

Bioenergy Technologies Office 2019 Project Peer Review Schedule

*Note: Draft schedule, subject to change

Monday, March 4, 2019

Time (MT)		
7:30 am – 8:30 am	Continental Breakfast and Registration	
8:30 am - 8:40 am	Bioenergy Technologies Office Peer Review Welcome	Nichole Fitzgerald, BETO
8:40 am - 9:00 am	DOE Office of Energy Efficiency and Renewable Energy Transportation Sector Overview	Michael Berube, Deputy Assistant Secretary for Transportation, EERE
9:00 am - 9:20 am	Bioenergy Technologies Office Overview	Jonathan Male, Director, BETO
9:20 am – 9:40 am	Keynote Address: “Clear Vision is the Strategy”	Michael Dishman, POET
9:40 am – 9:55 am	Break	
9:55 am – 10:15 am	Analysis and Sustainability Program Overview	Alicia Lindauer, BETO
10:15 am – 10:35 am	Advanced Algal Systems Program Overview	Alison Goss Eng, BETO
10:35 am – 10:55 am	Feedstock Supply and Logistics Program Overview	Alison Goss Eng, BETO
10:55 am – 11:35 am	Conversion Program Overview	Kevin Craig, BETO
11:35 am – 11:55 am	Advanced Development and Optimization Program Overview	Jim Spaeth, BETO
11:55 am – 1:00 pm	Lunch	
1:00 pm – 5:10 pm	Advanced Algal Systems, Biochemical Conversion, Catalytic Upgrading, Analysis and Sustainability, Performance-Advantaged Bioproducts and Separations, Waste to Energy, and Advanced Development and Optimization: Integration and Scale-Up Technology Area Review Sessions	
4:30 pm – 6:30 pm	Poster Session	

Tuesday, March 5, 2019

8:00 am – 8:30 am	Breakfast	
8:30 am – 8:45 am	Address by the Director of the Office of Energy and Environmental Policy, USDA	Bill Hohenstein
8:45 am – 9:05 am	Bioeconomy Initiative: Implementation Framework and Interagency Collaborations	Alison Goss Eng
9:05 am – 9:30 am	Industry Partnerships: Mechanisms, Opportunities, and Success Stories	Liz Moore
9:30 am – 9:45 am	Break	
9:45 am – 11:45 am	Advanced Algal Systems, Biochemical Conversion, Catalytic Upgrading, Analysis and Sustainability, Performance-Advantaged Bioproducts and Separations, Waste to Energy, and Advanced Development and Optimization: Integration and Scale-Up Technology Area Review Sessions	
11:45 am – 1:00 pm	Lunch	
1:00 pm – 5:30 pm	Advanced Algal Systems, Biochemical Conversion, Catalytic Upgrading, Analysis and Sustainability, Performance-Advantaged Bioproducts and Separations, Waste to Energy, and	

	Advanced Development and Optimization: Integration and Scale-Up Technology Area Review Sessions
4:30 pm – 6:30 pm	Poster Session

Wednesday, March 6, 2019

8:00 am – 8:30 am	Breakfast	
8:30 am – 8:50 am	Carbon Management Framework	Kevin Craig and Alison Goss Eng
8:50 am - 9:10 am	New Ideas in Waste Carbon Utilization: CO ₂ and Wet Wastes	Ian Rowe
9:10 am – 9:30 am	Recycling and Upcycling Plastics	Jay Fitzgerald
9:30 am – 9:45 am	Break	
9:45 am – 11:45 am	Advanced Algal Systems, Biochemical Conversion, Catalytic Upgrading, Analysis and Sustainability, Lignin Utilization, Feedstock Supply and Logistics, and Advanced Development and Optimization: Integration and Scale-Up Technology Area Review Sessions	
11:45 am – 1:00 pm	Lunch	
1:00 pm – 5:30 pm	Advanced Algal Systems, Biochemical Conversion, Catalytic Upgrading, Analysis and Sustainability, Lignin Utilization, Feedstock Supply and Logistics, and Advanced Development and Optimization: Integration and Scale-Up Technology Area Review Sessions	

