

# THE FUTURE OF MICROBIAL BIOTECHNOLOGY

---



Innovative  
Genomics  
Institute



## WORKSHOP AGENDA

### DAY 1: Wednesday 2 February 2022 — 11:00 a.m. – 4:20 p.m. EST

- 11:00 a.m. – **Welcome** – What Are GEMs and Why Are They Important?  
*Anastasia Bodnar (USDA-OCE)*
- 11:05 a.m. – **Regulatory Overview – USDA** – What is the Coordinated Framework?  
*Sally McCammon (USDA-APHIS)*
- 11:20 a.m. – **Panel** – GEMs in Food and Agriculture.  
*Kate Krueger (Helikon Consulting), Bruce Friedrich (Good Food Institute), Bjorn Traag (Andes Ag), and Guillaume Barbier (JoynBio).*  
**Moderator:** *Jenny Splitter (Independent journalist)*
- 11:50 a.m. – **Regulatory Overview – FDA** – Food and Feed Safety.  
*Shayla West-Barnette (CFR) and Diego Paiva (CVM)*
- 12:35 a.m. – **Regulatory Overview – USDA** – Food and Agriculture.  
*Martha Malapi-Wight (APHIS-BRS) and John Hicks (FSIS)*
- 1:20 p.m. – **Break**
- 1:50 p.m. – **Panel** – GEMs in the Environment and Biomanufacturing.  
*Kent Smith (bioMASON), Spencer Diamond (IGI), and Jay Fitzgerald (DOE).*  
**Moderator:** *Julie Shapiro (Keystone Policy Center)*
- 2:20 p.m. – **Regulatory Overview – EPA** – Pesticides and Industrial Uses.  
*Kara Welch (OPP) and Gwen McClung (OPPT)*
- 3:05 p.m. – **Panel** – Scientific Advances and the Future of GEMs.  
*Megan Palmer (Stanford University), David Savage (IGI), Rodolphe Barrangou (NC State), and Anne Cheever (DARPA).*  
**Moderator:** *Andrea Hodgson (Schmidt Futures)*
- 3:45 p.m. – **Q&A | Discussion.** *Melinda Kliegman (IGI)*
- 4:15 p.m. – **Closing.** *Melinda Kliegman (IGI)*
-

## DAY 2 – Thursday 3 February 2022 — 11:00 a.m. – 4:10 p.m. EST

- 11:00 a.m. – **Welcome** – Summary of Day 1 and Intro to Day 2.  
*Melinda Kliegman (IGI)*
- 11:05 a.m. – **Regulatory Overview – USDA- A.M.S** – GEMs in the Bioengineered Food Disclosure Standard.  
*Alex Fischer (USDA- A.M.S)*
- 11:20 a.m. – **Trade and Markets Overview – FAS** – GEMs in International Trade.  
*Jen Rowland (USDA-FAS)*
- 11:35 a.m.– **Panel** – Societal Engagement and Public Education.  
*Jennifer Kuzma (NC State), Charles Denby (Berkeley Yeast), and Charlie Arnot (CFI).*  
**Moderator:** *Brittany Anderton (Science Communication Lab)*
- 12:05 p.m. – **Q&A | Discussion.** *Melinda Kliegman (IGI)*
- 12:30 p.m. – **Break**
- 1:00 p.m. – **Review and discussion of Case Study #1**  
Biofertilizer: Genetically Engineered *Azospirillum brasilense* for extended ammonia production.  
**Moderator:** *Kellye Eversole (Phytobiomes Alliance)*
- 1:05 p.m. – Overview of the Technology – *Tim Schnabel (Stanford University) and Myles Herbert (Indigo Ag)*
- 1:30 p.m. – APHIS Response – *Subray Hedge (BRS)*
- 1:50 p.m. – EPA Response – *Gwen McClung (OPPT)*
- 2:10 p.m. – Q&A | Discussion
- 2:25 p.m. – **Break**
- 2:35 p.m. – **Review and discussion of Case Study #2**  
Biopesticide (hypothetical): Genetically Engineered *Trichoderma harzianum* .  
**Moderator:** *Kellye Eversole (Phytobiomes Alliance)*
- 2:40 p.m. – Overview of the Technology – *Carly Odymsky (Joyn Bio)*
- 3:05 p.m. – EPA Response – *Kara Welch (Office of Pesticide Programs)*
- 3:25 p.m. – APHIS Response – *Subray Hedge (BRS)*
- 3:45 p.m. – Q&A | Discussion
- 4:00 p.m. – **Case Studies Wrap-Up.** *Kellye Eversole (Phytobiomes Alliance)*
- 4:05 p.m. – **Workshop Closing** – *Anastasia Bodnar (USDA-OCE)*