

INTERNATIONAL CONFERENCE ON
BIOENERGY AND BIOFUEL

RENEWING ENERGY-RESTORING EARTH

MARCH 23-25, 2026

**HILTON BOSTON BACK BAY, BOSTON
MASSACHUSETTS, USA**



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BLAKE A. SIMMONS

Division Director
Biological Systems and Engineering Division
Lawrence Berkeley National Laboratory, USA

Dr. Blake A. Simmons is the Director of the Biological Systems and Engineering Division at Lawrence Berkeley National Laboratory (biosciences.lbl.gov). Dr. Simmons also serves as the Chief Science and Technology Officer and Vice-President of the Deconstruction Division at the Joint BioEnergy Institute (www.jbei.org), a DOE Office of Science funded project tasked with the development and realization of advanced biofuels and bioproducts produced from sustainable, non-food lignocellulosic biomass. After spending 15 years at Sandia National Laboratories, he joined Lawrence Berkeley National Laboratory. He has over 400 publications and holds more than 50 patents.

INSTRUCTIONS FOR SPEAKERS

1. **Plenary Talks:** Plenary speakers will be allotted 25 minutes to present their results, followed by a 5 minutes discussion period.
2. **Keynote Talks:** Keynote speakers will be allotted 20 minutes to present their results, followed by a 5 minutes discussion period.
3. **Invited Talks:** Invited speakers will be allotted 17 minutes to present their results, followed by a 3-minute discussion period.
4. Please do not exceed the allotted time slot.
5. Speakers should have their presentations saved on a USB memory stick.
6. It is suggested to email a copy of the presentations to us as back up.
7. Please prepare the presentation in PPT files, PDF is not recommended.
8. **Basic AV setup will be provided:** laser pointer, cordless mike, desktop mike, sound system.
9. Laptops equipped with Windows 10, Office 2010 Pro English (Word, Powerpoint, Excel) and Adobe Reader are provided.
10. If your presentation files contain movies, please make sure that they are well formatted and connected to the main files. You may check your slides during the breaks.
11. Projectors are equipped with standard VGA connection ports. Mac users should bring their own adapter cord.
12. Please re-check this program prior to the conference to confirm if any changes have been made to your session.
13. Conference volunteers will move the mic during Q&A. Audience with questions may raise hand to receive the mic.

INSTRUCTIONS FOR E-POSTER

1. Poster must be prepared in PowerPoint (Max 2 slides).
2. Use high-resolution images and readable fonts.
3. Each presenter will have 7 minutes to briefly explain their poster during the poster session, Followed by 3 minutes for Q&A.

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MARCH 23–25, 2026 | HILTON BOSTON BACK BAY, BOSTON, USA

DAY-1, MARCH 23, 2026

08:30–09:15 Registrations

09:15–09:30 Opening and Welcome by Conference Chair [Dr. Blake A. Simmons](#)

PLENARY TALKS

Session Chair: [Blake A. Simmons](#), Lawrence Berkeley National Laboratory, USA

09:30–10:00 **Plenary Talk:** Regenerative Agroenergy Systems: A Reality-Based Approach to Bioenergy and Biofuels
[Bruce E. Dale](#), Michigan State University, USA

10:00–10:30 **Plenary Talk:** Economics of Bioproduction and the Supply Chain Design and Policy
[David Zilberman](#), University of California, Berkeley, USA

10:30–11:00 **Plenary Talk:** The Future of Biorefining: General Perspectives and a Report from the Field
[Lee R. Lynd](#), Co-founder and CTO of Terragria Biofuel Inc, USA

11:00–11:30 COFFEE BREAK

11:30–12:00 **Plenary Talk:** Flying the Future: Advances in Aviation Fuels at the Joint BioEnergy Institute (JBEI)
[Blake A. Simmons](#), Lawrence Berkeley National Laboratory, USA

12:00–12:30 **Plenary Talk:** Biochar from Biomass and Waste: Fundamentals and Applications (Online)
[Yong Sik Ok](#), President of the International ESG Association, South Korea