Thursday, March 7, 2019

8:00 am – 8:30 am	Breakfast
8:15 am – 11:45 am	Advanced Algal Systems, Agile BioFoundry, Carbon Dioxide Utilization, Co-Optimization of Fuels and Engines, Feedstock-Conversion Interface Consortium, and Advanced Development and Optimization: Analysis and Modeling Technology Area Review Sessions
12:00 am – 1:00 pm	Lunch
1:00 pm – 5:30 pm	Advanced Algal Systems, Agile BioFoundry, Carbon Dioxide Utilization, Co-Optimization of Fuels and Engines, Feedstock-Conversion Interface Consortium, and Advanced Development and Optimization: Analysis and Modeling Technology Area Review Sessions

Friday, March 8, 2019- Closed-Door Session (open to Lead Reviewers, Steering Committee, and BETO Staff)

7:30 am – 8:00 am	Breakfast
8:15 am – 12:00 pm	Lead reviewer debriefs of technology review sessions
12:00 pm – 12:30 pm	Working Lunch
12:30 pm – 1:05 pm	Final presentations and closing remarks

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Advanced Algal Systems

Day 1 – Monday, March 4, 2019				
Start Time	End Time	Presentation	Organization	Presenter
1:00	1:30	Advanced Algal Systems: Session Introduction	BETO	Daniel Fishman
1:30	1:55	HTL TEA	PNNL	Sue Jones
1:55	2:30	Algal Biofuels Techno-economic Analysis	NREL	Ryan Davis
2:30	3:00	Microalgae Analysis	PNNL	Mark Wigmosta
3:00	3:15	Break		
3:15	3:45	Biomass Composition	NREL	Lieve Laurens
3:45	4:30	DISCOVR	PNNL/LANL/NREL/SNL	Michael Huesemann
4:30	5:00	Reviewer/Lead Reviewer Debriefing		
Day 2 – Tuesday, March 5, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	9:50	Advanced Algal Systems: Opening Remarks	BETO	Daniel Fishman

9:50	10:20	Multi-scale Characterization of Improved Algae Strains	LANL	Taraka Dale
10:20	10:50	Algae Biotechnology Partnership	NREL	Michael Guarnieri
10:50	11:20	Genetic Blueprint of Microalgae	LANL/LBNL	Shawn Starkenburg
11:20	11:50	Robust Genome Engineering Tools for the Algal Research Community	LANL	Blake Hovde
11:50	1:00	Lunch		
1:00	1:30	Functional Characterization of Cellular Metabolism	LANL	Scott Twary
1:30	2:00	Cyanobacteria Photosynthetic Energy Platform	NREL	Jianping Yu
2:00	2:30	Algal Translational Genomics	LANL	Shawn Starkenburg
2:30	3:00	SOFAST: Streamlined Optimization of Filamentous Arthrospira/Spirulina Traits	Lumen	Damian Carrieri
3:00	3:15	Break		
3:15	3:45	Microbiome Engineering of Desmodesmus to Alleviate Carbon Limitation	LLNL	Xavier Mayali
3:45	4:15	A Comprehensive Strategy for Stable, High Productivity Cultivation of Microalgae with Controllable Biomass Composition	University of Toledo	Sridhar Viamajala
4:15	4:30	Reviewer/Lead Reviewer De-briefing		
Day 3 – Wednesday, March 6, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	10:15	Prevention of Low Productivity Periods in Large-Scale Microalgae Cultivation	Global Algae Innovations, Inc.	Aga Pinowska
10:15	10:45	Developing Advanced Genetic and Synthetic Biology Tools for Improved Algae Productivity	University of California, San Diego	Stephen Mayfield
10:45	11:15	High-Throughput Directed Evolution of Marine Microalgae and Phototrophic Consortia for Improved Biomass Yields	Colorado School of Mines	Matthew Posewitz
11:15	11:45	Success Through Synergy: Increasing Cultivation Yield and Stability with Rationally Designed Consortia	New Mexico Consortium	Alina Corcoran
11:45	1:00	Lunch		
1:00	1:30	Direct Photosynthetic Production of Biodiesel by Growth-Decoupled Cyanobacteria	Arizona State University	Wim Vermass
1:30	2:00	A Novel Platform for Algal Biomass Production Using Cellulosic Mixotrophy	Arizona State University	Pete Lammers

