

Arizona Biosecurity Workshop: Day 1

Thursday, Dec. 5, 2019 | Arizona State University | Tempe, AZ

Carson Ballroom | Old Main



Who should attend?	This event is free and open to the public. Recommended attendees include: biosafety and biosecurity professionals, do-it-yourself practitioners, emergency responders, journalists, law enforcement personnel, members of the public, Native American tribal members, past attendees , policymakers, regulators, representatives of the religious community, researchers, students and other interested parties.
What is the purpose?	Emerging biotechnologies present unique challenges for society. This two-day workshop focuses on community engagement with biosecurity concerns in an applied and practical manner. The goal of this workshop is to foster awareness and to stimulate a robust conversation about the ethical, moral and social implications of novel biotechnologies. The event will include diverse perspectives on the emergence of synthetic viruses, the global impact of do-it-yourself (DIY) biology, international collaborations and disaster preparedness, ethical quandaries in biotechnology, and the future of biological information security and disaster preparedness.
What is biosecurity?	Biological security, biosecurity , is the risk- and threat-based control measures established to prevent the unauthorized access, misuse, loss, theft, diversion and intentional release of valuable biological materials, pathogens, toxins, information, expertise, equipment, technology and intellectual property that have the potential to cause harm to humans, animals, plants, the environment, public safety or national security.
Who is presenting?	<ul style="list-style-type: none"> • Biosecurity practitioners from academic, medical, pharmaceutical and other industries. • Special Agents from the FBI headquarters in Washington, D.C. and the FBI Phoenix Weapons of Mass Destruction unit will assist in leading the workshop and present on biosecurity topics. • Subject matter experts studying the ethical, legal and social implications of emerging biotechnologies. • Honored guests will discuss the importance of biosecurity and implications for Arizona and the world.
How do I register?	Register online https://asuevents.asu.edu/content/2019-arizona-biosecurity-workshop
Latest agenda?	https://www.asu.edu/ehs/biosecurity/2019-arizona-biosecurity-workshop.pdf
Are CE points available?	Yes. Attendees may earn 2.0 continuing education points for attending the entire workshop.
How much is it?	There is no cost to participants. However, to ensure there are enough light refreshments and snacks, all participants must register for the event by November 22, 2019.
What is the capacity?	200 attendees

ASU partners

ASU Biodesign Institute

ASU Environmental Health and Safety

ASU in Mexico

ASU Global Security Initiative

ASU Ira A. Fulton Schools of Engineering

ASU School for the Future of Innovation in Society

ASU School of Life Sciences

ASU Watts College of Public Service and Community Solutions

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Theme 1: Emergence of synthetic viruses

- 8 a.m. **Introductions and sponsor recognition** | Irene Mendoza, ASU and Phillip Bates, FBI
- 8:10 **ASU welcoming remarks** | Jamie Winterton, ASU
- 8:20 **FBI Special Agent in Charge welcome** | Sean L. Kaul, FBI
- 8:30 **Community engagement in the sciences** | Ariel Zych, Science Friday
- 8:50 **Recreating extinct horsepox virus** | David Evans, University of Alberta, Canada
- 9:10 **Creating the first synthetic polio virus** | Eckard Wimmer, Stonybrook University
- 9:30 **Monkeypox pathogenesis and dual use research** | Bertram Jacobs, ASU
- 9:50 **Panel discussion** | Ariel Zych, David Evans, Eckard Wimmer and Bertram Jacobs
- 10 **Break**
- 10:10 **FBI partnerships in higher education** | Mario Calbone, FBI
- 10:30 **Innovative ways of thinking about risk in emerging technologies** | Andrew Maynard, ASU
- 10:50 **Synthetic viruses: viral evolution and dynamics** | Arvind Varsani, ASU
- 11:10 **Deployment of poxviruses for oncolytic virotherapy** | Grant McFadden, ASU
- 11:30 **Panel discussion** | Mario Calbone, Andrew Maynard, Arvind Varsani and Grant McFadden
- 11:40 **The Human Game** | Samira Kiani, University of Pittsburgh
- Noon **Lunch on your own**