Biofuels for Transportation: Powering a Low-Carbon Future

Session Chair: [Lee R. Lynd](#), Co-founder and CTO of Terragria Biofuel Inc, USA

12:30–12:55 **Keynote Talk:** Catalytic Biographite Production and Techno-Economic Evaluation for Lithium-Ion Battery Applications
[Sunky Park](#), North Carolina State University (NCSU), USA

12:55–14:00 LUNCH BREAK

14:00–14:25 **Keynote Talk:** A New Nitrogen Cycle in Biofuel Agriculture
[Steven Singer](#), Advanced Research Projects Agency-Energy (ARPA-E), USA

14:25–14:45 **Invited Talk:** Staying Productive Under Pressure: Systems Evaluations of β -carotene Production in *Yarrowia Lipolytica* Under Continuous Fermentation
[Yinjie J. Tang](#), Washington University, USA

14:45–15:05 **Invited Talk:** The Potential of a Residue-Based Sustainable Aviation Fuel (SAF) Economy in the U.S Midwest
[Angela Isabella Scafidi](#), World Resources Institute, USA

15:05–15:25 **Invited Talk:** From Land To Sea: Converting Food Waste Fermentation to Marine Fermentation
[Anga Hackula](#), University of Maryland, USA

15:25–16:00 COFFEE BREAK

Session Chair: Anga Hackula, University of Maryland, USA

16:00–16:20 Invited Talk: Just Add Sea Water: A Biological and Chemical Process for Conversion of Organic Wet-Waste to Fuels, Fertilizers, Epsom Salts, and Esters
Smith Pittman, Colorado State University, USA

16:20–16:40 Invited Talk: Trends in Global Mitigation Policies: Potential Impact on Biofuel Demand
Linda Schmid, Joint BioEnergy Institute, USA

16:40–17:00 Invited Talk: Engineering Yield Traits for De Novo Domestication of Biofuels Crops
Jennifer C. Fletcher, University of California, Berkeley, USA

17:00–18:00 Networking Cocktails

DAY-2, MARCH 24, 2026

Biomass Supply in Sustainable & Circular Economics

Session Chair: Yuansheng Hu, UCD School of Civil Engineering, Ireland

09:30–10:00 Plenary Talk: Foundations for Circular Biomanufacturing: Engineering Energy, Food, Materials and Pharmaceuticals for Life Beyond Earth.
Adam Paul Arkin, University of California, USA

10:00–10:25 Keynote Talk: Reimagining Biomass Conversion: Pathways to Advanced Fuels, Bioproducts, and Energy Materials (Online)
Noppadon Sathitsuksanoh, University of Louisville, USA

10:25–10:50 Keynote Talk: Biomimetic Compartmentalization of Catalysts for Bioenergy and the Bioeconomy
Cheryl Kerfeld, Michigan State University, USA

10:50–11:15 COFFEE BREAK

**Session Chairs: Clay Wheeler, University of Maine, USA
Cheryl Kerfeld, Michigan State University, USA**

11:15–11:40 Keynote Talk: Systems Biology Approaches to Strain Engineering
Aindrila Mukhopadhyay, Lawrence Berkeley National Laboratory, USA

11:40–12:00 Invited Talk: Genome-Engineering of Industrial Diploid Yeast for Lignocellulosic Biofuels
Amit Ghosh, Indian Institute of Technology Kharagpur, India

12:00–12:20 Invited Talk: Neutron-Enabled Insights into Biomass Pretreatment for Biofuels
Hugh Neill, Oak Ridge National Laboratory, USA

12:20–12:40 Invited Talk: Bio-Innovations for a Resilient, Circular Bioeconomy
Mary Blanchard, University of Wisconsin - Madison, USA

12:40–13:00 Invited Talk: Biomass Blends for Flexible, Economically Stable, and Scalable Biomanufacturing
Nawa Baral, Lawrence Berkeley National Laboratory, USA

