6)  
Jeff Freilich (b) (6)

Thank you!

Jeff Freilich  
Massachusetts Institute of Technology  
(b) (6)  
Cell: (b) (6)  
><https://www.linkedin.com/in/mishuma/><  
><https://mit.zoom.us>(b) (6)  
he/him/his

On May 10, 2021, at 15:39, Young, Jessica L. EOP/OSTP  
(b) (6) wrote:

Hi Jeff,  
Apologies for the inconvenience - we've had an internal scheduling conflict pop up this Thursday. Would it be possible to reschedule our meeting?

Our calendars are open next Tuesday and Wednesday anytime after 12pm ET. Would any time in those windows work for Cynthia, Hal, Eric, and Hae Won? If not, we can find the next mutually available time that would be convenient on your side.

Apologies again, and thanks for your help coordinating,  
Jessica

---

**From:** Young, Jessica L. EOP/OSTP  
**Sent:** Friday, May 7, 2021 10:19 AM

To: 'Jeff Freilich' (b) (6)

Cc: Lynch, Justin R. EOP/OSTP (b) (6); (b) (6)

Subject: Re: [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Hi Jeff,

Thanks for confirming! We've saved 5/13 at 4pm Eastern for the call.

Our preference would be to use Zoom Gov to avoid any issues on our end.

I've just shared a calendar invite with Cynthia and you, that can be shared with Hal, Eric and Hae Won.

(If you'd like to send me their email address, I'm also happy to directly add them to the invitation.)

Looking forward to the discussion,  
Jessica

From: Jeff Freilich (b) (6)

Sent: Thursday, May 6, 2021 11:35 PM

To: Young, Jessica L. EOP/OSTP (b) (6)

Cc: Lynch, Justin R. EOP/OSTP <(b) (6)>; (b) (6)

Subject: [WARNING: UNSCANNABLE EXTRACTION FAILED]Re: [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Jessica,

Please reserve Thursday, May 13th at 4pm EDT for an introductory call with the principal investigators of the MIT RAISE initiative: Cynthia Breazeal, Hal Abelson, Eric Klopfer and Hae Won Park (still confirming with Hae Won).

I assume a Zoom call will

work? >><https://mit.zoom.us> (b) (6)

Looking forward!

Jeff

On May 6, 2021, at 18:50, Jeff Freilich (b) (6) > wrote:

Thanks, Jessica. I've alerted the four PIs on this project, including Cynthia, and I'm trying to get something nailed down ASAP.

Jeff Freilich  
Massachusetts Institute of Technology

(b) (6)

Cell: (b) (6)

>>[<<](https://www.linkedin.com/in/mishuma/);

>><https://mit.zoom.us> (b) (6)

he/him/his

On May 6, 2021, at 17:30, Young, Jessica L. EOP/OSTP (b) (6) wrote:

Hi Cynthia,

We're looking forward to speaking soon and learning more about the RAISE initiative! (I'm shifting you and Lynne to bcc you spare your inboxes.)

Jeff,

Thank you for helping us find an ideal time to meet. Would any of the following times work next week?

- Monday: 3-4pm
- Tuesday: 1-2pm, 4-5pm
- Wednesday 10-11am, 2-3pm
- Thursday or Friday: 3-5pm

Best,  
Jessica

**From:** Cynthia Breazeal (b) (6)

**Sent:** Thursday, May 6, 2021 5:11 PM

**To:** Parker, Lynne E. EOP/OSTP <(b) (6)>

**Cc:** Cynthia Breazeal (b) (6); Jeff Freilich (b) (6); Lynch,

Justin R. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP

(b) (6)

**Subject:** Re: [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Awesome! Jeff will help with schedule on ours

Jeff, let's be sure to include Hal, Eric and Hae won

Looking forward to it!

cynthia

On May 6, 2021, at 5:01 PM, Parker, Lynne E. EOP/OSTP (b) (6) wrote:

Hi Cynthia!

Great to hear from you. I hope you're doing well.

Yes, we would love to talk with you about the RAISE initiative. I'm copying a couple of colleagues in my office – Justin Lynch, who heads up our AI education efforts, and Jessica Young, who heads up our responsible AI efforts. They can also help with the scheduling at our end. Looking forward to talking with you soon!

Lynne

**From:** Cynthia Breazeal (b) (6)  
**Sent:** Thursday, May 6, 2021 11:36 AM  
**To:** Parker, Lynne E. EOP/OSTP <(b) (6)>  
**Cc:** Cynthia Breazeal (b) (6); Jeff Freilich (b) (6)  
**Subject:** [EXTERNAL] [ai.gov](https://ai.gov) and MIT

Hi Lynne!

I hope you are safe and well.

We say this announcement with interest. I have a new MIT-wide initiative on Responsible AI for Social Empowerment and Education (RAISE) that has a huge broad educational and outreach effort on AI, ethical design, and its societal implications. For K12, voc-tech/community college, and adult workforce

Would love to set up a time to discuss how we can help your effort. We have a lot of curricular materials for K12 and several impact programs to reach K12 underserved and under-resourced communities nationwide.

best

cynthia



On May 5, 2021, at 8:22 PM, Hal Abelson (b) (6) wrote:

The White House has just launched [ai.gov](https://ai.gov), which is meant to bring AI to the general public. One of the focus areas is computing classroom resources <https://www.nsf.gov/news/classroom/computing.jsp> including a resource site by NSF.

Let's get [aieducation.mit.edu](https://aieducation.mit.edu) listed here.

== Hal

Hal Abelson

(b) (6)

Prof. of Comp. Sci. and Eng.

MIT Dept. of Elec. Eng. and Comp. Sci.

--

Jessica Young

Policy Advisor for AI

Office of Science and Technology Policy

Executive Office of the President

Cel (b) (6)

**From:** Google Calendar on behalf of (b) (6)  
**Sent:** Tue, 15 Jun 2021 18:25:31 -0500  
**To:** Gorman, Lindsay P. EOP/OSTP  
**Subject:** [EXTERNAL] Accepted: Privacy-Preserving Tech Follow-Up @ Wed Jun 16, 2021 2:30pm - 3pm (EDT) (Gorman, Lindsay P. EOP/OSTP)  
**Attachments:** invite.ics

(b) (6) has accepted this invitation.

### Privacy-Preserving Tech Follow-Up

**When** Wed Jun 16, 2021 2:30pm – 3pm Eastern Time - New York

**Where** ><https://pitc.zoomgov.com/>(b) (6)  
(map)

**Calendar** Gorman, Lindsay P. EOP/OSTP

**Who**

- Gorman, Lindsay P. EOP/OSTP - organizer
- (b) (6) - creator
- 'Ashwin Machanavajjhala'
- Michael Hay
- Buchanan, Ben L. EOP/OSTP
- Young, Jessica L. EOP/OSTP
- DeBlanc-Knowles, Tess K. EOP/OSTP

><https://www.zoomgov.com/>(b) (6)

Hi there,

Lindsay Gorman is inviting you to a scheduled ZoomGov meeting.

Join Zoom Meeting

One tap mobile:

US: (b) (6) or (b) (6), (b) (6)

Meeting URL:

><https://pitc.zoomgov.com/>(b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

Join by Telephone

For higher quality, dial a number based on your current location.

Dial:

US: (b) (6) or (b) (6) or (b) (6) or (b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

International numbers

Join from an H.323/SIP room system

H.323:

(b) (6) (US West)

(b) (6) (US East)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

SIP:

(b) (6)

Passcode:

(b) (6)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account (b) (6) because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).

## [EXTERNAL] Re: AI.gov and MIT

---

**From:** Jeff Freilich (b) (6)  
**To:** "Lynch, Justin R. EOP/OSTP" (b) (6)  
**Date:** Thu, 17 Jun 2021 10:02:28 -0400  
**Attachments:** smime.p7s (1.87 kB)

Justin,

Would sometime from 12 - 2pm or 4 - 5pm work for a call with us on Monday (6/21)?

Jeff

Jeff Freilich

Massachusetts Institute of Technology

(b) (6)

Cell: (b) (6)

<https://www.linkedin.com/in/mishuma/><

<https://mit.zoom.us/>(b) (6)

he/him/his

On Jun 17, 2021, at 08:44, Tc Haldi (b) (6) > wrote:

Good morning!

I am free Mon June 21 anytime EXCEPT 2-3. Looking forward to meeting you all. Best tc

TC Haldi

Senior Director, MIT xPRO

600 Technology Square, 2<sup>nd</sup> floor

Cambridge, MA 02139

(b) (6)

---

**From:** Jeff Freilich (b) (6)

**Date:** Wednesday, June 16, 2021 at 5:04 PM

**To:** "Lynch, Justin R. EOP/OSTP" (b) (6)

**Cc:** "Young, Jessica L. EOP/OSTP" (b) (6),

(b) (6) (b) (6) TC Haldi (b) (6)

**Subject:** Re: [Al.gov](#) and MIT

Hi Justin,

The Institute is closed on Friday in observance of Juneteenth. Would you have any time on Monday afternoon (6/21)? We'd also like to introduce another colleague, TC Haldi (cc'd), who heads up workforce education at MIT's Office of Open Learning, if she's available.

Thanks!

Jeff

Jeff Freilich  
Massachusetts Institute of Technology

(b) (6)

Cell: (b) (6)

><https://www.linkedin.com/in/mishuma/><

><https://mit.zoom.us/>(b) (6)

he/him/his

On Jun 16, 2021, at 11:54, Lynch, Justin R. EOP/OSTP (b) (6)

wrote:

Jeff,

Thank you for reaching out. My schedule is pretty flexible on Friday afternoon. Is there a time that would work well for you?

Justin Lynch  
Policy Advisor  
Office of Science and Technology Policy

Executive Office of the President

(b) (6)

Cell (b) (6)

## RE: [EXTERNAL] reducing infectious diseases' impact

---

**From:** "Guerra, Stephanie L. EOP/OSTP" (b) (6)  
:  
**To:** Mike Fisher (b) (6), "Schmoyer, Michael W. EOP/OSTP"  
(b) (6)  
**Cc:** "McKelvey, Greg G. Jr. EOP/OSTP" (b) (6)  
**Date:** Mon, 28 Jun 2021 20:31:27 -0400

Thanks Mike- piggybacking off of Michael's priorities I'd also like to better understand:

- What triggers a signal from noise in this type of system and how that leads to a targeted prevention approach
- How the infrastructure and/or capacity building could also be leveraged for detecting accidental/deliberate threats

Best,  
Steph

**From:** Mike Fisher <(b) (6)>  
**Sent:** Monday, June 28, 2021 6:40 PM  
**To:** Schmoyer, Michael W. EOP/OSTP (b) (6)  
**Cc:** Guerra, Stephanie L. EOP/OSTP (b) (6); McKelvey, Greg G. Jr. EOP/OSTP (b) (6)  
**Subject:** Re: [EXTERNAL] reducing infectious diseases' impact

Thanks for this, Michael - we'll see what Alex's availability is like on the 9th.

Greg, Steph - if you have additional questions or points of interest you'd like us to share with Alex ahead of time, please don't hesitate to pass along.

Have a good one,

Mike

On Mon, Jun 28, 2021 at 5:18 PM Schmoyer, Michael W. EOP/OSTP  
(b) (6) wrote:

Hi Mike-

I'm actually trying to be on leave that week, but how do things look on the 9<sup>th</sup>? I'm also cc'ing Greg and Steph as they would likely be interested.

For me, I'm most attracted to 1) an overall summary brief on the paper (and the rationale for his perspective) and 2) a deeper dive on elements pertaining to predictive analytics/forecasting/modeling as it relates to early indications/warnings of emerging biological threats.

Thanks for helping this come together,  
Michael

**From:** Mike Fisher (b) (6)  
**Sent:** Monday, June 28, 2021 1:33 PM  
**To:** Schmoyer, Michael W. EOP/OSTP (b) (6)  
**Subject:** Re: [EXTERNAL] reducing infectious diseases' impact

Hi Michael (bcc to save inbox: Andrew),

We reconnected with Alex Dehgan, the author of Preventing the Next Pandemics: An Upstream Approach to Novel National Security Threats, and he's looking forward to delivering a briefing on the paper.

Can you suggest three time blocks that work well for you on July 6th, or other days that same week / week after?

Also, would you like us to prepare an agenda for the briefing, or is a more freeform Q&A-style session better for you?

Lastly, are there any questions about the paper that you have for Alex that you'd like us to get to him ahead of the briefing, or specific points he raises in the paper that you'd especially like him to speak to?

Thank you,

Mike

On Sun, Jun 27, 2021 at 10:16 AM Mike Fisher (b) (6) > wrote:

Good to know; thanks Michael!  
- Mike

On Sun, Jun 27, 2021 at 6:59 AM Schmoyer, Michael W. EOP/OSTP (b) (6) wrote:



That sounds great, thanks Mike. Related, I'm chairing an interagency working group that is along these lines ... there may be a second request for a follow-on brief to a larger group.  
Best,  
Michael

**From:** Mike Fisher (b) (6)  
**Sent:** Friday, June 25, 2021 5:51 PM  
**To:** Hebbeler, Andrew M. EOP/OSTP <(b) (6)>  
**Cc:** Schmoyer, Michael W. EOP/OSTP (b) (6) >  
**Subject:** Re: [EXTERNAL] reducing infectious diseases' impact

Hi Andrew, and nice to be connected, Michael -

We will rally the authors and touch back early next week re briefing on the preventing the next pandemic paper. Happy to do it!

Have a nice weekend,

Mike

On Fri, Jun 25, 2021 at 4:48 PM Hebbeler, Andrew M. EOP/OSTP (b) (6) > wrote:

Hi Mike: Connecting you with Michael. We'd love if you could help arrange a briefing by the preventing the next pandemic authors. Thank you!

Sent from my iPhone

On Jun 25, 2021, at 9:30 AM, Schmoyer, Michael W. EOP/OSTP (b) (6) wrote:

Hi Andrew-

I would be interested in connecting with the author(s) for Preventing the Next Pandemics: An Upstream Approach to Novel National Security Threats  
Relates to epi forecasting/modeling work I'm doing

Thanks for asking,  
mws

---

**From:** Hebbeler, Andrew M. EOP/OSTP (b) (6)

**Sent:** Friday, June 25, 2021 8:28 AM

**To:** DL OSTP HLS (b) (6) DL OSTP Biorisk

(b) (6)

**Subject:** FW: [EXTERNAL] reducing infectious diseases' impact

FYI – does anyone want to hear from any of the day one paper authors? Happy to connect you with Mike if so.....

**From:** Mike Fisher <(b) (6)>

**Sent:** Friday, June 25, 2021 8:22 AM

**To:** Hebbeler, Andrew M. EOP/OSTP (b) (6)

**Subject:** Re: [EXTERNAL] reducing infectious diseases' impact

Morning Andrew, hope your week has gone well! Just wanted to re-up re any crystallization of OSTP priority issues in the life sciences / modern biotechnology / synbio space, or if you or any of your colleagues would find it useful to work with the authors of any of the infectious diseases-related Day One papers to further develop ideas in a direction you are pursuing.

Best,

Mike

On Tue, Jun 15, 2021 at 3:33 PM Mike Fisher (b) (6) > wrote:

Hi Andrew, just wanted to update you on our conversations with Doug and India. There is mutual interest in pursuing a collaboration that makes sense for both our orgs. Our next step is to put together some ideas about research and analysis projects / convenings we could potentially collaborate on in advance of our next conversation with EBRC.

Have your OSTP priorities around life sciences / modern biotechnology / synbio been shaping up (outside of reducing the impacts of infectious diseases)? Some ideas we have been mulling over include...

- updating the U.S. framework for the regulation of genetically engineered products
- a framework for a National Synthetic Biology Initiative (inspired by the National Artificial Intelligence Initiative, overseeing and implementing the U.S. AI strategy - AI.gov)
- maximizing the contributions of foreign nationals to U.S. engineering biology while maintaining scientific integrity
- promoting ethical use of engineering biology practices
- leveraging the use of standards and standardization in the synthetic biology industry and biomanufacturing

...and it would be great to get your feedback on whether any of these, or perhaps others not on the list, are priority issues.

Also curious if any follow-on regarding those six Day One resources re pandemic preparedness / infectious diseases is in order. Let us know!

Hope you're holding up okay!

Best,

Mike

On Wed, Jun 2, 2021 at 5:19 PM Hebbeler, Andrew M. EOP/OSTP

(b) (6) wrote:

Hi Mike: Great chatting with you too, and thanks for sending these resources! Would be great to hear how your discussions with Doug and India go.

+others FYSA, in case these FAS/D1P docs aren't already on their radar.

Thanks again!

Andrew

**From:** Mike Fisher (b) (6)

**Sent:** Wednesday, June 2, 2021 8:59 AM

**To:** Hebbeler, Andrew M. EOP/OSTP (b) (6)

**Subject:** [EXTERNAL] reducing infectious diseases' impact

Hi Andrew,

Thank you again for talking with me the other week. Following up on our conversation, if any additional OSTP priorities have crystallized beyond pandemic preparedness / taking measures to reduce the impact of infectious diseases, it would be great to schedule another call.

And regarding pandemic preparedness / infectious diseases, just sharing six FAS Day One papers in our portfolio that may be of interest to you and your team (happy to prepare a brief on any of these or work with the authors to further develop ideas in a direction you are pursuing):

Preventing the Next Pandemics: An Upstream Approach to Novel National Security Threats

Shift from reacting to disease outbreaks – which is economically devastating – to detecting, addressing, and mitigating the major upstream factors that contribute to the emergence of diseases prior to an outbreak.

Improving Federal Management of Wildlife Movement and Emerging Infectious Disease

Reduce the risk of emerging infectious diseases entering the United States, offer greater protection to citizens from zoonotic diseases, and protect American biodiversity from losses due to wildlife diseases.

A National Bioeconomy Manufacturing and Innovation Initiative

Ramp up cross-cutting, cutting-edge research and development across the areas of healthcare, food & agriculture, energy, environment, and industrial applications to develop fundamental and publicly available tools, and bolster American biomanufacturing.

Open Access to Federally-funded Research Data

Accelerate scientific progress by (i) requiring scientists who receive federal funding to share their research data and (ii) directing federal research agencies to coordinate to build an International Research Data Commons that allows research data to be easily discovered and shared.

Creating a COVID-19 Commission on Public Health Misinformation

Examine our nation's response to the 2020 pandemic using a mechanism that is modeled on the 9/11 Commission, with one Commission focusing on public health communication and messaging that would assess the information about the pandemic: what was made publicly available, how the information affected our societal response, and what should be done to limit the impact of false and dangerously misleading information moving forward.

A National Strategy to Counter COVID-19 Misinformation

Establish an office at the Department of Health and Human Services dedicated to countering COVID-19 misinformation.

Also possibly of interest, on Friday I'll be meeting with Doug Friedman of BioMADE and India Hook-Barnard of the Engineering Biology Research Consortium to discuss the potential of sourcing policy ideas from the synbio community.

Thanks again, Andrew, and looking forward to talking again soon!

Best,

Mike

--

Michael A. Fisher, Ph.D.  
Senior Fellow  
Federation of American Scientists  
[1112 16th Street NW, Suite 400  
Washington, DC 20036](https://www.fas.org/1112-16th-Street-NW-Suite-400-Washington-DC-20036)

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.  
Senior Fellow  
Federation of American Scientists  
[1112 16th Street NW, Suite 400](#)  
[Washington, DC 20036](#)

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.  
Federation of American Scientists  
Senior Fellow and Director, Congressional Science Policy Initiative  
[1112 16th Street NW, Suite 400](#)  
[Washington, DC 20036](#)

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.  
Federation of American Scientists  
Senior Fellow and Director, Congressional Science Policy Initiative  
1112 16th Street NW, Suite 400  
Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.  
Federation of American Scientists  
Senior Fellow and Director, Congressional Science Policy Initiative  
[1112 16th Street NW, Suite 400](#)  
[Washington, DC 20036](#)

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: [Congressional Science Policy Initiative](#)

--

Michael A. Fisher, Ph.D.

Federation of American Scientists

Senior Fellow and Director, Congressional Science Policy Initiative

[1112 16th Street NW, Suite 400](#)

[Washington, DC 20036](#)

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: [Congressional Science Policy Initiative](#)

--

Michael A. Fisher, Ph.D.

[Federation of American Scientists](#)

Senior Fellow and Director, [Congressional Science Policy Initiative](#)

1112 16th Street NW, Suite 400

Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: [Congressional Science Policy Initiative](#)

## Read-Ahead Materials for Virtual Workshop on Privacy-Enhancing Technologies on July 14

---

**From:** "Gorman, Lindsay P. EOP/OSTP" (b) (6)  
:  
**To:** (b) (6) (b) (6)  
**Cc:** "Buchanan, Ben L. EOP/OSTP" (b) (6) >, "Gorman, Lindsay P. EOP/OSTP" (b) (6) >, "DeBlanc-Knowles, Tess K. EOP/OSTP" (b) (6), "Young, Jessica L. EOP/OSTP" (b) (6), (b) (6), (b) (6), (b) (6)  
"Parker, Lynne E. EOP/OSTP" (b) (6)  
**Date:** Fri, 02 Jul 2021 11:17:23 -0400

Emily and David,

We're delighted you're able to attend the Virtual Workshop on Privacy-Enhancing Technologies on July 14 and greatly looking forward to your participation. In advance of the workshop, we would love to send read-ahead materials on technical approaches and potential application areas to our international partners to help inform their participation in the workshop and seed initial thinking about collaboration projects. To that end, would you be able to send over a **short description** (no more than 1 page) of your technical approach and a successful example use case no later than **COB Thursday July 8<sup>th</sup>** to be shared with international workshop attendees?

Please do not hesitate to reach out with any questions. And thank you in advance for bearing with our tight turnaround timelines.

All the best,

Lindsay & the OSTP Team

---

Lindsay P. Gorman  
Senior Policy Advisor for Technology Strategy  
The Office of Science and Technology Policy | White House  
(b) (6) (mobile)

## [EXTERNAL] RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

---

**From:** "Shen, Emily - 0553 - MITLL" (b) (6)  
**To:** "DeBlanc-Knowles, Tess K. EOP/OSTP" (b) (6)  
"Bigelow, David - 0553 - MITLL" (b) (6)  
**Cc:** "Buchanan, Ben L. EOP/OSTP" (b) (6), "Young, Jessica L. EOP/OSTP" (b) (6), "Gorman, Lindsay P. EOP/OSTP" (b) (6)  
**Date:** Tue, 06 Jul 2021 12:43:08 -0400  
**Attachments** smime.p7s (5.66 kB)

:

Hi Tess,

I will be attending the July 7 meeting and can also attend the July 8 meeting.

Thanks,

Emily

--

Emily Shen  
Senior Staff  
Secure Resilient Systems and Technology  
MIT Lincoln Laboratory  
(b) (6)

---

**From:** DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6)  
**Sent:** Tuesday, July 6, 2021 11:13 AM  
**To:** Shen, Emily - 0553 - MITLL (b) (6); Bigelow, David - 0553 - MITLL (b) (6)  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); Gorman, Lindsay P. EOP/OSTP (b) (6)  
**Subject:** RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Emily, David,



We are delighted you will be able to participate on July 14th. Could I ask you to kindly confirm which of the pre-workshop meetings you plan to attend this week? You should have received calendar invites to both options - July 7, 2:00-3:00 pm ET and July 8, 11:00am-12:00pm ET.

Best,

Tess

---

**From:** Shen, Emily - 0553 - MITLL (b) (6)  
**Sent:** Monday, June 28, 2021 12:22 AM  
**To:** Gorman, Lindsay P. EOP/OSTP (b) (6); Bigelow, David - 0553 - MITLL (b) (6) >  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6) (b) (6) (b) (6) t(b) (6) Parker, Lynne E. EOP/OSTP (b) (6) >  
**Subject:** [EXTERNAL] RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Dear Lynne, Lindsay, Ben, and Tess,

Thank you for the invitation. I will be happy to present at the workshop on privacy-enhancing technologies.

I have one question: what level of background knowledge is the audience expected to have on privacy-enhancing technologies coming into the workshop? In particular, I'm wondering whether it makes sense to include in the presentation a (quick) general introduction to secure multi-party computation, in addition to the specific topics you mentioned.

Thanks,

Emily

--

Emily Shen  
Senior Staff  
Secure Resilient Systems and Technology  
MIT Lincoln (b) (6)  
(b) (6)

---

**From:** Gorman, Lindsay P. EOP/OSTP <(b) (6)>  
**Sent:** Friday, June 25, 2021 2:43 PM  
**To:** Shen, Emily - 0553 - MITLL (b) (6); Bigelow, David - 0553 - MITLL (b) (6)  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); (b) (6); (b) (6); (b) (6) Parker, Lynne E. EOP/OSTP (b) (6)  
**Subject:** RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Emily and David,

Thank you again for lending your time over the last couple of weeks. As you consider this invitation, I wanted to follow-up and provide a little more technical clarity on what we OSTP are interested in. We aim to showcase a complement of privacy-enhancing technologies pioneered by US researchers at the July event. As such, we were particularly interested in the privacy-enhancing clustering methods you discussed with the team last week, and we were hoping you could focus your presentation at the Summit on these ML techniques and their potential applications. Please do not hesitate to reach out with any questions or concerns.

All the best,

Lindsay P. Gorman  
Senior Policy Advisor for Technology Strategy  
The Office of Science and Technology Policy | White House  
(b) (6) (mobile)

---

**From:** Parker, Lynne E. EOP/OSTP  
**Sent:** Friday, June 25, 2021 1:59 PM  
**To:** (b) (6); (b) (6)  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); Gorman, Lindsay P. EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); (b) (6); (b) (6); (b) (6) Parker, Lynne E. EOP/OSTP (b) (6)  
**Subject:** Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Dear Emily and David,

It is our privilege to invite you to present at the virtual workshop on privacy-enhancing technologies.

Date: Wednesday, July 14, 2021

Time: 5 am PDT / 8 am EDT / 2 pm GMT / 3 pm EET / 9 pm JST (subject to change)

Location: Virtual (link distributed with RSVP)

Diplomatic and technical government representatives from Canada, Estonia, Japan, and the United Kingdom will also attend the workshop.

As new technologies continue to shape our world, it is important that democratic countries are able to demonstrate how our values can guide and govern the development of these innovations. The purpose of the convening is to launch a plurilateral effort to explore the development of emerging and maturing privacy-enhancing technologies that offer the benefits of data sharing and advanced analytics while minimizing data-privacy concerns.

This initial conversation will pitch the high-level concept and showcase technologies—including your work—that are mature enough to support potential future international collaboration. The intent is to arrange follow-on discussions in which the other countries can share their own ideas for technical focus areas and use cases.

The workshop agenda will center on four technical presentations given by researchers such as yourselves, with 30 minutes allotted to each. We ask that you plan to present for 15 minutes and take questions for 10-15 minutes. The presentations should be a spark for conversation, communicating how your team and the technology could form the foundation of international collaboration. As such, we ask that you focus your presentation on:

- 1) Introducing your specific technical architecture/approach
- 2) Presenting one case study to illustrate how you are deploying the technology to address real-world issues
- 3) Addressing promising potential use cases for an international collaboration. You do not need to have an actual demonstration to show during your presentation.

We aim to have both enough technical and application specificity to enable more granular follow-up conversations and enough accessibility for policymakers to appreciate what can be accomplished with privacy-enhancing technologies. To set the foundation for the discussion, we'll ask presenters to provide a one-page summary of your briefing to be sent as a read-ahead to the international participants.

Please let Ben Buchanan (b) (6) know by close of business Tuesday, June 29 whether you will be available to participate. The organizing team at the White House Office of Science and Technology Policy will hold pre-workshop meetings with participating presenters to

answer questions and provide amplifying details on July 7, 2:00-3:00 pm ET and July 8, 11:00am-12:00pm ET. Should you be available to participate in the workshop, we ask that you plan to join one of these meetings.

Respectfully,

Lynne Parker  
Deputy U.S. Chief Technology Officer  
Director, National AI Initiative Office  
White House Office of Science and Technology Policy

## [EXTERNAL] Re: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

---

**From:** "Bigelow, David - 0553 - MITLL" (b) (6)  
**To:** "DeBlanc-Knowles, Tess K. EOP/OSTP" (b) (6)  
"Shen, Emily - 0553 - MITLL" <(b) (6)>  
**Cc:** "Buchanan, Ben L. EOP/OSTP" (b) (6), "Young, Jessica L. EOP/OSTP" (b) (6), "Gorman, Lindsay P. EOP/OSTP" (b) (6)  
**Date:** Tue, 06 Jul 2021 13:41:29 -0400  
**Attachments** smime.p7s (4.7 kB)

:

Greetings,

I will also attend the first meeting on Wednesday, at the same time as Emily.

Thanks,  
-David

David Bigelow, Ph.D.  
Assistant Group Leader, Secure Resilient Systems & Technology (Group 53)  
MIT Lincoln Laboratory, 244 Wood Street, Lexington, MA 02420  
(b) (6)

Office: 781-981-7531

On 7/6/2021 1:05 PM, DeBlanc-Knowles, Tess K. EOP/OSTP wrote:

Emily,

Thank you for confirming. We look forward to speaking with you tomorrow. No need to attend on July 8<sup>th</sup> if you dial in tomorrow.

Best,  
Tess

---

**From:** Shen, Emily - 0553 - MITLL (b) (6)  
**Sent:** Tuesday, July 6, 2021 12:43 PM  
**To:** DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Bigelow, David - 0553 - MITLL (b) (6)  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); Gorman, Lindsay P. EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Hi Tess,

I will be attending the July 7 meeting and can also attend the July 8 meeting.

Thanks,  
Emily

--

Emily Shen  
Senior Staff  
Secure Resilient Systems and Technology  
MIT Lincoln Laboratory  
(b) (6)

---

**From:** DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6)  
**Sent:** Tuesday, July 6, 2021 11:13 AM  
**To:** Shen, Emily - 0553 - MITLL (b) (6); Bigelow, David - 0553 - MITLL (b) (6)  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); Gorman, Lindsay P. EOP/OSTP (b) (6)  
**Subject:** RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Emily, David,

We are delighted you will be able to participate on July 14th. Could I ask you to kindly confirm which of the pre-workshop meetings you plan to attend this week? You should have received calendar invites to both options - July 7, 2:00-3:00 pm ET and July 8, 11:00am-12:00pm ET.

Best,

Tess

---

**From:** Shen, Emily - 0553 - MITLL (b) (6)  
**Sent:** Monday, June 28, 2021 12:22 AM  
**To:** Gorman, Lindsay P. EOP/OSTP (b) (6); Bigelow, David - 0553 - MITLL (b) (6)  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); (b) (6); (b) (6); (b) (6)  
Parker, Lynne E. EOP/OSTP <(b) (6)>  
**Subject:** [EXTERNAL] RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Dear Lynne, Lindsay, Ben, and Tess,

Thank you for the invitation. I will be happy to present at the workshop on privacy-enhancing technologies.

I have one question: what level of background knowledge is the audience expected to have on privacy-enhancing technologies coming into the workshop? In particular, I'm wondering whether it makes sense to include in the presentation a (quick) general introduction to secure multi-party computation, in addition to the specific topics you mentioned.

Thanks,

Emily

--

Emily Shen  
Senior Staff  
Secure Resilient Systems and Technology  
MIT Lincoln Laboratory  
(b) (6)

---

**From:** Gorman, Lindsay P. EOP/OSTP (b) (6)  
**Sent:** Friday, June 25, 2021 2:43 PM

To: Shen, Emily - 0553 - MITLL (b) (6); Bigelow, David - 0553 - MITLL (b) (6)  
Cc: Buchanan, Ben L. EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP <(b) (6)>; Young, Jessica L. EOP/OSTP (b) (6); (b) (6) (b) (6)  
Parker, Lynne E. EOP/OSTP (b) (6) >  
Subject: RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Emily and David,

Thank you again for lending your time over the last couple of weeks. As you consider this invitation, I wanted to follow-up and provide a little more technical clarity on what we OSTP are interested in. We aim to showcase a complement of privacy-enhancing technologies pioneered by US researchers at the July event. As such, we were particularly interested in the privacy-enhancing clustering methods you discussed with the team last week, and we were hoping you could focus your presentation at the Summit on these ML techniques and their potential applications. Please do not hesitate to reach out with any questions or concerns.

All the best,

Lindsay P. Gorman  
Senior Policy Advisor for Technology Strategy  
The Office of Science and Technology Policy | White House  
(b) (6) (mobile)

---

From: Parker, Lynne E. EOP/OSTP  
Sent: Friday, June 25, 2021 1:59 PM  
To: (b) (6); (b) (6)  
Cc: Buchanan, Ben L. EOP/OSTP (b) (6); Gorman, Lindsay P. EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); (b) (6) (b) (6)  
Parker, Lynne E. EOP/OSTP (b) (6) >  
Subject: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Dear Emily and David,



It is our privilege to invite you to present at the virtual workshop on privacy-enhancing technologies.

Date: Wednesday, July 14, 2021

Time: 5 am PDT / 8 am EDT / 2 pm GMT / 3 pm EET / 9 pm JST (subject to change)

Location: Virtual (link distributed with RSVP)

Diplomatic and technical government representatives from Canada, Estonia, Japan, and the United Kingdom will also attend the workshop.

As new technologies continue to shape our world, it is important that democratic countries are able to demonstrate how our values can guide and govern the development of these innovations. The purpose of the convening is to launch a plurilateral effort to explore the development of emerging and maturing privacy-enhancing technologies that offer the benefits of data sharing and advanced analytics while minimizing data-privacy concerns.

This initial conversation will pitch the high-level concept and showcase technologies—including your work—that are mature enough to support potential future international collaboration. The intent is to arrange follow-on discussions in which the other countries can share their own ideas for technical focus areas and use cases.

The workshop agenda will center on four technical presentations given by researchers such as yourselves, with 30 minutes allotted to each. We ask that you plan to present for 15 minutes and take questions for 10-15 minutes. The presentations should be a spark for conversation, communicating how your team and the technology could form the foundation of international collaboration. As such, we ask that you focus your presentation on:

1. Introducing your specific technical architecture/approach
2. Presenting one case study to illustrate how you are deploying the technology to address real-world issues
3. Addressing promising potential use cases for an international collaboration. You do not need to have an actual demonstration to show during your presentation.

We aim to have both enough technical and application specificity to enable more granular follow-up conversations and enough accessibility for policymakers to appreciate what can be accomplished with privacy-enhancing technologies. To set the foundation for the discussion, we'll ask presenters to provide a one-page summary of your briefing to be sent as a read-ahead to the international participants.

Please let Ben Buchanan (b) (6) know by close of business Tuesday, June 29 whether you will be available to participate. The organizing team at the White House Office of Science and Technology Policy will hold pre-workshop meetings with participating presenters to answer questions and provide amplifying details on July 7, 2:00-3:00 pm ET and July 8, 11:00am-12:00pm ET. Should you be available to participate in the workshop, we ask that you plan to join one of these meetings.

Respectfully,

Lynne Parker  
Deputy U.S. Chief Technology Officer  
Director, National AI Initiative Office  
White House Office of Science and Technology Policy

## RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

---

**From:** "DeBlanc-Knowles, Tess K. EOP/OSTP" (b) (6)  
:  
**To:** "Shen, Emily - 0553 - MITLL" (b) (6), "Bigelow, David - 0553 - MITLL" (b) (6)  
**Cc:** "Buchanan, Ben L. EOP/OSTP" (b) (6), "Young, Jessica L. EOP/OSTP" (b) (6), "Gorman, Lindsay P. EOP/OSTP" (b) (6)  
**Date:** Tue, 06 Jul 2021 13:05:32 -0400

Emily,

Thank you for confirming. We look forward to speaking with you tomorrow. No need to attend on July 8<sup>th</sup> if you dial in tomorrow.

Best,  
Tess

---

**From:** Shen, Emily - 0553 - MITLL (b) (6)  
**Sent:** Tuesday, July 6, 2021 12:43 PM  
**To:** DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Bigelow, David - 0553 - MITLL (b) (6) >  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); Gorman, Lindsay P. EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Hi Tess,

I will be attending the July 7 meeting and can also attend the July 8 meeting.

Thanks,  
Emily

--

Emily Shen  
Senior Staff  
Secure Resilient Systems and Technology  
MIT Lincoln Laboratory

(b) (6)

---

**From:** DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6) >  
**Sent:** Tuesday, July 6, 2021 11:13 AM  
**To:** Shen, Emily - 0553 - MITLL (b) (6); Bigelow, David - 0553 - MITLL (b) (6)  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); Gorman, Lindsay P. EOP/OSTP (b) (6) >  
**Subject:** RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Emily, David,

We are delighted you will be able to participate on July 14th. Could I ask you to kindly confirm which of the pre-workshop meetings you plan to attend this week? You should have received calendar invites to both options - July 7, 2:00-3:00 pm ET and July 8, 11:00am-12:00pm ET.

Best,

Tess

---

**From:** Shen, Emily - 0553 - MITLL (b) (6)  
**Sent:** Monday, June 28, 2021 12:22 AM  
**To:** Gorman, Lindsay P. EOP/OSTP (b) (6); Bigelow, David - 0553 - MITLL (b) (6) >  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); (b) (6); (b) (6) (b) (6) Parker, Lynne E. EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Dear Lynne, Lindsay, Ben, and Tess,

Thank you for the invitation. I will be happy to present at the workshop on privacy-enhancing technologies.

I have one question: what level of background knowledge is the audience expected to have on privacy-enhancing technologies coming into the workshop? In particular, I'm wondering whether it makes sense to include in the presentation a (quick) general introduction to secure multi-party computation, in addition to the specific topics you mentioned.

Thanks,  
Emily

--

Emily Shen  
Senior Staff  
Secure Resilient Systems and Technology  
MIT Lincoln Laboratory  
(b) (6)

---

**From:** Gorman, Lindsay P. EOP/OSTP (b) (6)  
**Sent:** Friday, June 25, 2021 2:43 PM  
**To:** Shen, Emily - 0553 - MITLL (b) (6); Bigelow, David - 0553 - MITLL (b) (6)  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); (b) (6); (b) (6); (b) (6) Parker, Lynne E. EOP/OSTP (b) (6)  
**Subject:** RE: Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Emily and David,

Thank you again for lending your time over the last couple of weeks. As you consider this invitation, I wanted to follow-up and provide a little more technical clarity on what we OSTP are interested in. We aim to showcase a complement of privacy-enhancing technologies pioneered by US researchers at the July event. As such, we were particularly interested in the privacy-enhancing clustering methods you discussed with the team last week, and we were hoping you could focus your presentation at the Summit on these ML techniques and their potential applications. Please do not hesitate to reach out with any questions or concerns.

