



Synthetic Biology: The Promise and the Peril

The *Bridging the Gap* 2026 agenda has added additional presenters and sessions, including ***Synthetic Biology: The Promise and the Peril***, by Dr. Susan Cropp, formerly of the FBI Weapons of Mass Destruction Directorate.

[Check out the most up-to-date conference agenda here.](#)

About the Session:

What if we could program living cells to make medicines, create more sustainable foods or even fight cancer?

We already can.

Synthetic biology combines biology, engineering, computer science and increasingly artificial intelligence to give scientists new ways to design and redesign biological systems. Its impact can already be seen in surprising places — from the technology behind the Impossible Burger, to microorganisms engineered to produce life-saving medicines, to immune cells reprogrammed to recognize and attack certain cancers.

The possibilities are extraordinary. But they also raise important questions.

What happens when our ability to engineer biology advances faster than the rules designed to keep us safe? And how do we prepare for biological threats we've never encountered before?

Join us for ***Synthetic Biology: The Promise and the Peril***, an engaging exploration of synthetic biology, biosecurity and the rapidly changing future of the life sciences. This session will provide

an overview of synthetic biology and will address the future of biosecurity, which protects people, animals and our environment from biological threats and the spread of disease.

What does biosecurity look like when biology itself can be engineered?

The future of biology isn't science fiction. It's already here.

Are we ready for it?

About the Presenter:

Dr. Susan Cropp recently retired after a 23-year career with the Federal Bureau of Investigation. She spent the first half of her career as a Forensic Examiner and Quality Control Program Manager in the FBI's Laboratory Division. Her later years with the FBI were spent in the Weapons of Mass Destruction Directorate as the Biosecurity Program lead, conducting outreach to academia and industry on emerging threats to biosecurity.

Dr. Cropp now heads her own consulting business, Goldstar Biosecurity Consulting LLC. She provides briefings and designs table-top exercises to aid the bioscience community in advancing their biosecurity readiness. She also serves as the Biosecurity Program Advisor for Operation Outbreak, an innovative educational platform designed to teach about infectious disease spread using a realistic app-based simulation program.