Pandemic Response: Resilience and Recovery in the Era of COVID-19

June 23-24, 2020 | Virtual Zoom Conference
Register at bit.ly/panfab2020

Sponsored by the
Harvard-MIT Center for Regulatory Science
Greater Boston Pandemic Fabrication Team (PanFab)

Overview

This two-day virtual conference will explore issues involving resilience and recovery to COVID19 and other related emergencies. The conference focuses on responsibilities, policies and activities involved in responses to COVID19 from infection control to therapeutic discovery. The presentations and discussion will help to inform government officials, healthcare administrators, physicians, biomedical research scientists and concerned citizens.

The COVID-19 pandemic has not only been a tragedy for individual patients, it has revealed multiple vulnerabilities at institutional and local responses and profound failure nationally. Recovery from the COVID-19 pandemic will involve both emergency adaptations and long-term changes to the way we plan for and respond to pandemics. Among the challenges we face are an emphasis on very low cost over supply chain resiliency; single points of failure in the national response to testing and infection control; a lack of innovation in medical equipment such as personal protective equipment; and the need for more efficient ways to test therapies and vaccines.

A detailed and updated agenda can be found at the conference registration site (bit.ly/panfab2020).

Day 1: Case Studies in Pandemic Response by the Students and Fellows of the Greater Boston Pandemic Fabrication Team June 23 | 10am-4pm

Day One of the conference will involve short presentations from the student engineer-scientists and local fabricators who have participated in the Greater Boston Pandemic Fabrication Team and innovated in the delivery of personal protective equipment.

Presentations by PanFab members and their collaborators:
- Rapid prototyping and alternative manufacturing of PPE
- Regulatory innovations to improve pandemic response
- Deployment of non-traditional PPE and low-risk medical products

Day 2: COVID-19 Response at the Local and National Scale
June 24 | 12pm-3:00pm

Day Two will feature short presentations and panel discussions by academic, government, healthcare and industry leaders with expertise in trust and resiliency, medical devices, and therapeutic development.

- Rapid Therapeutic Development: Repurposing drugs and developing vaccines
- Resiliency and Trust: Local, regional, and national response to PPE Shortages

If you have any questions reach out to hits_regsci@nmhs.harvard.edu
## June 23: Case Studies in Pandemic Response

**10:00 AM**  
**Panel discussion:** Cross-training and resiliency in a pandemic

**11:15 AM**  
**Platform presentations from PanFab Members**
- The importance of negative results: gamma radiation to sterilize N95 masks
- Mobilizing a volunteer response to COVID-19
- Ionized hydrogen peroxide for N95 respirator sterilization
- KN95 Counterfeit testing
- A foray into augmenting ventilator capacity
- Guidance for makers prototyping PPE and medical supplies in a pandemic
- Medical supplies design in a crisis-setting
- Brazil maker community response to COVID-19
- Leveraging local information for pandemic response internationally
- Impact of facial skin protectants on N95 mask fit testing
- 3D Printed Frames for N95 Masks to Replace Defective Bands and Improve Fit
- Converting existing UVB phototherapy units to UVC light-sources for N95 decontamination
- De novo PAPR design and manufacture to address commercial supply shortages

**3:00 PM**  
**End of Day 2**

## June 24: COVID-19 Response at the Local and National Scale

**12:00 PM**  
**Welcome and Introduction** 
Nicole LeBeuf

**12:05 PM**  
**Panel 1:** COVID-19 Therapeutics: Repurposing drugs and developing vaccines  
**Moderator:** Mark Namchuck  
- Florence Bourgeois - Boston Children’s Hospital  
- Barbara Bierer - Brigham and Women’s Hospital  
- Don Ingber - Wyss Institute  
- Joe Loscalzo - Brigham and Women’s Hospital  
- Jens Bitsch-Nothave – JNJ Innovation

**1:15 PM**  
**Break**

**1:25 PM**  
**Panel 2:** Resiliency & Trust: Local, regional, and national response to PPE Shortages  
**Moderator:** Peter Sorger  
- Ben Linville-Engler – MIT and (M-EERT)  
- Deb Plana - HMS and PanFab  
- Shuhan He – MGH and GetUsPPE.org  
- Anindita Saha, - FDA

**2:45 PM**  
**Closing remarks**  
Peter Sorger

**3:00 PM**  
**End of Day 2**