All the best,

Lindsay P. Gorman  
Senior Policy Advisor for Technology Strategy  
The Office of Science and Technology Policy | White House  
(b) (6) (mobile)

---

**From:** Parker, Lynne E. EOP/OSTP  
**Sent:** Friday, June 25, 2021 1:59 PM  
**To:** (b) (6); (b) (6)  
**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); Gorman, Lindsay P. EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6) (b) (6) (b) (6) Parker, Lynne E. EOP/OSTP (b) (6) >  
**Subject:** Invitation: Virtual Workshop on Privacy-Enhancing Technologies on July 14

Dear Emily and David,

It is our privilege to invite you to present at the virtual workshop on privacy-enhancing technologies.

Date: Wednesday, July 14, 2021

Time: 5 am PDT / 8 am EDT / 2 pm GMT / 3 pm EET / 9 pm JST (subject to change)

Location: Virtual (link distributed with RSVP)

Diplomatic and technical government representatives from Canada, Estonia, Japan, and the United Kingdom will also attend the workshop.

As new technologies continue to shape our world, it is important that democratic countries are able to demonstrate how our values can guide and govern the development of these innovations. The purpose of the convening is to launch a plurilateral effort to explore the development of emerging and maturing privacy-enhancing technologies that offer the benefits of data sharing and advanced analytics while minimizing data-privacy concerns.

This initial conversation will pitch the high-level concept and showcase technologies—including your work—that are mature enough to support potential future international collaboration. The intent is to arrange follow-on discussions in which the other countries can share their own ideas for technical focus areas and use cases.

The workshop agenda will center on four technical presentations given by researchers such as yourselves, with 30 minutes allotted to each. We ask that you plan to present for 15 minutes and

take questions for 10-15 minutes. The presentations should be a spark for conversation, communicating how your team and the technology could form the foundation of international collaboration. As such, we ask that you focus your presentation on:

1. 1. Introducing your specific technical architecture/approach
2. 2. Presenting one case study to illustrate how you are deploying the technology to address real-world issues
3. 3. Addressing promising potential use cases for an international collaboration. You do not need to have an actual demonstration to show during your presentation.

We aim to have both enough technical and application specificity to enable more granular follow-up conversations and enough accessibility for policymakers to appreciate what can be accomplished with privacy-enhancing technologies. To set the foundation for the discussion, we'll ask presenters to provide a one-page summary of your briefing to be sent as a read-ahead to the international participants.

Please let Ben Buchanan (b) (6) know by close of business Tuesday, June 29 whether you will be available to participate. The organizing team at the White House Office of Science and Technology Policy will hold pre-workshop meetings with participating presenters to answer questions and provide amplifying details on July 7, 2:00-3:00 pm ET and July 8, 11:00am-12:00pm ET. Should you be available to participate in the workshop, we ask that you plan to join one of these meetings.

Respectfully,

Lynne Parker  
Deputy U.S. Chief Technology Officer  
Director, National AI Initiative Office  
White House Office of Science and Technology Policy

## Re: [EXTERNAL] reducing infectious diseases' impact

---

**From:** Mike Fisher (b) (6)  
:  
**To:** "Schmoyer, Michael W. EOP/OSTP" (b) (6)  
**Cc:** "Guerra, Stephanie L. EOP/OSTP" (b) (6) >, "McKelvey, Greg G. Jr. EOP/OSTP" (b) (6) >  
**Date:** Tue, 06 Jul 2021 12:23:56 -0400

Hi Michael, apologies for the delay in response on our end. Folks have been in and out around the holiday weekend and we've been trying to lock down a time with Alex; we will circle back as soon as we have clarity on his schedule. Thank you for your patience!

Best,

Mike

On Tue, Jun 29, 2021 at 9:34 AM Schmoyer, Michael W. EOP/OSTP (b) (6) > wrote:

Good morning-

How about:

-between 1030 and 130 on the 13<sup>th</sup>

-between 1100 and 300 on the 14<sup>th</sup>

Best,

Michael

**From:** Mike Fisher (b) (6)  
**Sent:** Tuesday, June 29, 2021 9:29 AM  
**To:** Guerra, Stephanie L. EOP/OSTP (b) (6)  
**Cc:** McKelvey, Greg G. Jr. EOP/OSTP (b) (6); Schmoyer, Michael



W. EOP/OSTP (b) (6)

**Subject:** Re: [EXTERNAL] reducing infectious diseases' impact

Hi all,

Alex is not available on 7/9; are there any days / time blocks that would work for you the week of July 12?

Best,

Mike

On Mon, Jun 28, 2021 at 9:10 PM Mike Fisher (b) (6) > wrote:

Got it; thanks Steph!

On Mon, Jun 28, 2021 at 8:31 PM Guerra, Stephanie L. EOP/OSTP

(b) (6) wrote:

Thanks Mike- piggybacking off of Michael's priorities I'd also like to better understand:

- What triggers a signal from noise in this type of system and how that leads to a targeted prevention approach
- How the infrastructure and/or capacity building could also be leveraged for detecting accidental/deliberate threats

Best,

Steph

**From:** Mike Fisher (b) (6)  
**Sent:** Monday, June 28, 2021 6:40 PM  
**To:** Schmoyer, Michael W. EOP/OSTP (b) (6)  
**Cc:** Guerra, Stephanie L. EOP/OSTP (b) (6) >; McKelvey, Greg G. Jr. EOP/OSTP (b) (6) >  
**Subject:** Re: [EXTERNAL] reducing infectious diseases' impact

Thanks for this, Michael - we'll see what Alex's availability is like on the 9th.

Greg, Steph - if you have additional questions or points of interest you'd like us to share with Alex ahead of time, please don't hesitate to pass along.

Have a good one,

Mike

On Mon, Jun 28, 2021 at 5:18 PM Schmoyer, Michael W. EOP/OSTP (b) (6) wrote:

Hi Mike-

I'm actually trying to be on leave that week, but how do things look on the 9<sup>th</sup>? I'm also cc'ing Greg and Steph as they would likely be interested.

For me, I'm most attracted to 1) an overall summary brief on the paper (and the rationale for his perspective) and 2) a deeper dive on elements pertaining to predictive

analytics/forecasting/modeling as it relates to early indications/warnings of emerging biological threats.

Thanks for helping this come together,

Michael

**From:** Mike Fisher (b) (6)  
**Sent:** Monday, June 28, 2021 1:33 PM  
**To:** Schmoyer, Michael W. EOP/OSTP (b) (6)  
**Subject:** Re: [EXTERNAL] reducing infectious diseases' impact

Hi Michael (bcc to save inbox: Andrew),

We reconnected with Alex Dehgan, the author of Preventing the Next Pandemics: An Upstream Approach to Novel National Security Threats, and he's looking forward to delivering a briefing on the paper.

Can you suggest three time blocks that work well for you on July 6th, or other days that same week / week after?

Also, would you like us to prepare an agenda for the briefing, or is a more freeform Q&A-style session better for you?

Lastly, are there any questions about the paper that you have for Alex that you'd like us to get to him ahead of the briefing, or specific points he raises in the paper that you'd especially like him to speak to?

Thank you,

Mike

On Sun, Jun 27, 2021 at 10:16 AM Mike Fisher (b) (6) wrote:

Good to know; thanks Michael!

- Mike

On Sun, Jun 27, 2021 at 6:59 AM Schmoyer, Michael W. EOP/OSTP

(b) (6) wrote:

That sounds great, thanks Mike. Related, I'm chairing an interagency working group that is along these lines ... there may be a second request for a follow-on brief to a larger group.

Best,

Michael

**From:** Mike Fisher (b) (6)

**Sent:** Friday, June 25, 2021 5:51 PM

**To:** Hebbeler, Andrew M. EOP/OSTP (b) (6) >

**Cc:** Schmoyer, Michael W. EOP/OSTP (b) (6)

**Subject:** Re: [EXTERNAL] reducing infectious diseases' impact

Hi Andrew, and nice to be connected, Michael -

We will rally the authors and touch back early next week re briefing on the preventing the next pandemic paper. Happy to do it!

Have a nice weekend,

Mike

On Fri, Jun 25, 2021 at 4:48 PM Hebbeler, Andrew M. EOP/OSTP

(b) (6) wrote:

Hi Mike: Connecting you with Michael. We'd love if you could help arrange a briefing by the preventing the next pandemic authors. Thank you!

Sent from my iPhone

On Jun 25, 2021, at 9:30 AM, Schmoyer, Michael W. EOP/OSTP

(b) (6) > wrote:

Hi Andrew-

I would be interested in connecting with the author(s) for Preventing the Next Pandemics: An Upstream Approach to Novel National Security Threats

Relates to epi forecasting/modeling work I'm doing

Thanks for asking,

mws

---

**From:** Hebbeler, Andrew M. EOP/OSTP

(b) (6)

**Sent:** Friday, June 25, 2021 8:28 AM

**To:** DL OSTP HLS (b) (6) >; DL OSTP Biorisk

(b) (6)

**Subject:** FW: [EXTERNAL] reducing infectious diseases' impact

FYI – does anyone want to hear from any of the day one paper authors?

Happy to connect you with Mike if so.....

**From:** Mike Fisher (b) (6)

**Sent:** Friday, June 25, 2021 8:22 AM

**To:** Hebbeler, Andrew M. EOP/OSTP (b) (6) >

**Subject:** Re: [EXTERNAL] reducing infectious diseases' impact

Morning Andrew, hope your week has gone well! Just wanted to re-up re any crystallization of OSTP priority issues in the life sciences / modern biotechnology / synbio space, or if you or any of your colleagues would find it useful to work with the authors of any of the infectious diseases-related Day One papers to further develop ideas in a direction you are pursuing.

Best,

Mike

On Tue, Jun 15, 2021 at 3:33 PM Mike Fisher (b) (6) > wrote:

Hi Andrew, just wanted to update you on our conversations with Doug and India. There is mutual interest in pursuing a collaboration that makes sense for both our orgs. Our next step is to put together some ideas about

research and analysis projects / convenings we could potentially collaborate on in advance of our next conversation with EBRC.

Have your OSTP priorities around life sciences / modern biotechnology / synbio been shaping up (outside of reducing the impacts of infectious diseases)? Some ideas we have been mulling over include...

- updating the U.S. framework for the regulation of genetically engineered products
- a framework for a National Synthetic Biology Initiative (inspired by the National Artificial Intelligence Initiative, overseeing and implementing the U.S. AI strategy - AI.gov)
- maximizing the contributions of foreign nationals to U.S. engineering biology while maintaining scientific integrity
- promoting ethical use of engineering biology practices
- leveraging the use of standards and standardization in the synthetic biology industry and biomanufacturing

...and it would be great to get your feedback on whether any of these, or perhaps others not on the list, are priority issues.

Also curious if any follow-on regarding those six Day One resources re pandemic preparedness / infectious diseases is in order. Let us know!

Hope you're holding up okay!

Best,

Mike

On Wed, Jun 2, 2021 at 5:19 PM Hebbeler, Andrew M. EOP/OSTP

(b) (6) > wrote:

Hi Mike: Great chatting with you too, and thanks for sending these resources! Would be great to hear how your discussions with Doug and India go.

+others FYSA, in case these FAS/D1P docs aren't already on their radar.

Thanks again!

Andrew

**From:** Mike Fisher (b) (6)

**Sent:** Wednesday, June 2, 2021 8:59 AM

**To:** Hebbeler, Andrew M. EOP/OSTP

(b) (6)

**Subject:** [EXTERNAL] reducing infectious diseases' impact

Hi Andrew,

Thank you again for talking with me the other week. Following up on our conversation, if any additional OSTP priorities have crystallized beyond pandemic preparedness / taking measures to reduce the impact of infectious diseases, it would be great to schedule another call.

And regarding pandemic preparedness / infectious diseases, just sharing six FAS Day One papers in our portfolio that may be of interest



to you and your team (happy to prepare a brief on any of these or work with the authors to further develop ideas in a direction you are pursuing):

#### Preventing the Next Pandemics: An Upstream Approach to Novel National Security Threats

Shift from reacting to disease outbreaks – which is economically devastating – to detecting, addressing, and mitigating the major upstream factors that contribute to the emergence of diseases prior to an outbreak.

#### Improving Federal Management of Wildlife Movement and Emerging Infectious Disease

Reduce the risk of emerging infectious diseases entering the United States, offer greater protection to citizens from zoonotic diseases, and protect American biodiversity from losses due to wildlife diseases.

#### A National Bioeconomy Manufacturing and Innovation Initiative

Ramp up cross-cutting, cutting-edge research and development across the areas of healthcare, food & agriculture, energy, environment, and industrial applications to develop fundamental and publicly available tools, and bolster American biomanufacturing.

#### Open Access to Federally-funded Research Data

Accelerate scientific progress by (i) requiring scientists who receive federal funding to share their research data and (ii) directing federal research agencies to coordinate to build an International Research Data Commons that allows research data to be easily discovered and shared.

### Creating a COVID-19 Commission on Public Health Misinformation

Examine our nation's response to the 2020 pandemic using a mechanism that is modeled on the 9/11 Commission, with one Commission focusing on public health communication and messaging that would assess the information about the pandemic: what was made publicly available, how the information affected our societal response, and what should be done to limit the impact of false and dangerously misleading information moving forward.

### A National Strategy to Counter COVID-19 Misinformation

Establish an office at the Department of Health and Human Services dedicated to countering COVID-19 misinformation.

Also possibly of interest, on Friday I'll be meeting with Doug Friedman of BioMADE and India Hook-Barnard of the Engineering Biology Research Consortium to discuss the potential of sourcing policy ideas from the synbio community.

Thanks again, Andrew, and looking forward to talking again soon!

Best,

Mike

--

Michael A. Fisher, Ph.D.

Senior Fellow

Federation of American Scientists

1112 16th Street NW, Suite 400  
Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.  
Senior Fellow  
Federation of American Scientists  
1112 16th Street NW, Suite 400  
Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.

Federation of American Scientists  
Senior Fellow and Director, Congressional Science Policy Initiative  
1112 16th Street NW, Suite 400  
Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.  
Federation of American Scientists  
Senior Fellow and Director, Congressional Science Policy Initiative  
1112 16th Street NW, Suite 400  
Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.  
Federation of American Scientists  
Senior Fellow and Director, Congressional Science Policy Initiative  
1112 16th Street NW, Suite 400  
Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](https://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.

Federation of American Scientists

Senior Fellow and Director, Congressional Science Policy Initiative

1112 16th Street NW, Suite 400

Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](https://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.

Federation of American Scientists

Senior Fellow and Director, Congressional Science Policy Initiative

1112 16th Street NW, Suite 400

Washington, DC 20036

Email: (b) (6) @

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.

Federation of American Scientists

Senior Fellow and Director, Congressional Science Policy Initiative

1112 16th Street NW, Suite 400

Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: Congressional Science Policy Initiative

--

Michael A. Fisher, Ph.D.

Federation of American Scientists

Senior Fellow and Director, Congressional Science Policy Initiative

1112 16th Street NW, Suite 400

Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: [Congressional Science Policy Initiative](#)

--

Michael A. Fisher, Ph.D.

[Federation of American Scientists](#)

Senior Fellow and Director, [Congressional Science Policy Initiative](#)

1112 16th Street NW, Suite 400

Washington, DC 20036

Email: (b) (6)

LinkedIn: [bit.ly/MAFisher](http://bit.ly/MAFisher)

Twitter: @mykfish

Join up to contribute your expertise to the science and technology knowledge-base for policymakers: [Congressional Science Policy Initiative](#)

# [EXTERNAL] RE: REMINDER: Read-Ahead Materials for July 14 Privacy-Enhancing Technology Workshop -- Due COB 7/8 & Schedule

---

**From:** "Shen, Emily - 0553 - MITLL" (b) (6)  
**To:** "Gorman, Lindsay P. EOP/OSTP" (b) (6), "Bigelow, David - 0553 - MITLL" (b) (6)  
**Cc:** "Buchanan, Ben L. EOP/OSTP" (b) (6) >, "DeBlanc-Knowles, Tess K. EOP/OSTP" (b) (6) >, "Young, Jessica L. EOP/OSTP" (b) (6) (b) (6)  
(b) (6) "Parker, Lynne E. EOP/OSTP"  
(b) (6)  
**Date:** Thu, 08 Jul 2021 20:25:33 -0400  
**Attachments** MITLL MPC Read-Ahead.docx (15.43 kB); smime.p7s (5.66 kB)

:

Hi Lindsay,

Here is the read-ahead for the MIT Lincoln Laboratory presentation on secure multi-party computation.

Thanks,  
Emily

--

Emily Shen  
Senior Staff  
Secure Resilient Systems and Technology  
MIT Lincoln Laboratory  
(b) (6)

---

**From:** Gorman, Lindsay P. EOP/OSTP (b) (6)  
**Sent:** Wednesday, July 7, 2021 6:02 PM  
**To:** 'David Archer' (b) (6) Shen, Emily - 0553 - MITLL (b) (6); Bigelow,



David - 0553 - MITLL (b) (6); Gerome Miklau (b) (6) Michael Hay  
(b) (6) 'Ashwin Machanavajjhala' <(b) (6) (b) (6)  
(b) (6)

**Cc:** Buchanan, Ben L. EOP/OSTP (b) (6); Gorman, Lindsay P.  
EOP/OSTP (b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP  
(b) (6); Young, Jessica L. EOP/OSTP  
(b) (6); (b) (6) (b) (6)  
(b) (6) (b) (6); Parker, Lynne E. EOP/OSTP  
(b) (6)

**Subject:** REMINDER: Read-Ahead Materials for July 14 Privacy-Enhancing Technology Workshop --  
Due COB 7/8 & Schedule

Intrepid privacy-enhancing researchers,

Consider this a friendly, 24-hour reminder to send in your **short description** (no more than 1 page) of your technical approach and a successful example use case (prospective collaboration ideas also welcome) no later than **COB Thursday July 8<sup>th</sup> (tomorrow)** to be shared with international workshop attendees. The aim for this is really to level set with our allies and partners so they know what to expect from our side and can inform which attendees they bring to the event and how they engage. Please also include **a preferred title and, if applicable, university affiliation for each presenter** so we can introduce you properly. We'll have a quick turnaround to get this out to partners, so we appreciate in advance your timeliness with this request.

Additionally, for situational awareness, below is the schedule of presentations and technical approaches, with 15 minutes of presentation followed by 10-15 minutes of Q&A/discussion for each:

- 1) Galois – Homomorphic Encryption
- 2) Turmult – Differential Privacy
- 3) MIT Lincoln Labs -- Secure Multiparty Computation and Privacy-Protective Clustering
- 4) UC Berkeley – Secure Enclaves / Secure Multiparty Computation

We'll follow up with a more complete agenda that includes timing, but wanted to share this now. Please let me know if we've mischaracterized anything or something doesn't seem quite right.

Thank you again for your time and all the work you've put into this project thus far. We're deeply appreciative.

All the best,

Lindsay & the OSTP team

---

Lindsay P. Gorman  
Senior Policy Advisor for Technology Strategy  
The Office of Science and Technology Policy | White House  
(b) (6) (mobile)

## **Privacy-Preserving Collaboration Using Secure Multi-Party Computation**

**Dr. Emily Shen, MIT Lincoln Laboratory**

For many applications, multiple parties want to collaborate to gain insights from their collective data but don't want to share their own data due to security and privacy concerns. Current approaches to collaboration require the parties to trust each other or a third party with their sensitive data; these approaches are often undesirable and impractical or impossible. Ideally, all parties could obtain the benefits of data sharing without actually sharing their data.

Secure multi-party computation (MPC) is a type of cryptography that allows a group of parties to jointly compute results without sharing their data with each other or any other trusted party. By eliminating the need to trust others with sensitive data, MPC enables new collaborative applications that are currently restricted or prevented by security and privacy concerns. MPC protocols exist that can in theory be used to securely perform any computation. In recent years, these protocols have been implemented, improved, and shown to be practical for many applications.

MIT Lincoln Laboratory has developed a framework called Rapid Assembly of MPC Protocols (RAMP) that allows developers to quickly prototype complex MPC functionalities by combining high-level computational building blocks. We have used the RAMP framework to build MPC prototypes for a variety of cybersecurity and other applications for the Department of Homeland Security, DARPA, and US Transportation Command.

In the area of cybersecurity, we have developed MPC prototypes for collaborative analytics aimed at improving cyber threat detection and defense without requiring organizations to share their raw cyber threat information. For example, we prototyped MPC for organizations to learn the similarity of their datasets, such as malicious IP addresses, software vulnerabilities, or malware features, without sharing their datasets. We also prototyped MPC for clustering, which can be used on top of a similarity computation to identify subsets of organizations with similar characteristics that may benefit from further collaboration and information sharing.

In addition, we have developed MPC for multi-party private set intersection, statistics, linear programming, neural network training, and database join operations. These types of MPC functionalities could be applied to a variety of areas, including cybersecurity, biological sciences, global health, humanitarian aid, and social and economic equality.

## RE: [EXTERNAL] Fwd: Project Data Sphere Symposium

---

**From:** "Lo, Kevin C. EOP/OSTP" (b) (6) >  
**To:** Corrie A Painter <(b) (6)>, "Rivera, Donna" (b) (6) >  
**Date:** Thu, 08 Jul 2021 12:26:34 -0400

Dear Corrie:

Sincere apologies for the delay here as we've been waiting on clarity with Eric's schedule.

Unfortunately, he is not available on 9/23. He sends his deepest apologies. He so appreciates the invitation and deeply admires the work you all are doing on data sharing.

With sincere apologies,  
Kevin

Kevin Lo (*he/him*)  
Special Assistant  
Office of Science and Technology Policy  
Executive Office of the President  
(b) (6)  
Cell (b) (6)

**From:** Corrie A Painter (b) (6)  
**Sent:** Saturday, June 26, 2021 8:50 PM  
**To:** Rivera, Donna <Donna.Rivera@fda.hhs.gov>; Lo, Kevin C. EOP/OSTP (b) (6) >  
**Subject:** [EXTERNAL] Fwd: Project Data Sphere Symposium

Dear Kevin,  
I'm reaching out to follow up  
On a request for Eric to speak at a symposium hosted by the FDA on data sharing. I had reached out to Kristen, who sent your contact info to follow up with. Is there any way we could have an update regarding Eric's interest and availability? I've included details below provided by Donna Riviera from the FDA, CC'd here.  
If either of us can provide any additional information, please let us know.  
Many thanks!  
Corrie

----- Forwarded message -----

From: **Corrie A Painter** <(b) (6)>  
Date: Fri, Apr 2, 2021 at 1:46 PM  
Subject: Fwd: Project Data Sphere Symposium  
To: Kristen Zarrelli (b) (6)

Hi Kristen,

Can you read below and let me know if you thought Eric would be interested and willing? I'm in and excited for this!

Thanks,  
Corrie

----- Forwarded message -----

From: **Rivera, Donna** <[Donna.Rivera@fda.hhs.gov](mailto:Donna.Rivera@fda.hhs.gov)>  
Date: Fri, Apr 2, 2021 at 1:27 PM  
Subject: Project Data Sphere Symposium  
To: Corrie Painter (b) (6)

Good Afternoon Corrie,

It is my absolute pleasure to invite you to be a part of the PDS Symposium which is going to focus this year on the important topic of Data Sharing.

Here is a draft agenda (not all speakers have been invited yet, just ideas), and the exact roles are still being organized. I think the idea is that if you are interested, then we can figure out the exact role that fits your ideas best as this is a suggestion.

There is also interest in having Eric Lander give the Keynote, do you think that would be a fit?

The Symposium is Sep 23<sup>rd</sup> and time is tentatively 10-2pm.

**Introduction:** Dr. Jill Biden

**Keynote:** Clear picture of reuse today (pre covid --> COVID --> Post)

- o Build energy and interest in sharing data for reuse within industry
- o Challenge group to take ownership, move the goal post
- o Patient interest and have a voice in this equation

- *Good the bad and ugly - sharing + reuse*

Potential Speaker: Dr. Eric Lander

**Panel 1: The Art of the Possible... 'Routes to Yes'**

- Currency (research/industry), incentive across pharma and academia are essentially the same
  - Balance the incentives (sweeter carrots)
  - Patient informed consent
- Responsible (x bad science)
- Resource (Real thing)

Potential Moderator: Dr. Atul Butte

**Panel 2: The Art of the Possible..... Sustainability in Contemporary Data Use**

- 'The COVID-19 Shift' --> Acceleration
  - + disruptive force
- Lens:
  - Implementation Science
  - Research
  - Regulatory

Potential Moderator: Dr. Warren Kibbe

**FIRESIDE:**

- Provocative People/Talking points
  - Potential Interviewer: Dr. Corrie Painter
  - Potential Interviewees: Dr. Doug Lowy and Dr. David Fagenbaum
  - Supportive but unhappy/unsatisfied with progress

**BREAKOUT** - agenda modify [how many people, registration sign-up]

Interactive, *small* breakout to support building connections

Thank you!

Kindly,  
Donna

--

Corrie Painter, PhD (she/hers)  
Deputy Director, Count Me In  
Broad Institute of MIT and Harvard  
[JoinCountMeIn.org](http://JoinCountMeIn.org)

--

Corrie Painter, PhD (she/hers)  
Deputy Director, Count Me In  
Broad Institute of MIT and Harvard  
[JoinCountMeIn.org](http://JoinCountMeIn.org)

[WARNING: UNSCANNABLE EXTRACTION

FAILED][EXTERNAL] RE: Event Information: July 14th "Virtual Workshop for Privacy-Enhancing Technology Collaboration"

---

**From:** "Shen, Emily - 0553 - MITLL" (b) (6)  
**To:** David Archer (b) (6), "Heston, Roxanne" (b) (6) @state.gov>  
**Cc:** "Bigelow, David - 0553 - MITLL" (b) (6) >, Gerome Miklau (b) (6), Michael Hay (b) (6) Ashwin Machanavajjhala (b) (6), (b) (6), "Gorman, Lindsay P. EOP/OSTP" (b) (6), "Buchanan, Ben L. EOP/OSTP" (b) (6), "DeBlanc-Knowles, Tess K. EOP/OSTP" (b) (6), "Young, Jessica L. EOP/OSTP" (b) (6) (b) (6) (b) (6) "Parker, Lynne E. EOP/OSTP" (b) (6)

**Date:** Wed, 14 Jul 2021 15:34:00 -0400

**Attachments** 2021-07-14 MPC OSTP Workshop.pdf (1.5 MB); smime.p7s (5.66 kB)

:

Hi Rox,

Here is a copy of my slides from today.

Thanks to the OSTP and DOS team for organizing this event, and looking forward to next steps and future discussions.

Best,  
Emily

--

Emily Shen  
Senior Staff  
Secure Resilient Systems and Technology  
MIT Lincoln Laboratory  
(b) (6)



**From:** David Archer (b) (6)  
**Sent:** Wednesday, July 14, 2021 2:33 PM  
**To:** Heston, Roxanne (b) (6) @state.gov>  
**Cc:** Shen, Emily - 0553 - MITLL (b) (6); Bigelow, David - 0553 - MITLL  
<(b) (6); Gerome Miklau (b) (6); Michael Hay (b) (6); Ashwin  
Machanavajjhala (b) (6); (b) (6) Gorman, Lindsay P. EOP/OSTP  
(b) (6); Buchanan, Ben L. EOP/OSTP  
(b) (6); DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6)  
(b) (6); Young, Jessica L. EOP/OSTP (b) (6)  
(b) (6); (b) (6) Parker, Lynne E. EOP/OSTP  
(b) (6)  
**Subject:** Re: Event Information: July 14th "Virtual Workshop for Privacy-Enhancing Technology  
Collaboration"

Hi Rox,

Attached is the final version of my slides. It differs in one or two slides from the version I sent out yesterday, so I'd use this one to distribute. Feel free to distribute it as needed.

I think a good concrete step, once the MOUs are in place and the right participants from each team are identified, would be to gain agreement on the criteria for choosing a use case for the prototype effort. We heard several prospective criteria in the meeting, and I think I sent a candidate list to Ben a couple of weeks ago, but it seems important to gain alignment from all the stakeholders as a first step. In addition, that kind of step seems very concrete while at the same time being "low hanging fruit" from a technical hardness perspective. I'm happy to help out if that approach makes sense to the OSTP/State team.

Thanks!

V/R,  
Dave

On Wed, Jul 14, 2021 at 10:31 AM Heston, Roxanne (b) (6) @state.gov> wrote:

Research team,

I thoroughly enjoyed your presentations and discussion. Your hard work to make the content accessible and relevant clearly came through.

To fill in gaps from my notes for the readout, **can you each send me any information from your slide decks you're comfortable sharing?** We would not distribute it to participants; the slides will stay with me (and others in USG, if you include them).

We'll send a readout and MOU with the countries no later than tomorrow and will share a copy with you all for your reference. Please email me and Ben today if you have any questions or concerns prior to their distribution.

Best,  
Rox

---

**From:** Heston, Roxanne

**Sent:** Tuesday, July 13, 2021 1:44 AM

**To:** 'David Archer' (b) (6); (b) (6); (b) (6); (b) (6); 'Gerome Miklau' (b) (6); 'Michael Hay' (b) (6); 'Ashwin Machanavajhala' (b) (6); (b) (6); (b) (6) >

**Cc:** Gorman, Lindsay P. EOP/OSTP (b) (6); Buchanan, Ben L. EOP/OSTP (b) (6) >; DeBlanc-Knowles, Tess K. EOP/OSTP (b) (6); Young, Jessica L. EOP/OSTP (b) (6); (b) (6); (b) (6); (b) (6); (b) (6); (b) (6) >; Parker, Lynne E. EOP/OSTP (b) (6)

**Subject:** Event Information: July 14th "Virtual Workshop for Privacy-Enhancing Technology Collaboration"

Hi research team,

I am Rox, and I support Lindsay, Ben, and others putting together the **Virtual Workshop for Privacy-Enhancing Technology Collaboration** from my seat at the U.S. Department of State. I have heard nothing but great things about the work you all are doing. I know I speak for all of my USG colleagues in saying that I really look forward to your presentations and discussion at tomorrow's event.

Wednesday, July 14, 2021

05:00am PDT / 08:00am EDT / 01:00pm BST / 03:00pm EEST / 09:00pm JST

[Zoom](#) (video recommended; dial-in information in Event Details if needed)

I have attached an Event Details document, which contains the workshop logistics, context, agenda, and participants. For your convenience, I've also re-attached the Read-Ahead Material you all prepared.

Thank you your significant preparation, your interest in future engagement, and, for some of you, your crack-of-dawn presentations. I'll be at a conference all day today, but please message me if I can help you with event logistics and I'll get back to you as soon as possible.

Best,  
Rox

---

Roxanne Heston

Acting Deputy Director and AI Policy Advisor | [E/STAS](#), Department of State

Department of State [CSET](#) Fellow | Georgetown University

Mobile: (b) (6) | Office: (b) (6)

--

[Dave Archer, PhD](#)

Principal Scientist

[Galois, Inc.](#) - 421 SW 6th Avenue, Suite 300, Portland, OR 97204

(b) (6)

sms/phone (b) (6) (use Signal if possible)

<https://www.mypronouns.org/he-him>

---

# Privacy-Preserving Collaboration Using Secure Multi-Party Computation

Dr. Emily Shen

(b) (6)

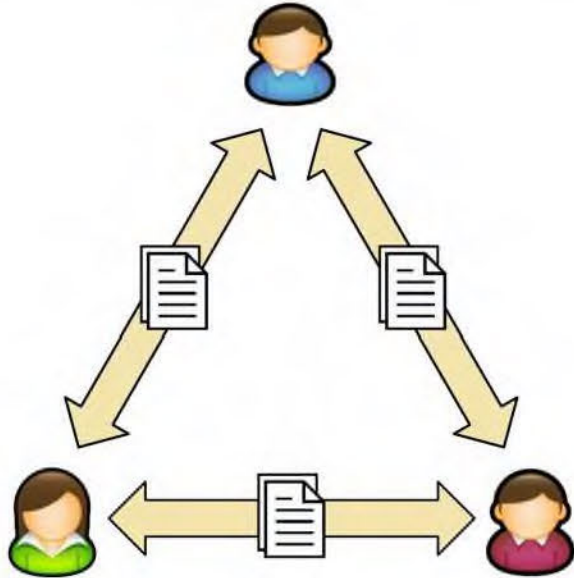


**DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.** This material is based upon work supported by the Under Secretary of Defense for Research and Engineering under Air Force Contract No. FA8702-15-D-0001. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Under Secretary of Defense for Research and Engineering. © 2021 Massachusetts Institute of Technology. Delivered to the U.S. Government with Unlimited Rights, as defined in DFARS Part 252.227-7013 or 7014 (Feb 2014). Notwithstanding any copyright notice, U.S. Government rights in this work are defined by DFARS 252.227-7013 or DFARS 252.227-7014 as detailed above. Use of this work other than as specifically authorized by the U.S. Government may violate any copyrights that exist in this work.

