



2021 ACS BIOT Meeting

“Resilience of Chemistry”

Atlanta, GA – August 22-26, 2021

Co-chair: Caryn Heldt, Michigan Technological University

Co-chair: Aaron Noyes, Codiak BioSciences

TECHNICAL AREA DESCRIPTIONS

Upstream Processes

Area Coordinators: Melisa Carpio Sartorius
 Nitya Jacobs Amgen
 Danielle Tullman-Ercek Northwestern

- Research focused on chemistries used to synthesize products from cellular and enzymatic biotechnologies
- Sessions
 - Upstream Processing: Mammalian-Media and Metabolism
 - Upstream Processing: Mammalian-Innovative Technologies
 - Upstream Processing: Mammalian-Novel Modalities
 - Upstream Processing: Advances in Perfusion and Reactor Engineering
 - Upstream Processing: Systems Biology & Omics-Tools and Applications
 - Upstream Processing: Engineering Microbial Communities and Non-Model Systems
 - Upstream Processing: Process development and challenges for cell-based products
 - Upstream Processing: Microbial Metabolic Engineering
 - Upstream Processing: Synthetic Biology and Genome Engineering
 - Upstream Processing: High-Throughput Screening and Automation

Downstream Processes

Area Coordinators: Wai Keen Chung Biogen
 Dan Bracewell UCL
 Elizabeth Goodrich MilliporeSigma

- Research focused on chemistries, approaches and tools used to purify products produced via biopharmaceuticals
- Sessions
 - Downstream Processing: Advances in Chromatographic Separations for mAbs
 - Downstream Processing: Advances in Chromatographic Separations for Novel Antibody Structures and Drug Conjugates
 - Downstream Processing: Advances in Chromatographic Separations using Novel Stationary Phases
 - Downstream Processing: Non-Chromatography Based Separation of Biomolecules
 - Downstream Processing: Membrane-Based Downstream Bioprocessing
 - Downstream Processing: High-Throughput Screening and Automation of Downstream Process Development
 - Downstream Processing: in Silico and Mechanistic Modeling of Downstream Bioseparations
 - Downstream Processing: Case Studies in Tech Transfer, Scaleup, and Integrated Process Design
 - Downstream Processing: Downstream Processing of Non-Antibody Modalities

- Current topics in continuous processing
- Sessions
 - Integrated and Continuous Processing: Implementation: It's happening!
 - Integrated and Continuous Processing: Advances in Perfusion Technologies and Process Development
 - Integrated and Continuous Processing: Advances in Automation, Control and PAT
 - Integrated and Continuous Processing: Integrated and Continuous Downstream Processing

Cell and gene therapy

Area Coordinators: Bill Kelly Villanova
 Nooshi Sanaie Kite Pharma
 Mercedes Segura Avro Bio

- Progress in development, upstream and downstream processing of cell and gene therapies
- Sessions
 - Cell and Gene Therapy: Development and Manufacturing of Cell Therapy Products
 - Cell and Gene Therapy: Development and Manufacturing of Gene therapy and Viral Vector Products
 - Cell and Gene Therapy: Next Generation Modalities in Gene and Cell therapy
 - Cell and Gene Therapy: Characterization of Gene and Cell Therapy Starting and Final Products and Regulatory Perspectives

Protein Engineering

Area Coordinators: Nik Nair Tufts
 Zhe Rui Codexis

- Progress in protein engineering
- Sessions
 - Protein Engineering: Protein Conjugates, Fusions, and Formulations
 - Protein Engineering: Protein Engineering for Therapeutic, Diagnostic, and Sensor Applications
 - Protein Engineering: Advances in Protein Engineering Technologies
 - Protein Engineering: Enzyme Engineering and Biocatalysis

COVID Vaccine, therapies, and diagnostics/ Pandemic response

Area Coordinators: Varnika Roy GSK
 Shannon Servoss U Arkansas
 Frank Kotch Pfizer

- Progress in pandemic response in all areas of vaccines, therapies and diagnostics
- Sessions
 - Covid Vaccines, Therapeutics and Diagnostics: COVID Therapeutics: From Discovery to Super-Accelerated CMC Development.
 - Covid Vaccines, Therapeutics and Diagnostics: COVID Vaccines: From Discovery to the Fastest Vaccine Development in History
 - Covid Vaccines, Therapeutics and Diagnostics: COVID-19 Diagnostics and Detection: Technologies, Challenges & the Scale-Up of Testing

- Covid Vaccines, Therapeutics and Diagnostics: How COVID-19 Changed My Research Path: The Good, the Bad, and The Ugly

Rapid Fire and Traditional Poster session

Area Coordinators: Kristin Vallente Merck
Kelsey O'Donnell Amgen

BIOT TANK

Area Coordinators: Hadley Sikes MIT
Jonathan Royce Bio-Works Technologies
John Welsh Merck & Co.

- Have an idea for a new business? Pitch it to our panel!