Theme 2: Do-It-Yourself (DIY) Biology

- 1 p.m. **The global DIYbio community** | Todd Kuiken, North Carolina State University
- 1:20 **Integrating the commercial sector into DIY bio labs** | Maria Chavez, BioCurious
- 1:40 **After iGEM biosecurity policy conference** | Ronit N. Langer, MIT
- 2 **Panel discussion** | Todd Kuiken, Maria Chavez and Ronit N. Langer
- 2:10 **Pushing science: DIY laboratories** | Stacey Kuznetsov, ASU
- 2:30 **How do scientists respond to questions of self-regulation of biological materials?** | Eric Welch, ASU
- 2:50 **Panel discussion** | Stacey Kuznetsov and Eric Welch
- 3 **Break**

Theme 3: International Collaborations and Disaster Preparedness

- 3:10 **Global biosecurity collaborations** | Aparupa Sengupta, University of California Merced
- 3:30 **ASU and AMEXBIO partnerships** | Irene Mendoza, ASU
- 3:50 **Panel discussion** | Aparupa Sengupta and Irene Mendoza
- 4 **Biothreat disaster preparedness** | Brian Gerber, ASU
- 4:20 **Healthcare special pathogens preparation** | Saskia Popescu, HonorHealth
- 4:40 **Panel discussion** | Brian Gerber and Saskia Popescu
- 4:50 **Closing remarks day one** | Irene Mendoza, ASU and Phillip Bates, FBI
- 5-7 **Evening Reception** | The Graduate, Tempe AZ

Arizona Biosecurity Workshop: Day 2



Friday, Dec. 6, 2019 | Arizona State University | Tempe, AZ
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Theme 4: Ethical quandaries in biotechnology

- 8 a.m. **Brief recap of day one** | Irene Mendoza, ASU and Phillip Bates, FBI
- 8:10 **ASU welcoming remarks** | Melanie Gall, ASU
- 8:20 **Biopiracy and the global use of biological data** | Margo A. Bagley, Emory University
- 8:40 **Ethical implications of self-regulation in life sciences** | Ben Hurlbut, ASU
- 9 **Biotechnology and religious community perspectives** | Gaymon Bennett, ASU
- 9:20 **Panel discussion** | Margo Bagley, Ben Hurlbut and Gaymon Bennett
- 9:30 **Break**
- 9:40 **Ethical concerns of gene drive technology** | Samira Kiani, University of Pittsburgh
- 10 **Legal and ethical perspectives of emerging technologies** | Yvonne Stevens, ASU
- 10:20 **Threats, misuse and illicit acquisition of WMD materials** | William So, FBI
- 10:40 **Panel discussion** | Samira Kiani, Yvonne Stevens and William So
- 10:50 **Contributions of biotechnology to society** | Rachel Levinson, ASU
- 11:10 **Governance of emerging technologies** | Gary Marchant, ASU
- 11:30 **Panel discussion** | Rachel Levinson and Gary Marchant, ASU
- 11:40 **ASU in Mexico Program** | Paola M. Garcia, ASU
- 11:45 **Lunch on your own**

Theme 5: Biological information security

- 1 p.m. **Cybersecurity, digital threats and bio-inspired solutions** | Stephanie Forrest, ASU
- 1:20 **Data breaches and implications for biosecurity** | Jamie Winterton, ASU
- 1:40 **Enhancing biosecurity in defense applications** | Neeraj Rao, Brian O'Shea and Jason Mott, Battelle
- 2:30 **Panel discussion** | Stephanie Forrest, Jamie Winterton and Panel from Battelle
- 2:40 **Break**
- 2:50 **Controlled unclassified information in biological research** | Vel Murugan, ASU
- 3:10 **Hacking of medical devices** | Katina Michael, ASU
- 3:30 **Panel discussion** | Vel Murugan and Katina Michael
- 3:40 **Closing remarks day two** | Irene Mendoza, ASU and Phillip Bates, ASU
- 4 **End of program**