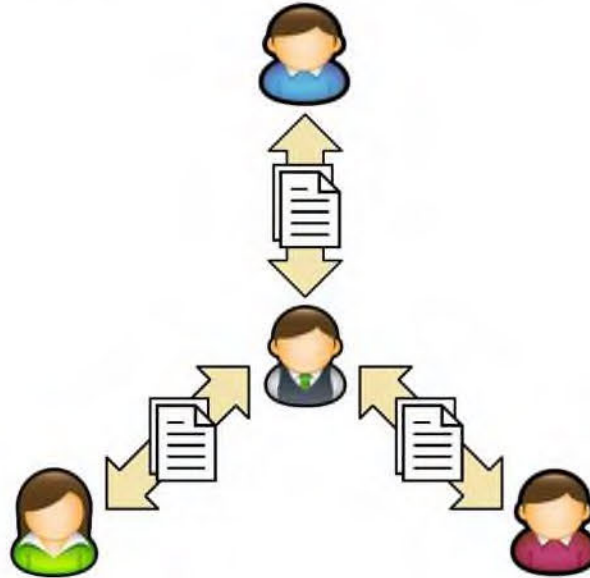


# Problem: Collaboration Involving Sensitive Data

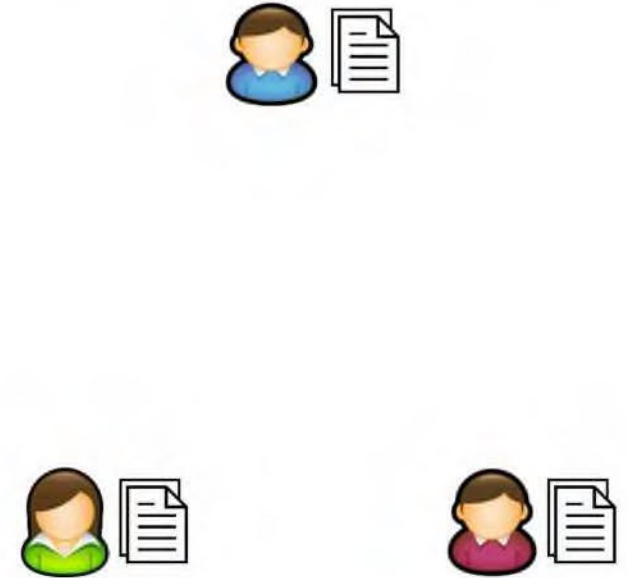
Share data with each other



Share data with external party



Don't share data or learn results

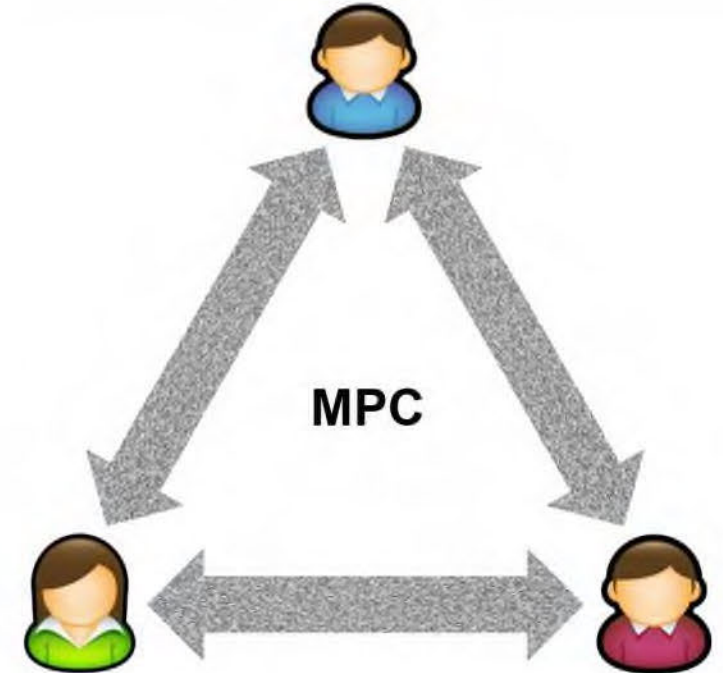


Currently collaboration requires trusting others with data, accepting security and privacy risks



# Secure Multi-Party Computation (MPC)

- MPC is a cryptographic technology that enables benefits of collaboration without privacy risks of data sharing
- MPC allows parties to jointly compute on their data without sharing their data
- MPC ensures that parties learn nothing beyond result of computation
- MPC is possible in theory for any arbitrary computation, practical for many applications





# How MPC Works

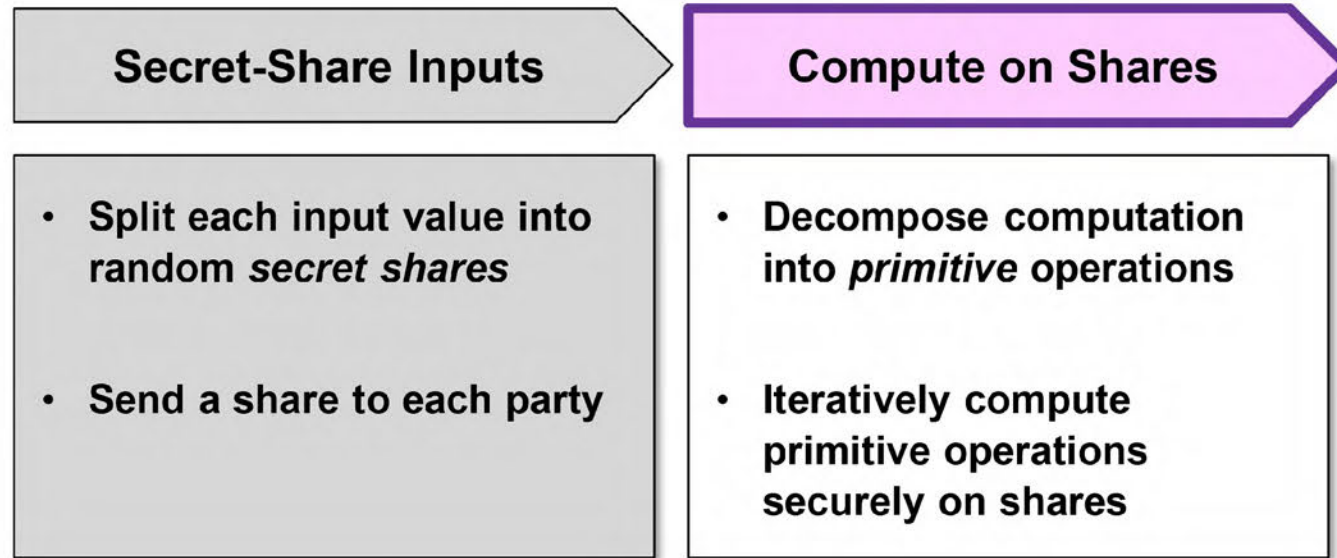
---

## Secret-Share Inputs

- Split each input value into random *secret shares*
- Send a share to each party



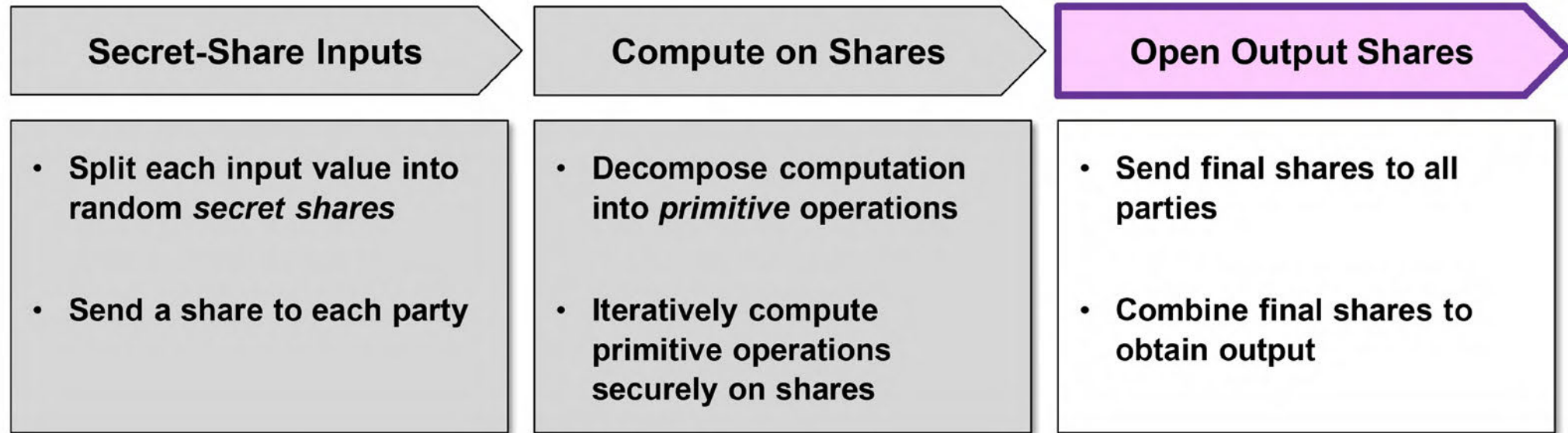
# How MPC Works





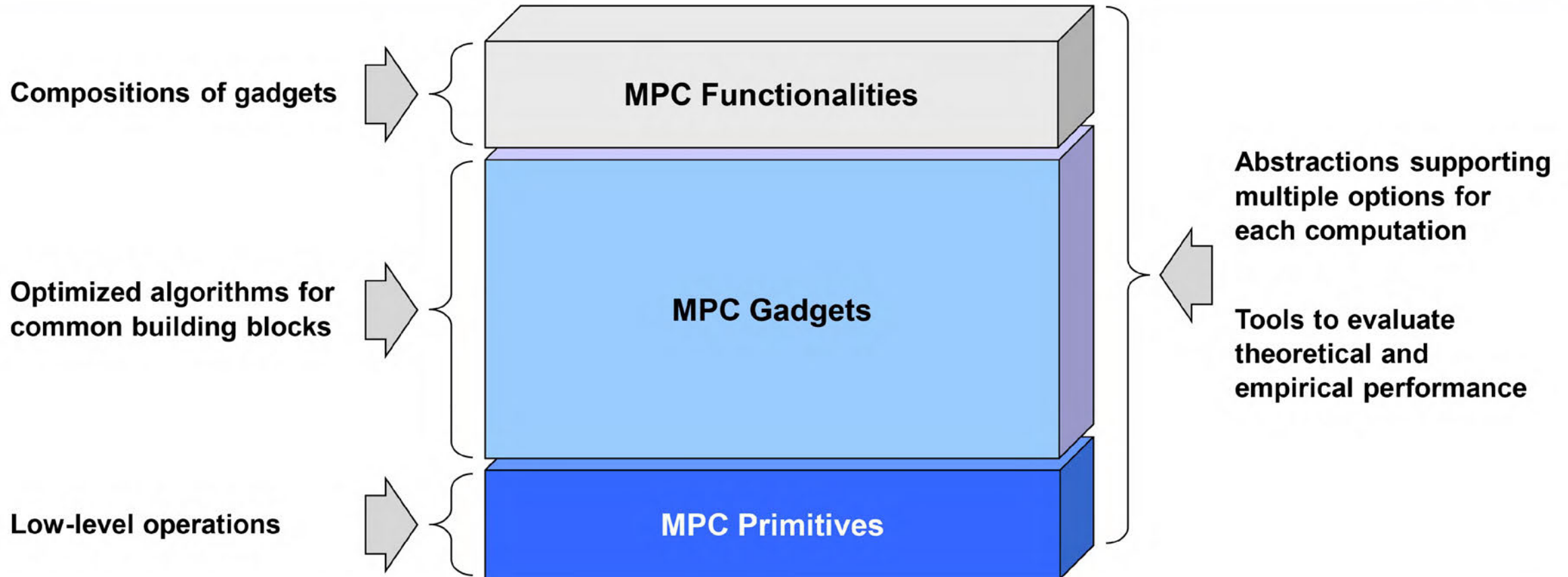


# How MPC Works





# Rapid Assembly of MPC Protocols (RAMP) Framework



MIT Lincoln Laboratory's RAMP framework enables rapid prototyping of MPC functionalities



# Example: MPC for Collaborative Cyber Analytics

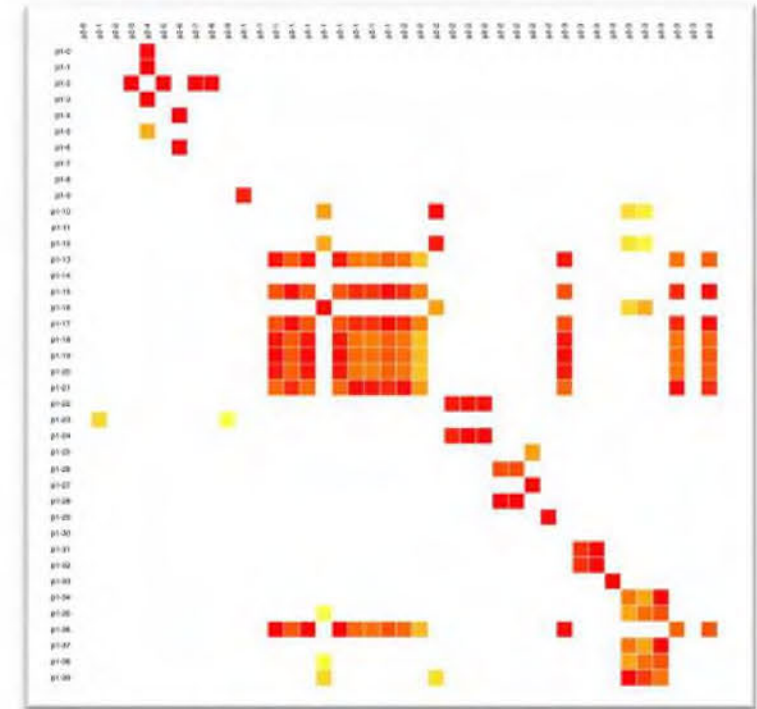
- **Goal: Improve cyber threat awareness and defense through collaboration**
- **Parties want to learn from cyber threats observed by others, especially those with similar characteristics**
- **Parties do not want to share their own cyber threat data**
- **Prototyped MPC for collaborative cyber analytics, including similarity and clustering**





# MPC for Similarity Computation

- **Goal: Compute similarity between datasets held by different parties, without sharing datasets**
- **Example datasets: IP addresses, vulnerabilities, malware features**
- **Similarity can be used to estimate relevance of info shared by others, identify areas for further collaboration**
- **Prototyped MPC to compute set similarity, optionally only if above a threshold**



Heatmap of similarity of two parties' malware samples



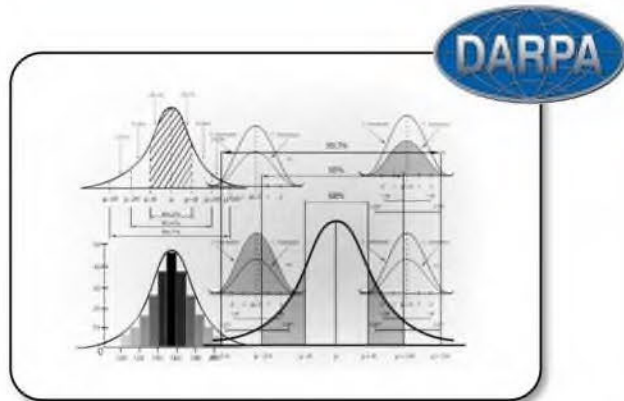
# MPC for Clustering

- **Goal: Detect clusters within data held by multiple parties, without sharing raw data**
- **Can combine with MPC for similarity to define distances used in clustering algorithm**
- **Clustering can be used to identify subsets of similar data or similar parties to inform further collaboration**
- **Prototyped MPC for a variant of k-means clustering**

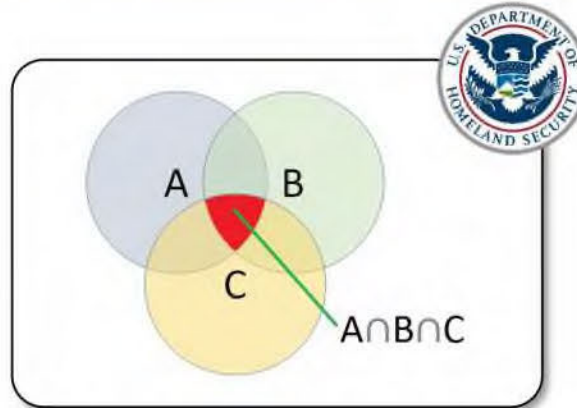




# MPC Functionalities Prototyped



Statistical summaries



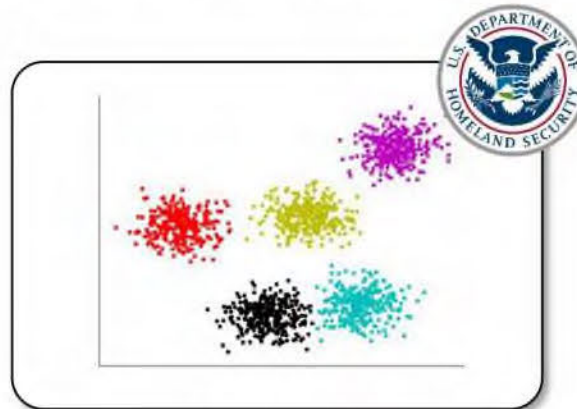
Multi-party set intersection



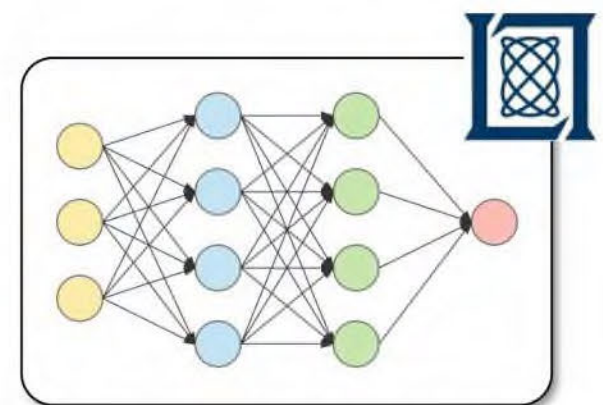
Database merging



Similarity computation



Clustering



Neural network training



# Potential Areas for International Collaboration



**Cybersecurity**



**Global Health**



**Social and Economic Equality**



**Humanitarian Assistance  
and Disaster Relief**



# Summary

---

- **Secure multi-party computation (MPC) enables privacy-preserving collaboration**
- **MPC is possible for any computation, practical for many applications**
- **MIT Lincoln Laboratory has developed a rapid prototyping framework for MPC and applied it to a variety of computations and use cases**
- **Potential MPC applications for international collaboration on cybersecurity, global health, humanitarian assistance/disaster relief, social/economic equality, and more**



## [EXTERNAL] Re: Great to connect!

---

**From:** Marc F Aidinoff (b) (6) >  
**To:** "Koizumi, Kei EOP/OSTP" (b) (6)  
**Date:** Thu, 15 Jul 2021 19:36:35 -0400  
**Attachments:** smime.p7s (1.86 kB)

Sure thing. (b) (6). Im traveling in the middle of the day Saturday so Sunday is slightly easier but im flexible. Marc (b) (6)

On Jul 15, 2021, at 7:35 PM, Koizumi, Kei EOP/OSTP (b) (6) wrote:

Thanks, Marc. Can I call you this weekend? Looking forward to it.

Kei

Kei Koizumi  
(he/him)  
Chief of Staff  
Office of Science and Technology Policy  
(b) (6)  
(no texts)

---

**From:** Marc F Aidinoff (b) (6)  
**Sent:** Thursday, July 15, 2021 5:16 PM  
**To:** Koizumi, Kei EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] Re: Great to connect!

I hope you had a great Fourth Kei! I just wanted to circle back and check in how things were moving on your/ PPO's end. Best Marc

On Jul 2, 2021, at 9:09 AM, Koizumi, Kei EOP/OSTP (b) (6) > wrote:

Marc, I am so happy, also, that we were able to talk. That makes two of us excited about the work ahead. I don't need anything from you at the moment, and I am getting the ball rolling. You may hear from me or an OSTP or other WH colleague soon about other conversations. Have a great Fourth weekend!

Kei

Kei Koizumi

*(he/him)*

Chief of Staff

Office of Science and Technology Policy

(b) (6)

(no texts)

---

**From:** Marc Aidinoff (b) (6)

**Sent:** Thursday, July 1, 2021 10:45 AM

**To:** Koizumi, Kei EOP/OSTP <(b) (6)>

**Subject:** [EXTERNAL] Great to connect!

Hi Kei—

I am really glad we were able to talk earlier this week. I left our conversation very excited about the work ahead (and a little nervous about scooters— I hope there are no lingering injuries). Let me know if there is anything else you need from me and I'd love to get the ball rolling if it makes sense to start having conversations with other folks now.

Best

Marc

---

Marc Aidinoff

(b) (6)

## [EXTERNAL] MIT white paper on ARPA-H

---

**From:** Maria Zuber (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6), Frances H. Arnold  
(b) (6)  
**Cc:** "Mazza, Anne-Marie C. EOP/OSTP" (b) (6) >, "Bumb,  
Ambika EOP/OSTP" (b) (6), "Domnitz, Sarah B. EOP/OSTP"  
(b) (6) >  
**Date:** Fri, 16 Jul 2021 10:41:54 -0400  
**Attachments** ARPAH\_letter MIT.pdf (157.48 kB); smime.p7s (1.86 kB)

:

Whitepaper on ARPA-H by a group of MIT faculty. I had nothing to do with it  
but think it is pretty good.

Maria



**Massachusetts Institute of Technology**

July 16, 2021

**Thoughts on ARPA-H**

As biomedical, bioengineering, and healthcare researchers at the Massachusetts Institute of Technology, we write to offer our views on the proposal to establish an Advanced Research Projects Agency for Health (ARPA-H). We support the creation of ARPA-H, and we believe that, if properly focused and organized, it would have great potential to advance science and technology, and improve the prevention and treatment of disease. We believe ARPA-H could offer a significant addition to the portfolio of research approaches to biomedical science and engineering, which must of course continue to include robust programs at the National Institutes of Health (NIH) and other federal agencies.

**The Gap to be Filled by ARPA-H**

NIH's traditional programs have many strengths, but they are not well adapted to tackle problems that require a concentrated effort involving collaborations among many fields of science and technology (and experts outside of biomedicine). Therefore, biomedicine has much it might gain through the addition of the ARPA model – which emphasizes a focus on the solution of specific problems, a team-based approach, linkages between engineering and science, risk-taking, milestones designed to enable projects to fail quickly or advance, and partnerships between academia and industry.

Problems such as figuring out how to predict the onset of certain cancers (such as pancreatic and ovarian cancers, which today are usually discovered when it is too late to treat them effectively) could benefit from fundamental advances that are more likely to occur through an ARPA approach, in part, because of the need to draw on computation, engineering, and other fields in addition to studies of basic disease biology.

An ARPA-H approach could also facilitate the invention of new instruments and materials for medical care; such efforts require close collaboration among physical and life scientists and engineers.

ARPA-H should focus on issues that do not fit the current two mechanisms for medicine and health research: fundamental science (essential research supported by federal agencies such as NIH, before translation to commercial products); and translational (product-focused research to gain access to the commercial sector). ARPA-H should take a portfolio approach to solving health challenges, with an emphasis on fundamental research breakthroughs to solve problems, but including the range of work needed to ensure that research advances are finding their way into medical practice. It should be careful, though, to avoid funding work that can be readily done by the thriving U.S. biotech and pharmaceutical sectors.

## **Work Across Disciplines Will be a Key to ARPA-H Advances**

As noted above, multidisciplinary work at the intersection of the physical and life sciences, and engineering, sometimes called “convergence,” holds greater promise for accelerated advancements in health than traditional life sciences alone.

The work of DARPA’s Biological Technologies Office (BTO) – created in 2014 – can provide a sense of what an ARPA-H might achieve. The DARPA office, for example, helped fund research on the technology that would lead to mRNA vaccines which have proved so central to the fight against COVID-19. (The DARPA effort built on prior NIH-funded research, and the DARPA funding helped move the mRNA technology into use.) BTO also funded technology research that has accelerated the development of organs on a chip, and neural-controlled prosthetics. But DARPA is defense-focused and cannot alone fill the current gap in biomedical research.

NIH has not fully embraced such interdisciplinary approaches. According to MIT’s 2016 report *Convergence: The Future of Health*, in fiscal 2015, less than 3 percent of NIH award funding was allocated to principal investigators in engineering, physical sciences, or math/statistics and computation. Scientists in these disciplines are frequently not familiar with NIH and feel their expertise is not given sufficient weight by NIH’s peer-review system.

## **Biomedical and Health Problems Well Suited for ARPA-H**

Building on our general points above, here are some initial thoughts on the kinds of problems (spanning from pre-clinical to post-market) that ARPA-H could take on:

- Advancing precision medicine by integrating state-of-the-art computation sciences such as machine learning, physics-based modeling, and data systems to link real-world clinical and demographic data to genetic and molecular biomarkers. Such work could improve the ability to predict which drugs will be most effective in which subpopulations.
- Analyzing the intersection of medical data, molecular tests, and imaging technologies to predict the onset of disease earlier. Intercepting disease processes before a patient becomes debilitated would advance the treatment of cancers that are currently hard to identify in their early stages such as pancreatic and ovarian cancers.
- Developing surveillance platforms to integrate data that are now held by different private and public organizations on how well drugs and other treatments are working under real-world conditions, improving the use of such treatments by better tailoring them to patients.
- Creating innovations in biomanufacturing technologies to help decrease the costs of biologic drugs.
- Developing broad approaches to propel new breakthroughs in synthetic biology. One promising area is ultra-sensitive biological circuits which have potential applications as environmental sensors or diagnostics that could reveal disease states (like heart attacks) in real time.
- Developing better disease surveillance tools including sensors and data systems to help counter outbreaks of infectious diseases.

## **Essential ARPA-H Characteristics**

Regardless of whether ARPA-H is part of NIH or is established as an independent entity, it must operate differently from the rest of NIH to be successful. Its leadership must have the latitude to set up and operate an entity with its own goals, approaches and procedures. If ARPA-H is established within NIH, it should report to the NIH Director, not to another institute or center. ARPA-H will need new legal authority to bring in program managers, who – like DARPA’s – should be hired for limited three- to five-year periods and should come from a range of technical backgrounds with an emphasis on expertise in computing and information sciences, machine learning and AI, physics-based modeling, physics and engineering, in addition to the life sciences. ARPA-H contracts should be larger than typical NIH grants and should go to multi-disciplinary and multi-sectoral teams (rather than funding individual groups).

The ideal ARPA-H director would have personal experience with the ARPA model, with work in a range of scientific fields, and with coordinated efforts across academia, industry, and governmental agencies. The director should be someone willing to forge an independent path. Crucially, the director should have a deep understanding of what can be gained from utilizing knowledge from areas beyond biomedical science to advance health, including understanding the importance of computation and engineering. The culture of a new entity tends to lock-in very quickly and the expertise and abilities of the first director, including working experience with the ARPA model, will play a key role in creating the agency’s lasting culture.

## **Addressing Concerns**

One source of DARPA’s success that is not easily transferrable to other ARPA agencies is that DARPA often has a direct link to a Defense Department-supported customer base for its ideas, through its procurement activities. While the linkages between the government and the health sector are substantial, they are not as direct as the Pentagon’s – NIH is not a procurement agency. ARPA-H should examine models both from DARPA and from ARPA-E in working to move promising new ideas into widespread use. For example, the Tech-to-Market teams that both ARPA-E and now DARPA use could be a constructive approach to help move ARPA-H’s advances toward implementation.

At the same time, ARPA-H’s approach should include working on important health problems that are not of immediate interest to the private sector. Creating new vaccines, overcoming antibiotic resistance, and addressing the health concerns of relatively small and underserved subpopulations in the U.S. or in poor countries are kinds of work that should engage ARPA-H even though they may not have the immediate private sector appeal of the next “blockbuster” drug. Even in such cases, ARPA-H would need to create linkages to the private sector to create pathways to the marketplace.

ARPA-H should pay attention to many aspects of diversity. Its staff and its awardees should reflect the rich diversity of our population. Among other reasons, this will help ensure that ARPA-H intentionally pays sufficient attention to the health needs of minorities and other marginalized populations.

Also, ARPA-H should work to involve researchers at a wide range of academic institutions. This could also strengthen the link between ARPA-H work and the public health community.

NIH should recognize that ARPA funding models are often not ideal for training graduate students given the speed of progress expected and the uncertainty of consistent funding. To ensure that graduate students who are funded through ARPA-H awards have sufficient, enduring support, NIH may want to consider providing additional funding for their work.

In addition, ARPA-H may want to examine ARPA-E's approach of hiring a group of fellows who are recent PhDs to assist program managers.

We hope that the ARPA-H initiative will be part of a broader effort to enhance U.S. research and education capacity in a way that benefits all Americans and improves health around the world.

We would be happy to elaborate on our views on ARPA-H. We do want to emphasize that we are drawing on our experience, and are not attempting to speak on behalf of others at MIT, or for MIT as an institution.

Signed,

*Angela Belcher, Head of the Department of Biological Engineering, James Mason Crafts Professor of Biological Engineering and Materials Science and Engineering*

*Emery Brown, Director of the Harvard–MIT Program of Health Sciences and Technology; Edward Hood Taplin Professor of Medical Engineering and of Computational Neuroscience; Associate Director, Institute for Medical Engineering and Science; Professor of Health Sciences and Technology; Warren M. Zapol Professor of Anaesthesia, Harvard Medical School, Massachusetts General Hospital*

*Richard Braatz, Edwin R. Gilliland Professor of Chemical Engineering*

*Arup Chakraborty, Institute Professor, Founding Director of (IMES) Institute for Medical Engineering and Science, Professor in Chemical Engineering, Physics, and Chemistry*

*Elazer R. Edelman, Edward J. Poitras Professor of Medical Engineering and Science, Director MIT Institute for Medical Engineering and Science, Senior Attending Physician Brigham and Women's Hospital and Professor of Medicine, Harvard Medical School*

*Paula Hammond, Institute Professor, Head of the Department of Chemical Engineering*

*Gigi Hirsch, Executive Director, MIT's Center for Biomedical Innovation & New Drug Development Paradigms (NEWDIGS)*

*Susan Hockfield, President Emerita of MIT, Professor of Neuroscience*

*Richard Hynes, Daniel K. Ludwig Professor for Cancer Research*

Tyler Jacks, *David H. Koch Professor of Biology, Daniel K. Ludwig Scholar, Co-director, Ludwig Center for Molecular Oncology*

Bob Langer, *David H. Koch Institute Professor; Recipient of both the National Medal of Science and the National Medal of Technology and Innovation*

Jacquie Niles, *Professor of Biological Engineering, Director of the Center for Environmental Health Sciences (CEHS)*

Kenneth Oye, *Professor of Political Science, Professor of Data Systems and Society, Director of the Program on Emerging Technologies (PoET)*

Rajeev Ram, *Professor of Electrical Engineering*

Phil Sharp, *Institute Professor and Professor of Biology; Nobel Laureate*

Anthony Sinskey, *Professor of Microbiology, Co-Director of the Malaysia-MIT Biotechnology Partnership Program, Faculty Director of the MIT Center for Biomedical Innovation*

Stacy Springs, *Senior Director of Programs; Executive Director, Biomufacturing Initiatives, MIT's Center for Biomedical Innovation*

Matthew Vander Heiden, *Director, Koch Institute for Integrative Cancer Research; Lester Wolfe Professor of Molecular Biology, Professor of Biology*



## [EXTERNAL] Re: Meeting

---

**From:** Jordan Blashek (b) (6)  
:  
**To:** Patty Wong (b) (6)  
**Cc:** "McGuire, Chris R. EOP/OSTP" (b) (6), Gilman Louie  
(b) (6)  
**Date:** Wed, 21 Jul 2021 08:20:17 -0400

Hi Chris,

It's nice to meet you and I'm looking forward to having a conversation in person!

I can be available and in DC on both Thursday and Friday during the times that Patty suggested.

All the best,  
Jordan

On Tue, Jul 20, 2021 at 6:04 PM Patty Wong (b) (6) wrote:

Hi Chris – Gilman can be available for the following:

Wednesday, Aug 4, open to schedule the morning up to 12pm ET

Thursday, Aug 5, open to schedule 3-5pm ET

Friday, Aug 6, open to schedule the morning up to 11am ET

Best,

Patty

Patty Wong

Alsop Louie Partners

(b) (6)

o) (b) (6) (new number)

c) (b) (6)

---

**From:** McGuire, Chris R. EOP/OSTP (b) (6)

**Sent:** Tuesday, July 20, 2021 2:59 PM

**To:** Gilman Louie (b) (6)

**Cc:** Jordan Blashek (b) (6) >; Patty Wong (b) (6) >

**Subject:** RE: Meeting

Gilman,

Perfect, that works well. Happy to include Jordan. Thanks so much for checking with Chris too. Appreciate you pulling those notes together, that will be really helpful.

Patty and Jordan – if you could tell me what your availability looks like the week of August 2-6 that would be great. Right now August 5 and 6 in particular look relatively open. I'll then check with our folks to try to pin down a time when everyone is available. Gilman and I had previously discussed having the meeting in person, if that works for you all.

Best,

Chris

---

Chris McGuire

Senior Advisor for International Security

Office of Science and Technology Policy

Executive Office of the President

(b) (6)

---

**From:** Gilman Louie (b) (6) >

**Sent:** Tuesday, July 20, 2021 4:58 PM

**To:** McGuire, Chris R. EOP/OSTP (b) (6)

**Cc:** Jordan Blashek (b) (6); Patty Wong (b) (6)

**Subject:** [EXTERNAL] Re: Meeting

Chris,

Great! Patty can set up a good time on my end. I will check to see Chris's interest in doing this as well. I would like to include Jordan Balshek from Schmidt Futures who is working on this initiative. I'm cc: him on this thread. We can get you some draft notes by the end of the week.

Gilman

---

**From:** Chris McGuire (b) (6)

**Date:** Tuesday, July 20, 2021 at 10:53 AM

**To:** Gilman Louie (b) (6)

**Subject:** Meeting

Hi Gilman,

I chatted with Jason yesterday and he's definitely interested in talking with you about the initiative that we discussed on Friday. I know we had talked about targeting the first week of August (Aug 2-6) for a meeting here at EEOB, and ideally we can arrange something with you, Jason, Tarun, and hopefully Laura Rosenberger. It would be great to have Chris D join as well if he is available and interested – if there are any other key people on your end let me know.

When you have a chance, tell me what your schedule looks like that week and I can see what works for all three of those folks on my end. If Chris wants to come too let me know and we'll be sure to find a time that works for him as well. Also, if you have any written products that you could share in advance of the meeting which outline your vision for the initiative, where it currently stands, how we could help, and any other key info, that would definitely be useful.

Looking forward to talking more!

Best,

Chris

---

Chris McGuire

Senior Advisor for International Security

Office of Science and Technology Policy

Executive Office of the President

(b) (6) [REDACTED]

[REDACTED]

## RE: details on request for NIH data

---

**From:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**To:** Gerald Joyce (b) (6)  
**Cc:** R. Scott Kemp (b) (6)  
**Date:** Sun, 25 Jul 2021 19:48:12 -0400

Thank you, Jerry – we're working with NIH to resolve ASAP!

---

**From:** Gerald Joyce (b) (6) >  
**Sent:** Saturday, July 24, 2021 4:28 PM  
**To:** Matheny, Jason G. EOP/OSTP (b) (6)  
**Cc:** R. Scott Kemp (b) (6)  
**Subject:** [EXTERNAL] details on request for NIH data

Dear Jason,

Here are some details that Scott Kemp provided regarding JASON's request to access anonymized patient data from the NIH clinical study. Scott has been in direct communication with the Study Director, Dr. Leighton Chan (email (b) (6), tel. (b) (6)).

Dr. Chan gave a very helpful briefing to the JASONS on June 16, during which he presented aggregated data from the 65 persons in their clinical study. Only 21 of these had provided consent to share their individual data with other scientists, but because the data were anonymized when presented to us, we were provided information for all 65.

Following our analysis of the detailed incident reports, JASON requested the medical data from a total of 40 study participants, which we grouped into two cohorts, with 29 individuals in cohort 1 and 11 individuals in cohort 2. We did not reveal the criteria for inclusion in each cohort, which derived from our analysis of the classified incident reports. The NIH may have received the case numbers for the two cohorts in mixed order, perhaps with some having been eliminated to obscure information regarding their job posting.

After initially being told that we would promptly be sent the requested information, we learned late last week that the NIH feels it necessary to modify the informed consent that the individuals in the study had signed. This would of course result in a substantial delay, likely beyond the timeframe of the JASON study.

Anything that Eric and OSTP could do to expedite our gaining access to the requested data would be greatly appreciated!

With best regards,

Jerry

Gerald F. Joyce, MD PhD  
Professor  
The Salk Institute  
10010 N. Torrey Pines Road, CBPL-J  
La Jolla, CA 92037  
Tel. (b) (6)  
[E-mail](#) (b) (6)

## [EXTERNAL] Re: Eric meetings with agencies

---

**From:** Maria T. Zuber (b) (6)  
**To:** "Koizumi, Kei EOP/OSTP" (b) (6)  
**Date:** Mon, 26 Jul 2021 10:07:51 -0400  
**Attachments:** smime.p7s (1.86 kB)

ok, thanks, Kei. That is good to know. I appreciate the quick response!

Maria

> On Jul 26, 2021, at 10:01 AM, Koizumi, Kei EOP/OSTP (b) (6) wrote:

>

> Maria, He is meeting with science leads at agencies. He's met once with NASA Administrator Nelson, for example, and he has met with DOE Secretary Granholm, etc.

>

> Kei

>

> Kei Koizumi

> (he/him)

> Chief of Staff

> Office of Science and Technology Policy

(b) (6)

(no texts)

>

>

> -----Original Message-----

> From: Maria Zuber (b) (6)

> Sent: Monday, July 26, 2021 4:38 AM

> To: Koizumi, Kei EOP/OSTP (b) (6)

> Subject: [EXTERNAL] Eric meetings with agencies

>

>

> Hi Kei—

> Question: Is Eric planning meetings with science leads at agencies? I am meeting with

> Thomas Zurbuchen of NASA tomorrow and expect he may ask.

> Thanks—



> Maria  
>  
>  
>  
> \_\_\_\_\_  
>  
> Maria T. Zuber  
>  
> Vice President for Research  
> E.A. Griswold Professor of Geophysics  
> Massachusetts Institute of Technology  
> 77 Massachusetts Avenue, 3-234  
> Cambridge, MA 02139-4307  
> Phone: (b) (6)  
>> ><http://orgchart.mit.edu/vice-president-research><<  
>  
> Research Office:  
> Department of Earth, Atmospheric and Planetary Sciences  
> Massachusetts Institute of Technology  
> 77 Massachusetts Avenue, 54-518  
> Cambridge, MA 02139-4307  
> Phone: (b) (6)  
>> ><http://www-geodyn.mit.edu><<  
>  
> Not all those who wander are lost.  
> -- J.R.R. Tolkien  
> \_\_\_\_\_  
>

---

Maria T. Zuber

Vice President for Research  
E.A. Griswold Professor of Geophysics  
Massachusetts Institute of Technology  
77 Massachusetts Avenue, 3-234  
Cambridge, MA 02139-4307

Phone: (b) (6)

><http://orgchart.mit.edu/vice-president-research><

Research Office:

Department of Earth, Atmospheric and Planetary Sciences

Massachusetts Institute of Technology

77 Massachusetts Avenue, 54-518

Cambridge, MA 02139-4307

Phone: (b) (6)

><http://www-geodyn.mit.edu><

Not all those who wander are lost.

-- J.R.R. Tolkien

---

## [EXTERNAL] Eric meetings with agencies

---

**From:** Maria Zuber (b) (6)  
**To:** "Koizumi, Kei EOP/OSTP" (b) (6)  
**Date:** Mon, 26 Jul 2021 04:38:15 -0400  
**Attachments:** smime.p7s (1.86 kB)

Hi Kei—

Question: Is Eric planning meetings with science leads at agencies? I am meeting with Thomas Zurbuchen of NASA tomorrow and expect he may ask.

Thanks—

Maria

---

Maria T. Zuber

Vice President for Research  
E.A. Griswold Professor of Geophysics  
Massachusetts Institute of Technology  
77 Massachusetts Avenue, 3-234  
Cambridge, MA 02139-4307

(b) (6)

><http://orgchart.mit.edu/vice-president-research><

Research Office:  
Department of Earth, Atmospheric and Planetary Sciences  
Massachusetts Institute of Technology  
77 Massachusetts Avenue, 54-518  
Cambridge, MA 02139-4307

(b) (6)

><http://www-geodyn.mit.edu><

Not all those who wander are lost.

-- J.R.R. Tolkien

---



**From:** Google Calendar on behalf of "Anurag Acharya" (b) (6)  
**Sent:** Tue, 27 Jul 2021 15:21:22 -0500  
**To:** LaBovick, Hannah EOP/OSTP  
**Subject:** [EXTERNAL] Accepted: Public Access, Anurag/Alondra/Jerry/Ryan/Jorge/ESL @ Thu Aug 19, 2021 12pm - 12:30pm (PDT) (LaBovick, Hannah EOP/OSTP)  
**Attachments:** invite.ics

**Anurag Acharya has accepted this invitation.**

### Public Access, Anurag/Alondra/Jerry/Ryan/Jorge/ESL

**When** Thu Aug 19, 2021 12pm – 12:30pm Pacific Time - Los Angeles

**Where** ><https://pitc.zoomgov.com> (b) (6)  
([map](#))

**Calendar** LaBovick, Hannah EOP/OSTP

- Who**
- LaBovick, Hannah EOP/OSTP - organizer
  - Anurag Acharya - creator
  - Sheehan, Jerry R. EOP/OSTP
  - Nelson, Alondra R. EOP/OSTP
  - Lander, Eric S. EOP/OSTP
  - Ochoa, Jorge A. EOP/OSTP
  - Donohue, Ryan C. EOP/OSTP

[><https://www.zoomgov.com>] (b) (6)

Hi there,

Hannah LaBovick is inviting you to a scheduled ZoomGov meeting.

Join Zoom Meeting

One tap mobile:

US: (b) (6) or (b) (6)

Meeting URL:

><https://pitc.zoomgov.com> (b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

Join by Telephone

For higher quality, dial a number based on your current location.

Dial:

US: (b) (6) or (b) (6) or (b) (6) (b) (6)

Meeting ID:

(b) (6)

(b) (6)

(b) (6)

International numbers

Join from an H.323/SIP room system

H.323:

(b) (6) (US West)

(b) (6) (US East)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

SIP:

(b) (6)

Passcode:

(b) (6)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account (b) (6) you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at ><https://calendar.google.com/calendar/>< and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).

**From:** Google Calendar on behalf of "Anurag Acharya" (b) (6)  
**Sent:** Tue, 27 Jul 2021 16:18:02 -0500  
**To:** LaBovick, Hannah EOP/OSTP  
**Subject:** [EXTERNAL] Accepted: Anurag Acharya / OSTP @ Thu Aug 19, 2021 12pm - 12:30pm (PDT) (LaBovick, Hannah EOP/OSTP)  
**Attachments:** invite.ics

**Anurag Acharya has accepted this invitation.**

### Anurag Acharya / OSTP

**When** Thu Aug 19, 2021 12pm – 12:30pm Pacific Time - Los Angeles

**Where** ><https://pitc.zoomgov.com/>(b) (6)  
(map)

**Calendar** LaBovick, Hannah EOP/OSTP

- Who**
- LaBovick, Hannah EOP/OSTP - organizer
  - Anurag Acharya - creator
  - Sheehan, Jerry R. EOP/OSTP
  - Nelson, Alondra R. EOP/OSTP
  - Lander, Eric S. EOP/OSTP
  - Ochoa, Jorge A. EOP/OSTP
  - Donohue, Ryan C. EOP/OSTP

To discuss public access; OSTP attendees: Eric Lander, Alondra Nelson, Jerry Sheehan, Ryan Donohue

><https://www.zoomgov.com/>(b) (6)

Hi there,

Hannah LaBovick is inviting you to a scheduled ZoomGov meeting.