13:00–13:50 LUNCH BREAK

Biomass Supply in Sustainable & Circular Economics

Session Chair: Aindrila Mukhopadhyay, Lawrence Berkeley National Laboratory, USA

- 13:50–14:10** **Invited Talk:** Distillable Amine Solvents Enable Efficient Pretreatment of Diverse Single and Mixed Lignocellulosic Feedstocks
Xueli Chen, Lawrence Berkeley National Laboratory, USA
- 14:10–14:30** **Invited Talk:** Valorization of Lignocellulosic Biomass to Produce Biohydrogen
Young Eun Song, Lawrence Berkeley National Laboratory, USA
- 14:30–14:50** **Invited Talk:** Hydrogenases as Enablers of Redox-Driven Biomanufacturing
Justin Panich, Lawrence Berkeley National Laboratory, USA
- 14:50–15:10** **Invited Talk:** Auto-Floating Microalgae – An Alternative Way for Cultivating Easily Harvestable Microalgal Biomass
Yuansheng Hu, UCD School of Civil Engineering, Ireland
- 15:10–15:30** **Invited Talk:** Scaling Up the Forest Bioeconomy: From Thermal Deoxygenation to Sustainable Fish Feed
Clay Wheeler, University of Maine, USA

15:30–15:50 COFFEE BREAK

Session Chair: Yuansheng Hu, UCD School of Civil Engineering, Ireland

- 15:50–16:10** **Invited Talk:** From Genes to Gigawatts: Bridging Biological Innovation and Climate Investment in the Bioenergy Transition
Jillian Chase, Azolla Ventures, USA
- 16:10–16:30** **Invited Talk:** Coupling Pretreatment and Solvent Recovery to Enable Closed-Loop Biomass Deconstruction
Md Maksudur Rahman, Joint Bioenergy Institute (JBEI) and Sandia National Laboratories, USA
- 16:30–16:50** **Invited Talk:** Design-Driven Microbial Engineering for Carbon-Optimized Bioproduction
James Carothers, University of Washington, USA

16:50–17:30 E – Poster Presentations

- 16:50–17:00** **Title:** Liquid Chromatography and Mass Spectrometry Analysis of Volatile Alkaline Protic Solvent Pretreated Lignocellulosic Hydrolysate
Emine Akyuz Turumtay, Lawrence Berkeley National Laboratory, USA
- 17:00–17:10** **Title:** Directed Evolution of Conjugative Plasmids
Thien Vu, Lawrence Berkeley National Lab, USA
- 17:10–17:20** **Title:** Impact of Pyrolysis Temperature on the Pore Structure and Surface Area of Bamboo-Derived Biochar for Sustainable Applications
Hung-Lung Chiang, National Yunlin University, Taiwan
- 17:20–17:30** **Title:** An Unconventional Study: Replacing all Crude Oils with Fuels from Cellulosic Biomass (CWF)
Chiara Berretta, Massachusetts Institute of Technology, USA

DAY-3, MARCH 25, 2026

Biorefining at the Heart of the Circular Economy

Session Chair: **Smith Pittman, National Laboratory of the Rockies, USA**

- 09:30–10:00** **Plenary Talk:** Biofuels: A Paradigm of Present and Future (Online)
Rafael Luque Alvarez de Sotomayor, King Saud University, Saudi Arabia
- 10:00–10:25** **Keynote Talk:** Advanced Quantification of Fugitive Methane Emissions in Wastewater Treatment Plants
Elsayed Elbeshbishy, Toronto Metropolitan University, Canada
- 10:25–10:45** **Invited Talk:** Application of LC–MS Based Metabolomics Analysis to Bioenergy Research
Edward Baidoo, Lawrence Berkeley National Laboratory, USA
- 10:45–11:05** **Invited Talk:** Dynamic Two-Phase Anaerobic Digestion Biorefineries: An Investigation of Technical and Economic Feasibility
Rajas Shinde, Agriculture and Food Development Authority of Ireland, Ireland

