

Bioderived Materials and Chemicals in Circular Bioeconomy Systems (CBS) Conference

Wednesday – September 3, 2025

7:00 am – 8:15 am Breakfast and Registration Opens (Inspiration Salon B)

8:30 am	Welcome and Opening Remarks (Inspiration Salon A) Tim Rials and Niki Labbé , University of Tennessee	
8:45 am	Keynote Address: Guus ter Haar , Circle Economy, Tackling the global circularity gap	
9:15 am	Keynote Address: Orlando Rojas , University of British Columbia, Innovations in Bio-Based Chemicals and Materials: A Colloidal Systems Approach	
9:45 am	Keynote Q&A	
10:00 am	BREAK	
	Session 1A: Engineering Sources of Sustainable Carbon (Inspiration Salon CD) Moderator: Haibo Huang	Session 1B: Design of Circular Product Systems (Inspiration Salon A) Moderator: Niki Labbé
10:20 am	Guoliang (Greg) Liu , Virginia Tech Upcycling of plastic waste into high-value chemicals and materials	Sudhagar Mani , University of Georgia Sustainable biomanufacturing of materials and chemicals in circular forest bioeconomy system
10:40 am	Radika Bhaskar , Thomas Jefferson University, Mycelium-based composites using biomass residues: Opportunities to advance regional and resilient supply-chains	Kalavathy Rajan , Texas Tech University, Monolignol-based molecular heaters to combat cold stress in crops
11:00 am	Steph Herbstritt , Clean Air Task Force Transforming the “bio-mess” to carbon negative bioeconomies	Young-Teck Kim , Virginia Tech Conversion of food waste into renewable package materials – the USDA Pilot Program Project
11:20 am	Lillian Lower , North Carolina State University Bio-based battery materials for circular energy storage systems.	Meisha Shofner , Georgia Tech, Pathways toward commodity mechanical metamaterials: Harnessing traditional paper and nonwoven processing to produce auxetics with natural fibers
11:40 am	Blake Simmons , Lawrence Berkeley National Laboratory From the bench to the barrel: Scale-up of protic ionic liquids and amines for biomass pretreatment	James Sternberg , Clemson University Lignin and glycerol as bioderived agents for films, foams, and adhesives: Structure-property relationships and biodegradability performance
12:00 pm	NETWORKING LUNCH (Inspiration Salon B)	

Session 2

1:15 pm	Industry Panel (Inspiration Salon A) (Moderator: Eric Dobson, University of Tennessee) Corey Tyree , Trillium Renewable Chemicals Jorge Gonzalez , UL Research Institutes' Materials Discovery Research Institute Scott Kuhlman , ReCircled Brewer Logan , Verenovo Larissa Fenn , Rayonier Advanced Materials, Inc. Gerry Heebner , Kraton Chemical, LLC	
2:45 pm	BREAK	
3:15 pm	Working Group 1: Survey of Current Gaps (Inspiration Salon A) Moderated by Joe Sagues , North Carolina State University / Gopinath Munisamy , University of Georgia	Working Group 2: Survey of Current Gaps (Inspiration Salon CD) Moderated by Sam Jackson , HudsonAlpha Institute for Biotechnology / Haibo Huang , Virginia Tech
4:45 pm	Reconvene and Report Out: Moderated by Niki Labbé , University of Tennessee (Inspiration Salon A)	
5:30 pm	Close of Day 1	
Evening Session		
6:00 pm	Reception & Poster Session (Hallway)	
6:30 pm	Dinner (Inspiration Salon B)	
8:00 pm	Poster Session, Cont'd	

Thursday – September 4, 2025

7:00 am – 8:15 am Breakfast and Registration Opens (Inspiration Salon B)

	Session 3A: Modeling Applications in CBS (Inspiration Salon A) Moderator: Joe Sagues	Session 3B: Sustainable Manufacturing: Industry Challenges and Collaborative Solutions (Inspiration Salon CD) Moderator: Gary Thompson
8:30 am	Jeremy Guest , University of Illinois Urbana-Champaign BioSTEAM and the prioritization of research, development, and deployment pathways for the conversion of plants to products	Jason Locklin , University of Georgia Assessing the biodegradation and compostability of flexible packaging: Collaborations between the New Materials Institute and the industry supply chain
8:50 am	Minliang Yang , North Carolina State University TEA-driven design for sustainable food systems	Art Ragauskas , University of Tennessee Extracting Value for Biomass

9:10 am	Matt Langholtz , Oak Ridge National Laboratory National strategies to advance the bioeconomy for multiple markets	Bernardo Vidal , Novonesis Sustainable biological solutions in corn biorefining
9:30 am	Joe Sagues , North Carolina State University Quantifying atmospheric carbon removal at pulp and paper mills: A life cycle assessment across system boundaries	Soledad Peresin , Clemson University Biobased polymer assemblies and their contribution to mitigating significant environmental challenges
9:50 am	Juliana Vasco-Correa , Penn State University Integrating experimental insights into process models for circular bioeconomy systems analysis	Claudia Pabón Pereira , Pontificia Universidad Católica de Chile, Traesure Bridging the circularity gap: A conceptual framework for the biological cycle of the circular economy
10:10 am	BREAK	
	Session 4A: Networking for Innovation: Collaboration Opportunities in CBS (Inspiration Salon A) Moderator: Gopinath Munisamy	Session 4B: Building the Future: Education & Workforce Development (Inspiration Salon CD) Moderator: Sam Jackson
10:40 am	Erin Webb , Oak Ridge National Laboratory CBS initiatives at the national level	Michele Morris , HudsonAlpha Institute for Biotechnology Seeding the future bioeconomy: Building the STEM workforce through HudsonAlpha educational outreach
11:00 am	Gopinath Munisamy , University of Georgia UGA CBS initiative and opportunities in the Southeast	Zachary Adams , TN Board of Regents The Tennessee Board of Regents’ IDEAL Workforce Model: Aligning Higher Education with Emerging Industry Sectors
11:20 am	Lynn Wendt , Idaho National Laboratory Utilizing preprocessing to manage the variability of emerging biomass and waste materials for the bioeconomy	Veronica Morin , Alabama Community College System Partnering for progress: How the Alabama Community College System powers workforce development through industry collaboration
11:40 am	Kirsten Allen , Schmidt Sciences Advancing Interdisciplinary Research in the Circular Bioeconomy	Kevin Taylor , Alabama Industrial Development Training Empowering talent: Workforce solutions for the bioscience industry
12:00 pm	NETWORKING LUNCH (Inspiration Salon B)	
Session 5		
1:15 pm	Panel Discussion: Research strategies and partnerships, and regional industry commitments for accelerating deployment of CBS Programs (Inspiration Salon A)	

	Moderator: Brahm Verma , University of Georgia Kirsten Allen , Schmidt Sciences Brad Day , University of Tennessee Stephanie Herbstritt , Clean Air Task Force Gary Thompson , agInnovation South Sarah Sullivan , Kraton Chemical, LLC
3:00 pm	Report Out: Moderator: Gary Thompson , agInnovation South and Tim Rials , University of Tennessee
4:00 pm	Close of Meeting

Organizing Committee

Dr. Haibo Huang
Virginia Tech

Dr. Sam Jackson
HudsonAlpha

Dr. Gopinath Munisamy
University of Georgia

Dr. Nicole Labbé
The University of Tennessee

Dr. Tim Rials
The University of Tennessee

Dr. Joe Sagues
North Carolina State University

Dr. Gary Thompson
agInnovation (SAAESD)

Conference Venue

DollyWood's Heart Song Lodge and Conference Center