Join Zoom Meeting

One tap mobile:

US: (b) (6) or (b) (6)

Meeting URL:

><https://pitc.zoomgov.com/>(b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

Join by Telephone

For higher quality, dial a number based on your current location.

Dial:

US: (b) (6) or (b) (6) or (b) (6) (b) (6)

Meeting ID:

(b) (6)

(b) (6)

(b) (6)

International numbers

Join from an H.323/SIP room system

H.323:

(b) (6) (US West)

(b) (6) (US East)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

SIP:

(b) (6)

Passcode:

(b) (6)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account (b) (6) you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).



## [EXTERNAL] Re: Thank you, comments, request

---

**From:** David A Relman (b) (6)  
:  
**To:** R. Scott Kemp (b) (6)  
**Cc:** Gerald Joyce (b) (6) "Matheny, Jason G. EOP/OSTP"  
(b) (6)  
**Date:** Tue, 27 Jul 2021 21:19:59 -0400

Hi Scott-

We can fill you in about that database.

Re your two issues:

—we can arrange a secure VTC for you from San Diego

—our interest for now would be in talking about process and coordination, not about findings. I

hope/assume this would be OK with DOS.

If this sounds OK (3 Aug), I can have our support people get in touch with you.

Best,

David

Sent from my iPhone

On Jul 27, 2021, at 5:32 PM, R. Scott Kemp (b) (6) wrote:

Hi David,

We never saw an ODNI database, especially not a medical one.

--Request: Would you be willing and able to join us next week on Tuesday 3 Aug at 1230-1330 near Dulles airport?? We would greatly appreciate spending a little time with you updating you on where our work stands, our plans, and possible approaches for coordination. Needless to say, all of your expenses would be reimbursed. Hope this might work out...

Best, David

I am in principle happy to brief the ODNI panel, but two limits, one logistical and one organizational. I cannot do an in-person briefing before August 18. My ability to travel cross country is limited (b) (6) for which I will not bore you, but once I'm on the east coast trips to DC are very tractable. Second, my ability to brief the ODNI group depends on State department granting its approval, as they own the JASON product. Since not even they have seen the report or heard a briefing, I think it would be normal courtesy to wait until I can brief them first.

Are you open to a briefing a little later in August or in September?

-Scott

## [EXTERNAL] Thank you, comments, request re: Some useful resources from the JASON study

---

**From:** David A Relman (b) (6)  
:  
**To:** R. Scott Kemp <(b) (6)>  
**Cc:** Gerald Joyce (b) (6) "Matheny, Jason G. EOP/OSTP"  
(b) (6), David A Relman (b) (6)  
**Date:** Tue, 27 Jul 2021 20:17:15 -0400

Hi Scott-

Thank you. Much appreciated.

A few quick comments, and a request?

--Yes, one clinical dataset is NIH. (b) (4), (b) (6)

(b) (6) Will keep you apprised.

--Yes, there are problems with heterogeneity and non-standardization of data across institutions, approaches, etc. If at the least everything could be resolved to the level of individual, this would help, but only to an extent.

--Yes, we will be focusing at least to a large degree on mechanism (exposure-to-biological/clinical effect). Agree that we want to very much include non-thermal! Thanks for those references.

--Request: Would you be willing and able to join us next week on Tuesday 3 Aug at 1230-1330 near Dulles airport?? We would greatly appreciate spending a little time with you updating you on where our work stands, our plans, and possible approaches for coordination. Needless to say, all of your expenses would be reimbursed. Hope this might work out...

Best, David

---

**From:** R. Scott Kemp (b) (6)  
**Date:** Tuesday, July 27, 2021 at 12:36 PM  
**To:** David A Relman (b) (6)  
**Cc:** Gerald Joyce (b) (6) Jason Matheny  
(b) (6)  
**Subject:** Some useful resources from the JASON study

Dear David,

As study leader to study leader, I wanted to reach out and share a few potentially useful nuggets of

information that your team may find useful as it begins work.

First, on medical data sources, your primary data will probably be the NIH dataset of around 65 persons. We think the most interesting metrics are those that are physiologic, such as vestibular evoked myogenic potentials (of which there are some folks with abnormal amplitude) or serum markers like neurofilament light chain (NfL). I feel that the NfL data is not good enough to impute any kind of traumatic brain injury, which seems to be NIH's focus. In particular, NIH should do exosome analysis using antibody tagging to rule out the possibility that NfL is coming from peripheral nerves (lumbar puncture also possible but probably much less popular). The increased amplitudes observed in VEMP may argue against a peripheral-nerve-lesion theory, but you can look into that further.

One important discovery we made is that the NIH does not use a uniform control set across all reported measures. Sometimes it's the DOS control group, sometimes it's an internal NIH control group. When NIH controls are used, they use a different internal control for each test, making joint testing difficult. In talking to NIH researchers, some suggested that the NIH control groups were not well matched to the study cohort (on dimensions of age, life history, etc) but the DOS control cohort was. That said, the DOS control cohort is only 28 or 29 persons, which is simply not very big for a population that includes folks with both desk-jobs history and military or other extreme histories. You'll also see there is some evidence of an asymmetric distribution in some of the DOS controls, which might arise from small numbers and, if so, might be artificially enhancing the statistical significance of some preliminary NIH findings.

I think your panel is particularly interested in looking at RF interactions with biology. Of particular note here is the literature on modulated RF, of which "pulsed" is a subset. I am disappointed that there has not been a systematic investigation of this space in our country, which is heavily politicized and has public-health implications. As a nation, we really should not be as ignorant in this space as we appear to be. Nevertheless, here are a few interesting tidbits to get you started:

William Ross Adey was a faculty member at UCLA who later moved to Loma Linda VA hospital. His group did seminal experiments showing that when RF (of a wide range of baseline frequencies) is modulated at around 16 Hz, it can cause calcium efflux from neuronal tissues in vitro. He also showed the ability, again in vitro, to induce cardiac arrhythmia if the RF was properly timed.

<https://doi.org/10.1111/j.1749-6632.1975.tb35984.x>

<https://doi.org/10.1073/pnas.73.6.1999>

<https://doi.org/10.1002/bem.2250010304>

<https://doi.org/10.1002/bem.2250030302>

<https://doi.org/10.1002/jcb.2400510405>

The Ca<sup>2+</sup> efflux experiments were later reproduced by Blackman at the EPA.

<https://doi.org/10.1029/RS014i06Sp00093>

<https://doi.org/10.1002/bem.2250010304>

These experiments created quite a lot of consternation among RF experts who assert that there were no non-thermal effects. Merritt and Mason of the US Air Force reportedly failed to reproduce

the effect in what appears to be an attempt to disprove the Adey-Blackman work, but a careful reading suggests they did not seem to modulate the RF, which is the critical step

<http://www.isbem.org/conf/2000/proceedi/233.pdf>

Adey's work was also criticized by the comprehensive survey done by Blackwell and Saunders, which I recommend. However, I personally find Blackwell & Saunders' critique somewhat weak and biased by the belief that there can be no non-thermal effect.

<https://doi.org/10.1080/09553008614551211>

The problem with holding to the thermal-only theory is that it forces you to conclude the calcium results from thermal-mediated depolarization of neurons, which then has a downstream effect of calcium-channel opening. That could indeed explain calcium influx, but it seems harder to explain how one obtains calcium efflux unless the channel protein itself directly interacts with RF. I think there is also some evidence that RF opening of calcium channels for non-neuronal cells, but I've lost track of that reference.

Of course, if one want to push back on the thermal-only folks, we know that some non-thermal effects are almost sure to exist. Resonance effects indicate a radical-pair mechanism for avian magnetic compass: <https://www.nature.com/articles/nature02534>. And low-field sensitivities appear to occur in mammals as well. For example, has been hypothesized that Foxes may detect magnetic (or maybe electric) fields from mice when mousing in the snow:

<https://royalsocietypublishing.org/doi/full/10.1098/rsbl.2010.1145>

And cows and other grazing animals seem to align themselves with the magnetic field:

<https://www.pnas.org/content/105/36/13451>

So, at least in principle, there is evidence for some kind of non-thermal interaction, but whether harmful or not is unclear. Here the Soviet literature is interesting, but also very sloppy.

Other interesting work in the RF-theory space comes from Shneider and Pekker. This paper argues that it is possible to force axonal ion channels to migrate within the nodes of Ranvier. We reviewed the physics of this paper and found it to be solid, but the theory is of course untested. Freeze fracture studies may be useful here.

<https://doi.org/10.1063/1.4821027>

From an organism perspective, the literature on vagus nerve stimulation (and FDA approved therapy for epilepsy and depression) is interesting—and in particular interesting that the therapeutic modulation frequency overlaps with what was observed by Adey. Also interesting is a recent attempt by a Korean group to replace TMS with a microwave-based system, and their positive early results on EEG. See also some related but less clear results from an Estonian group.

<https://doi.org/10.3390/s21051896>

<https://doi.org/10.1002/bem.20010>

I hope these constitute a useful start for your study. We'll let you know if we find more useful things in the coming weeks.

Best wishes,  
Scott

## [EXTERNAL] Re: email scamming

---

**From:** Tyler E Jacks (b) (6) >

**To:** "LaBovick, Hannah EOP/OSTP" (b) (6)

**Date:** Tue, 27 Jul 2021 17:48:21 -0400

Hi,

Unfortunately, neither of those times work. How about this weekend?

Tyler

Sent from my iPhone

On Jul 27, 2021, at 5:36 PM, LaBovick, Hannah EOP/OSTP (b) (6) wrote:

Not a problem, you should enjoy your night.

Might we aim for 1:15pm tomorrow, or even a time between 1pm – 2pm on Thursday?

Thanks,  
Hannah

---

**From:** Tyler E Jacks (b) (6)

**Sent:** Tuesday, July 27, 2021 4:53 PM

**To:** LaBovick, Hannah EOP/OSTP (b) (6)

**Subject:** [EXTERNAL] Re: email scamming

Hi Hannah,

I could do 10 minutes at 6 tonight. I will have friends over at dinner, so won't be able to talk for too long.

My number is (b) (6)

Thanks,

Tyler

Sent from my iPhone

On Jul 27, 2021, at 12:56 PM, LaBovick, Hannah EOP/OSTP  
(b) (6) wrote:

Hi Tyler!

Hope all is well.

Might you have 10-15 minutes to chat with Eric this evening either at 6pm or at 7pm?

Thanks in advance!  
Hannah

---

**From:** Lo, Kevin C. EOP/OSTP

**Sent:** Tuesday, July 27, 2021 12:48 PM

**To:** 'Tyler E Jacks' (b) (6)

**Cc:** LaBovick, Hannah EOP/OSTP (b) (6)

**Subject:** RE: email scamming

Hi Tyler!

Eric would indeed like to chat! Hannah can help find a time.

Thanks so much,  
Kevin

Kevin Lo (*he/him*)  
Special Advisor for Director's Initiatives  
Office of Science and Technology Policy  
Executive Office of the President  
(b) (6)  
Cell: (b) (6)

---

**From:** Tyler E Jacks (b) (6)

**Sent:** Tuesday, July 27, 2021 12:42 PM



**To:** Lander, Eric S. EOP/OSTP (b) (6)

**Subject:** [EXTERNAL] email scamming

Hey Eric-

I am guessing this was scamming effort. Please let me know if you would really like to talk sometime.

I'd actually like to fill you in on progress at Break Through Cancer—and maybe update President and Mrs. Biden some time.

I hope you are well and prospering.

Best,

Tyler

Begin forwarded message:

**From:** Eric S Lander (b) (6)

**Subject:** 5 min?

**Date:** July 25, 2021 at 9:16:24 AM EDT

**To:** Tyler Jacks (b) (6)

Hi Tyler:

Would you have 5 min for a quick call this morning?

Best,

Eric

## RE: email scamming

---

**From:** "LaBovick, Hannah EOP/OSTP" (b) (6)

**To:** Tyler E Jacks (b) (6)

**Date:** Tue, 27 Jul 2021 17:36:05 -0400

Not a problem, you should enjoy your night.

Might we aim for 1:15pm tomorrow, or even a time between 1pm – 2pm on Thursday?

Thanks,  
Hannah

---

**From:** Tyler E Jacks (b) (6)

**Sent:** Tuesday, July 27, 2021 4:53 PM

**To:** LaBovick, Hannah EOP/OSTP (b) (6)

**Subject:** [EXTERNAL] Re: email scamming

Hi Hannah,

I could do 10 minutes at 6 tonight. I will have friends over at dinner, so won't be able to talk for too long.

My number is (b) (6)

Thanks,

Tyler

Sent from my iPhone

On Jul 27, 2021, at 12:56 PM, LaBovick, Hannah EOP/OSTP (b) (6) wrote:

Hi Tyler!

Hope all is well.

Might you have 10-15 minutes to chat with Eric this evening either at 6pm or at 7pm?

Thanks in advance!  
Hannah

---

**From:** Lo, Kevin C. EOP/OSTP  
**Sent:** Tuesday, July 27, 2021 12:48 PM  
**To:** 'Tyler E Jacks' (b) (6)  
**Cc:** LaBovick, Hannah EOP/OSTP (b) (6)  
**Subject:** RE: email scamming

Hi Tyler!

Eric would indeed like to chat! Hannah can help find a time.

Thanks so much,  
Kevin

Kevin Lo (*he/him*)  
Special Advisor for Director's Initiatives  
Office of Science and Technology Policy  
Executive Office of the President  
(b) (6)  
Cell: (b) (6)

---

**From:** Tyler E Jacks (b) (6)  
**Sent:** Tuesday, July 27, 2021 12:42 PM  
**To:** Lander, Eric S. EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] email scamming

Hey Eric-

I am guessing this was scamming effort. Please let me know if you would really like to talk sometime.

I'd actually like to fill you in on progress at Break Through Cancer—and maybe update President and Mrs. Biden some time.

I hope you are well and prospering.

Best,

Tyler

Begin forwarded message:

**From:** Eric S Lander (b) (6)  
**Subject:** 5 min?  
**Date:** July 25, 2021 at 9:16:24 AM EDT  
**To:** Tyler Jacks (b) (6)

Hi Tyler:

Would you have 5 min for a quick call this morning?

Best,

Eric

## [EXTERNAL] email scamming

---

**From:** Tyler E Jacks (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Date:** Tue, 27 Jul 2021 12:42:19 -0400  
**Attachments:** smime.p7s (1.86 kB)

Hey Eric-

I am guessing this was scamming effort. Please let me know if you would really like to talk sometime.

I'd actually like to fill you in on progress at Break Through Cancer—and maybe update President and Mrs. Biden some time.

I hope you are well and prospering.

Best,

Tyler

Begin forwarded message:

**From:** Eric S Lander (b) (6)  
**Subject:** 5 min?  
**Date:** July 25, 2021 at 9:16:24 AM EDT  
**To:** Tyler Jacks (b) (6)

Hi Tyler:

Would you have 5 min for a quick call this morning?

Best,  
Eric



## [EXTERNAL] Re: Call with Dr. Eric Lander Next Week

---

**From:** Jack Hidary (b) (6)  
**To:** "LaBovick, Hannah EOP/OSTP" (b) (6)  
**Cc:** Akiko Foo (b) (6), Gabriela Ortiz (b) (6) >  
**Date:** Mon, 09 Aug 2021 19:17:53 -0400

hi Hannah - that works - akiko pls confirm the time slot

thx

J

On Mon, Aug 9, 2021 at 6:18 PM LaBovick, Hannah EOP/OSTP (b) (6)  
wrote:

Hi Jack!

I hope you've been having a nice Monday.

My name is Hannah LaBovick, I'm a special assistant in Dr. Eric Lander's office.

I am writing in the hopes that you have a few minutes to have a phone call with Dr. Lander next week? He was hoping for 15-20 minutes of your time to chat. He has some availability on Wednesday and Thursday if either of those days work for you?

Please let me know if you have a preference and I will be happy to work with yourself or your team to find a time.

Respectfully,

Hannah

Hannah LaBovick (*she/her*)

Special Assistant for the Director's Office

Office of Science and Technology Policy

Executive Office of the President

(b) (6)

Cell: (b) (6)



## [EXTERNAL] Fwd: Report on advanced manufacturing institutes out today

---

**From:** Maria Zuber (b) (6)  
**To:** (b) (6), "Lander, Eric S. EOP/OSTP"  
(b) (6)  
**Cc:** "Mazza, Anne-Marie C. EOP/OSTP" (b) (6), "Bumb, Ambika EOP/OSTP" (b) (6), "Domnitz, Sarah B. EOP/OSTP" (b) (6) >  
**Date:** Tue, 10 Aug 2021 15:46:34 -0400  
**Attachments** smime.p7s (1.86 kB)

:

Just our from Bill Bonvillian. Relevant to competitiveness theme.

Maria

Begin forwarded message:

**From:** William Boone Bonvillian (b) (6) >  
**Subject:** Report on advanced manufacturing institutes out today  
**Date:** August 10, 2021 at 1:58:46 PM EDT  
**To:** William Boone Bonvillian (b) (6)

The Day One project asked me to do a report on the Advanced Manufacturing Institute program last month, and it came out today — you may be interested - Bill

# DAY ONE PROJECT

**Ensuring Manufacturing USA  
Reaches Its Potential**

**William B. Bonvillian**

August 2021

## Summary

President Biden made advanced manufacturing a major policy priority during his campaign, including calling for a significant expansion<sup>1</sup> of manufacturing programs to reach 50 communities through new manufacturing-technology hubs. Expanded manufacturing programs will invest in our nation's long-term competitive innovation capacity. However, building these programs successfully requires a thoughtful and practical implementation plan. This memo presents two categories of recommendations to improve the U.S. advanced-manufacturing ecosystem:

- (1) Improve the existing Manufacturing USA institutes.** Some new institutes are needed, but the Administration should concentrate first on strengthening support for the 16 existing Manufacturing USA Institutes, renewing the terms of institutes that are performing well, and expanding the reach of those institutes by launching more workforce-development programs, regional technology demonstration centers, initiatives to engage small- and mid-sized manufacturers and build regional manufacturing ecosystems.
  
- (2) Implement a multi-part strategy for collaboration among the Institutes:** First, the Administration should create a “network function” across the Manufacturing USA Institutes because firms will need to adopt packages of manufacturing technologies not just one at a time. This could be supported by the National Institute of Standards and Technology (NIST) and would combine the advances of different Institutes and package them to be integrated and interoperable for easy adoption by firms. Second, a NIST-led traded-sector-analysis unit should be created to evaluate the manufacturing progress of other nations and inform Institute priorities. Third, the Administration should provide research and development (R&D) agencies with resources to build manufacturing-related R&D feeder systems (e.g., an expanded pipeline of manufacturing technologies) that aligns with Institute needs. Fourth, the administration should establish an Advanced Manufacturing Office within the White House National Economic Council to coordinate and champion all of the above, as well as numerous other manufacturing programs.

## Challenge and Opportunity

The United States has failed for too long to understand that manufacturing is part of the innovation system. We thought that innovation was just about R&D, but we failed to consider that innovation in production is just as important. This led to the common belief that we can “innovate here but produce there”, which proved counterproductive.<sup>2</sup> Robust and flexible manufacturing capabilities are needed to bring theoretical innovations into reality. And where those capabilities exist, innovations will be implemented; if they don't, the innovation will either be implemented by others or die. Unfortunately, the growing weakness of U.S.

---

<sup>1</sup> JoeBiden.com. (n.d.). [The Biden Plan to Ensure the Future is “Made in All of America” by All of America’s Workers](#).

<sup>2</sup> Bonvillian, W.B.; Singer, P.L. (2018). *Advanced Manufacturing: The New American Innovation Policies*. MIT Press: 12, 37, 58.

manufacturing relative to manufacturing in competitor countries means that much of the economic gain and jobs from what we thought was our strong innovation culture are starting to shift abroad while vulnerabilities emerge at home.

While other nations have been systematically introducing productivity gains into manufacturing, the United States has sat idle. When Japan developed the quality-production revolution, we missed it. When Germany integrated its smaller and larger producers with its engineering schools — and then added regional production financing and an outstanding apprenticeship-training system into the mix — we missed it. And when China developed rapid, integrated, scale-up capacity across regional producers along with focused government support, we missed it. We thought production was moving overseas simply because other countries could offer lower wages. We didn't see the fundamental ways that these countries were focusing on their manufacturing *and* innovation systems.<sup>3</sup>

Our nation's import dependence has exploded as a result. The U.S. trade deficit in advanced technology goods, for instance, jumped from \$130 billion in 2019 to \$191 billion in 2020.<sup>4</sup> The U.S. invented semiconductors but now makes only 12% of them; a semiconductor shortage will cost U.S. automakers alone at least \$100 billion,<sup>5</sup> with corresponding job losses and consumer frustration.

The Biden-Harris administration has placed a major focus on domestic supply chains, trying to restore their resiliency and ensure access to American-made products — especially given the life-threatening supply shortages and supply-chain gaps that emerged during the pandemic. In June, the Administration released a major 100-day report proposing fixes in four supply areas.<sup>6</sup> But lurking behind the supply-chain problems the report identifies is a larger manufacturing challenge. Unless strong supply chains are buttressed and backed by a systematic domestic manufacturing strategy and related programs, industry will lack the innovation needed for long-term improvements.

Since their inception in 2012, the 16 manufacturing innovation institutes that comprise the Manufacturing USA network have aimed to fill a gap in the advanced-manufacturing commons — a gap precipitated by decades of outsourcing<sup>7</sup> that has depleted not just domestic production capacity but domestic innovation capacity as well. The Institutes, which operate at both national and regional levels, are intended to innovate in advanced manufacturing technologies through consortia of small and large firms, state and local government agencies, and education institutions. The hope was that Institute-facilitated advances in new production technologies and processes could help small and mid-sized companies compete at scale. The Institutes were also intended to serve as test beds for collaboration among larger firms, enable smaller tech innovators to prototype and share the costs of transitioning to new

<sup>3</sup> Bonvillian, W.B.; Singer, P.L. (2018). *Advanced Manufacturing*. 37–63.

<sup>4</sup> U.S. Census Bureau. (2021). [2021: U.S. trade in goods with Advanced Technology Products](#).

<sup>5</sup> Mitchell, J. (2021). [Biden's promising bid for strong supply chains risks falling short](#). Roll Call, July 6.

<sup>6</sup> The White House. (2021). [Fact Sheet: Biden-Harris Administration Announces Supply Chain Disruptions Task Force to Address Short-Term Supply Chain Discontinuities](#). June 8.

<sup>7</sup> Sargent Jr., John F. (2021). [Manufacturing USA: Advanced Manufacturing Institutes and Network](#). Congressional Research Service, R46703.

production paradigms, and train workers to use emerging and cutting-edge manufacturing technologies. With the help of the Manufacturing USA network, the United States wouldn't try to compete over low wages. Rather, it would apply its still-strong innovation capability to remain competitive through new productivity and efficiency gains.

The Institutes have had many successes to date<sup>8</sup> and the Manufacturing USA model has proven to be a sound one. Breakthrough advances in manufacturing require deep engagement from industry, university research, and state and federal government — a joint engagement that the Institutes sponsor. Individual companies are reluctant to pioneer production technologies because they can't easily recoup the cost of their investments; collaboration through a Manufacturing USA institute reduces the development risk. But the Institutes, which were initially conceived as short-term, five-year projects, have been too thinly capitalized to fully realize their missions. In a single advanced-technology area, for example, it can take at least five years to develop a transformative manufacturable process and another five to develop the new equipment and production capabilities to go with it, with sustained investment demanded throughout. It was never realistic to expect an Institute to achieve a manufacturing breakthrough in a single five-year term.

Because federal funding was to be phased out after five years, the Institutes have had to concentrate less on manufacturing innovation writ large and more on meeting the needs of large companies that can help sustain their technology development efforts. This large firm membership model in turn means institute programs and initiatives providing services for smaller manufacturers interested in adopting technologies and for upskilling for workers have tended to fall by the wayside. Larger firms can't justify these investments because they fall outside their own investment returns. And when a pipeline of skilled workers fades and supply chains of small and mid-sized manufacturers lack new manufacturing technologies and equipment, our nation's long-term capacity for innovative production shrinks.

Advanced manufacturing equipment problems have been particularly acute for smaller manufacturers.<sup>9</sup> Local banking relationships have largely been replaced with national banking models, making it harder for smaller firms to secure financing. Since the 1980s, the productivity of smaller firms has lagged further and further behind the productivity of larger firms. This productivity lag brings down the efficiency of the whole U.S. production chain.

Small and large firms alike need access to the new production equipment and technology that will enable advanced manufacturing. But several barriers lie in the way. First, industry acceptance of new technologies — and availability of financing to support those technologies — will be limited until and unless the efficiency and financial gains of new technologies are fully demonstrated. Second, worker training goes hand in hand with technology uptake. Manufacturers (especially small and mid-

---

<sup>8</sup> U.S. Department of Commerce. (2020). [Manufacturing USA Highlights Report](#). National Institute of Standards and Technology. December.

<sup>9</sup> Armstrong, B. (2021). [A Firm-level Study of Workforce Challenges at U.S. Manufacturers](#). MIT Work of the Future Working Paper 12-2021.

sized ones) typically will not train workers for new tasks until they have new equipment not just on order but physically on their shop floors — that's the moment when a training need hits and forces a response.<sup>10</sup> The catch is that without skilled employees, the new technologies are unusable. Small manufacturers often do not even recognize that they need to adopt those new technologies to remain competitive.

Addressing these issues as effectively and efficiently as possible will require improved coordination across the Manufacturing USA network and beyond. Manufacturing USA institutes today tend to operate in silos focused on particular types of technologies. But the factory of the future will need to combine a variety of advanced technologies, including data analytics, cybersecurity, artificial intelligence and machine learning, additive manufacturing and robotics, as well as application-specific technologies such as power electronics, advanced composites, flexible electronics, or photonics. Facilitating cross-network collaboration among institutes to support integrated technology deployment will unleash a new wave of resilience and competitiveness within the U.S. manufacturing sector.

The Manufacturing USA network must also better harness our nation's competitive R&D system. The United States is home to some of the strongest R&D agencies in the world. But these agencies focus almost exclusively on science and technology research, not on production advances. Other countries, including Japan, Germany, Korea, Taiwan, and China, are “manufacturing-led” — that is, they have innovation systems organized around production.<sup>11</sup> The United States, by contrast, is “R&D-led”. We as a nation need capabilities in manufacturing as well as R&D in order to be competitive. Congress is poised this fall to pass new R&D legislation that substantially increases support for research in AI, high-performance computing, advanced electronics, semiconductors, and other manufacturing-related technology areas. But unless this research is connected to follow-on work at the Manufacturing USA institutes, it will fall far short of its potential to transform domestic manufacturing. And without the manufacturing base, the U.S. will not be the technology implementer.

The U.S. manufacturing ecosystem faces immense challenges that require immediate attention. The Manufacturing USA institutes offer a pathway to solutions. The fundamental structure of the Institutes is sound. They bring together key actors (industry, including both large and small firms, education institutions, and state and local government) and cost-share federal funding to spread risks across sectors and justify external investments. But if the Institutes are to do all we are asking of them — to dramatically accelerate manufacturing technology, revive regional manufacturing ecosystems, bring small and mid-sized manufacturers into advanced manufacturing, and upskill the manufacturing workforce — then we must provide the support they need to deliver.

---

<sup>10</sup>Armstrong, B. (2021). *A Firm-Level Study*. 10–19.

<sup>11</sup> Bonvillian, W.B.; Singer, P.L. (2018). *Advanced Manufacturing*. 34–35.

## Plan of Action

This section presents a two-part strategy to strengthen the Manufacturing USA network and unlock the full potential of American manufacturing.

### **Part 1. Improve the existing Manufacturing USA institutes.**

The existing Manufacturing USA network should be strengthened to provide a strong foundation for future growth. Steps that the federal government can take towards this end include the following.

*Extend the terms of Manufacturing USA institutes through transparent and consistent formal evaluation processes.*

Assured support from mission-driven federal agencies is critical for the overall success of the Manufacturing USA network, but renewal of contracts for individual institutes should be performance-based and rooted in transparent and fair evaluation processes. Some federal agencies have already moved towards performance-based evaluation. The Department of Defense (DOD) commissioned the National Academies to develop evaluation standards and metrics for the Institutes it supports. The Department of Commerce's National Institute for Standards and Technology (NIST) has recently undertaken a similar evaluation effort. These approaches should be emulated by the Department of Energy (DOE), which is the third agency supporting Manufacturing USA institutes. DOE should extend the terms and support of Institutes that are performing well according to review criteria such as:<sup>12</sup>

- Do we still need it? Assess the long-term continuing need for the Institute and progress made on its designated technology area, including in the context of emerging agency and national priorities.
- Are there better alternatives? Evaluate the strengths and weakness of the Institute compared to alternative approaches (e.g., Federally Funded Research and Development Centers (FFRDCs), National Labs, other contractors, private-sector development, etc.).
- How well is it doing its job? Examine the performance of the Institute in meeting institute and agency priorities for developing and implementing technologies, bringing technologies into supply chains (including to smaller companies), improving production processes, fostering collaborations in regional ecosystems, and upskilling workforces.
- Is it making progress? Review trends in the annual operations and performance of the Institute to see whether it is effecting change (e.g., whether its advanced technology entering workplaces at an adequate pace).

---

<sup>12</sup> The National Academies of Science, Engineering and Medicine. (2021). [DoD Engagement with Its Manufacturing Innovation Institutes: Phase 2 Study Interim Report](#). Washington, DC: The National Academies Press.

It is also worth noting that NIST made a much larger commitment of core funding in extending its Institute than DOD is considering. DOD (and later DOE) should consider upping its funding commitment to high-performing Institutes.

*Promote adoption of new technologies among small and mid-sized manufacturers, including by working through the Manufacturing Extension Partnership (MEP) and new demonstration centers.*

The Manufacturing USA network should prioritize adoption of new manufacturing technologies among small and mid-sized firms. NIST's Manufacturing Extension Program (MEP) already reaches many small- and mid-sized firms with best manufacturing practices, so the Manufacturing USA institutes should collaborate with MEPs on reaching these firms with new manufacturing technologies. In other words, MEP can be a "last mile" technology-introduction program for the Institutes.

To further serve small and mid-sized manufacturers, Institutes need funding for more regional technology-demonstration centers — places where companies can see new technology prototypes and participate in demonstrations and tests. These centers can also serve as workforce-education facilities, training workers to use new equipment and processes. Without hands-on experience with new technologies, firms (especially smaller firms) will simply not adopt them. Most Institutes operate one technology-demonstration center, but manufacturing is location oriented. To engage more regional manufacturers, the Manufacturing USA institutes need more regional centers.

*Create programs that engage area firms, educational institutions, and state and local governments to bring new technologies into regional economies.*

Manufacturing USA Institutes serve a national need of nurturing new production technologies, but getting those technologies adopted means engaging with regional manufacturing ecosystems of larger firms and their smaller-firm supplier networks. Supply chains are only as strong as their weakest link. Advanced manufacturing must be integrated throughout the entire chain to realize its full benefits. For example, the "internet of things" promises new production efficiencies but only works well if all participants in a production process are connected. Protecting manufacturing supply chains against cyber assaults requires adoption of cybersecurity measures by all firms in the chain.

Manufacturing USA institutes can work up and down supply chains to connect different actors and help make manufacturing ecosystems work. During the early stages of the pandemic, for instance, the State of Massachusetts worked with the advanced fabrics manufacturing institute (Advanced Functional Fabrics of America, or AFFOA) as well as area companies and universities to rapidly switch existing production lines over to manufacturing personal protective equipment (PPE). From April 2020 through the end of the year, the collaboration produced more than nine million protective hospital gowns, three million N95 respirators, five million face



shields, and ten thousand ventilators that met exacting FDA standards.<sup>13</sup> This example shows how an Institute can engage with a regional ecosystem to help rapidly meet a critical manufacturing need, bringing new product lines to participating companies while doing so.

*Develop workforce-education programs tailored to different advanced manufacturing technology areas.*

New technologies that the Institutes produce will not be adopted unless workers are trained in the new skills needed to use them. But while educational institutions and employers educate for current manufacturing skills, curricula and programs for education and training in advanced manufacturing skills are few and far between. The Manufacturing USA institutes should work with employers, state and local economic-development and education agencies, and educational institutions (from colleges to community colleges to high schools) to fill this workforce-education gap. Specifically, the Manufacturing USA network should consider the following actions:<sup>14</sup>

- Develop, with the involvement of industry and educational institutions, a detailed set of knowledge, skill, and ability (KSA) elements and corresponding competencies in advanced technology areas.
- Systematically develop skill roadmaps that align with technology-development roadmaps for different technology areas.
- Use skill roadmaps to inform educational curricula and training materials tailored to different technology areas. Work with education and industry partners to implement the curricula and training as part of workforce-development initiatives.
- Create online education materials tailored to different technology areas. Make these materials fully accessible to industry and educational institutions.
- Evaluate existing, industry-approved credential offerings in different technology areas. Work with industry to fill credential gaps by either developing or applying industry-recognized credentials.
- Launch a major effort to “train the trainers” in new manufacturing technologies at educational institutions as well as in industry. Online education may be an efficient and scalable way to upskill workforce-education instructors.

The Manufacturing USA institutes will require additional core funding from their supporting federal agencies to pursue these actions because the large firms that provide ancillary support to the Institutes are not in a position to support workforce-education programs outside their own firm needs.

---

<sup>13</sup> Reynolds, E.; Trafficante, D.; Waldman-Brown, A. (2021). [Strengthening Manufacturing Innovation Ecosystems Before, During and After COVID: Lessons from Massachusetts](#). MIT Work of the Future Working Paper 11-2021.

<sup>14</sup> The National Academies of Science, Engineering and Medicine. (2021). *DoD Engagement*. Appendix C.

## **Part 2. Develop a coordinated strategy for collaboration among the Institutes.**

Agency and White House leadership will be needed to coordinate the intense planning, resource sharing, and strategic direction needed to unlock the full potential of American manufacturing. Steps that the federal government can take towards this end include the following.

*Fund a new program element within NIST's Advanced Manufacturing Office to combine Institute technology advances.*

Each existing Manufacturing USA institute is organized in silos around a particular technology area. That approach is necessary for focus on their technology development tasks. But firms need packages of technologies — additive *and* robotics *and* digital production — to realize the true potential of advanced manufacturing. This integration will require interoperable testing, demonstration, and feedback systems across the range of new advanced technologies. As indicated by the RAMI Act authorizing the Manufacturing USA program,<sup>15</sup> NIST could play a convening and support role, with the other institute-sponsoring agencies involved, and with an executive panel of institute directors. Combining institute technology advances and packaging it for firms will be key, but NIST must receive funding to fully deliver in this role.

*Establish a feeder system of manufacturing-related R&D that connects to the manufacturing Institutes.*

The Manufacturing USA institutes work at later-stage technology development levels (so-called technology readiness levels (TRLs)<sup>16</sup> 4 through 7), while most federal R&D agencies work at earlier levels (TRLs 1 through 3). An organized feeder system is needed to help move technologies from earlier stages at the agencies to later stages where the Institutes can pick them up. One way to facilitate this is by creating common technology-development roadmaps that federal agencies, Institutes, and Manufacturing USA industry members alike can follow. The White House Office of Science and Technology Policy (OSTP) has the role and is well-placed to set up task forces to create such roadmaps.

*Create an Advanced Manufacturing Office within the White House National Economic Council.*

Pending [bipartisan legislation](#) appreciates the need for adequate staff and budget to coordinate the numerous manufacturing-related programs that exist across the federal agencies. Manufacturing USA institute operations require much agency coordination, as will implementing the recommendations presented in this memo. Federal agencies also manage numerous additional manufacturing-related programs, including programs focused on R&D, procurement, workforce

---

<sup>15</sup> Congressional Research Service, Manufacturing USA, Advanced Manufacturing Institutes and Network (March 2021)

<sup>16</sup> National Aeronautics and Space Agency. (2012). [Technology Readiness Level](#).

# DAY ONE PROJECT

development, and trade. White House-level coordination is needed for these operations and programs to work as well and as efficiently as possible. An Advanced Manufacturing Office (AMO) should be created within the White House National Economic Council (NEC) to fill this role. While President Biden has emphasized manufacturing, this emphasis will not occur without a much better government-wide coordination mechanism at the top.

As previously stated, getting new production equipment and technology into use at both small and large firms is key to empowering U.S. manufacturers to compete and introduce advanced manufacturing at scale. The first step requires firm buy-in for the new technologies, which may not be readily available unless the efficiency and financial gains from the new technologies are fully demonstrated. One externality also relates to workforce training, where manufacturers, especially small- and mid-sized ones, typically will not train workers for new tasks until they have new equipment not just on order but on their shop floors. Yet without skilled employees to operate them, the new technologies are unusable, and the manufacturers will often not even recognize that they need it to stay competitive. This testing and demonstration role of the institutes can help realize those objectives. The next step is ensuring that firms have the financing they need to secure new technologies once they are ready to do so.

The AMO should fast-track a project to investigate creative financing mechanisms — such as low-interest lending, tax write-offs for new equipment, loan guarantees, and more — that can help manufacturing firms adopt new technologies. One possibility would be to extend authority of the EXIM Bank (which provides export financing) to this area. Senator Chris Coons is working on legislation to establish an Industrial Finance Corporation which could perform this role. Title 3 of the Defense Production Act, widely used in the pandemic to produce vaccines, is another option. Financing is particularly difficult for smaller firms.