Directions to the ASU Old Main Building

<https://tours.asu.edu/tempe/old-main>

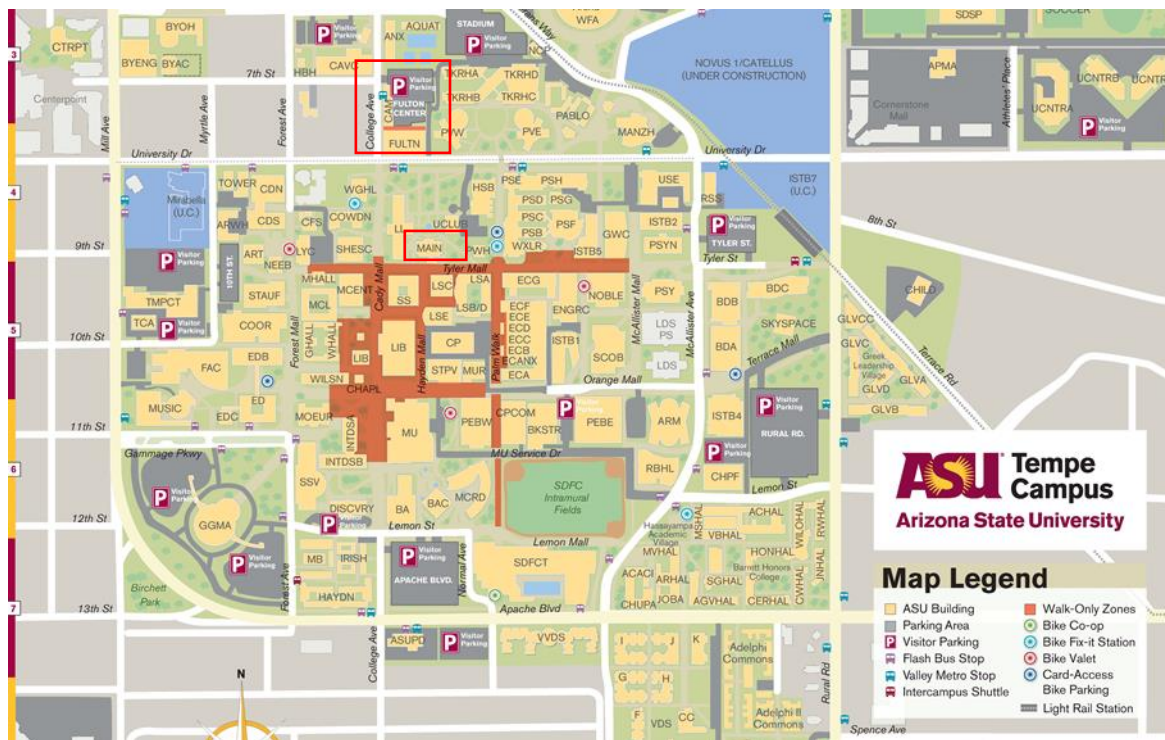
The Old Main building 400 E. Tyler Mall on the Tempe Campus. The meeting will be held in the Carson ballroom on the second floor.

Old Main parking

asu.edu/parking/maps/tempe-current.pdf

Visitor parking is available at the **Fulton Center** parking garage directly across from Old Main.

Additional parking on-campus is available [here](#). Reserving parking on the Tempe campus ahead of your visit through **Parking and Transit Services** is recommended.



Alternative transportation methods

bike.asu.edu

cfo.asu.edu/transit

cfo.asu.edu/shuttles

Photography and multimedia recording

This event may include photography, video and audio recordings. A [photo and filming subject release form](#) will be provided to each attendee at the event. A no-photography zone will be available upon request.

Nearby hotels*

Moxy Tempe – moxy-hotels.marriott.com/hotels/tempe

The Graduate – graduatehotels.com/tempe/

Tempe Mission Palms – destinationhotels.com/tempe-mission-palms

Other nearby hotels – bit.ly/2gZalyp

* Availability and pricing subject to change. Ask for government or state school rates, if available.