11:05–11:30 **COFFEE BREAK**

Session Chair: **Edward Baidoo, Lawrence Berkeley National Laboratory, USA**

- 11:30–11:50** **Invited Talk:** Combined Algae Processing: Progress, Potential, and Pathways Forward
Matthew Wiatrowski, National Laboratory of the Rockies, USA
- 11:50–12:10** **Invited Talk:** Green Power for Data Centers Using Napier Grass Based Biogas–Hydrogen Pathway
Ganapathy Arumugam, Enhanced Biofuels and Technologies LLC, India and USA
- 12:10–12:30** **Invited Talk:** Kinetic Modeling of Dilute Alkaline Deacetylation for Scalable Lignocellulosic Bioenergy Systems
Smith Pittman, National Laboratory of the Rockies, USA
- 12:30–12:50** **Invited Talk:** Harnessing the Abiotic–Biotic Interface for CO₂ conversion
Deepika Awasthi, Lawrence Berkeley National Laboratory, USA

Comparing Biomass Processing Depots to Supply Large Biorefineries

Session Chair: **Bruce E. Dale, Michigan State University, USA**

- 12:50–13:10** **Invited Talk:** Requirements for Biofuels to Replace Crude Oil: Soil Sustainability, Hydrogen and Cellulosic Biomass
Charles Forsberg, Massachusetts Institute of Technology, USA

13:10–14:00 **COCKTAILS**

- 14:00–14:20** **Invited Talk:** Renewable Energy and Circular Animal Agriculture in the U.S (Online)
Wei Liao, Michigan State University, USA
- 14:20–14:40** **Invited Talk:** Toward Carbon Negativity—Innovative Pathways in Biofuel Systems (Online)
Jorge Antonio Hilbert, Energy & Environment Consulting Services, Argentina
- 14:40–15:00** **Invited Talk:** Lessons from Organizing Biomass Logistics in Africa: Keep it Simple is the Success (Online)
Fabrizio Sibilla, S&C Best, Italy

15:00–15:20 **Invited Talk:** Decentralized Supply Chains for Electrobiofuels (Online)
Chris Saffron, Michigan State University, USA

15:20–15:45 **SESSION BREAK**

Session Chairs: **Bruce E. Dale**, Michigan State University, USA
Rajas Shinde, Agriculture and Food Development Authority of Ireland, Ireland

15:45–16:05 **Invited Talk:** Engineering Anaerobic Microbial Systems for Carbon Valorization: From Arrested Anaerobic Digestion to CO₂ Gas Fermentation for Acetate Production (Online)
Angana Chaudhuri, Washington State University, Pullman, USA

16:05–16:25 **Invited Talk:** Hybrid Electrochemical-Biological Approach to Upcycle Food Waste into Aviation Fuel (Online)
Beenish Saba, The Ohio State University, USA

16:25–16:45 **Invited Talk:** Integrated Biorefineries: Maximizing Value from Waste Through Multi-Product Platforms (Online)
Jayant Keskar, Enpro Envirotech Pty Ltd, Australia

16:45–17:05 **Invited Talk:** Green Criminology in Malaysia's Palm Oil Industry: Deforestation, Ecological Footprints, and Corporate Environmental Responsibility (Online)
Intan Salwani Mohamed, Universiti Teknologi MARA (UiTM), Malaysia

17:05–17:25 **Invited Talk:** Sugarcane Biomass Utilization: Technical Potential and Implementation Gaps (Online)
Joaquín Mario Ortiz, National Institute of Agricultural Technology, Argentina



PRISM

PROFESSIONAL CONFERENCE ORGANIZERS

Prism Scientific Services Pty Ltd., a premier conference organizer, envisions a sustainable future for the Bioenergy. Our goal is to unite experts and stakeholders through conferences, fostering collaboration and advancing sustainable practices. Committed to curating conferences on Bioenergy and eco-friendly technologies, we catalyze the industry's development. Emphasizing interdisciplinary collaboration, our events address complex challenges. Dedicated to sustainability, we minimize footprints and promote eco-friendly venues, inspiring environmental responsibility. As catalysts for positive change, guiding the energy industry toward an innovative, environmentally responsible future in conferences that prioritize sustainable development.

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WE WISH TO SEE YOU AT IBC-2027



sushma.kl@bioenergyconferences.com
Australia: +61 390163202
Prism Scientific Services Pty Ltd
302/480 Collins Street, Melbourne, VIC 3000, Australia
www.scientificprism.com

www.internationalbioenergyconference.com