Other nations have filled comparable financing gaps. Germany has local community-controlled banks that back local manufacturers. Israel subsidizes private-sector lending to new firms. The UK has a Business Bank with a Patient Capital Program, and Asian nations have systems for government support to industry. The AMO should explore how approaches of other nations could be adopted in the United States. The AMO should also explore how state-level programs in Massachusetts, Connecticut and Indiana for financing manufacturing equipment could be scaled out to other states and/or up to a national level. A menu of tax incentives could, as noted, also be considered; ideas range from vouchers for advanced manufacturing technologies, to new equipment loan guarantees, a more robust tax credit for advanced manufacturing equipment investment, or a competitiveness tax credit for manufacturers. The Biden administration is already looking at financing options to help meet national supply-chain needs. This evaluation should be expanded to include the related problem of financing advanced manufacturing technologies and equipment.

*Create a new analysis unit at NIST focused on manufacturing traded sector analysis.*

We as a nation are not tracking production advances being applied by international competitors. It took the United States years to understand the quality production system that Japan deployed in the 1970s and 80s that enabled its firms to capture automotive and consumer electronics markets, and U.S. oversight of competitors has not improved since then. We still know little, as a second example, about the regional production scale-up system China is applying. There is also a need for data tracking U.S. manufacturing performance against competitors.

A new manufacturing traded sector analysis unit at NIST should be established to evaluate the state of U.S. manufacturing competitiveness, including understanding key U.S. producers and suppliers, global market competitors, and global production trends. The unit would also develop measures for tracking manufacturing performance. Stephen Ezell of ITIF has developed a detailed proposal for such a unit.<sup>17</sup> As a brief summary, NIST, with support from the Economic Statistics Administration, the Bureau of Industry and Security, the International Trade Administration, and the Bureau of Economic Analysis, would create a new mechanism to comprehensively evaluate the state of U.S. manufacturing competitiveness, including understanding key U.S. producers and suppliers, global market competitors, global market share trends, product and market segments, external R&D and training factors, and key internal competitive elements like cost structures, product attributes, flexibility, speed to market, and innovation. The unit would place special focus on tracking specific technology developments — information that could inform national policy, R&D priorities, and Manufacturing USA initiatives.

---

<sup>17</sup> Ezell, S. (2020). [Policy Recommendations to Stimulate U.S. Manufacturing Innovation](#). Information Technology & Innovation Foundation.

## Frequently Asked Questions

### 1. Aren't actions already being taken to support Manufacturing USA?

Despite the importance of strengthening the Manufacturing USA institutes and extensive 2020 presidential campaign rhetoric about rebuilding American manufacturing, the follow-through hasn't occurred yet. DOD still plans to cut back its Institute funding: appropriations for its 9 institutes were \$164 million in FY21 but its institute budget is only \$97 million for FY22, and it remains at that level for the next four years.<sup>18</sup> The NIST<sup>19</sup> and DOE<sup>20</sup> budgets call for two new institutes each, but support for network programs across the institutes is unclear. R&D and manufacturing have been dropped from the bipartisan compromise package over the American Jobs Plan. The Senate's U.S. Innovation and Competition legislation<sup>21</sup> would have provided modest additional funding (\$1.2 billion over five years) for the institutes but the House version provided none.<sup>22</sup> This bill is now in conference but is an authorization not an appropriation, meaning that actual funding will require additional Congressional action.

### 2. How does U.S. support for advanced manufacturing compare to support in other countries?

The United States boasts a \$20 trillion economy but invests only \$480 million a year (total for both state and federal funds) in the Manufacturing USA institutes. This is an acute underinvestment compared to other nations. Germany, for instance, is a recognized manufacturing powerhouse that runs a massive trade surplus in manufactured goods (including with Asian nations) and pays much higher manufacturing wages than in the United States. Germany's Fraunhofer Institutes have 17,000 employees and an operating budget of around \$2 billion across 60 institutes and 80 research units.<sup>23</sup> The Manufacturing USA institutes were loosely modeled on the Fraunhofer institutes but have only a total of about two hundred employees across 16 centers, with about a quarter of the annual German Fraunhofer budget.<sup>24</sup> Germany's highly successful manufacturing system suggests that to scale up to meet rapidly oncoming manufacturing needs, further federal resources and an expanded vision for the Manufacturing USA institutes is needed.

<sup>18</sup> DOD, OSD ManTech FY22 budget, DMS&T FYDP, June 25, 2021.

<sup>19</sup> American Institute of Physics. (2021). [FY22 Budget Request: National Institute of Standards and Technology](#). June 9.

<sup>20</sup> American Institute of Physics. (2021). [FY22 Budget Request: DOE Applied Energy R&D](#). June 30.

<sup>21</sup> [S.1260 - United States Innovation and Competition Act of 2021](#).

<sup>22</sup> American Institute of Physics. (2021). [Halftime for R&D Push as Senate Passes Endless Frontier Bill](#). June 11.

<sup>23</sup> Bonvillian, W.B.; Singer, P.L. (2018). *Advanced Manufacturing*. 179.

<sup>24</sup> Gayle, F.W.; et al. (2021). [Manufacturing USA 2019/2020 Highlights Report](#). National Institute of Standards and Technology Advanced Manufacturing Series (NIST AMS). 600-6.

## About the Authors



**William B. Bonvillian** is a Lecturer at the Massachusetts Institute of Technology, teaching courses on innovation and on science and technology policy. He is a Senior Director at MIT's Office of Open Learning, conducting major research projects on workforce education. Previously, he was Director of MIT's Washington, D.C. Office between 2006 and 2017, supporting MIT's longstanding role on national science and technology policy. He was an advisor to MIT's Production in the Innovation Economy study issued in 2013, and participated for MIT in the President's industry-university Advanced Manufacturing Partnership and its reports of 2011 and 2014. Prior to MIT, he served for over fifteen years as a senior policy advisor in the U.S. Senate working on innovation issues.

## About the Day One Project



The Day One Project is dedicated to democratizing the policymaking process by working with new and expert voices across the science and technology community, helping to develop actionable policies that can improve the lives of all Americans, and readying them for Day One of the next presidential term. For more about the Day One Project, visit [dayoneproject.org](http://dayoneproject.org).

*The Day One Project offers a platform for ideas that represent a broad range of perspectives across S&T disciplines. The views and opinions expressed in this proposal are those of the author(s) and do not reflect the views and opinions of the Day One Project or its S&T Leadership Council.*

## RE: [EXTERNAL] Catch up week of 8/23?

---

**From:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**To:** Daniel Correa (b) (6)  
**Cc:** Andrew Sosanya (b) (6), Ishan Sharma (b) (6)  
**Date:** Sun, 15 Aug 2021 20:15:19 -0400

Dan, I'd love that! How about sometime 10-1 on 8/23, 8/26, or 8/27?  
Best wishes,  
Jason

**From:** Daniel Correa (b) (6)  
**Sent:** Friday, August 13, 2021 4:04 PM  
**To:** Matheny, Jason G. EOP/OSTP (b) (6)  
**Cc:** Andrew Sosanya (b) (6); Ishan Sharma (b) (6)  
**Subject:** [EXTERNAL] Catch up week of 8/23?

Hey Jason,

Happy Friday, hope you are well - it was great hearing you at the National Academies study committee earlier this week. Internet-willing, would love to catch up sometime week after next (8/23) if you have some time? Happy to help wherever we can - we have a host of ideas and places we're pushing :)

Thanks,  
Dan

--

(b) (6)

I hope you are doing well and are planning to take some time off as the summer nears! I wanted to reach out and see if there are any updates on your end regarding the pandemic forecasting priorities. We have continued to work on outlining both outbreak forecasting (pre-zoonotic spillover) data architectures and better decision support tools to optimize preparation and mitigation approaches; I'm aiming for a final briefing of our study in the next month or so and would be happy to share an update with you when we have it. Our hope is to solidify a little more internal funding (and start looking for external support) to explore specific AI tools and advanced models and it would be great to re-connect with you at some point to help us identify the most critical gaps that others aren't tackling (internal funds are competitive so great to tie proposals with clear needs and supporters). We've been talking with the IC, however we are still lacking the right connections at CDC to understand their needs. We've worked successfully with CDC on automatic exposure notification architectures but the team leads on that program aren't directly connected to branches responsible for pandemic forecasting and surveillance. I think you mentioned Dr. Jernigan might be the right POC; do you think he or a colleague might be willing to have a short conversation with us? We also welcome other suggestions.

Best,  
Christina

---

**From:** Schmoyer, Michael W. EOP/OSTP (b) (6)  
**Sent:** Thursday, April 1, 2021 12:18 PM  
**To:** Rudzinski, Christina - 0200 - MITLL (b) (6)  
**Cc:** Wack, Edward - 0200 - MITLL (b) (6)  
**Subject:** RE: question for you

How about 1:00? Give you some time for lunch after your preceding meeting

---

**From:** Rudzinski, Christina - 0200 - MITLL (b) (6)  
**Sent:** Thursday, April 1, 2021 12:15 PM  
**To:** Schmoyer, Michael W. EOP/OSTP (b) (6)  
**Cc:** Wack, Edward - 0200 - MITLL (b) (6)  
**Subject:** [EXTERNAL] RE: question for you

Hi again, unfortunately we're tied up in a Directors Office meeting in the AM. Does after noon work?  
Any time after 12 is fine.  
Thanks!



**From:** (b)(6) Sharma FAS  
**Sent:** Fri, 20 Aug 2021 08:39:14 -0500  
**To:** (b)(6) Sharma FAS; Andrew Sosanya; Khan, Saif M. EOP/NSC; Eric B; McGuire, Chris R. EOP/OSTP; Daniel Correa; Friedersdorf, Lisa E. EOP/OSTP  
**Subject:** [EXTERNAL] Updated invitation: Day One Project / Heterogeneous Computing @ Wed Sep 1, 2021 12:30pm - 1pm (EDT) (b) (6)  
**Attachments:** invite.ics

**This event has been changed.**

### Day One Project / Heterogeneous Computing

**When** **Changed:** Wed Sep 1, 2021 12:30pm – 1pm Eastern Time - New York

**Joining info** Join Zoom Meeting  
[us06web.zoom.us](#) (b) (6) passcode:  
(b) (6)

Join by phone  
(US) (b) (6)

[Joining instructions](#)

**Calendar** (b) (6)

- Who**
- (b)(6) Sharma FAS - organizer
  - Andrew Sosanya
  - Khan, Saif M. EOP/NSC
  - Eric B
  - McGuire, Chris R. EOP/OSTP
  - Daniel Correa
  - (b) (6)

[more details »](#)

Going (b) (6) ? [Yes](#) - [Maybe](#) - [No more options »](#)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account (b) (6) because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#)

**From:** Google Calendar on behalf of (b)(6) Sharma FAS  
**Sent:** Fri, 20 Aug 2021 08:38:33 -0500  
**To:** Andrew Sosanya;Khan, Saif M. EOP/NSC;Eric B;McGuire, Chris R. EOP/OSTP;Daniel Correa  
**Subject:** [EXTERNAL] Invitation: Day One Project / Heterogeneous Computing @ Wed Sep 1, 2021 1:30pm - 2pm (EDT) ((b) (6) )  
**Attachments:** invite.ics

**You have been invited to the following event.**

### Day One Project / Heterogeneous Computing

**When** Wed Sep 1, 2021 1:30pm – 2pm Eastern Time - New York

**Joining info** Join Zoom Meeting

[us06web.zoom](#) (b) (6)

Join by phone

(US) (b) (6)

[Joining instructions](#)

**Calendar** (b) (6)

**Who**

- (b)(6) Sharma FAS - organizer
- Andrew Sosanya
- Khan, Saif M. EOP/NSC
- Eric B
- McGuire, Chris R. EOP/OSTP
- Daniel Correa

[more details »](#)

Going (b) (6) ? [Yes](#) - [Maybe](#) - [No more options »](#)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account (b) (6) because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#)

**[EXTERNAL] Fwd: Introducing Mr. Koichi Akaishi, a senior officer in Cabinet Office of Japanese government**

---

**From:** Eric S Lander (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Date:** Sat, 04 Sep 2021 13:48:56 -0400

----- Forwarded message -----

**From:** Eric S Lander <(b) (6)>  
**Date:** Fri, Jan 22, 2021 at 2:02 PM  
**Subject:** Re: Introducing Mr. Koichi Akaishi, a senior officer in Cabinet Office of Japanese government  
**To:** (b) (6)

Dear Mr. Akaishi:

Thank you for your kind words.

I very much look forward to working with the Japanese Embassy to further our shared goals. However, it would be best for communication to come via official channels.

All the best,  
Eric

On Thu, Jan 21, 2021 at 3:53 AM (b) (6) > wrote:

Dear Dr. Lander, Kitano-san,

Kitano-san, thank you for introducing Dr. Lander.

Dr. Lander, congratulations for your appointment for a critically important post. This is Koichi Akaishi. I am in charge of overall STI policy in the Cabinet Secretariat, Japan.

We have read the letter sent to you from President Joe Biden, and we believe the agenda raised are very much similar to that of Japan.

Future cooperation agenda might include:

- Pandemic            joint research, random testing framework, desktop exercise for bio terrorism etc.,
- Climate change    joint research towards carbon neutral 2050 etc.,
- national security   treatment on sensitive technologies, classified research cooperation etc.
- others                digital, semiconductor, basic research, moonshot project, quantum, AI, etc...

Official diplomatic route is, of course, through Japanese Embassy in Washington and I believe they will ask your office for discussion.

I, however, would like to keep this unofficial route so that we, US and Japan, would be able to smoothly and efficiently promote our collaboration.

Very best,

Koichi Akaishi

Vice-Minister for Innovation Policy  
Cabinet Secretariat, JAPAN

-----Original Message-----

From: Hiroaki Kitano (b) (6)  
Sent: Wednesday, January 20, 2021 1:48 PM  
To: Eric Lander (b) (6)  
Cc: 赤石 浩一 ( 副長官補本室 ) (b) (6)  
Subject: Introducing Mr. Koichi Akaishi, a senior officer in Cabinet Office of Japanese government

Eric,

This is Hiroaki Kitano from Sony, we met in 2016 at Boston after your visit to Sony lab. in Tokyo

Congratulations for your new responsibility at the Biden Administration which is extremely important.

Reflecting your new role, I would like to introduce you Mr. Koichi Akaishi, who is a very senior

member of Cabinet office of Japanese government.

(Very senior in terms of importance of the position, not biological age, though)

Mr. Akaishi is one of most proactive officials in Japanese government covering science and technology policy, and last few year I was heavily involved in Japanese science policy as well as counter-COVID-19 actions and had great experience working with him.

Representing Japanese government, he is heavily interested in directly communicating with you and your team at OSTP@White House.

Of course, you would expect there will be contact through the official diplomatic channel, but it is always nice to have direct contact channels as well.

Akaishi-san — please follow up.

Eric, wish you have a very successful journey in your new responsibility.

Sincerely yours,

Hiroaki Kitano

President & CEO, Sony Computer Science Laboratories, Inc.

CEO, Sony AI, Inc.

President, Systems Biology Institute,

Professor, Okinawa Institute for Science and Technology Graduate School

> 2016/04/10 21:44、Eric Lander (b) (6) >のメール:

>

> Dear Hiroaki:

>

> It was a tremendous pleasure to meet you—and to learn about your work at Sony and in your biology group. (I look forward to learning more about Garuda.)

>

> Your range of interests and accomplishments is exciting and inspiring!

>  
> And, thank you for the superb lunch on Friday and dinner on Saturday.  
>  
> I very much look forward to staying in touch with you.  
>  
> I'm so glad that Joi introduced us!  
>  
> With warm wishes,  
>  
> Eric  
>

--



Eric Lander  
*President and Director*  
415 Main Street  
Cambridge MA 02142

(b) (6) [Redacted]  
[Redacted]

--



Eric Lander  
*Founding Director, Broad Institute of MIT and Harvard (on leave)*  
415 Main Street  
Cambridge MA 02142

(b) (6) [Redacted]  
[Redacted]

## RE: ZoomGov meeting invitation - Quantum Briefing

---

**From** "Matheny, Jason G. EOP/OSTP" (b) (6)

:

**To:** "Gingrich, Mary E. EOP/NSC" (b) (6), "Neuberger, Anne EOP/NSC"  
(b) (6), "Chhabra, Tarun EOP/NSC"  
(b) (6) "Tahan, Charles G. EOP/OSTP"  
(b) (6), "Seymour, Sezaneh M. EOP/NSC"  
(b) (6) >, "Neuberger, Anne EOP/NSC"  
(b) (6) (b) (6) Gabriela Ortiz  
(b) (6), Stefan Leichenauer (b) (6), "Seymour,  
Sezaneh M. EOP/NSC" (b) (6) >, "Gingrich, Mary E. EOP/NSC"  
(b) (6) "Tahan, Charles G. EOP/OSTP"  
(b) (6)

**Date:** Fri, 10 Sep 2021 11:09:02 -0400

Hi all, sorry for the confusion. Please use this link:

<https://pitc.zoomgov.com> (b) (6)

## [EXTERNAL] manifest for today

---

**From:** Jack Hidary (b) (6)

:

**To:** "Gingrich, Mary E. EOP/NSC" (b) (6)

**Cc:** Gabriela Ortiz (b) (6), Marc Manzano <(b) (6)>  
David Joseph (b) (6), "Matheny, Jason G. EOP/OSTP"  
(b) (6)

**Date:** Fri, 10 Sep 2021 10:04:32 -0400

hi Mary,

hope you are well. For today's call pls also include David and Marc of our team who are cc'ed here. Already mentioned it to Jason as well.

thx

Jack



## Re: [EXTERNAL] ideas for improving public access mandate tracking

---

**From:** Anurag Acharya (b) (6)  
:  
**To:** "Nelson, Alondra R. EOP/OSTP" (b) (6)  
**Cc:** "Sheehan, Jerry R. EOP/OSTP" (b) (6), "Donohue, Ryan C. EOP/OSTP" (b) (6), "Lo, Kevin C. EOP/OSTP" (b) (6)  
**Date:** Mon, 13 Sep 2021 01:08:33 -0400

Hi Alondra: thanks for getting back to me. I am looking forward to working together!

Will wait to hear from Ryan.

cheers,  
anurag

On Sun, Sep 12, 2021 at 12:58 PM Nelson, Alondra R. EOP/OSTP

(b) (6) wrote:

(Eric to Bcc; +Kevin Lo, fyi)

Greetings Anurag,

Thank you for the very generative meeting we had recently. And many thanks for taking the time to draft and share these helpful ideas for how we might work together to build processes and practices to track Federally-funded research publications, and make them widely accessible to the public.

We are still in the midst of some internal discussions about this. But we very much want to take you up on your offer to brainstorm again! Ryan will be in touch soon to set something up.

With our best wishes,

Alondra

**Alondra Nelson, Ph.D.**

Deputy Director for Science and Society  
Office of Science and Technology Policy  
Executive Office of the President

This email exchange is subject to the Freedom of Information Act.

**From:** Anurag Acharya <(b) (6)>  
**Sent:** Sunday, September 5, 2021 1:46 PM  
**To:** Lander, Eric S. EOP/OSTP (b) (6); Nelson, Alondra R. EOP/OSTP (b) (6); Sheehan, Jerry R. EOP/OSTP (b) (6); Donohue, Ryan C. EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] ideas for improving public access mandate tracking

Hi Eric, Alondra, Jerry & Ryan: It was great to get together and discuss possible opportunities for making federally funded research articles broadly available.

Eric & Alondra had asked me to write up a note summarizing and elaborating on our discussion about ideas to improve tracking for public access mandates. I have included the note below.

It starts with a brief overview of how Scholar's public access mandate tracker works and describes six ways to make the process more effective as well as to leverage Scholar's tracker to help with the overall goal of making funded articles publicly available.

- Making sure all available funding information for an article is included in indexing
  
- Making sure funding acknowledgements within papers can be reliably associated with the funding agency
  
- Identifying funded papers in which the authors possibly forgot to include a funding acknowledgement
  
- Leveraging the planned per-agency public access views in Scholar profiles to help drive deposits in agency repositories
  
- Making it easier for agencies to nudge authors to make funded papers publicly available
  
- Using the overall public access stats from Scholar indexing to help track goals for public access mandates.

I would love to brainstorm further and to work together on these and other possible ideas. Maybe we could get together on a follow up call?

As we had discussed, public access programs for research articles have the potential to help researchers everywhere work at a common frontier of science, to learn from and build on all that their peers have discovered. If we can realize the full potential of these programs, the impact on research progress would be huge.

cheers,  
anurag

---

**Brief overview of how Scholar's public access mandate tracking works:**

The Scholar indexing system extracts funding acknowledgements from fulltext of papers. It has comprehensive access to article fulltext from publishers & repositories worldwide. Papers from all fields and languages are included in the Scholar index. Scholar indexing maps the funding acknowledgements it sees in papers to agency level mandates and uses the publication date and the embargo period to determine when the paper should become available. For each Scholar Profile, it computes the list of mandated articles and the corresponding funding agencies. This is displayed as a part of public Scholar profiles (e.g., Prof Goodman's profile). Scholar also computes and makes available overall stats about availability of mandated articles at the agency level.

**Making sure all available funding information for an article is included in indexing:**

Sometimes, funded articles may not include a funding acknowledgement or the indexing system may not be able to identify it in the article text. In some of these cases, this information is available within agency repositories (eg PubMed Central, OSTI Pages, NSF PAR etc) - authors uploading their articles to the repository include the grant number, the funding agency and related information. However, this information is currently not available to the Scholar indexing system.

All funding agency repositories already include machine-readable bibliographic information in the article HTML for indexing purposes. Extending that to include funding information (eg grant number, funding agency, grant recipient etc) as well would be fairly easy and would allow all available funding information to be taken into consideration in the indexing process. There is a standardized format to include this information within papers which is already used by some publishers to communicate funding information captured as a part of their publishing process (for example, view the HTML source for this PNAS article and search for citation\_funding\_source). We

are discussing this approach with a few agencies. It would be great if all agency repositories would be able to include this information.

**Making sure funding acknowledgements within papers can be reliably associated with the funding agency:**

As we had discussed, authors can and do use a very large number of different ways to acknowledge funding organizations. For example, many authors end up acknowledging a specific program or division within a funding agency (eg "Division of Polar Programs") rather than the overall agency (eg "US National Science Foundation"). The diversity of the ways in which authors choose to name the funding source can make it hard for indexing systems to identify articles covered by a public access mandate. Which, in turn, can result in some funded articles being missed from the list of articles covered by a public access mandate.

One approach that would help avoid this is to explicitly specify a standard sentence/phrase to be used for funding acknowledgement in grant agreements as well as in guidance on funding agency/repository web sites. For example, "This work was funded by the US National Science Foundation under grant GRANT\_NUMBER". Many funding agencies have used this approach to good effect - for example, ZonMW (NL).

**Identifying funded papers that the authors possibly forgot to include a funding acknowledgement**

Sometimes funded articles don't include a funding acknowledgement at all. This can happen for several reasons, e.g., grad student submitting the paper may not know the funding acknowledgement to use, a multi-group paper written collaboratively can be unclear about project funding, sometimes authors just plain forget.

One approach that could help identify such papers would be to make basic funded project info - investigators, funding agency, funded institution, time period of the grant etc -- publicly available in a structured format (such as XML). Scholar indexing could include this information in its process

and could use it to add suggestions to add funding acknowledgements, where relevant, in the authors' Scholar profiles. This would help fill the gaps & make the list of funded articles comprehensive.

Several agencies like the NIH and NSF already make such structured datasets of funded projects publicly available. If such information would be available from other agencies, it would help identify missing papers from all areas. It is possible that, for some agencies, previous operational processes may make it hard to collect such information retrospectively. Even in such cases, making funded project info available for current and future projects would be impactful.

### **Leveraging the planned per-agency funding sections to help drive deposits in agency repositories**

As I had mentioned, we plan to add per-agency views of the public access mandates in Scholar Profiles. The view for NSF, for example, would list just articles funded by NSF and would consider only the articles with fulltext in PAR (NSF's repository) as being publicly available. Similarly for PubMed Central, DoE PAGES, USDA PubAg, DoT RosaP, DoD STI/PubDefense, and others. Currently, the public access pages suggest a set of different general approaches the author could use to make an article publicly available. For a per-agency view, this could be modified to display just the direct link to the corresponding agency repository's upload page - to help authors meet the agency's requirements and to help increase coverage of funded articles in agency repositories.

For this to work well, agency repositories would make their local copy of the article available for all uploaded articles. Currently, some agency repositories provide a local copy only if the article is not publicly available at the publisher web site. Expanding this to include a local copy for all uploaded articles (like PubMed Central does) would be key to making this approach be effective.

### **Making it easier for agencies to nudge authors to make funded papers publicly available**

The planned per-agency views of public access mandates in Scholar Profiles would provide a list of all articles funded by the agency and their access status. This interface would also allow authors

to export the list of funded articles for an agency along with the URLs for the public version if one is available. This could be used by funding agencies to as an inexpensive mechanism to track public access to funded papers as well as to nudge investigators to make all funded papers publicly available.

One approach would be to ask investigators to include the URL for the agency-specific view from their Scholar profile as a part of project reports/grant applications. Another approach would be to ask them to include the exported list of funded articles. As we had discussed, these would constitute a soft nudge approach to encouraging compliance with the public access policy without requiring substantial resources/cost from funding agencies. The effort for authors would be minimal since the lists of funded articles is automatically maintained.

**Using the overall public access stats from Scholar to help track goals for public access mandates.**

Scholar indexing computes and makes available overall stats about availability of mandated articles at the agency level. You can browse the overall list and see per year stats for some recent years. These stats are currently for all available versions for each article. When per-agency views are added, additional agency-specific stats that track only the versions in the agency's repository (eg, NSF funded articles with publicly available versions in PAR) would become available. With that, these stats would make it possible to view & track effectiveness of public access mandates. As we had discussed, this would make it possible to track top-level goals for public access mandates - for example, X% of all mandated funded articles be publicly available by year Y etc.

**From:** Google Calendar on behalf of "Pablo Chavez" (b) (6)  
**Sent:** Thu, 16 Sep 2021 07:37:14 -0500  
**To:** Gorman, Lindsay P. EOP/OSTP  
**Subject:** [EXTERNAL] Accepted: OSTP <--> Trusted Cloud @ Fri Sep 17, 2021 11am - 11:45am (EDT) (Gorman, Lindsay P. EOP/OSTP)  
**Attachments:** invite.ics

**Pablo Chavez has accepted this invitation.**

### OSTP <--> Trusted Cloud

**When** Fri Sep 17, 2021 11am – 11:45am Eastern Time - New York

**Where** ><https://pitc.zoomgov.com> (b) (6)  
([map](#))

**Calendar** Gorman, Lindsay P. EOP/OSTP

**Who**

- Gorman, Lindsay P. EOP/OSTP - organizer
- Pablo Chavez - creator
- Ben Gaffney:
- Hossein Nowbar:
- Hasan Ali :

><https://www.zoomgov.com> (b) (6)

Hi there,

Lindsay Gorman is inviting you to a scheduled ZoomGov meeting.

Join Zoom Meeting

One tap mobile:

US: (b) (6) or (b) (6) #

Meeting URL:

><https://pitc.zoomgov.com> (b) (6) <

Meeting ID:

(b) (6)

Passcode:

(b) (6)

Join by Telephone

For higher quality, dial a number based on your current location.



Dial:

US: (b) (6) or (b) (6) or (b) (6) or (b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

International numbers

Join from an H.323/SIP room system

H.323:

(b) (6) (US West)

(b) (6) (US East)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

SIP:

(b) (6)

Passcode:

(b) (6)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account (b) (6) because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).

## [EXTERNAL] Re: NSPM-33 Implementation Guidance

---

**From:** Maria Zuber (b) (6) >  
**To:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**Date:** Sun, 19 Sep 2021 19:07:26 -0400  
**Attachments:** smime.p7s (1.86 kB)

Hi Jason—

Got it, will review. Thanks for sharing this in confidence.

Maria

On Sep 19, 2021, at 6:42 PM, Matheny, Jason G. EOP/OSTP  
(b) (6) wrote:

Maria,

OSTP staff have completed a draft of the NSPM-33 Implementation Guidance, attached. I'd appreciate any edits or comments. This revision is due Sep 24.

With thanks,  
Jason

<NSPM-33 Implementation Guidance 20210917 CLEAN.docx>

---

Maria T. Zuber

Vice President for Research  
E.A. Griswold Professor of Geophysics  
Massachusetts Institute of Technology  
77 Massachusetts Avenue, 3-234  
Cambridge, MA 02139-4307  
Phone (b) (6)

><http://orgchart.mit.edu/vice-president-research><

Research Office:

Department of Earth, Atmospheric and Planetary Sciences

Massachusetts Institute of Technology

77 Massachusetts Avenue, 54-518

Cambridge, MA 02139-4307

Phone: (b) (6)

><http://www-geodyn.mit.edu><

Not all those who wander are lost.

-- J.R.R. Tolkien

---

## RE: Invitation for Eric Lander to Speak at AAAS S&T Policy Forum October 2021

---

**From:** "LaBovick, Hannah EOP/OSTP" (b) (6) >  
**To:** Joanne Carney (b) (6), "Sherman, Aaron B. EOP/OSTP" (b) (6), "Lo, Kevin C. EOP/OSTP" (b) (6), "Koizumi, Kei EOP/OSTP" (b) (6), "Kimmerling, Erica P. EOP/OSTP" (b) (6)  
**Cc:** Kate Stoll <(b) (6)> "Isler, Jedidah C. EOP/OSTP" (b) (6), "Ochoa, Jorge A. EOP/OSTP" (b) (6)  
**Date:** Fri, 24 Sep 2021 08:49:47 -0400  
**Attachments** Lander. OSTP Speaker and Media Release - AAAS S&T Forum 10.12.21.doc (38.4 kB)

Hi Joanne,

Quickly following up here regarding the Subject Release form you sent along. As OSTP staff, we cannot sign external release forms.

I have attached OSTP's speaker and media release form on behalf of Dr. Lander.

Please let me know if you need anything else.

Best,  
Hannah

---

**From:** Joanne Carney (b) (6)  
**Sent:** Friday, September 17, 2021 3:45 PM  
**To:** Sherman, Aaron B. EOP/OSTP (b) (6); Lo, Kevin C. EOP/OSTP (b) (6); Koizumi, Kei EOP/OSTP (b) (6); Kimmerling, Erica P. EOP/OSTP (b) (6)  
**Cc:** Kate Stoll (b) (6); Isler, Jedidah C. EOP/OSTP (b) (6); LaBovick, Hannah EOP/OSTP (b) (6); Ochoa, Jorge A. EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] RE: Invitation for Eric Lander to Speak at AAAS S&T Policy Forum October 2021

Dear Aaron,

First, no need to apologize (b) (6)

I am copying my colleague, Nicolle Rutledge, in this email as she works with the AV tech company that we use and to correct any errors on my part! The firm we use is APAV (All Pro Audiovisual) and they are building the S&T Policy Forum platform on the private AAAS Zoom Webinar account. We've used APAV the company for a number of years.

We are using a Zoom Webinar platform as it facilitates managing audio and visual of the audience, which is why you cannot see them. I've shared your email with Nicolle and she will reach out to APAV about whether they can create a separate platform for Drs. Lander and Nelson's session to allow for that interaction. A key question will be whether it will allow us to control audio so there aren't multiple people turning on audio at the same time. It may require the creation of a separate link from the regular S&T Forum link, but we will share what we learn.

For Q&A, we certainly will not seek input in advance and completely understand that will interfere with the flow and energy of the session. Much easier for us in any case!

We do record the sessions and then post them on the Forum archive some weeks after. I'm attaching a copy of the Subject Release form that we share with speakers. Let Nicolle or I know if there are any additional questions or concerns.

Also happy to brainstorm any other ideas as well!

Have a great weekend,

Joanne

---

**From:** Sherman, Aaron B. EOP/OSTP (b) (6)

**Sent:** Friday, September 17, 2021 1:24 PM

**To:** Joanne Carney (b) (6); Lo, Kevin C. EOP/OSTP (b) (6)  
Koizumi, Kei EOP/OSTP (b) (6); Kimmerling, Erica P. EOP/OSTP (b) (6)

**Cc:** Kate Stoll (b) (6); Isler, Jedidah C. EOP/OSTP (b) (6)  
LaBovick, Hannah EOP/OSTP (b) (6); Ochoa, Jorge A. EOP/OSTP (b) (6)

**Subject:** RE: Invitation for Eric Lander to Speak at AAAS S&T Policy Forum October 2021

[EXTERNAL EMAIL]

Hi Joanne, apologies for my delayed reply (b) (6). A few questions:

- Could you tell us more about the AV tech company/virtual platform that you all plan to use? We have some tech limitations at the White House regarding certain platforms we

- are/aren't able to use, and it would be helpful to understand what the logistical considerations and options might be as early as possible.
- I'm a little concerned about potentially not being able to "see" the audience as you describe it. Is there any way to solve around that problem? Dr. Lander gets a lot of energy from being able to see and respond to audiences, but perhaps more importantly, for the format we're proposing, we were deliberately envisioning that the audience's real-time contributions to the conversation would be based off what they just heard during the first 30-45 minutes – i.e., facilitating a genuine two-way engagement – instead of being solicited in advance. We really want the audience's inputs to be informed by what Dr. Lander and Dr. Nelson will talk about. In case any of this is confusing, I'm happy to hop on a call to discuss. Also happy to help brainstorm ways we might be able to make this work!
  - Are you planning to have this session recorded for subsequent use/publication?

Best,  
Aaron

---

**From:** Joanne Carney (b) (6)  
**Sent:** Wednesday, September 15, 2021 5:23 PM  
**To:** Sherman, Aaron B. EOP/OSTP (b) (6); Lo, Kevin C. EOP/OSTP (b) (6); Koizumi, Kei EOP/OSTP (b) (6); Kimmerling, Erica P. EOP/OSTP (b) (6)  
**Cc:** Kate Stoll (b) (6); Isler, Jedidah C. EOP/OSTP (b) (6); LaBovick, Hannah EOP/OSTP (b) (6); Ochoa, Jorge A. EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] RE: Invitation for Eric Lander to Speak at AAAS S&T Policy Forum October 2021

Hi Aaron,  
We love this idea and are always open to trying different formats, especially in a virtual world. Having both Drs. Lander and Nelson speak can reinforce the point that it takes a team of people with diverse backgrounds and experiences to promote innovation in science. The focus on the OSTP roundtables is timely.

I do not foresee the AV tech company having any problem with this format, except that we may not be able to "see" the audience. We may be able to canvas registrants to submit questions and ideas in advance to get a sense of the range of topics that could head our way. Look forward to working with you all on this event.

Regards,  
  
Joanne

---

**From:** Sherman, Aaron B. EOP/OSTP (b) (6)  
**Sent:** Wednesday, September 15, 2021 4:56 PM  
**To:** Joanne Carney (b) (6); Lo, Kevin C. EOP/OSTP (b) (6);  
Koizumi, Kei EOP/OSTP (b) (6); Kimmerling, Erica P. EOP/OSTP  
(b) (6) >  
**Cc:** Kate Stoll (b) (6); Isler, Jedidah C. EOP/OSTP (b) (6);  
LaBovick, Hannah EOP/OSTP (b) (6); Ochoa, Jorge A. EOP/OSTP  
(b) (6)  
**Subject:** RE: Invitation for Eric Lander to Speak at AAAS S&T Policy Forum October 2021

[EXTERNAL EMAIL]

Hi Joanne,

Apologies for the delay in getting back to you. Hope you're doing well.

Harkening back to our wonderful and wide-ranging conversation in July – when we discussed potential different formats, additional speakers, etc. – I was wondering if we might propose an alternative to the solo keynote idea.

Instead, we are thinking it might be most powerful for Dr. Lander to be joined by our Deputy Director for Science and Society, Dr. Alondra Nelson, and for the two of them to be “in conversation” with each other for the first 30-45 minutes or so (exact amount TBD), discussing OSTP’s [recent activities/learnings](#) and thinking forward on the topic of STEM equity/inclusion. Then, for the balance of the hour, they would open up the conversation to members of the audience – inviting audience members to join the conversation and participate live, not only by sharing their perspectives but also by sharing advice, policy ideas, etc., which we hope will inform our work and plans on these issues. We’ve discussed this idea with Dr. Lander and Dr. Nelson and they’re both excited about it! (NB: I know this is different from a typical “fireside chat with audience Q&A” format, but we’ve tried to be proactively inclusive and intentional about engaging with and hearing from both experienced and emerging thought leaders as our work develops on this, and we think this format would be a great way to carry that model forward into the S&T Policy Forum.) Let us know what you think?

I believe the same day/timeframe you originally proposed (Oct. 12, 12:30pm-1:30pm) should still work for both of their calendars, but I’m cc’ing my colleagues Hannah and Jorge in case there are any changes.

Thanks so much,  
Aaron

Aaron Sherman (*he/him*)  
Senior Advisor for Speechwriting and Strategic Communications  
Office of Science and Technology Policy  
Executive Office of the President

(b) (6)

---

**From:** Joanne Carney (b) (6)  
**Sent:** Thursday, September 9, 2021 4:25 PM  
**To:** Sherman, Aaron B. EOP/OSTP (b) (6); Lo, Kevin C. EOP/OSTP (b) (6); Koizumi, Kei EOP/OSTP (b) (6); Kimmerling, Erica P. EOP/OSTP (b) (6)  
**Cc:** Kate Stoll (b) (6)  
**Subject:** [EXTERNAL] RE: Invitation for Eric Lander to Speak at AAAS S&T Policy Forum October 2021

Hi Aaron and Kevin,  
I am following up from our earlier conversation in July to verify and finalize Dr. Lander's participation at the AAAS S&T Policy Forum. I know he has many demands and we look forward to his participation as his schedule allows. I've attached the latest draft of the agenda for the S&T Policy Forum and I think you will find that the sessions will address an interesting set of issues related to the importance of DEI to drive innovation.

We do plan to begin sharing publicly just the confirmed portions of the agenda. Happy to get on another call to discuss any questions you may have.

Regards,  
Joanne

Joanne Padrón Carney (*she/her*)  
Chief Government Relations Officer  
American Association for the Advancement of Science  
1200 New York Avenue, NW | Washington, DC 20005 USA

(b) (6) cell: (b) (6)

(b) (6) | >>>[www.aaas.org](http://www.aaas.org)<<<; | >>>[www.sciencemag.org](http://www.sciencemag.org)<<<;





On Thu, Jul 8, 2021 at 2:33 PM Mary Maxon (b) (6) wrote:

Sounds good! Thanks!