2:00	2:30	Attached Periphytic Algae Production and Analysis	SNL	Ryan Davis
2:30	3:00	Rewiring Algal Carbon Energetics for Renewables (RACER)	Rewiring Algal Carbon Energy	Lieve Laurens
3:00	3:15	Break		
3:15	3:45	Development of algal biomass yield improvements in an integrated process	Global Algae Innovations, Inc.	David Hazlebeck
3:45	4:15	Integrated Low Cost and High Yield Microalgal Biofuel Intermediates Production	MicroBio Engineering	John Benemann
4:15	4:45	Production of Biocrude in an Advanced Photobioreactor-Based Biorefinery	Algenol	Ron Chance/Paul Roessler
4:45	5:15	Reviewer / Lead Reviewer De-briefing		
Day 4 – Thursday, March 7, 2019				
Start Time	End Time	Presentation	Organization	Presenter
8:30	9:00	PACE: Producing Algae for Coproducts and Energy	Colorado School of Mines	Matthew Posewitz
9:00	9:30	Marine Algae Industrialization Consortium (MAGIC)	Duke University	Zackary Johnson
9:30	10:00	Break		
10:00	10:30	Integrated Pest Management for Early Detection Algal Crop Production	University of California, San Diego	Robert Pomeroy
10:30	11:00	Continuous Biological Protection and Control of Algal Pond Productivity/Algal protective probiotics	LLNL	Rhona Stuart
11:00	11:30	Logistics	INL	Lynn Wendt
11:30	1:00	Lunch		
1:00	1:30	Atmospheric CO ₂ Capture and Membrane Delivery	Arizona State University	Bruce Rittman
1:30	2:00	Algae Production CO ₂ Absorber with Immobilized Carbonic Anhydrase	Global Algae Innovations, Inc.	David Hazlebeck
2:00	2:45	Algae Testbed Public-Private Partnership (ATP3) - a RAFT Partnership	Arizona State University	John McGowen
3:00	3:15	Break		
3:15	4:00	Regional Algal Feedstock Testbed Partnership	University of Arizona	Kimberly Ogden
4:00	4:30	Algae Technology Educational Consortium	NREL	Cindy Gerk
4:30	5:00	Reviewer/Lead Reviewer De-briefing		

Biochemical Conversion

Day 1 – Monday, March 4, 2019				
Start Time	End Time	Presentation	Organization	Presenter
1:00	1:10	Biochemical Conversion: Session Introduction	BETO	Ian Rowe
1:10	1:35	Biochemical Platform Analysis	NREL	Ryan Davis
1:35	2:00	Low Temperature Advanced Deconstruction	NREL	Xiaowen Chen
2:00	2:30	Enzyme Engineering and Optimization	NREL	Mike Himmel
2:30	3:00	Continuous Enzymatic Hydrolysis Development	NREL	Jim McMillan
3:00	3:15	Break		
3:15	3:45	Biological Upgrading of Sugars	NREL	Jeff Linger
3:45	4:15	Targeted Microbial Development	NREL	Min Zhang
4:15	4:45	Bench Scale Integration	NREL	Nancy Dowe
4:45	5:15	Reviewer/Lead Reviewer De-briefing		
Day 2 – Tuesday, March 5, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	10:15	Biochemical Process Modeling and Simulation	NREL	Michael Crowley
10:15	10:45	Analytical Development and Support	NREL	Ed Wolfrum
10:45	11:15	Advanced Supervisory Control and Data Acquisition (SCADA) for Biochemical Process Integration (with Bend)	PNNL	Jim Collett
11:15	11:45	Bioconversion of Algal Carbohydrates and Proteins to Fuels	SNL	Ryan Davis
11:45	1:00	Lunch		
1:00	1:30	Combined Algae Processing (CAP) Process Research	NREL	Phil Pienkos
1:30	2:00	Coproduction of Chemicals and Fuels Enabled by Hybrid Conversion of Lignin and Bioconversion Intermediates	PNNL	Jim Collett
2:00	2:30	Fungal Genomics - Genetics	PNNL	Jon Magnuson
2:30	3:00	Cell Free & Immobilization Technologies (CFIT)	NREL	Yannick Bomble
3:00	3:15	Break		
3:15	3:45	PET Upcycling - NREL	NREL	Gregg Beckham
3:45	3:55	Introduction to External Funding Opportunity Announcements	BETO	Ian Rowe
3:55	4:25	Engineered Reversal of the β-Oxidation Cycle in Clostridia for the Synthesis of Fuels and Chemicals	Northwestern University	Michael Koepke

