

### NTHRYS WORKSHOPS

### Microbial Systems Engineering And Synthetic Biology

8:45 AM - 10:15 AM: Session 1: Engineering Microbial Systems for Biotechnological Applications

Hands-on workshop on microbial engineering.

Protocols for engineering microbial systems to produce valuable bioproducts, such as biofuels, enzymes, and pharmaceuticals.

#### 10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

# 10:30 AM - 12:00 PM: Session 2: Synthetic Biology Tools for Microbial Systems

Practical session on synthetic biology.

Protocols for designing and implementing synthetic biology tools to manipulate microbial systems for desired outcomes.

#### 12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

# 1:00 PM - 2:30 PM: Session 3: CRISPR-Based Gene Editing in Microbial Systems

Hands-on training on gene editing.

Protocols for using CRISPR-Cas systems to edit genes within microbial communities and analyze their effects on system functions.

#### 2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

#### 2:45 PM - 4:15 PM: Session 4: Metabolic Engineering of Microbial Systems

Practical session on metabolic engineering.

Protocols for engineering microbial metabolic pathways to enhance production of biotechnologically relevant compounds.

#### 4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

# 4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.

Dialogue on overcoming challenges in adopting new technologies in similar sectors.

Feedback session and closing remarks.

Certificate Issue

#### 5:30 PM: Workshop Concludes