Copying Kate Stoll (COSEPP Vice Chair) and Joanne Carney (AAAS Head of Govt Relations) and Michael Espinosa (Berkeley Lab) for scheduling.

Looking forward to it!

-Mary

---

Mary E. Maxon, Ph.D. (She/Her/Hers)

Associate Laboratory Director for Biosciences  
Lawrence Berkeley National Laboratory  
(b) (6) (mobile)

For scheduling, please contact Michael Espinosa (b) (6) (b) (6)

On Thu, Jul 8, 2021 at 1:48 PM Sherman, Aaron B. EOP/OSTP

(b) (6) wrote:

Thanks Kevin for the introduction – and hello Mary, very glad to be connected.

I wonder if we could schedule a call sometime next week or the week after to chat more about the forum and what might be possible regarding Dr. Lander's participation. Happy to do so at your convenience, if you wouldn't mind suggesting a few days/timeframes that might work for you?

I'm also cc'ing my colleague Erica Kimmerling, who would join the call as well.

Thanks so much,  
Aaron

Aaron Sherman (*he/him*)  
Speechwriter  
Office of Science and Technology Policy  
Executive Office of the President

(b) (6)

**From:** Mary Maxon (b) (6)  
**Sent:** Wednesday, July 7, 2021 9:51 PM  
**To:** Lo, Kevin C. EOP/OSTP (b) (6)  
**Cc:** Koizumi, Kei EOP/OSTP (b) (6); Sherman, Aaron B. EOP/OSTP (b) (6)  
**Subject:** Re: Invitation for Eric Lander to Speak at AAAS S&T Policy Forum October 2021

Fantastic! Looking forward to nailing down details. Thanks for the great news!!  
-Mary

On Wed, Jul 7, 2021 at 4:26 PM Lo, Kevin C. EOP/OSTP (b) (6) > wrote:

Dear Dr. Maxon:

I hope this note finds you well! My name is Kevin Lo, and I'm a special assistant at OSTP.

I wanted to reach out and tentatively accept your kind invitation for Dr. Lander to speak at the AAAS forum in October. We are finalizing our schedule so we aren't able to fully confirm yet, but in the meantime, I wanted to connect you with our speechwriter, Aaron Sherman, who has a few questions regarding the event.

With best wishes,  
Kevin

Kevin Lo (*he/him*)  
Special Assistant  
Office of Science and Technology Policy  
Executive Office of the President

(b) (6)

Cell: (b) (6)

--

---

Mary E. Maxon, Ph.D. (She/Her/Hers)

Associate Laboratory Director for Biosciences  
Lawrence Berkeley National Laboratory  
(b) (6) (mobile)

For scheduling, please contact Michael Espinosa (b) (6) (b) (6)

EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF SCIENCE AND TECHNOLOGY POLICY  
WASHINGTON, D.C. 20502

9/24/2021

American Association for the Advancement of Science

To Whom It May Concern,

I am writing to you regarding your request for a speaker release for my participation in and remarks at the AAAS S&T Policy Forum on October 12<sup>th</sup>, 2021 (“Event”).

Through this letter, the Office of Science and Technology Policy (OSTP) hereby provides the American Association for the Advancement of Science (“Event Sponsor”) with non-exclusive and royalty-free permission to reproduce my remarks, PowerPoint slides (if applicable), and participation in the Event in any and all media and manner, now or hereafter known, worldwide, in perpetuity. OSTP also grants the Event Sponsor perpetual and worldwide non-exclusive permission to broadcast and reproduce my appearance and participation in the Event for educational and non-commercial purposes in any and all media and manner, now or hereafter known. This permission is not transferable or assignable.

The Event Sponsor may not, however, use my name, likeness, voice, title or biographical information inconsistent with 5 C.F.R. § 2635.701 (regulating use of official time), 5 C.F.R. § 2635.702 (regulating use of public office for private gain), 5 C.F.R. § 2635.704 (regulating use of government property), and 5 C.F.R. § 2635.808 (regulating Federal employee participation in fundraising activities), or in connection with commercial, marketing, or fundraising purposes that the Event Sponsor may undertake without separate and prior written permission for each use or purpose. The Event Sponsor may use my likeness and official title to advertise the Event, but may not otherwise use or reference my official title or position to serve as an endorsement of the Event Sponsor and its programs and products.

This letter agreement is the complete and binding agreement between myself and the Event Sponsor and supersedes all prior understandings and/or communications, both oral and written, with respect to its subject matter. This letter agreement may only be modified or amended in writing upon the written request of either party and with the concurrence of the other party. The grant of permission to the Event Sponsor provided in this letter agreement will become effective on the date of the signature herein and will remain in effect in perpetuity.

If you have any questions regarding this matter, please contact Rachel Wallace, OSTP General Counsel, at (b) (6) Thank you.

Sincerely,

Eric Lander  
Director,  
Office of Science and Technology Policy

# [EXTERNAL] RE: MIT course: Intro to AI for National Security Leader

---

**From:** "Bond, Robert - 0009 - MITLL" (b) (6)  
**To:** (b) (6)  
**Cc:** "Matheny, Jason G. EOP/OSTP" (b) (6) >  
**Date:** Mon, 04 Oct 2021 11:05:23 -0400  
**Attachments:** 522445\_AI\_Event\_Packet 9-28-2021.pdf (207.1 kB); smime.p7s (5.65 kB)

Hi Matt!,

In my enthusiasm to get in touch with you and Jason, I sent Jason's invitation to you (and to Jason - at least I got that part right). 😊

In a nutshell, I would love it if you also could be a panel member. I will repeat the offer below. We are hoping to have a powerhouse panel.

I want to let you know about the upcoming MIT on-campus course: *Intro to AI for National Security Leaders* (see attached draft brochure.) I am hoping you will agree to be a panel member for the Day 1 panel on *AI and Internal Competition*.

The first iteration of this course will be for Air Force leadership (mostly) - one and two star generals and some SES folks. We will be refining and repeating the course for others in the DoD in subsequent iterations, and MIT is planning to roll out a series of other courses that drill down into and amplify the topics covered in this 2 day (optional 3rd day) executive course.

I think your participation on the panel would be fabulous, and the topic area (more to follow on details) is right up your alley. Of course, we are happy to pay travel expenses, and can also offer a small stipend.

Please let me know if you are interested.

Sincerely and Cheers,

Bob Bond

# Introduction to Artificial Intelligence for National Security Leaders

Gain the knowledge and confidence to lead  
the successful integration of AI into national security

An Executive Short Course

by

MIT Lincoln Laboratory

MIT Schwarzman College of Computing

MIT Artificial Intelligence and Computer Science Laboratory (CSAIL)

MIT Department of Electrical Engineering and Computer Science



Sponsored by  
The United States Department of the Air Force Artificial Intelligence Accelerator



# OVERVIEW

---

## Introduction

Artificial Intelligence (AI) technologies promise to be the most powerful tools in generations for expanding knowledge, increasing prosperity, and enriching the human experience. The technologies will be the foundation of the innovation economy and a source of enormous power for countries that harness them. AI will fuel competition between governments and companies racing to field it. And it will be employed by nation-states to pursue their strategic ambitions (NSCAI report, March 2021).

Informed senior leaders will lead the change necessary to help manifest the promise of AI for the Department of Defense (DoD) and transform how we defend the nation and its strategic goals. In order to inform senior leaders in their goal of seizing the strategic advantage with AI Technologies, Massachusetts Institute of Technology (MIT) will develop and deliver a custom training in AI for national defense tailored for DoD senior leaders.

MIT is dedicated to advancing knowledge and providing education in technology, science, and other academic disciplines. It has strong expertise in this domain and has the ability to deliver scalable educational solutions to audiences through in-person, digital, live-virtual, and hybrid programs. MIT will deliver AI training that connects AI concepts to the DoD's missions and frame AI-driven changes in the context of the competitive national security environment through the partnership between MIT campus and MIT Lincoln Laboratory.

The Introduction to Artificial Intelligence for National Security Leaders training is a two-day course, with an additional optional half-day at MIT Lincoln Laboratory that showcases AI applications in selected mission areas.

The inaugural course is planned for the fall of 2021. Course participants receive a certificate upon completion.

## Learning Objectives

The objective of this custom program in AI for national security is to provide DoD senior leaders with a foundational understanding of AI, what AI means for national security, and how to take advantage of AI. With a focus on the organizational and managerial implications of these technologies, grounded in the technical aspects, participants leave this program armed with the knowledge they need to lead the successful integration of AI into national security.

# DAY 1: AI Foundations

---

## 0830 – 0900 Welcome and Introductions

## 0900 – 1000 Introduction to Artificial Intelligence

Introduce the history of AI and its disciplines: AI, machine learning, and robotics will be presented in the context of various application areas. The general technical approaches to AI are used to highlight challenges and opportunities. The successes and failures of AI, everyday life examples, and current use by companies today will be showcased.

## 1000 – 1100 AI for National Security

Discuss the relevance of AI to national security missions and its associated challenges. Unique challenges faced by DoD, along with near-term examples of AI applications readily available, and the investments needed to stay ahead will be told through the lens of the international landscape by highlighting AI in China and Russia.

## 1100 – 1230 Technical Basics for AI

Introduce the main concepts and techniques responsible for the recent advances in AI for computer vision, natural language processing, and speech processing at a level accessible to non-experts. Topics will include classification, neural networks, supervised, unsupervised, and reinforcement learning, generalization and overfitting, and how their uses apply to real-world examples.

## 1230 – 1330 Lunch

Invited panel or talk on national security/international competition.

## 1330 – 1430 Human-Machine Teams

Design of AI should start with understanding the role of AI applications in improving and transforming current workflows. This session will discuss the relationship and differences between AI and automation, how machines can augment human performance for certain tasks, and how machines can collaborate with humans. Many examples of effective human-machine teaming concepts will be showcased throughout.

## 1430 – 1530 Responsible AI and Ethics

Progress in AI brings more capable systems and benefits, but also risks, and the potential for ethical abuse looms greatly. The United States needs to lead by example on the ethical and responsible use of AI. These issues will be explored, and we will discuss practical approaches throughout the AI lifecycle.

## 1530 – 1630 Case Studies

Case studies will be shared to provide concrete examples of AI applications for National Security.

- Logistics and operations
- Autonomous systems
- Decision-making

## 1830 – 2030 Dinner with Invited Guests

Cocktail hour and dinner. Consists of a meet and greet with faculty and various nationally renowned leaders in the field of AI alongside a keynote speech.



## DAY 2: Making AI Actionable

---

### 0830 – 0900 Welcome, Recap, and Day Ahead

### 0900 – 1000 Building an AI-Ready Data Enterprise

Key elements of data management, security, data ontologies, big data management systems, data warehouses, data lakes, and operational data stores will be discussed alongside common industry and DoD best practices for making data AI-ready.

### 1000 – 1100 Engineering and Fielding AI Systems

Introduce participants to the key elements of the canonical AI Stack, AI Infrastructure needs, and agile development. Various approaches to development and delivery will be discussed through common industry practices. Challenges in testing and evaluation, bias, verification and validation, and red teaming exercises will be practically presented.

### 1100 – 1200 Building and Retaining an AI-Ready Workforce

Discussion on building an AI-ready workforce, best practices, and how to leverage the skillsets needed through retention and current workforce upskilling.

### 1200 – 1300 Lunch

Invited guest speaker on leadership and business management.

### 1300 – 1400 Envisioning and Managing AI Projects

Introduce the learners to the AI development lifecycle, with special focus on problem definition and framing the problem with a machine learning perspective. Introduction to MLOps and agile development processes. Case study on how to make AI actionable in your organization.

### 1400 – 1630 Blueprints for Action

Hands-on activity: *“What are you going to specifically do in your organization to make AI actionable?”* In small groups, we will use our worksheet to identify key mission problems/goals and discuss suitability of AI applications as solutions. Facilitate creation of AI development plan for suitable areas of interest to participants. Groups will brief/talk through the plans with curated practitioners at the table helping them through the process with standard worksheet templates to take home. *All participants will leave with an action plan to address an AI challenge within their discipline.*

### 1830 – 2030 Dinner: A Perspective on AI for National Security

Cocktail hour and dinner. Gen Wilson, MIT, MIT Lincoln Laboratory, United States Air Force AIA members, and other invited leaders will lead open discussions on AI.

## DAY 3 (optional)

---

### 0830 – 1330 AI Applications for National Security

The session will present AI applications, case studies, and roadmaps for the selected mission areas listed below. These presentations and discussions will be held in a classified setting at MIT Lincoln Laboratory. Bus transportation will be provided between MIT campus and MIT Lincoln Laboratory.

- Space systems and technology, cybersecurity, ISR systems and technology, air, missile, and maritime defense technology

**From:** Google Calendar on behalf of "Pablo Chavez" (b) (6)  
**Sent:** Fri, 8 Oct 2021 20:19:38 -0500  
**To:** Gorman, Lindsay P. EOP/OSTP  
**Subject:** [EXTERNAL] Accepted: Trusted Cloud <--> Summit for Democracy @ Tue Oct 12, 2021 11:15am - 11:45am (EDT) (Gorman, Lindsay P. EOP/OSTP)  
**Attachments:** invite.ics

**Pablo Chavez has accepted this invitation.**

### Trusted Cloud <--> Summit for Democracy

**When** Tue Oct 12, 2021 11:15am – 11:45am Eastern Time - New York

**Where** ><https://pitc.zoomgov.com/>(b) (6)  
([map](#))

**Calendar** Gorman, Lindsay P. EOP/OSTP

- Who**
- Gorman, Lindsay P. EOP/OSTP - organizer
  - Pablo Chavez - creator
  - (b) (6)
  - Gaffney, Ben
  - Hossein Nowbar (CELA)
  - Angha, Negah EOP/NSC
  - siegeljo
  - C.J. Mahoney (CELA)
  - 'Hasan Ali (CELA)'

><https://www.zoomgov.com/>(b) (6)

Hi there,

Lindsay Gorman is inviting you to a scheduled ZoomGov meeting.

Join Zoom Meeting

One tap mobile:

US: (b) (6) or (b) (6)

Meeting URL:

><https://pitc.zoomgov.com/>(b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

Join by Telephone

For higher quality, dial a number based on your current location.

Dial:

US: (b) (6) or (b) (6) or (b) (6) or (b) (6)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

International numbers

Join from an H.323/SIP room system

H.323:

(b) (6) (US West)

(b) (6) (US East)

Meeting ID:

(b) (6)

Passcode:

(b) (6)

SIP:

(b) (6)

Passcode:

(b) (6)

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account (b) (6) because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).

## [EXTERNAL] RE: Trusted Cloud Principles - Status Update & Next Steps

---

**From:** Hasan Ali (CELA) (b) (6) >  
:  
**To:** "Gorman, Lindsay P. EOP/OSTP" (b) (6), "Angha, Negah EOP/NSC" <(b) (6)>  
**Cc:** Hossein Nowbar (CELA) (b) (6) >, C.J. Mahoney (CELA) (b) (6) "Gaffney, Ben" (b) (6) >, siegeljo (b) (6), Pablo Chavez (b) (6) (b) (6)  
**Date:** Fri, 08 Oct 2021 12:02:55 -0400

Hi Lindsay,

That sounds great. Would Tuesday between 10:30-12pm EST work on your side?

Best,

**Hasan Ali**  
Assistant General Counsel  
Strategic Projects & Cloud Initiatives | Microsoft  
(b) (6) (office) (b) (6) (mobile)  
(b) (6)



---

**From:** Gorman, Lindsay P. EOP/OSTP (b) (6)  
**Sent:** Thursday, October 7, 2021 11:30 AM  
**To:** Hasan Ali (CELA) (b) (6) >; Angha, Negah EOP/NSC (b) (6)  
**Cc:** Hossein Nowbar (CELA) (b) (6); C.J. Mahoney (CELA) (b) (6); Gaffney, Ben (b) (6) siegeljo (b) (6); Pablo Chavez (b) (6); (b) (6)  
**Subject:** [EXTERNAL] RE: Trusted Cloud Principles - Status Update & Next Steps

Ali & Team,

Congratulations on the successful launch! It's great to see the expanding breadth of partners on this initiative – awesome work. And thank you for sending over this proposal. It would be great to link up early next week to talk through these ideas as well as some of the feedback we've gotten from colleagues on the principles.

How does Tuesday or Wednesday morning look on your end?

All the best,

Lindsay

---

**From:** Hasan Ali (CELA) (b) (6)  
**Sent:** Wednesday, September 29, 2021 11:18 AM  
**To:** Gorman, Lindsay P. EOP/OSTP (b) (6); Angha, Negah EOP/NSC (b) (6) >  
**Cc:** Hossein Nowbar (CELA) (b) (6); C.J. Mahoney (CELA) (b) (6); Gaffney, Ben (b) (6) siegeljo (b) (6); Pablo Chavez (b) (6); (b) (6)  
**Subject:** [EXTERNAL] Trusted Cloud Principles - Status Update & Next Steps

Lindsay & Negah,

Hope you both are well. Thank you again for meeting with us last week. Your feedback on our effort was very helpful and we were excited to hear about your initial plans for the Summit for Democracy. It was also great to hear that our project aligns with your efforts in this area.

Following our conversation, we spent some time putting together options that would support the Summit for Democracy and also amplify the shared human rights commitments that are incorporated into the Trusted Cloud Principles. We want to give you an update on our announcement plans and also propose how the Trusted Cloud Principles could integrate into the Summit workstreams. More information below.

**1. Trusted Cloud Principles Announcement (September 30):**

- On September 30 @ 6am PST, Amazon, Google and Microsoft will announce the Trusted Cloud Principles with Atlassian, IBM, Cisco, SAP, and Salesforce+Slack as launch partners. Since our call, SAP has joined as a launch partner. This now adds a Europe-based company to the initiative.
- The announcement will be supported by the launch of a dedicated website (>>[www.trustedcloudprinciples.com](http://www.trustedcloudprinciples.com)<<.) that details the principles in full and invites other companies to join as signatories.
- Prior to the announcement, we will pre-brief stakeholders from the human rights community that provided input and consultation earlier in the year.

**2. Post-Announcement (October & November):**

- We will continue our effort to recruit additional signatories and supporters, with an emphasis on companies outside the United States (Europe and rest of world). We would of course welcome recommendations from the White House on specific entities or governments we should approach.
- As we get closer to the Summit, we envision a possible second announcement that the Trusted Cloud Principles will be featured at the Summit for Democracy. For this announcement, we would want to coordinate with you and may request a quote or endorsement from the White House.

**3. Summit for Democracy Proposal (December 8-10):**

- Day-Zero Event: We could organize an “on-site” event that discusses expanding cloud services, human rights, and new government access norms.
- Formal Summit: We would ask you to consider a roundtable event on the Summit agenda for the Trusted Cloud Principles. This could include representatives from the companies, interested governments, and civil society. It could be moderated by an influential outside voice familiar with these issues.
- Summit Collateral: We would ask (1) for the Trusted Cloud Principles to be featured in Summit collateral; and (2) that you consider including the Trusted Cloud Principles in any formal Summit commitments that result from the event.

We would like to schedule time to discuss this with you and align planning for December. Please let us know when works for you both.

Best,

**Hasan Ali**  
Assistant General Counsel  
Strategic Projects & Cloud Initiatives | Microsoft  
(b) (6) office) (b) (6) (mobile)  
(b) (6)



**[WARNING: UNSCANNABLE EXTRACTION  
FAILED][EXTERNAL] Re: Press inquiry**

---

**From:** Melanie Kaplan <(b) (6)>  
**To:** "Krieger, Julia N. EOP/OSTP" (b) (6)  
**Date:** Thu, 04 Nov 2021 14:52:25 -0400  
**Attachments:** smime.p7s (1.86 kB)

Hi Julia!

Apologies for just now replying—I've been busy planning a reporting trip. I'd love to chat about this on background. I'm free now or tomorrow except 1130-1230 ET. Either work for you? Thanks!

Melanie

**Melanie D.G. Kaplan**

2021 Project Fellow  
MIT Knight Science Journalism Program  
(b) (6) [melaniemdgkaplan.com](mailto:melaniemdgkaplan.com)

On Oct 23, 2021, at 17:49, Krieger, Julia N. EOP/OSTP (b) (6) > wrote:

Thanks, Amanda, for connecting!

Melanie – I'll be happy to help with your APRA-H related questions. If you have a few minutes to chat early next week, please feel free to call at your convenience: (b) (6).

Best,  
Julia

**Julia Krieger**  
Communications Director  
Office of Science and Technology Policy  
Executive Office of the President  
(b) (6)

(b) (6)

---

**From:** Fine, Amanda (NIH/OD) [E] <[amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)>

**Sent:** Thursday, October 21, 2021 12:01 PM

**To:** Melanie Kaplan (b) (6)

**Cc:** Myles, Renate (NIH/OD) [E] <[mylesr@mail.nih.gov](mailto:mylesr@mail.nih.gov)>; Wojtowicz, Emma (NIH/OD) [E] <[emma.wojtowicz@nih.gov](mailto:emma.wojtowicz@nih.gov)>; Krieger, Julia N. EOP/OSTP (b) (6)

**Subject:** RE: Press inquiry

Thanks, Melanie.

I think that is best answered by our colleague Julia from White House Office of Science and Technology Policy, copied here.

Best,  
Amanda

---

**From:** Melanie Kaplan (b) (6)

**Sent:** Thursday, October 21, 2021 11:53 AM

**To:** Fine, Amanda (NIH/OD) [E] <[amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)>

**Cc:** Myles, Renate (NIH/OD) [E] <[mylesr@mail.nih.gov](mailto:mylesr@mail.nih.gov)>; Wojtowicz, Emma (NIH/OD) [E] <[emma.wojtowicz@nih.gov](mailto:emma.wojtowicz@nih.gov)>; Krieger, Julia N. EOP/OSTP (b) (6)

**Subject:** Re: Press inquiry

Thanks, Amanda,

I'm working on a book about animal research and my beagle, who spent four years in a lab, and wondering about how to keep up with the news/information about ARPA-H and who would be the best contact should I have specific questions or want to set up an interview. I'm in the early stages of research and wouldn't be publishing anything for some time.

Best,  
Melanie

**Melanie D.G. Kaplan**

2021 Project Fellow

MIT Knight Science Journalism Program

 [melaniedgkaplan.com](http://melaniedgkaplan.com)



On Oct 21, 2021, at 11:04, Fine, Amanda (NIH/OD) [E] <[amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)> wrote:

Hi Melanie-

Depends on the inquiry. Can you tell me more about the inquiry? Looping in others as well.

Thanks,  
Amanda

**Amanda Fine**  
Chief, News Media Branch  
National Institutes of Health  
Tel: (b) (6)  
Email: [amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)  
Web: >><http://www.nih.gov><< [\[nih.gov\]](http://nih.gov)

**NIH . . . *Turning Discovery Into Health***

<image001.png>

---

**From:** Melanie Kaplan (b) (6)  
**Sent:** Thursday, October 21, 2021 10:55 AM  
**To:** Fine, Amanda (NIH/OD) [E] <[amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)>  
**Subject:** Press inquiry

Hi Amanda,

Do you handle media inquiries for ARPA-H? Thanks!

Best,

Melanie

**Melanie D.C. Kaplan**  
2021 Project Fellow  
MIT Knight Science Journalism Program  
(b) (6) | [melaniedgkaplan.com](http://melaniedgkaplan.com)

**[EXTERNAL] Boston Globe on need to reform local public health boards**

---

**From:** Maria Zuber (b) (6)  
**To:** Frances H. Arnold (b) (6), "Lander, Eric S. EOP/OSTP"  
(b) (6), Paula T Hammond (b) (6) Sue  
Desmond-Hellmann (b) (6), "Mazza, Anne-Marie C. EOP/OSTP"  
(b) (6)  
**Date:** Sat, 13 Nov 2021 16:19:39 -0500  
**Attachments** smime.p7s (1.86 kB)

:

[>https://www.bostonglobe.com/2021/11/13/opinion/bringing-local-public-health-boards-into-21st-century/<](https://www.bostonglobe.com/2021/11/13/opinion/bringing-local-public-health-boards-into-21st-century/)

See how our commitment to advance racial equality and economic opportunity is making an impact in Greater Boston. BANK OF AMERICA Learn more

More from Globe Opinion | Submit a Letter to the Editor | Meet the Editorial Board | Globe Op-Talks

EDITORIAL

Bringing local public health boards into the 21st century

The COVID-19 pandemic exposed the need to regionalize services among the state's 351 local health jurisdictions.

By The Editorial Board Updated November 13, 2021, 4:00 a.m.



Globe Opinion logo and 'FOLLOW US' with social media icons for Twitter, Facebook, and Instagram.



Bhubendra Patel gets a bandaid after receiving the COVID-19 vaccine from paramedic Jacqueline Griffin in April at the Chelsea Senior Center. The vaccine was administered by Last Mile Vaccine Delivery, working in coordination with the Commonwealth's Department of Public Health, as well as the Massachusetts Housing Authority, East Boston Neighborhood Health Center, Get Out The Vaccine (GOTVax), and the cities of Quincy, Chelsea, and Leominster. ERIN CLARK/GLOBE STAFF

How inefficient is local government in Massachusetts? Every municipality in the Commonwealth, no matter how small, has its very own public health board, charged with responsibilities varying from testing well water to responding to health incidents — oh, and also managing global pandemics.

COVID-19 exposed just how uneven those local authorities are. Boston and Cambridge operate whole city departments staffed with experts capable of handling a wide variety of tasks, from operating homeless shelters to responding to outbreaks of mosquito-borne diseases to organizing vaccination drives in a worldwide pandemic. But in some of the Commonwealth's smaller or poorer municipalities . . . well, the picture looks bleaker, with short-staffed and unprepared departments that struggle to keep up with the ever-growing list of responsibilities. As the Legislature debates how to spend federal relief money, upgrading local public health boards and ensuring that all residents receive comparable services ought to be a high priority.

Advertisement

Amazon advertisement listing benefits: At Least \$15/hr, Health Care On Day 1, Up to 20 Weeks of Paid Family Leave, Fully Funded College Tuition.

Most states organize public health at the county or regional level; the 351 health jurisdictions in Massachusetts are "far more than any other state," according to a 2019 report by a state special commission. The report found that of the 105 towns in Massachusetts with populations fewer than 5,000, 78 percent of them lack even a single full-time public health staffer. Because boards are funded with local property taxes, they also reflect existing regional economic disparities, with poorer cities generally spending less on public health.

Get Today in Opinion form with email input field and Sign Up button.

"In Massachusetts, where you live determines how safe and healthy you are likely to be," the commission reported.

blomingdales advertisement showing clothing items with 'SHOP NOW' buttons.

Even before the pandemic, the state was well aware of how inefficient and unfair its locally based public system had become. The long-term solution is to regionalize services, so that small towns can share personnel instead of counting on overworked staffers to be jacks-of-all-trades. (Who really has the expertise both to respond to rat infestations and inspect tattoo parlors?) The pandemic drove home the point: Local boards were overwhelmed, and many of them were unable to conduct contact tracing of people infected with the coronavirus, leading the Baker administration to spend \$130 million on a statewide contact tracing collaborative instead.

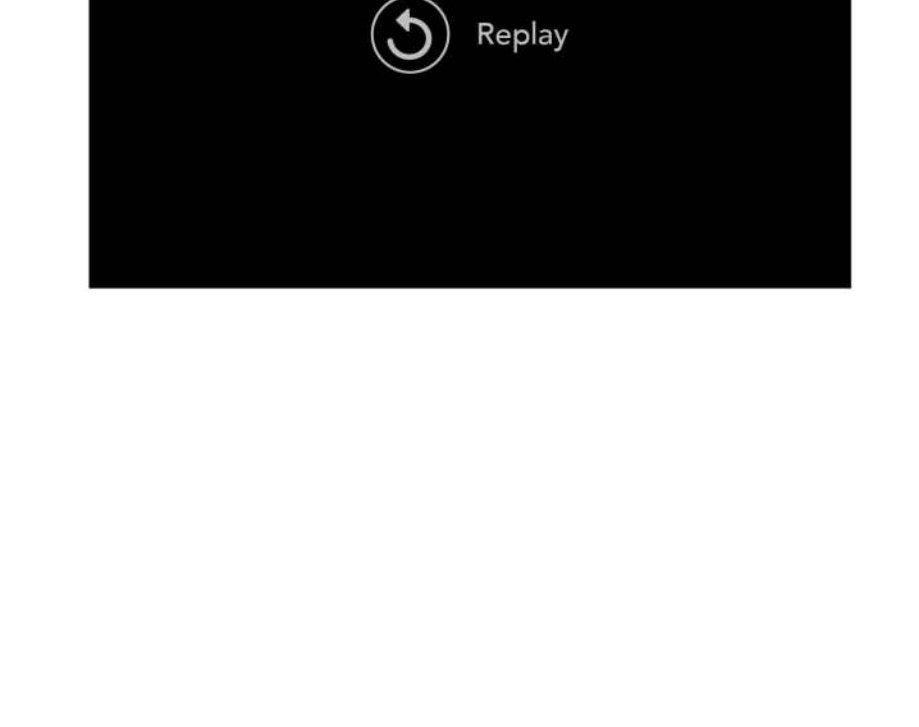
Advertisement

Public health advocates have asked the Legislature for about \$50 million a year from the relief money for training and building data collection systems. Crucially, they also want the Legislature to set credentialing standards for public health workers and provide incentives for the regionalization of services. Although the Legislature might be skeptical of using the COVID spending bill as a vehicle for policy changes, in this case the two go hand-in-hand: Passing the reforms helps ensure the money will be well spent.

A pandemic like COVID-19 might never happen again. But the cracks that the pandemic exposed in our public health infrastructure will continue to lead to unequal health outcomes unless the state addresses them. Providing public health services on a more equitable basis would mean that more residents get the kind of services that people in Boston take for granted: more lead-paint inspections, more addiction services, more education efforts about smoking and other health risks. And if there is another pandemic, some far-sighted changes now will ensure that the whole state will be better equipped to respond — and might even set an example of how the Massachusetts tradition of local control over everything from police to 911 can yield to more sensible regional solutions.

Advertisement

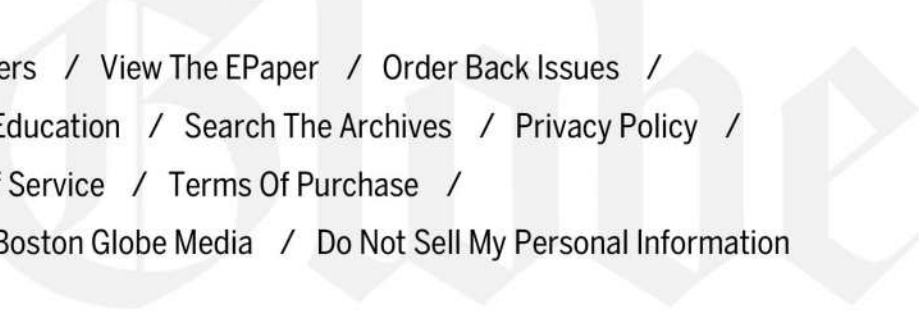
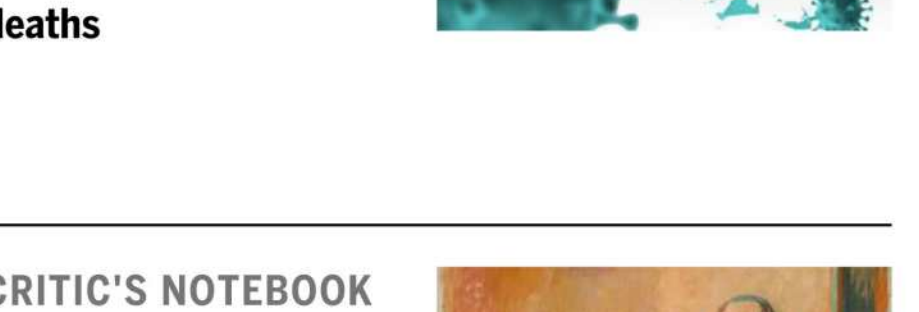
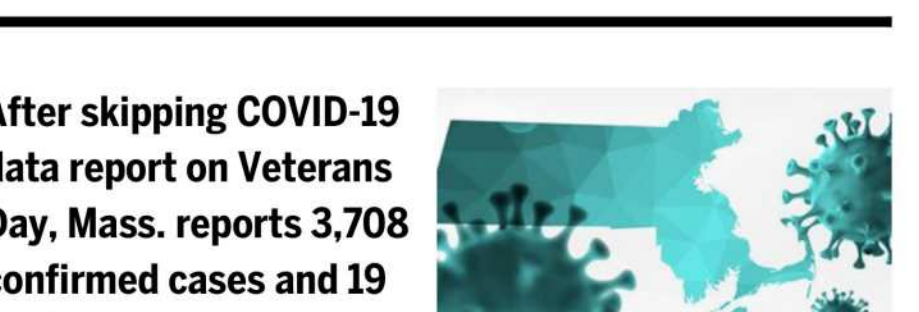
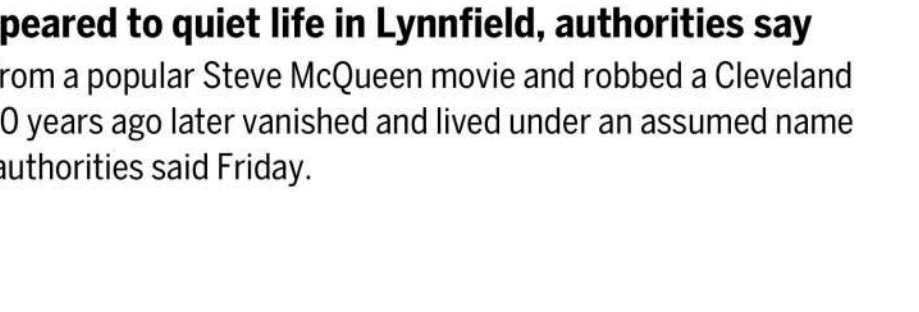
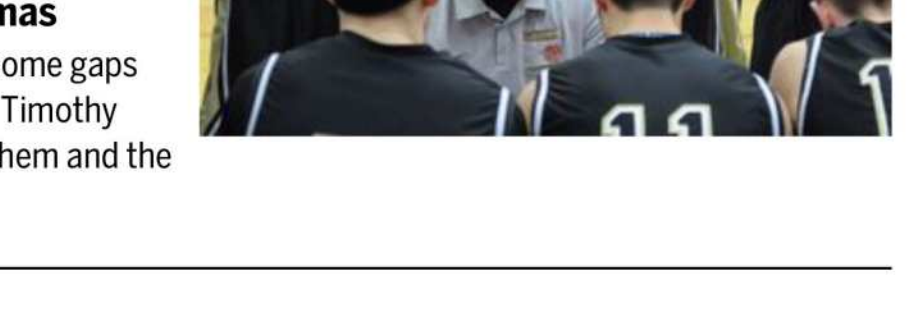
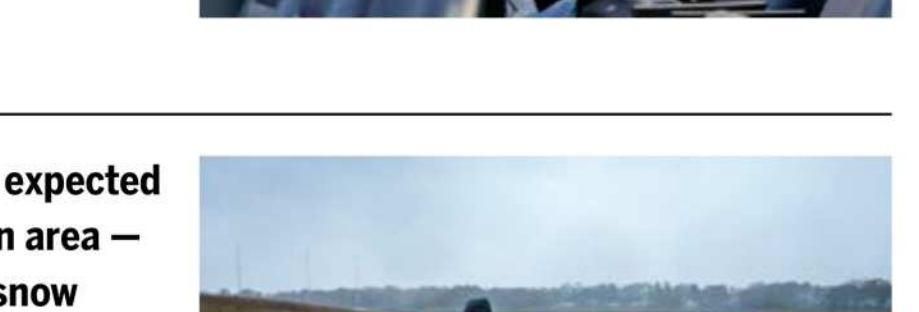
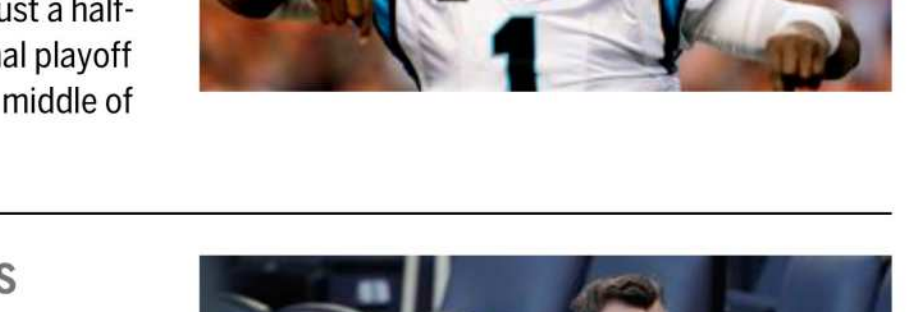
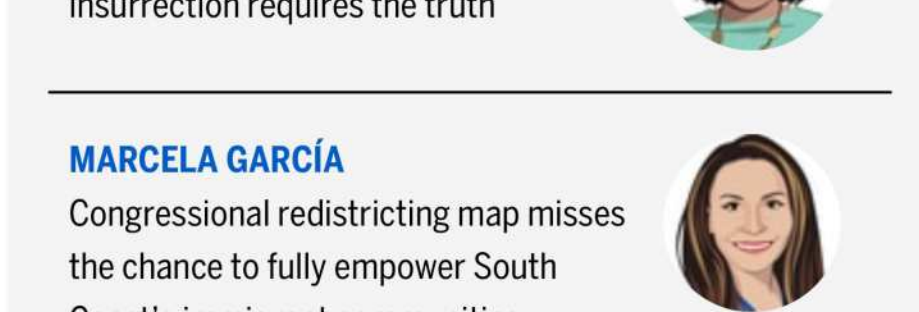
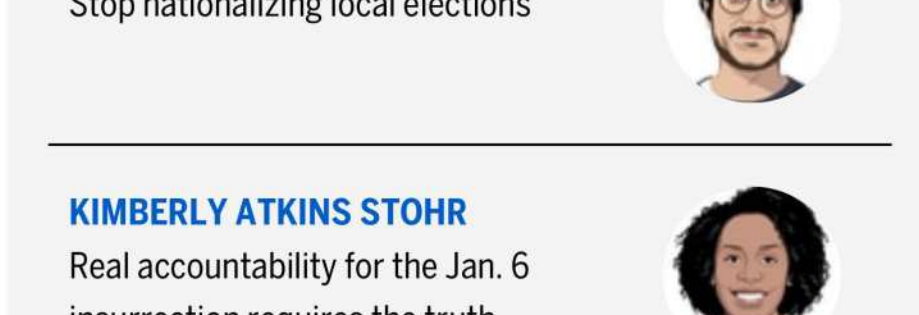
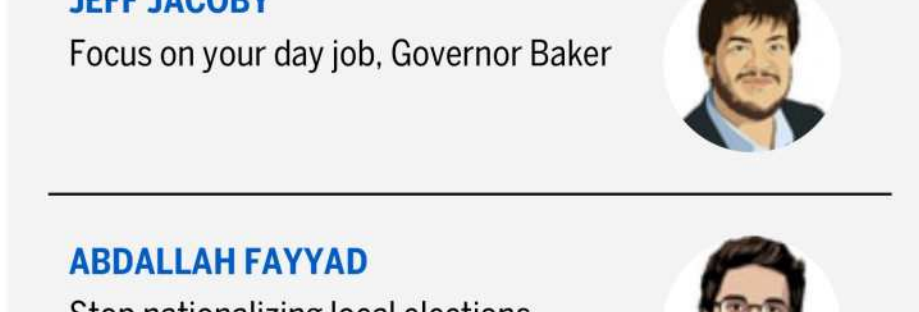
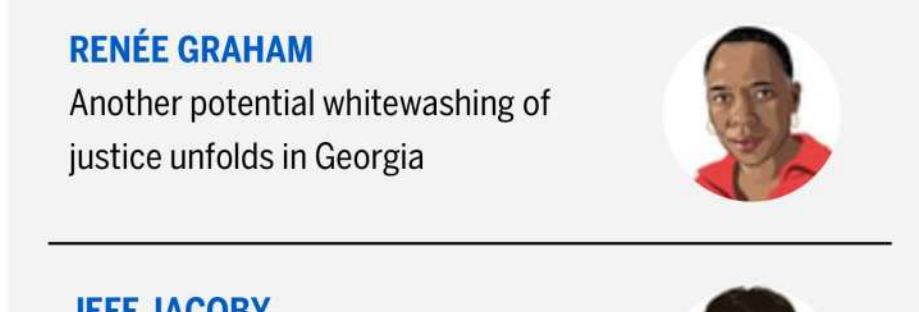
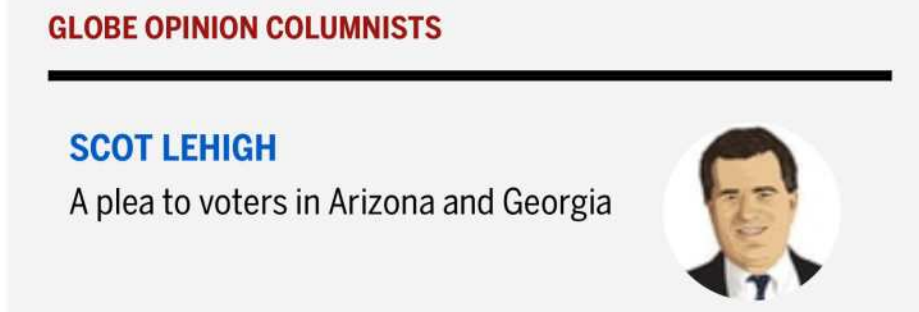
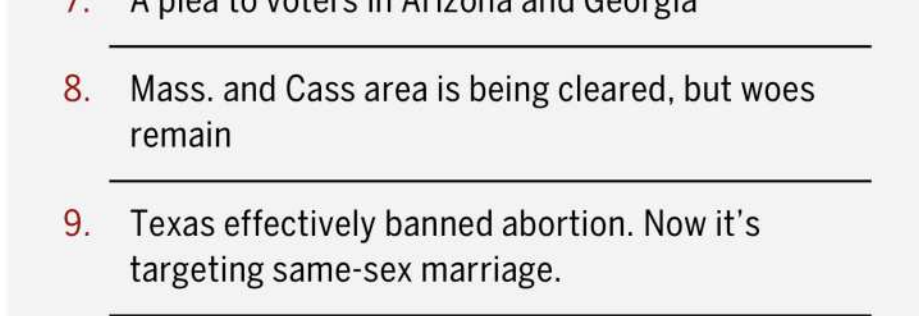
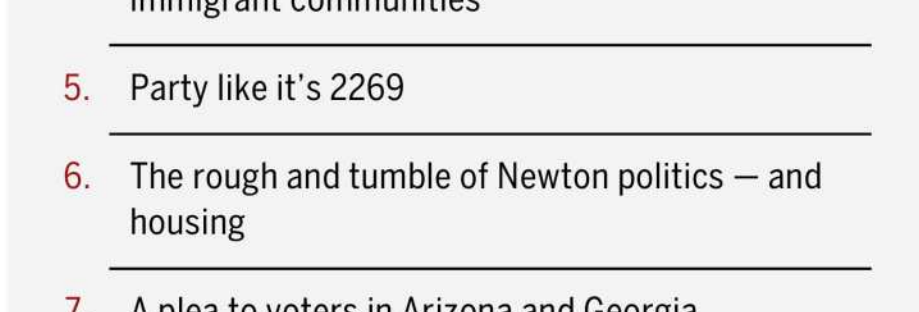
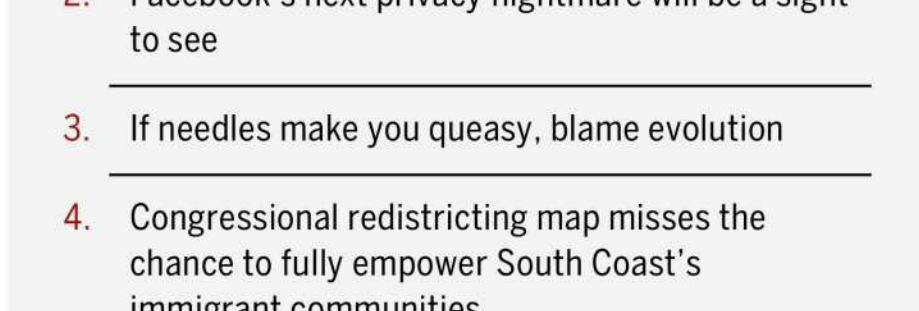
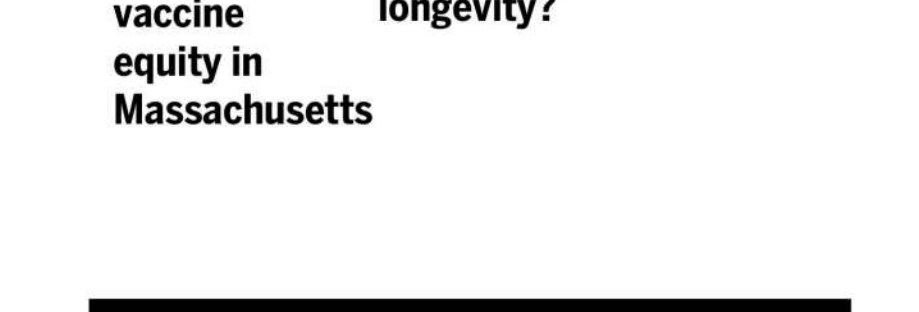
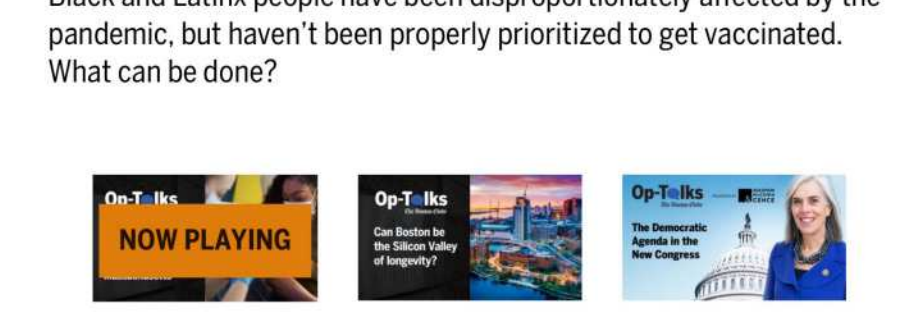
Editorials represent the views of the Boston Globe Editorial Board. Follow us on Twitter at @GlobeOpinion.