4:25	4:50	Improving Tolerance of Yeast To Lignocellulose-Derived Feedstocks And Products	Massachusetts Institute of Technology	Felix Lam
4:50	5:20	Reviewer/Lead Reviewer De-briefing		
Day 3 – Wednesday, March 6, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	10:15	Continuous Membrane Assisted IBE fermentation from AVAP Cellulosic Sugars	American Process Inc	Vesa Pylkkanen
10:15	10:45	Production of High Oil, Transgene-Free Camelina Sativa Plants	Yield10 Bioscience	Kristi Snell
10:45	11:15	Engineering Clostridia for n-Butanol Production from Lignocellulosic Biomass and CO ₂	The Ohio State University	Shang-Tian Yang
11:15	11:45	Production of High Performance Lubricants from Cellulosic Sugar	Cargill	Tom McMullin
11:45	1:00	Lunch		
1:00	1:25	Engineering Thermophiles to Produce Drop-in fuels from Syngas	Kiverdi	John Reed
1:25	1:50	Second-Generation Mixotrophy for Highest Yield and Least Expensive Biochemical Production	White Dog Labs Inc.	Shawn Jones
1:50	2:15	Fermentative Production of Tricarboxylic Acid Cycle-Derived Chemicals Using Cellulosic Sugars	Lygos, Inc	Jeffrey Dietrich
2:15	2:40	Development of a Sustainable Green Chemistry Platform for Production of Acetone	LanzaTech, Inc.	Michael Koepke
2:40	3:05	Process Intensification for the Reduced Commercial CAPEX of Biofuels Production (PRICE CAP) Using Dynamic Metabolic Control	Duke University	Mike Lynch
3:05	3:15	Break		
3:15	3:45	Integrated Process for Commercial Production of Farnesene, a Versatile Platform Chemical, from Domestic Lignocellulosic Feedstock	Amyris, Inc.	Quinn Mitrovich
3:45	4:15	Bio-syngas to Fatty Alcohols (C6-14) as a Pathway to Fuels	Dow Chemical Company	Devon Rosenfeld
4:15	4:45	Alkaline-Oxidative Pretreatment of Woody Biomass for Optimal Co-Product	Michigan State University	Eric Hegg
4:45	5:15	Reviewer/Lead Reviewer De-briefing		