Black and Latinx people have been disproportionately affected by the pandemic, but haven't been properly prioritized to get vaccinated. What can be done?

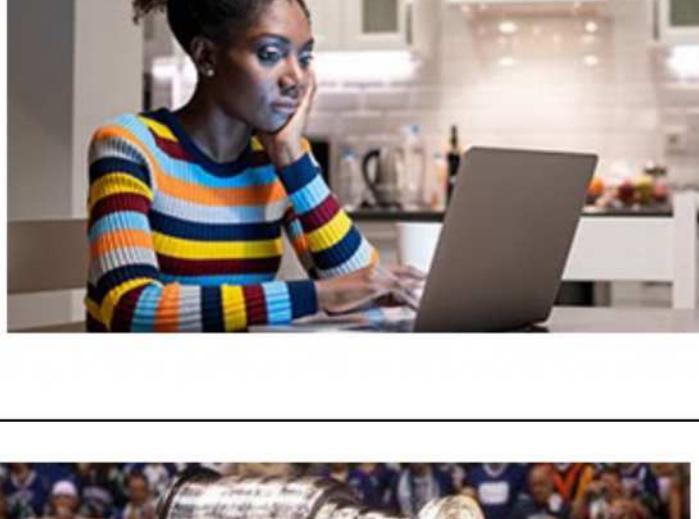


Most Read in Globe Opinion list with 10 items.

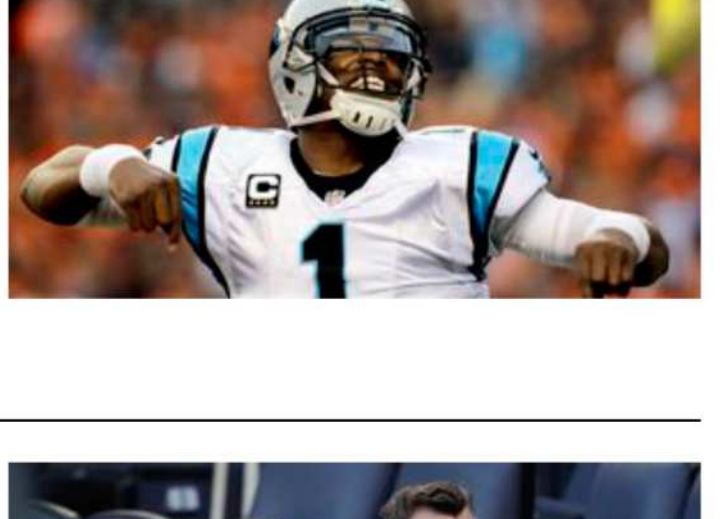


MORE ON GLOBE.COM

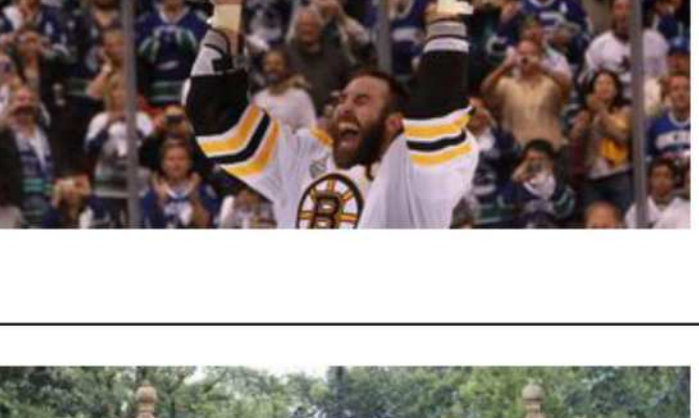
SPONSORED BY: HARVARD PILGRIM HEALTH CARE. Management job anxiety with tips from psychologists and career coaches.



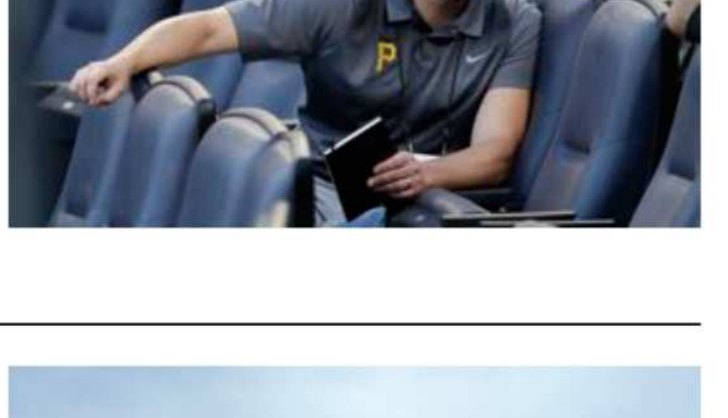
SUNDAY FOOTBALL NOTES: Why the Rams and Panthers went for former with Odell Beckham Jr. and Cam Newton.



BOB RYAN: Boston has been ranked America's No. 1 sports city, and who are we to argue? Championships? No city in the 21st century has been better blessed in this regard than Boston.



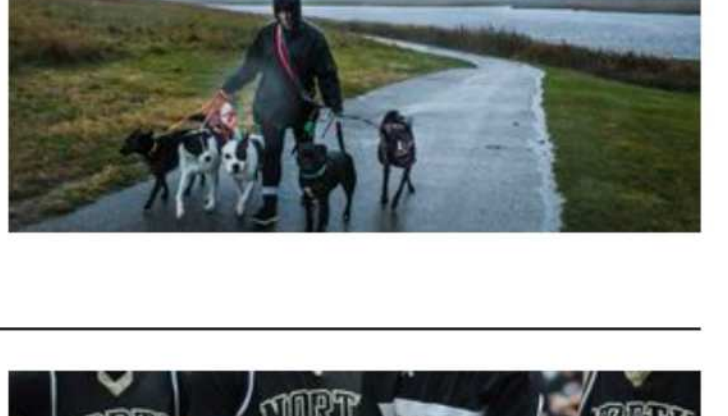
SUNDAY BASEBALL NOTES: Former Red Sox GM Ben Cherington enjoying the challenge of rebuilding the Pirates.



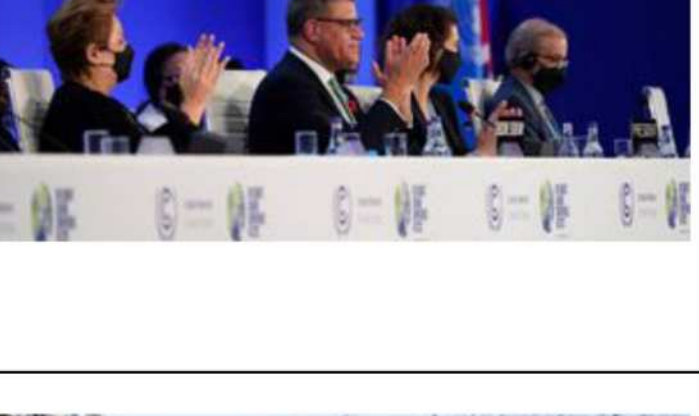
Harvard students looking for love fall victim to MIT student's prank. An online dating service targeting Harvard students was recently revealed to be an elaborate prank that was created by a MIT student.



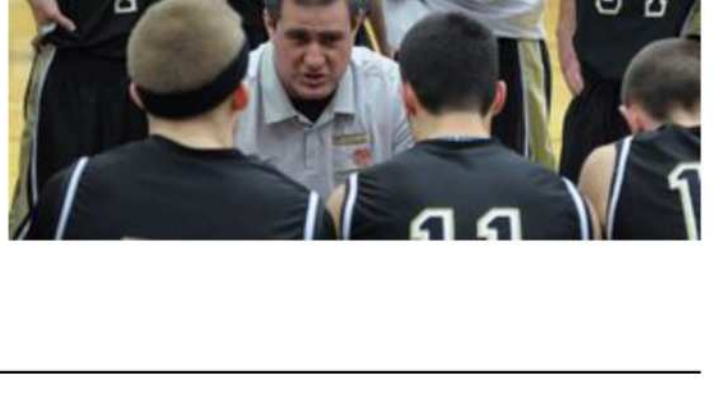
Storms and possible hail are expected Saturday afternoon in Boston area — and the Berkshires may see snow. Strong storms with gusty winds are possible in Eastern Massachusetts on Saturday afternoon and evening, and higher elevations in New England may see snow.



In Glasgow, nearly 200 nations strike climate deal with coal compromise. The nations accepted a contentious climate compromise Saturday aimed at keeping a key global warming target alive, but it contained a last-minute change that some high officials called a watering down of crucial language about coal.



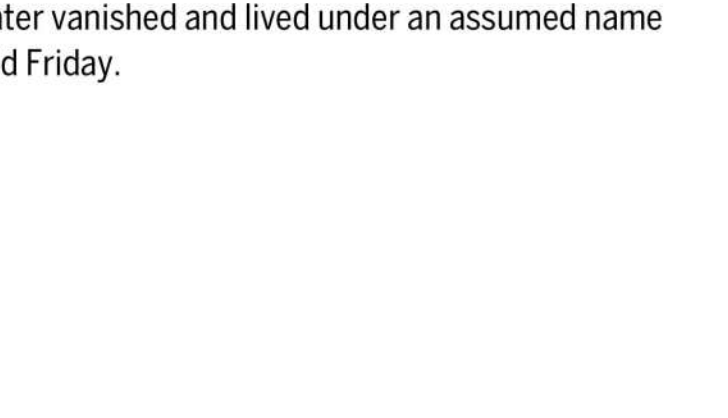
RI CRIME: 'The first time I fat tested was 13 years old': Lawyer shares documents from former student-athletes about North Kingstown coach Aaron Thomas.



'It's just scary in this situation': Questions follow COVID outbreak at two Jamaica Plain schools. When the coronavirus began infiltrating two Jamaica Plain schools, word about who was infected or potentially exposed often came from parents in text messages and phone calls rather than through contact tracing by the Boston school system.



1969 Ohio bank robber disappeared to quiet life in Lynnfield, authorities say. An Ohio man who took inspiration from a popular Steve McQueen movie and robbed a Cleveland bank where he worked more than 50 years ago later vanished and lived under an assumed name in Lynnfield until his death in May, authorities said Friday.



MOST READ IN THIS SECTION

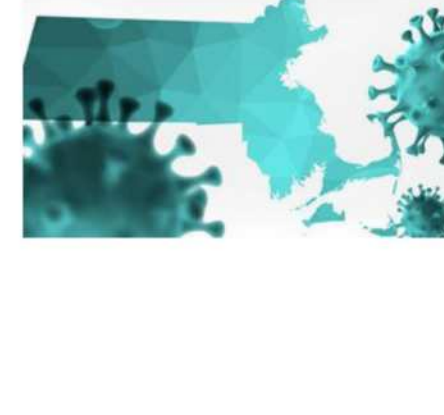
Federal appeals court halts Biden administration's vaccine requirement, delivering policy a major blow.



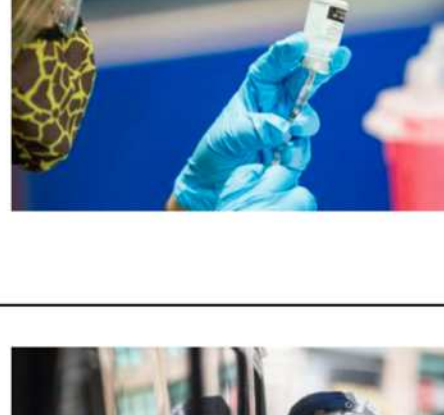
CORONAVIRUS LIVE UPDATES: Federal appeals court halts Biden administration's vaccine requirement for larger companies.



After skipping COVID-19 data report on Veterans Day, Mass. reports 3,708 confirmed cases and 109 deaths.



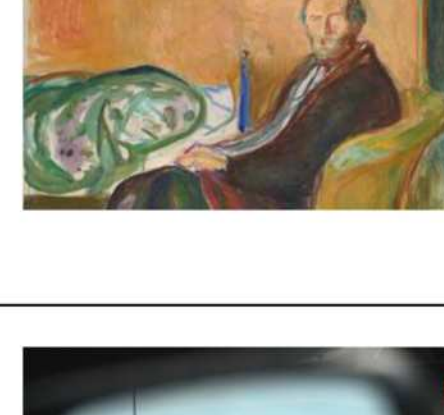
'The pandemic is not over': In a worrisome trend, COVID-19 cases are rising again in Mass.



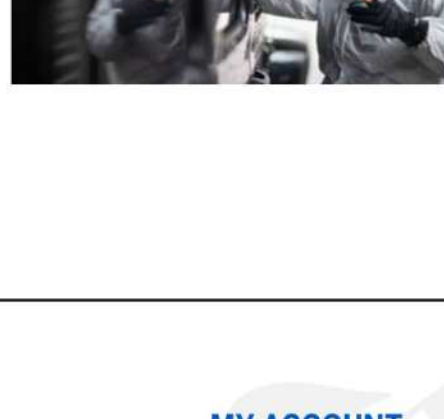
Town-by-town COVID-19 data in Massachusetts.



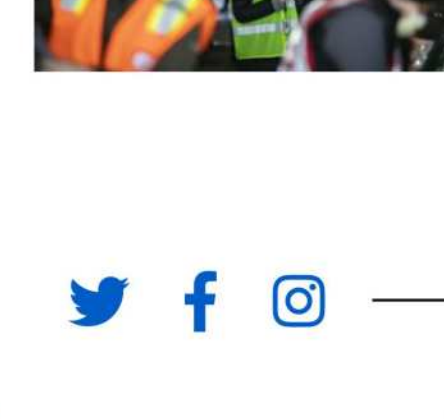
CRITIC'S NOTEBOOK: How did artists respond to the Spanish flu? Searching for traces of a forgotten catastrophe.



RI HEALTH: Here's how (and where) to get a COVID-19 test in Rhode Island.



Coronavirus infections rise in northern states, Mountain West, as holidays near.



'Stay home, it's not worth it.' Here's what people who had COVID-19 say about the holidays.



FOLLOW US with social media icons for Twitter, Facebook, and Instagram.

The Boston Globe logo and navigation links: SUBSCRIBE NOW, MY ACCOUNT, CONTACT, MORE.

©2021 Boston Globe Media Partners, LLC

## Re: Digital Trade Issues

---

**From** "Hale, Jonathan S" (b) (6) @state.gov>

:

**To:** Megan Stull (b) (6) >, "Jones, Narda M. EOP/OSTP"  
(b) (6), Scott Deutchman (b) (6)

**Date:** Mon, 29 Nov 2021 12:03:27 -0500

Megan - Thanks so much.

Scott - I am now Senior Advisor for Trade at the State Dept and am hoping to connect to you about digital trade and the Indo-Pacific. Let me know if you might have 15 - 20 minutes for a call.

Thanks, Jonathan

Get [Outlook for iOS](#)

**From:** Megan Stull (b) (6)

**Sent:** Monday, November 29, 2021 11:59:53 AM

**To:** Jones, Narda M. EOP/OSTP (b) (6) >; Scott Deutchman  
<(b) (6)>

**Cc:** Hale, Jonathan S (b) (6) @state.gov>

**Subject:** Re: Digital Trade Issues

+ Scott Deutchman

Dear Narda,

Hope you enjoyed a restful Thanksgiving holiday. I have cc'ed my colleague, Scott Deutchman, and I am hoping that he will help to point us in the right direction.

Many thanks,

Megan

On Mon, Nov 29, 2021 at 11:26 AM Jones, Narda M. EOP/OSTP (b) (6) >  
wrote:

Hey Megan! I hope you had a great holiday break. My colleague at Jonathan at State is looking for the right person at Google to talk to about digital trade. Would that be you? Or someone else? If someone else can you pass along that person's name and reach information?

Thanks

NMJ

**Narda M. Jones**

Director of Legislative Affairs

Office of Science and Technology Policy

Executive Office of the President

(b) (6)

Cell (b) (6) (no texts)

<https://www.whitehouse.gov/ostp/>

--

Megan Anne Stull

Senior Counsel

Google LLC

25 Massachusetts Avenue NW

Ninth Floor

Washington, DC 20001

Work: (b) (6)

E-mail: (b) (6)

## RE: [EXTERNAL] Getting together - Gilman - Dinner DC

---

**From:** Patty Wong (b) (6)  
:  
**To:** "McGuire, Chris R. EOP/OSTP" (b) (6), Gilman Louie  
(b) (6)  
**Cc:** (b) (6)  
**Date:** Thu, 02 Dec 2021 11:00:21 -0500

Hi Chris – Gilman is ok with DC. He'll meet you at Founding Farmers. Please let me know what time the reservation is and if I have the correct address as 1924 Pennsylvania Avenue NW, Washington, DC 20006.

Best,  
Patty

Patty Wong  
Alsop Louie Partners  
(b) (6)  
o) (b) (6) (new number)  
c) (b) (6)

---

**From:** McGuire, Chris R. EOP/OSTP (b) (6)  
**Sent:** Thursday, December 2, 2021 6:01 AM  
**To:** Gilman Louie (b) (6)  
**Cc:** Patty Wong (b) (6) (b) (6)  
**Subject:** Re: [EXTERNAL] Getting together

Hi Gilman,

Does downtown work? Patty and I went back and forth briefly last night - I had grabbed a reservation at Founding Farmers close to the White House, but I understand from her that you'll be out in Tysons. If that's inconvenient for you I'm happy to come towards you and do somewhere in Arlington, although I might need to push back to 7:00 to make it out there in time. Just let me know what works best!

Best,

Chris

Sent from my iPhone

On Dec 2, 2021, at 7:44 AM, Gilman Louie (b) (6) > wrote:

Chris,

Let me know where you want to eat otherwise I can suggest a place.

Gilman

Sent from my iPhone

On Nov 29, 2021, at 12:58 PM, McGuire, Chris R. EOP/OSTP

(b) (6) > wrote:

Hi Patty – Any chance we could do 6:30? I have a meeting until 6 and just want to make sure I'm not late. Happy to circle back with a restaurant over the next day or so if that works.

Thanks!

Chris

---

**From:** Patty Wong (b) (6)

**Sent:** Friday, November 26, 2021 11:19 AM

**To:** McGuire, Chris R. EOP/OSTP (b) (6)

**Cc:** (b) (6) Gilman Louie (b) (6)

**Subject:** RE: [EXTERNAL] Getting together

Hi Chris – Let's confirm dinner Thursday Dec 2. Would 6pm work for you? Please feel free to select a restaurant.

Best,  
Patty

Patty Wong

Alsop Louie Partners

(b) (6)

o) (b) (6) (new number)

c) (b) (6)

---

**From:** McGuire, Chris R. EOP/OSTP (b) (6)

**Sent:** Wednesday, November 24, 2021 9:05 PM

**To:** Patty Wong (b) (6) >

**Cc:** (b) (6) Gilman Louie (b) (6)

**Subject:** Re: [EXTERNAL] Getting together

Great, thanks Patty and Gilman! Thursday dinner would work well for me, but obviously I shouldn't take priority over Senators! I'll plan to hold both Thursday and Friday on my end, just let me know how your schedule shakes out and which day would work best. I'm flexible, plus my wife is out of town next week so my evenings are unusually flexible.

Looking forward to it!

Chris

Sent from my iPhone

On Nov 24, 2021, at 7:41 PM, Patty Wong (b) (6) wrote:

Hi Chris – let me know what works for you next week and I'll see if we can accommodate. I'm holding a lot of time for the two Senators but as they haven't responded I'm inclined to start filling in. He also can do dinner Wednesday or Thursday night. Have a great Thanksgiving!

Best,  
Patty

Patty Wong  
Alsop Louie Partners

(b) (6)

o) (b) (6) (new number)

c) (b) (6)

---

**From:** McGuire, Chris R. EOP/OSTP (b) (6) >

**Sent:** Wednesday, November 24, 2021 2:53 PM

**To:** Patty Wong (b) (6)



Cc: (b) (6) Gilman Louie (b) (6)

**Subject:** Re: [EXTERNAL] Getting together

Hi Patty,

Thanks for getting back to me and following up! I checked my calendar and unfortunately I have conflicts during all three of those times. However, I likely could move my Friday night train to Saturday morning, in which case I could meet up on Friday at 8pm for dinner or drinks assuming Gilman is still free then. If he is, why don't we hold that time, and if other times during the week open up just let me know and we can see if it makes sense to shift.

Let me know if that plan works on your end. Thanks so much for your help, and I hope you have a great Thanksgiving!

Best,

Chris

Sent from my iPhone

On Nov 24, 2021, at 2:41 PM, Patty Wong (b) (6) wrote:

Hi Chris – just checking in before Thanksgiving festivities begin! Please let me know if either of the options below work for you.

Best,  
Patty

Patty Wong  
Alsop Louie Partners

- (b) (6)
- o) (b) (6) (new number)
- c) (b) (6) 1

---

**From:** Patty Wong

**Sent:** Tuesday, November 23, 2021 11:07 AM

**To:** Gilman Louie (b) (6) McGuire, Chris R. EOP/OSTP

(b) (6)

(b) (6)

**Subject:** RE: [EXTERNAL] Getting together

Hi Chris – I hope this finds you well. Gilman can currently be available for the following:

Wednesday, Dec 1, open to schedule 8-10am or dinner after 6pm ET  
Friday, Dec 3, open to schedule 8-11pm ET

Please let me know if any of these options can work for you. Additionally, Gilman may have more availability pending two confirmations for meetings on the Hill. If needed I can circle back once I hear from them.

Best,  
Patty

Patty Wong  
Alsop Louie Partners

(b) (6)

o) (b) (6) (new number)

c) (b) (6)

---

**From:** Gilman Louie (b) (6)

**Sent:** Tuesday, November 23, 2021 4:15 AM

**To:** McGuire, Chris R. EOP/OSTP (b) (6)

**Cc:** (b) (6) Patty Wong (b) (6)

**Subject:** Re: [EXTERNAL] Getting together

Chris,

Patty can schedule on my end. I look forward to getting together.

Gilman

Sent from my iPhone

On Nov 23, 2021, at 12:01 AM, McGuire, Chris R. EOP/OSTP

(b) (6) wrote:

Hi Gilman,

Great to hear from you. Thanks much for sending these along - I gave the microelectronics one a quick scan today, and was very impressed. I'll give

both a more in depth read this week, and will also circulate them to folks at OSTP and NSC. Happy to provide feedback.

Congrats on getting such a great board together, that's a very impressive list. I also had dinner with Kevin on Friday and he gave me a rundown of some of the latest developments with AFF - sounds like you guys are moving forward well and have a really great group of supporters.

Would be great to see you when you're in town next week. Can discuss the latest and also potentially gather some relevant folks in my building if you would be interested in updating them. I think next Wednesday or Friday would be best on my end, but let me know what works well for you.

Looking forward to chatting more soon, and thanks again for sending the papers along. Most importantly, I hope you have a great Thanksgiving!

Best,

Chris

On Nov 22, 2021, at 7:17 AM, Gilman Louie (b) (6) wrote:

Chris,

I hope your Monday is going well. I wanted to update you with two white papers we provided to the Vanessa Chan at DOE and Sree at DOC regarding how AFF could engage with both departments. Since we last chatted, we've secured private funding for the first year's operational budget, in the process of recruiting David Tennenhouse (VMWare, Intel, DARPA) as CTO and added Ash Carter (former SecDef), Michele Flournoy (former Deputy Assistant Secretary of Defense), Jennifer Palkha (founder, Code for America), Lt. Gen. HR McMaster, and Nick Beim (partner, Venrock) to the board. Let me know what you think of the white papers.

I will be in the week after Thanksgiving and have sometime if you want to get together. Patty can coordinate on my end.

Have a great Thanksgiving.

Sincerely,

Gilman

## [EXTERNAL] Cancer thoughts

---

**From:** Tyler E Jacks <(b) (6)>  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6) >  
**Date:** Thu, 02 Dec 2021 00:50:47 -0500  
**Attachments:** smime.p7s (1.86 kB)

Hi Eric-

I had to spend a bit more time putting a talk together on the plane than I planned for, so less time for the cancer suggestions.

Still, to give you some ideas, here are a few thoughts (in no particular order)

- 1) Defining cancer risk for all members of the population using all available data (genetic (polygenic risk scores), genomic (e.g. clonal hematopoiesis), lifestyle (obesity, smoking history, etc), EMR findings, family history...) and using this to focus resources (screening, monitoring, etc) on individuals at highest risk.
- 2) Using "cell atlas" type approaches to better characterize "early cancers." The goal here is to fully understand the cancer/pre-cancer cells and the early tumor microenvironment for the purpose of early intervention (which could be immune-based, well tolerated precision medicines, etc.)
- 3) Related to points 1 and 2, work to understand the "lethal" early lesions that will remain indolent for life. More profiling and deep data analysis.
- 4) To find "early cancers" for which we can try to intervene early, we need better early detection methods. We all expect this to include circulating DNA, but this may not suffice. Better imaging modalities are likely also required, especially for the early lesions. Altogether other early detection methods should also be considered.
- 5) And speaking of imaging, use of AI/ML methods to "read" radiology scans more effectively, including for better diagnostics in underserved regions but also because these algorithms can likely detect markers of future cancer risk better than a radiologist can. That is, there is likely a lot more information in these images that meets the eye. Mammograms are the best example of this and our colleague Regina Barzilay has done good work in this area.
- 6) You might as well include increasing uptake of HPV vaccines (still a problem).

7) Obesity is an increase concern as a risk factor for many cancers. We still don't understand well why it is so (there are many ideas) so there are basic science things to do, but also trying to do something meaningful about obesity control would seem to be in scope here.

8) You and I have talked about the "learn from every patient in clinical trials" model that we are pushing in Break Through Cancer. I think this sentiment would resonate here as well; i.e. bring the best of molecular profiling to really understand why drugs success or fail in patients under study. We are about to fund one of these studies for GBM for example, which may be of particular interest.

9) Mount an all out cancer vaccine effort, given our current understanding of how powerful mRNA vaccines can be. Here we would be talking about therapeutic, interception-phase, and prophylactic. Lots to be done here preclinically and clinically, both on the cancer biology/immunology fronts (defining antigens, for example) as well as on the vaccine development front (what is required to make an effective vaccine for cancer in these different settings).

10). Might as well throw in our favorite about developing technologies to deliver drugs of all types to all cells of the body (nice to bring in the material scientists and nanotechnologists into the mix).

11) Probably worth mentioning how AI can speed drug development for cancer (and everything else) with examples ranging from using AlphaFold2 to accelerate one's understanding of the target space to deep learning algorithms for in silico drug screening.

12) We talked about the COVID response being a model of acting with urgency and acting differently because lives were on the line. Lives are on the line for cancer even without a pandemic. It would be good if there were more urgency in our field, more collaboration and less self interest.

13) Also from the COVID experience, accelerating the pace of clinical trials and proactivity by the FDA to accelerate review and approval.

14) Related to 13, using genomic markers of the disease to monitor response, resistance and minimal residual diseases. This still not done as well or as widely as it should be, in my view. There are concerns about these surrogate markers for FDA approval, but I bet they will prove to be very useful in most cases. Outside of the clinical testing/drug approval process, such molecular monitoring would allow early detection of recurrence and early next-line therapy.

All for now, Eric—in California and need to get to bed!

Tyler

## [EXTERNAL] Invitation to Mendel Genetics Conference 2022

---

**From:** Šárka Pospišilová <(b) (6)>  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Cc:** (b) (6)  
**Date:** Fri, 10 Dec 2021 13:48:41 -0500  
**Attachments** Mendel Conference 2022 - save the date 11-2021.pdf (18.66 MB); Press Release : Researchers from Masaryk University examine genes of G. J. Mendel Final 4-11-2021.pdf (209.34 kB); Mendel Genetics Conference 2022 Invitation Prof. Lander.docx (251.38 kB)

Dear Professor Lander,

it is my great pleasure to greet you from Brno in Czechia (where the laws of genetics have been discovered), and to invite you for the **international genetic conference** to pay tribute to Mendel's discoveries and its significance for science and society. This event is scheduled for **20-23 July 2022 in Brno, Czech Republic**, on the occasion of the **bicentennial of the birth of G. J. Mendel**. We would be exceptionally pleased, if you would accept our invitation to give a speech on your crucial achievements in biology and genetics. The key note lectures are planned for July 21, 2022, an invitation letter is enclosed.

Let me introduce briefly - I am currently a vice rector of the Masaryk University in Brno for Research, but at the same time I am a researcher in the field of molecular genetics, with focus on genetic changes in leukemia and coordinator of the project on 1000 of Czech genomes, as a part of 1 million+ of European Genomes.

I am pleased that many excellent scientists already confirmed their attendance of the meeting, including Nobel Prize winners Tom Cech, Ada Yonath and Paul Nurse, in addition also John Mulvihill, Kim Nasmyth or Jan Korbel.

Let me emphasize that we would do our best to fulfil all your needs, arrange your travel according your wishes and cover all your travel expences and accommodation. We also strongly believe that the epidemiological situation will be stabilized by next summer (summer months have been always covid-free in Czechia).

For your information, please find attached a poster about the upcoming conference and a recent press release on G. J. Mendel research performed in Brno, that might be interesting for you.

Thank you very much for considering my invitation and I look forward to your reply.

With kind regards,

Sarka Pospisilova

---

**Prof. RNDr. Sarka Pospisilova, Ph.D.**  
Vice-Rector for Research and Doctoral Studies



**Masaryk university**  
A: Zerotinovo namesti 617/9 | 601 77 Brno, Czech Republic  
T: (b) (6) | M: (b) (6)  
E: (b) (6) | W: >[www.muni.cz](http://www.muni.cz)<



# Mendel...

Brno, 4. 11. 2021

## Researchers from Masaryk University examine genes of G. J. Mendel

**A genius, a personality with ideas ahead of his time, and one of the most important scientists in history – this is Gregor Johann Mendel, who entered the history books by discovering the basic principles of heredity.**

Next year marks the 200th anniversary of the birth of the "father of genetics," as Mendel is popularly known across the globe. As part of the celebrations of this anniversary, many events and projects are planned not only in Brno, but also in other parts of the Czech Republic, Europe, and around the world, to remind us that the pillars of genetics were laid in South Moravia. "Mendel's way of thinking and his work were so original that the essence of his discovery can be described much better only today - through concepts from the fields of informatics or cybernetics. For this reason, the importance of his legacy is still growing and it is possible to build on it and to develop it. I believe that he would be very pleased that today's Brno is dedicated to science, research and education, and that universities and science institutes build their research on his ingenious work," says the mayor of Brno Dr Marketa Vankova.

Therefore, in cooperation with experts from [Masaryk University](#), the [Augustinian Abbey](#) and other organizations preparing the celebrations, an idea was born to uncover new information about the world-famous biologist and abbot. This included archaeological research of the Augustinian tomb at the Central Cemetery in Brno, and subsequent anthropological and genetic analysis of the findings. "Mendel was an absolutely exceptional, multidisciplinary renaissance personality with ideas ahead of his time. That is also why we have given our consent to exhumation and scientific research, so that his legacy remains alive and known to the public. The Czech Republic, humanity, but especially Mendel himself, clearly deserves it. Especially since he did not receive scientific recognition during his lifetime," said Fr. Paul Graham, Assistant General to the General Council of the Curia.

### Masaryk University plays a key role in the scientific research

"As the Rector of Masaryk University, I am extremely honoured that we are involved in such unique research, which is carried out by Vice-Rector Sarka Pospisilova and her team. The new results offer compelling proof that our university conducts research at the highest level," stated Prof. Martin Bares, praising the work done by the university. Almost two dozen scientists are involved in the research related to Gregor Johann Mendel. Experts from the faculties of Arts, Science and Medicine



MUNI

B | R | N | O

MUNI  
MENDELOVO  
MUZEUM

SPOLEČNĚ  
Ustav pro spolupráci a vzdělávání

Společně, o.p.s. | Mendlovo náměstí 1a, 603 00 Brno | IČ: 26976307 | DIČ: CZ26976307

+420 602 521 182 | [press@mendel22.cz](mailto:press@mendel22.cz)

# Mendel..

of Masaryk University as well as scientists from the [Central European Institute of Technology \(CEITEC\)](#) are involved. "Due to the research complexity, the public will learn the results gradually throughout 2022. The celebrations of the 200th anniversary of G.J. Mendel's birthday will culminate in July 2022," added Prof. Sarka Pospisilova, who is also a geneticist.

## Archaeological, anthropological and molecular genetics research

Archaeological research on the Augustinian tomb, which is located in the Central Cemetery in Brno, took place in June and lasted approximately two weeks. The coffin, in which the remains of G.J. Mendel himself were identified by subsequent analyses, was extending under the foundations of the tomb, meaning that archaeologists had to dig up to 2.5 meters in depth.

"During the excavations, it turned out that the tomb is slightly diverging from the floor plan. Therefore, we had to come up with various technical aids in order to remove the tin coffin in one piece so that it would not be damaged," described Dr Marek Peska, the director and chief archaeologist from the [Archaia Brno](#). In addition to the skeleton, the coffin also contained shoes, clothing, rare crosses and also, for example, a newspaper from October 1883. In an effort to gain further knowledge, a wide range of scientific disciplines established at Masaryk University were used. "For example, using biometric data of the skull, we can create a so-called super projection, which means that we will be able to compare the shape of Mendel's face with available images and photographs," said Dr Eva Drozdova from the Laboratory of Biological and Molecular Anthropology at the Faculty of Science of Masaryk University.

## Mendel's identity was confirmed

During the genetic research, DNA samples obtained from the remains found in the tomb were compared with DNA samples obtained from biological material available from previously conducted research at the Abbey. "In protective overalls, we examined the objects that Mendel used. My colleagues and I went page by page, looking for biological material, such as hair or facial hair, that were later used as a comparative sample," explained Dr Dana Fialova, from the Department of Genetics and Molecular Biology of Masaryk University.

Following DNA analysis conducted in CEITEC laboratories confirmed Mendel's identity. "The mitochondrial DNA sample obtained from Mendel's book Astronomy was absolutely identical to the samples taken from Mendel's remains, which we consider as clear confirmation of Mendel's identity," said Filip Pardy, an expert from the Genomic Laboratory at CEITEC's Centre for Molecular Medicine. However, further genomic and bioinformatic analyses will show whether the entire genome of the father of genetics can be reconstructed.



MUNI

B|R|N|O|

MUNI  
MENDELOVO  
MUZEUM

SPOLEČNĚ  
MASARYKŮVA VYŠŠÍ ŠKOLA BRNO RÁDII SV. AVUSTINA

Společně, o.p.s. | Mendlovo náměstí 1a, 603 00 Brno | IČ: 26976307 | DIČ: CZ26976307

+420 602 521 182 | [press@mendel22.cz](mailto:press@mendel22.cz)

# Mendel..

## The first genetic results are already known

Geneticists focused on analysing Mendel's DNA according to mitochondrial DNA and the Y chromosome. "We are interested in whether Mendel carried some of the genetic variants that, as we know today, cause hereditary diseases and that are inherited according to the rules that Mendel himself discovered," said Prof. Michael Doubek from the Department of Medical Genetics and Genomics, at the Faculty of Medicine of Masaryk University and CEITEC MU.

## Tribute to Mendel – International Genetic Conference in Brno with Nobel Prize laureates

Genetics has become an ordinary part of our lives today, and we encounter genetics in many areas of everyday life. The influence of Gregor Johann Mendel on the foundation of this scientific field is absolutely fundamental. Precisely because of this, a three-day [International Genetics Conference](#) will begin in Mendel's honour in Brno on the very same day that Mendel would celebrate his 200th birthday – 20 July 2022. The conference will bring together scientific leaders from all over the world. "We have already confirmed the participation of three Nobel Prize laureates, who will be the key note speakers," explains Jakub Carda, director of [Společně](#), an organisation that has long been popularizing Mendel's legacy. „The name of Gregor Johann Mendel will make Brno visible not only in the Czech Republic, but also all over the world. It will be a great promotion for our city," concludes Tomas Kolacny, the Deputy Mayor of Brno. The City of Brno, as the owner, gave its consent to the exhumation on 3rd of March 2021. The remains that were found will be donated by the city on the basis of a request from the Augustinian Order. "This is a total of 30 items. They include crosses, a tin coffin, remains of clothing and shoes. The coffin also contained newspapers and beads from a rosary," said Petr Hladík, the first deputy mayor of Brno. Brno's councillors will decide on the donation of all these items at their meeting next week on 9 November.



MUNI

B | R | N | O |

MUNI  
MENDELOVO  
MUZEUM

SPOLEČNĚ  
občasná privátní společnost

Společně, o.p.s. | Mendlovo náměstí 1a, 603 00 Brno | IČ: 26976307 | DIČ: CZ26976307

+420 602 521 182 | [press@mendel22.cz](mailto:press@mendel22.cz)

**Prof. Eric S. Lander, PhD.**

Director  
Office of Science and Technology Policy  
Executive Office of the President  
Eisenhower Executive Office Building  
1650 Pennsylvania Avenue  
Washington, D.C. 20504

Brno, 10<sup>th</sup> December 2021

## **Mendel Genetics Conference 2022 Invitation**

Dear Professor Lander,

As a chair of the organizing committee, I would like to cordially invite you to Brno, the Czech Republic to celebrate the 200th anniversary of the birth of Gregor Johann Mendel. We organize an international genetics conference to pay tribute to Mendel's genetic discoveries and their significance for science and society.

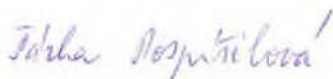
The Mendel Genetics Conference will take place 20–22 July 2022, in Brno, Czechia and is organized by Masaryk University, Mendel University, the Moravian Museum and the Augustinian Abbey and is also supported by the University of Oslo and The European Society of Human Genetics.

We will be extremely honored if you would be able to attend the conference and give a lecture, as a keynote speaker.

All expenses for transport, accommodation and food costs will be fully reimbursed. During the conference, also an accompanying cultural program will be provided, including the possibility of visiting Mendel's birthplace. The conference and celebrations of Mendel's anniversary will be also supported by the government of the Czech Republic, chairing the E.U. from July till December 2022.

We will be very much looking forward to your answer.

Yours sincerely,



**prof. RNDr. Šárka Pospíšilová, Ph.D., Vice-rector for research and doctoral studies**

Masaryk University, Žerotínovo nám. 617/9, 601 77 Brno, Czech Republic  
T: +420 549 49 1038, E: sarka.pospisilova@rect.muni.cz, W: www.muni.cz

Šárka Pospíšilová

[APG]/[ANP]

# Mendel...

**SAVE THE DATE 20–23 JULY 2022,  
BRNO, CZECH REPUBLIC**

## Mendel Genetics Conference

A tribute to Gregor Johann Mendel at his birth bicentennial

A key interdisciplinary genetics event discussing the development of the science  
from Mendel's discoveries to the future



Sessions on the human genetics (inherited disorders, cancer genetics, gene therapies).  
Sessions on the plant genetics, animal genetics, genetics of microorganisms.  
Novel emerging technologies in genetic research.  
Ethical questions in genetics, visions in genetics.  
The history of genetics: more than a century of international  
research into the life and legacy of Gregor Johann Mendel,  
the origin of genetics, and its development.



### Key note speakers:

Prof. Ada Yonath, Weizmann Institute of Science, Israel  
Sir Paul Nurse, The Francis Crick Institute, UK  
Prof. Thomas Cech, Ph.D., University of Colorado Boulder, USA  
Prof. Kim Nasmyth, University of Oxford, UK  
Jakub Tolar, MD, PhD, University of Minnesota, USA  
Jan Korbel, Ph.D., EMBL Heidelberg, DE

Visit

[www.mendel22.cz](http://www.mendel22.cz)

Organized by

MASARYK  
UNIVERSITY

Mendel  
University  
in Brno



SPOLÉČNĚ

... conference

**[WARNING: UNSCANNABLE EXTRACTION  
FAILED][EXTERNAL] Re: Press inquiry**

---

**From:** Melanie Kaplan (b) (6)  
**To:** "Krieger, Julia N. EOP/OSTP" <(b) (6)>  
**Date:** Mon, 03 Jan 2022 14:40:47 -0500  
**Attachments:** smime.p7s (1.86 kB)

Hello and happy new year!

Re-sending this in case it was overlooked in the holiday shuffle.

Thank you!

Best,

Melanie

On Dec 18, 2021, at 15:16, Melanie Kaplan (b) (6) > wrote:

Hi Julia,

Do you have a chance to talk this week? Thanks!

Best,

Melanie

**Melanie D.G. Kaplan**

2021 Project Fellow  
MIT Knight Science Journalism Program

(b) (6) | [melaniedgkaplan.com](http://melaniedgkaplan.com)

On Nov 4, 2021, at 14:52, Melanie Kaplan (b) (6) wrote:

Hi Julia!

Apologies for just now replying—I've been busy planning a reporting trip. I'd love to chat about this on background. I'm free now or tomorrow except 1130-1230 ET. Either work for you? Thanks!

Melanie

**Melanie D.G. Kaplan**

2021 Project Fellow

MIT Knight Science Journalism Program

(b) (6) [melaniemgkaplan.com](mailto:melaniemgkaplan.com)

On Oct 23, 2021, at 17:49, Krieger, Julia N. EOP/OSTP (b) (6) wrote:

Thanks, Amanda, for connecting!

Melanie – I'll be happy to help with your APRA-H related questions. If you have a few minutes to chat early next week, please feel free to call at your convenience: (b) (6)

Best,  
Julia

**Julia Krieger**

Communications Director

Office of Science and Technology Policy

Executive Office of the President

(b) (6)

---

**From:** Fine, Amanda (NIH/OD) [E] <[amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)>

**Sent:** Thursday, October 21, 2021 12:01 PM

**To:** Melanie Kaplan (b) (6)

**Cc:** Myles, Renate (NIH/OD) [E] <[mylesr@mail.nih.gov](mailto:mylesr@mail.nih.gov)>; Wojtowicz, Emma (NIH/OD) [E]



<[emma.wojtowicz@nih.gov](mailto:emma.wojtowicz@nih.gov)>; Krieger, Julia N. EOP/OSTP (b) (6)

**Subject:** RE: Press inquiry

Thanks, Melanie.

I think that is best answered by our colleague Julia from White House Office of Science and Technology Policy, copied here.

Best,  
Amanda

---

**From:** Melanie Kaplan (b) (6)

**Sent:** Thursday, October 21, 2021 11:53 AM

**To:** Fine, Amanda (NIH/OD) [E] <[amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)>

**Cc:** Myles, Renate (NIH/OD) [E] <[mylesr@mail.nih.gov](mailto:mylesr@mail.nih.gov)>; Wojtowicz, Emma (NIH/OD) [E] <[emma.wojtowicz@nih.gov](mailto:emma.wojtowicz@nih.gov)>; Krieger, Julia N. EOP/OSTP (b) (6) >

**Subject:** Re: Press inquiry

Thanks, Amanda,

I'm working on a book about animal research and my beagle, who spent four years in a lab, and wondering about how to keep up with the news/information about ARPA-H and who would be the best contact should I have specific questions or want to set up an interview. I'm in the early stages of research and wouldn't be publishing anything for some time.

Best,  
Melanie

**Melanie D.G. Kaplan**

2021 Project Fellow

MIT Knight Science Journalism Program

 [melaniedgkaplan.com](http://melaniedgkaplan.com)

On Oct 21, 2021, at 11:04, Fine, Amanda (NIH/OD) [E] <[amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)> wrote:

Hi Melanie-

Depends on the inquiry. Can you tell me more about the inquiry? Looping in others as well.

Thanks,

Amanda

**Amanda Fine**

Chief, News Media Branch  
National Institutes of Health

Tel: (b) (6)

Email: [amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)

Web: >><http://www.nih.gov><<; [\[nih.gov\]](http://nih.gov)

**NIH . . . *Turning Discovery Into Health***

<image001.png>

---

**From:** Melanie Kaplan (b) (6)

**Sent:** Thursday, October 21, 2021 10:55 AM

**To:** Fine, Amanda (NIH/OD) [E] <[amanda.fine@nih.gov](mailto:amanda.fine@nih.gov)>

**Subject:** Press inquiry

Hi Amanda,

Do you handle media inquiries for ARPA-H? Thanks!

Best,

Melanie

**Melanie D.G. Kaplan**

2021 Project Fellow  
MIT Knight Science Journalism Program

 [melaniedgkaplan.com](http://melaniedgkaplan.com)

## RE: [EXTERNAL] Re: Happy New Year and Eric Evans courtesy call

---

**From:** "Matheny, Jason G. EOP/OSTP" (b) (6)  
**To:** "Whalen, Elizabeth - 0000 - MITLL" (b) (6)  
**Cc:** "Durnan, Jaymie - 0000 - MITLL" (b) (6)  
**Date:** Sun, 09 Jan 2022 17:43:06 -0500

Thanks, Liz. Virtual might be easier. Happy to make it a secure call if convenient.  
Best wishes,  
Jason

---

**From:** Whalen, Elizabeth - 0000 - MITLL (b) (6)  
**Sent:** Sunday, January 9, 2022 4:36 PM  
**To:** Matheny, Jason G. EOP/OSTP <(b) (6)>  
**Cc:** Durnan, Jaymie - 0000 - MITLL (b) (6) >  
**Subject:** RE: [EXTERNAL] Re: Happy New Year and Eric Evans courtesy call

Jason,

Please let me know if you prefer an in person or virtual meeting.

Thanks,  
Liz

---

**From:** Matheny, Jason G. EOP/OSTP (b) (6) >  
**Sent:** Sunday, January 9, 2022 4:27 PM  
**To:** Durnan, Jaymie - 0000 - MITLL (b) (6) >  
**Cc:** Whalen, Elizabeth - 0000 - MITLL (b) (6)  
**Subject:** Re: [EXTERNAL] Re: Happy New Year and Eric Evans courtesy call

Me directly - thanks!

On Jan 9, 2022, at 4:18 PM, Durnan, Jaymie - 0000 - MITLL (b) (6) wrote:

Thanks, Jason.  
Who should Eric's EA, Liz Whalen, work with wrt calendar?

Jaymie

Jaymie Durnan  
Assistant to the Director for Strategic Initiatives  
MIT Lincoln Laboratory  
(b) (6) (o)  
(b) (6) (m)

On Jan 9, 2022, at 3:20 PM, Matheny, Jason G. EOP/OSTP (b) (6) wrote:

Happy New Year, Jaymie!

It's great to have you in a USN role at this critical time.

I'd be delighted to talk with you and Eric.

Best wishes,  
Jason

---

**From:** Durnan, Jaymie - 0000 - MITLL (b) (6)  
**Sent:** Tuesday, January 4, 2022 3:43 PM  
**To:** Matheny, Jason G. EOP/OSTP (b) (6) >  
**Cc:** Whalen, Elizabeth - 0000 - MITLL (b) (6)  
**Subject:** [EXTERNAL] Happy New Year and Eric Evans courtesy call

Jason,

How are you? I hope all your dreams and wishes are coming true.

I don't know if you have heard, but I am now serving as the Senior Advisor to the Secretary of the Navy. I am doing this as an SGE, for the moment.

Eric Evans would like to catch up with you at some point. You may know that he will continue as the Chair of the DSB (when SD finally signs out the charter), and it would be good for the two of you to catch up. I believe he would be happy to meet virtually or in person.

I look forward to catching up.

All the best.

Jaymie

*Jaymie Durnan  
Assistant to the Director for Strategic Initiatives  
Massachusetts Institute of Technology  
Lincoln Laboratory  
244 Wood Street  
Lexington, MA 02420*

(b) (6) (o)

(b) (6) (m)

## RE: [EXTERNAL] Re: Happy New Year and Eric Evans courtesy call

---

**From:** "Whalen, Elizabeth - 0000 - MITLL" <(b) (6)>

**To:** "Matheny, Jason G. EOP/OSTP" (b) (6)

**Cc:** "Durnan, Jaymie - 0000 - MITLL" (b) (6)

**Date:** Mon, 10 Jan 2022 11:03:09 -0500

**Attachments:** smime.p7s (5.64 kB)

Jason,

I spoke with Eric this morning and he would prefer an in person meeting the next time he is in DC. Eric is hoping to travel to DC sometime in early to mid-February. I will keep you posted.

Thank you,  
Liz

---

**From:** Matheny, Jason G. EOP/OSTP (b) (6)

**Sent:** Sunday, January 9, 2022 5:43 PM

**To:** Whalen, Elizabeth - 0000 - MITLL <(b) (6)>

**Cc:** Durnan, Jaymie - 0000 - MITLL (b) (6)

**Subject:** RE: [EXTERNAL] Re: Happy New Year and Eric Evans courtesy call

Thanks, Liz. Virtual might be easier. Happy to make it a secure call if convenient.  
Best wishes,  
Jason

---

**From:** Whalen, Elizabeth - 0000 - MITLL (b) (6)

**Sent:** Sunday, January 9, 2022 4:36 PM

**To:** Matheny, Jason G. EOP/OSTP <(b) (6)>

**Cc:** Durnan, Jaymie - 0000 - MITLL (b) (6)

**Subject:** RE: [EXTERNAL] Re: Happy New Year and Eric Evans courtesy call

Jason,

Please let me know if you prefer an in person or virtual meeting.

Thanks,

Liz

---

**From:** Matheny, Jason G. EOP/OSTP (b) (6)  
**Sent:** Sunday, January 9, 2022 4:27 PM  
**To:** Durnan, Jaymie - 0000 - MITLL (b) (6)  
**Cc:** Whalen, Elizabeth - 0000 - MITLL (b) (6)  
**Subject:** Re: [EXTERNAL] Re: Happy New Year and Eric Evans courtesy call

Me directly - thanks!

On Jan 9, 2022, at 4:18 PM, Durnan, Jaymie - 0000 - MITLL (b) (6) wrote:

Thanks, Jason.

Who should Eric's EA, Liz Whalen, work with wrt calendar?

Jaymie

Jaymie Durnan  
Assistant to the Director for Strategic Initiatives  
MIT Lincoln Laboratory  
(b) (6) (o)  
(b) (6) (m)

On Jan 9, 2022, at 3:20 PM, Matheny, Jason G. EOP/OSTP (b) (6) wrote:

Happy New Year, Jaymie!

It's great to have you in a USN role at this critical time.

I'd be delighted to talk with you and Eric.

Best wishes,  
Jason

---

**From:** Durnan, Jaymie - 0000 - MITLL (b) (6)  
**Sent:** Tuesday, January 4, 2022 3:43 PM  
**To:** Matheny, Jason G. EOP/OSTP (b) (6)  
**Cc:** Whalen, Elizabeth - 0000 - MITLL (b) (6)  
**Subject:** [EXTERNAL] Happy New Year and Eric Evans courtesy call

Jason,

How are you? I hope all your dreams and wishes are coming true.

I don't know if you have heard, but I am now serving as the Senior Advisor to the Secretary of the Navy. I am doing this as an SGE, for the moment.

Eric Evans would like to catch up with you at some point. You may know that he will continue as the Chair of the DSB (when SD finally signs out the charter), and it would be good for the two of you to catch up. I believe he would be happy to meet virtually or in person.

I look forward to catching up.

All the best.

Jaymie

*Jaymie Durnan  
Assistant to the Director for Strategic Initiatives  
Massachusetts Institute of Technology  
Lincoln Laboratory*



*244 Wood Street  
Lexington, MA 02420*

(b) (6) (o)

(b) (6) (m)

## RE: MIT Sloan Fellows in Washington the week of March 14th

---

**From:** "Parsons, Nate S. EOP/OSTP" (b) (6)

**To:** Dawn Mackenzie (b) (6)

**Date:** Tue, 11 Jan 2022 13:58:35 -0500

Hi Dawn,

My name is Nate Parsons, and I'm a Special Assistant in the Director's Office at OSTP. Thank you very much for your kind invitation for Dr. Lander to speak to the Sloan Fellows this March. Unfortunately, he will be unable to attend due to official travel obligations during the week of March 14th. Our sincerest apologies for the inconvenience.

Please feel free to keep us in mind for future engagement opportunities.

Best regards,

Nate Parsons (*he/him*)

Special Assistant

Office of Science and Technology Policy

Executive Office of the President

(b) (6)

Cell: (b) (6)

---

**From:** Dawn Mackenzie (b) (6)

**Sent:** Monday, January 10, 2022 4:05 PM

**To:** (b) (6); Lander, Eric S. EOP/OSTP (b) (6) >

**Subject:** [EXTERNAL] MIT Sloan Fellows in Washington the week of March 14th

Good afternoon Eric, I hope you don't mind my reaching out directly as Sheila Dodge passed your contact information along to me. I know you're incredibly busy, so I've highlight my ask below while also providing greater context:

I am coordinating the spring Washington DC module for our mid-career executives in the Sloan Fellows Program (the year-long residential counterpart to the program Sheila graduated from) running the week of

March 14<sup>th</sup>, and I'm hoping you might be in town and available to speak to our students on your industry and work through the lens of our theme "A Global Perspective".

Specifically, I was wondering if you might have at the following days/times to speak to the group in its entirety at the Hamilton?

- March 14<sup>th</sup>: 10:30-11:45
- March 15<sup>th</sup>: 9:45-10:45 or 11-12
- March 16<sup>th</sup>: 9:45-10:45

If this option is undesirable to you, we are planning multiple small group meetings for 20 or so students to opt-in to in the following afternoon slots (they can either travel to you, or again at the Hamilton):

- March 14<sup>th</sup>: 1:30-2:30 or 3:15-4:15
- March 15<sup>th</sup>: 1:30-2:30 or 3:15-4:15

I appreciate your time in reading this email and entertaining the thought- I'll mention that while we haven't been introduced, I spent my first four years at MIT supporting Nelson Repenning, which resulted in my becoming a huge fan of Sheila and yours. I'll admit I'm hopeful you have availability not just to provide an incredible global perspective to our students, but so I can listen to you speak as well!

Best wishes for your week,

**Dawn Mackenzie**

Assistant Director of Operations and Student Experience  
Executive Degree Programs

**MIT Sloan School of Management**

77 Massachusetts Avenue, E52-242, Cambridge, MA 02139

e: (b) (6) | w: <http://mitsloan.mit.edu/>

[LinkedIn](#)

## RE: MIT Sloan Fellows in Washington the week of March 14th

---

**From:** "Parsons, Nate S. EOP/OSTP" (b) (6)

**To:** Dawn Mackenzie (b) (6)

**Date:** Tue, 11 Jan 2022 14:44:29 -0500

Hi Dawn,

Of course! And yes, please feel free to check back in with us next year!

Best regards,

Nate Parsons (*he/him*)

Special Assistant

Office of Science and Technology Policy

Executive Office of the President

(b) (6)

Cell: (b) (6)

---

**From:** Dawn Mackenzie <(b) (6)>

**Sent:** Tuesday, January 11, 2022 2:27 PM

**To:** Parsons, Nate S. EOP/OSTP (b) (6)

**Subject:** [EXTERNAL] Re: MIT Sloan Fellows in Washington the week of March 14th

Hi Nate, I'm so sorry to hear that won't work out, but thank you for letting me know so quickly!

Hopefully we're able to connect next year- would this be the best way to check again for 2023?

**Dawn Mackenzie**

Assistant Director of Operations and Student Experience  
Executive Degree Programs

**MIT Sloan School of Management**

77 Massachusetts Avenue, E52-242, Cambridge, MA 02139

e: (b) (6) w: [>http://mitsloan.mit.edu/<](http://mitsloan.mit.edu/)

[LinkedIn](#)

---

**From:** "Parsons, Nate S. EOP/OSTP" (b) (6)  
**Date:** Tuesday, 11 January 2022 at 13:58  
**To:** Dawn Mackenzie (b) (6)  
**Subject:** RE: MIT Sloan Fellows in Washington the week of March 14th

Hi Dawn,

My name is Nate Parsons, and I'm a Special Assistant in the Director's Office at OSTP. Thank you very much for your kind invitation for Dr. Lander to speak to the Sloan Fellows this March. Unfortunately, he will be unable to attend due to official travel obligations during the week of March 14th. Our sincerest apologies for the inconvenience.

Please feel free to keep us in mind for future engagement opportunities.

Best regards,

Nate Parsons *(he/him)*  
Special Assistant  
Office of Science and Technology Policy  
Executive Office of the President  
(b) (6)  
(b) (6)

---

**From:** Dawn Mackenzie (b) (6)  
**Sent:** Monday, January 10, 2022 4:05 PM  
**To:** (b) (6) Lander, Eric S. EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] MIT Sloan Fellows in Washington the week of March 14th

Good afternoon Eric, I hope you don't mind my reaching out directly as Sheila Dodge passed your contact information along to me. I know you're incredibly busy, so I've highlight my ask below while also providing greater context:

I am coordinating the spring Washington DC module for our mid-career executives in the Sloan Fellows Program (the year-long residential counterpart to the program Sheila graduated from) running the week of

March 14<sup>th</sup>, and I'm hoping you might be in town and available to speak to our students on your industry and work through the lens of our theme "A Global Perspective".

Specifically, I was wondering if you might have at the following days/times to speak to the group in its entirety at the Hamilton?

- March 14<sup>th</sup>: 10:30-11:45
- March 15<sup>th</sup>: 9:45-10:45 or 11-12
- March 16<sup>th</sup>: 9:45-10:45

If this option is undesirable to you, we are planning multiple small group meetings for 20 or so students to opt-in to in the following afternoon slots (they can either travel to you, or again at the Hamilton):

- March 14<sup>th</sup>: 1:30-2:30 or 3:15-4:15
- March 15<sup>th</sup>: 1:30-2:30 or 3:15-4:15

I appreciate your time in reading this email and entertaining the thought- I'll mention that while we haven't been introduced, I spent my first four years at MIT supporting Nelson Repenning, which resulted in my becoming a huge fan of Sheila and yours. I'll admit I'm hopeful you have availability not just to provide an incredible global perspective to our students, but so I can listen to you speak as well!

Best wishes for your week,

**Dawn Mackenzie**

Assistant Director of Operations and Student Experience  
Executive Degree Programs

**MIT Sloan School of Management**

77 Massachusetts Avenue, E52-242, Cambridge, MA 02139

e: (b) (6) | w: <http://mitsloan.mit.edu>

[LinkedIn](#)

**[EXTERNAL] RE: Molecular Partners and Novartis COVID program Positive clinical results - follow up.**

---

**From:** Shai Biran <(b) (6)>  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6), (b) (6)  
**Date:** Fri, 14 Jan 2022 15:38:43 -0500

Dear Dr. Lander,

Just wanted to keep you up to date with the news – Our ensovibep COVID-19 therapeutic program has achieved excellent clinical results, and is **moving quickly forward to an EUA** submission, confirmatory trials and mass production by the Novartis facilities.

Quick summary:

- Ensovibep is a **trispesific DARPIn** (like a smaller, multispecific antibody) that binds the RBD in a **cooperative** manner
- Achieved statistically significant **viral load reduction**
- **87% Reduced risk** of hospitalization and death (2/301 hospitalizations + no deaths in treatment arms vs 5/99 hospitalizations, 2 of which ending with death, in the placebo arm)
- DARPins are produced in bacterial production and can be quickly ramped up to millions of doses
- Ensovibep maintains **full pan-variant activity** against all variants of concern known to date, including Delta and Omicron.

There are much more data and I'll be happy to share with you if interested.

I hope this is helpful, and may assist with our government's preparations for the upcoming waves / endemic situation.

Best regards,  
Shai

**Molecular Partners AG**

Shai Biran, Ph.D.

Associate Dir. IR & Comms

(b) (6)

(b) (6)

[www.molecularpartners.com](http://www.molecularpartners.com)

---

**From:** Shai Biran

**Sent:** Monday, February 1, 2021 10:51 AM

**To:** Dr. Eric Lander (b) (6); (b) (6)

**Subject:** Molecular Partners COIVD program - follow up.

Dear Dr. Lander,

I was recently informed that one of our investors, Mark Lampert from BVF, wrote to you to describe his enthusiasm with our science and its potential for a COVID therapeutic, and I wanted to follow up and ask if you'd like for me and the science team to further describe what we do and why we believe this program merits your attention.

We are currently wrapping up a Ph1 and hoping to get initial results from a Ph2/3 later this year, working in collaboration with Novartis. On a personal note, I think the only thing standing between us and bringing this potentially life-saving therapeutic to patients is a strong manufacturing capability, which is missing due to the global pandemic and due to the speed with which everything is moving. I believe that you, should you choose to do so, have the power to overcome this impediment quickly and efficiently.

Please let me know if we can add any additional info,

Respectfully,

Shai

**Molecular Partners AG**

Shai Biran, Ph.D.

Associate Director,

Investor Relations & Communications

Phone: (b) (6)

Email: (b) (6)

Twitter: [@ShaiBiran](https://twitter.com/ShaiBiran)

[www.molecularpartners.com](http://www.molecularpartners.com)



## RE: Checking in

---

**From:** "Matheny, Jason G. EOP/OSTP" (b) (6)

**To:** Michele Flourney (b) (6)

**Date:** Sun, 30 Jan 2022 14:06:46 -0500

Michele,

It is great to hear from you! Just seeing your name in Outlook has made my day!

I'd love to catch up with you at your convenience and get your advice on several fronts. One year in, we haven't made half as much progress as I'd hoped. I could use your brainpower on both strategy and tactics. Any chance you're free for coffee next weekend? Happy to travel to your favorite coffee shop.

Thanks for suggesting that Intel reach out. We're setting up a briefing on their tech development plans. We've had a couple of meetings with Pat that have been helpful, but a tech deep-dive will be especially valuable.

All best wishes to you, Scott, and the kids!

Jason

---

**From:** Michele Flourney (b) (6)

**Sent:** Friday, January 28, 2022 12:13 PM

**To:** Matheny, Jason G. EOP/OSTP (b) (6)

**Subject:** [EXTERNAL] Checking in

Hi Jason:

I hope this finds you well and enjoying your role at OSTP. I have to say that there have been many times when I have been reading about a thorny issue at the intersection of technology and national security and I have had a sense of relief knowing you are in that position!

I am reaching out for two reasons:

First, if and when you have time, I would love to hop on Zoom or meet for a cup of coffee to catch up on a number of issues, but particularly how you are thinking about the technology dimensions of the competition with China. I am serving on the Defense Policy Board and also on the follow on effort to the NSCAI and would welcome the chance to pick your brain on some critical questions. Also happy to support you in any way that I can.

Second, I have been doing some work on the semiconductor sector and recently got a brief on Intel's tech development plan to catch up and then compete in making the most advanced chips. It's clear that they made some major missteps under the previous CEO, but I have been impressed with their CEO's plan to regain lost ground over the next several years. When I saw the brief, I thought it might be worth your time to see as well to inform your thinking. I encouraged the folks at Intel to reach out to you directly.

Hope you and your family are staying well. Look forward to catching up when you have a moment!

All the best,  
Michele

## [EXTERNAL] Exciting news!

---

**From:** Tyler E Jacks (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6) >  
**Date:** Tue, 01 Feb 2022 13:54:53 -0500  
**Attachments:** smime.p7s (1.86 kB)

Hi-

Enjoyed the call today. Congratulations on moving this along. I liked the list (and it sounded oddly familiar!).

I just got a call from someone from The Washington Post, who must have heard that there was something a foot. She writes a column that would publish tomorrow morning. I was not willing to talk to her about anything except the past Moonshot process and projects, because of your admonitions related to a 5 AM embargo.

Was I right to avoid all other topics or does the fact that her piece would appear tomorrow allow for more specifics to be shared?

T

> On Jan 31, 2022, at 11:32 AM, Tyler E Jacks (b) (6) wrote:

>

> Hi Eric-

>

> I wanted to let you know that I had to decline the invitation to attend the White House Cancer Moonshot Announcement invitation for Wednesday. Laura is having foot surgery today (fairly involved), and she is going to be laid up for a while. I need to be around to take care of her and deal with a number of things.

>

> I feel badly for missing it, but I am excited to hear that there is an announcement coming.

>

> Best,

>

> Tyler

## [EXTERNAL] Relaunch of Moon Shot - Congratulations!

---

**From:** Jane E Wilkinson (b) (6)  
**To:** "Lander, Eric S. EOP/OSTP" (b) (6)  
**Date:** Fri, 04 Feb 2022 15:29:12 -0500  
**Attachments:** smime.p7s (1.87 kB)

Dear Eric,

I wanted to drop you a line to tell you how excited I was to hear about the relaunch of the Cancer Moon Shot Project.

I'm thrilled to hear that you will be a key part of the initiative and I hope the Koch Institute and I can make a difference.

Best Wishes,  
Jane

p.s belated happy birthday too!

Jane Wilkinson | she/her/hers  
Executive Director, Koch Institute for Integrative Cancer Research at MIT  
(b) (6)



## [EXTERNAL] Re: MIT<>OSTP

---

**From:** David S Lowry (b) (6)  
:  
**To:** "Case-Scott, Haley E. EOP/OSTP" (b) (6)  
**Cc:** "Goldman, Gretchen T. EOP/OSTP" (b) (6), "Aidinoff, Marc F. EOP/OSTP" (b) (6)  
**Date:** Mon, 09 May 2022 14:39:30 -0400

Dear Gretchen & Haley:

Thanks for joining us today. I will follow up with my upcoming letter to the MIT faculty. Until then, here is my lecture on "artificial indigeneity": [https://youtu.be/1R\\_Hjn0xvuo](https://youtu.be/1R_Hjn0xvuo)

Talk soon!

DSL

Sent from my iPhone

On May 9, 2022, at 2:15 PM, Case-Scott, Haley E. EOP/OSTP (b) (6) > wrote:

Here is the link to more information about the [Northern Bering Sea Task Force](#) if your students are interested in learning more! The task force works directly with an Intergovernmental Tribal Advisory Council to provide input and recommendations on activities, regulations, guidance, or policy that may affect actions or conditions in the Northern Bering Sea Climate Resilience Area. It was great meeting you all, more to come soon!

Thanks,  
Haley

---

**From:** David S Lowry (b) (6)  
**Sent:** Monday, May 9, 2022 11:29 AM  
**To:** Aidinoff, Marc F. EOP/OSTP (b) (6); Goldman, Gretchen T. EOP/OSTP (b) (6); Case-Scott, Haley E. EOP/OSTP (b) (6)  
**Subject:** [EXTERNAL] Re: MIT<>OSTP

Dear Mark, Haley, and Gretchen:

May I share your zoom link with students so that they can join the conversation from their homes? A couple have COVID, I believe.

DSL

\*\*\*\*\*

David Shane Lowry, PhD  
Distinguished Fellow in Native American Studies  
MIT History  
(b) (6)  
Building E53, room 325

[about me](#)

[about Project Indigenous MIT](#)

---

**From:** Aidinoff, Marc F. EOP/OSTP (b) (6)  
**Sent:** Monday, May 9, 2022 9:29 AM  
**To:** David S Lowry; Goldman, Gretchen T. EOP/OSTP; Case-Scott, Haley E. EOP/OSTP  
**Subject:** RE: MIT<>OSTP

Hi David—

Unfortunately, a conflict has arisen on my end at this time, but Gretchen Goldman and Haley Case-Scott can both make this time. They are both far more knowledgeable than I, not to mention effective policymakers.

Best  
Marc

-----Original Appointment-----

**From:** Aidinoff, Marc F. EOP/OSTP <>

**Sent:** Thursday, April 28, 2022 10:29 AM

**To:** Aidinoff, Marc F. EOP/OSTP; (b) (6) Goldman, Gretchen T. EOP/OSTP; Case-Scott, Haley E. EOP/OSTP

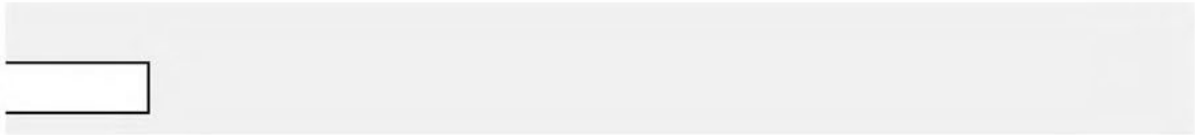
**Subject:** MIT<>OSTP

**When:** Monday, May 9, 2022 1:30 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:**

>><https://pitc.zoomgov.com/>(b) (6)

<



i there,

larc Aidinoff is inviting you to a scheduled ZoomGov meeting.

## [Join Zoom Meeting](#)

ne tap mobile: US: (b) (6) or (b) (6)

eeeting URL: >><https://pitc.zoomgov.com/>(b) (6)

eeeting ID: (b) (6) <sup><</sup>(b) (6)  
670330

### oin by Telephone

or higher quality, dial a number based on your current location.

ial:

US: (b) (6) or (b) (6) or (b) (6) or (b) (6)