Catalytic Upgrading

Day 1 - Monday, March 4, 2019				
Start Time	End Time	Presentation	Organization	Presenter
1:00	1:30	Catalytic Upgrading: Session Introduction	BETO	Jeremy Leong and Trevor Smith
1:30	2:00	Overview of Chemical Catalysis for Bioenergy Consortium	NREL	Josh Schaidle
2:00	2:30	Catalyst Cost Model Development	NREL/PNNL	Josh Schaidle
2:30	3:00	ChemCatBio Data Hub	NREL	Carrie Farberow
3:00	3:15	Break		
3:15	3:30	Biochemical Platform Analysis	NREL	Ryan Davis
3:30	4:15	Catalytic Upgrading of Biochemical Intermediates	NREL/PNNL/ORNL/LANL	Richard Elander
4:15	4:45	Direct Catalytic Conversion of Cellulosics	NREL	Derek Vardon
4:45	5:00	Reviewer/Lead Reviewer De-briefing		
Day 2 - Tuesday, March 5, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	10:25	Thermochemical Platform Analysis	NREL	Abhijit Dutta
10:25	11:05	Liquid Fuels via Upgrading of Indirect Liquefaction Intermediates	NREL/PNNL/ORNL	Dan Ruddy
11:05	11:45	Catalytic Upgrading of Pyrolysis Products	NREL	Josh Schaidle
11:45	1:00	Lunch		
1:00	1:25	CO ₂ Utilization: Thermo- and Electro-Catalytic Routes to Fuels and Chemicals	NREL	Jack Ferrell
1:25	1:50	Hybrid Electro- and Thermo-Catalytic Upgrading of CO ₂ to Fuels and C2+ Chemicals	ORNL	Adam Rondinone
1:50	2:20	Catalyst Deactivation Mitigation for Biomass Conversion	PNNL	Huamin Wang
2:20	3:00	Consortium for Computational Physics and Chemistry	ORNL/NREL/ANL/PNNL/NETL	James Parks II
3:00	3:15	Break		
3:15	4:00	Advanced Catalyst Synthesis and Characterization	NREL/ORNL/ANL/SNL	Susan Habas
		Introduce Directed Funding Awards (DFA)	BETO	Jeremy Leong and Trevor Smith
4:00	4:15	DFA - Comprehensive Characterization of Mixed Metal Oxide Catalysts	NREL/GEVO	Susan Habas
4:15	4:30	DFA - Enhanced Catalyst Durability and Sulfur Tolerance by Atomic Layer Deposition w/	NREL/ALD Nanosolutions/Johnson Matthey	Derek Vardon

4:30	4:45	DFA - Advanced Characterizations to Accelerate Commercial Catalyst Development	ORNL/Vertimass	Zhenglong Li
4:45	5:15	Reviewer/Lead Reviewer De-briefing		
Day 3 - Wednesday, March 6, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	10:00	DFA - Catalyst Development for Selective Electrochemical Reduction of CO ₂ to High-value Chemical Precursors	NREL/Opus - 12	Fred Baddour
10:00	10:15	CCB DFAs: Low Pressure Hydrogenolysis Catalysts for Bioproduct Upgrading	PNNL/Visolis	Karthi Ramasamy
10:15	10:30	CCB DFAs: Terephthalic Acid Synthesis from Ethanol via p-Methyl Benzaldehyde	PNNL/Lanzatech	Karthi Ramasamy
10:30	10:45	CCB DFAs: Tactical Aviation Fuels	LANL/GEVO	Andrew Sutton
10:45	11:00	CCB DFAs: Improved Value of the Gasoline and Fuel Oil Co-Product Fractions w/LanzaTech	PNNL/Lanzatech	Rob Dagle
11:00	11:15	CCB DFAs: Catalytic Process Intensification of Bio-Renewable Surfactants Platform	LANL/Sironix	Andrew Sutton
11:15	11:30	Introduction to Funding Opportunity Announcements	BETO	Jeremy Leong and Trevor Smith
11:30	11:45	Morning Wrap Up		
11:45	1:00	Lunch		
1:00	1:30	THF Co-solvent Fractionation to Fuel Precursors (Furfural, Levulinic Acid, 5-HMF)	University of California - Riverside	Charles Wyman
1:30	2:00	One-Step High-Yield Production of Fungible Gasoline, Diesel, and Jet Fuel Blend Stocks from Ethanol without Added Hydrogen	Vertimass LLC	John Hannon
2:00	2:30	Catalytic Processes for Production of α,ω-diols from Lignocellulosic Biomass	University of Wisconsin	George Huber
2:30	3:00	Condensed Phase Catalysis Technology for Fuels and Carbon Products	University of Tennessee	David Harper
3:00	3:15	Break		
3:15	3:45	Reviewer/Lead Reviewer De-briefing		

Analysis & Sustainability

Day 1 - Monday, March 4, 2019				
Start Time	End Time	Presentation	Organization	Presenter
1:00	1:15	Analysis and Sustainability: Session Introduction	BETO	Alicia Lindauer
1:15	1:45	SI Systems-Level Analysis	NREL-SI	Amy Schwab
1:45	2:30	Strategic Analysis support	NREL	Mary Bidy
2:30	3:00	Biofuels National Strategic Benefits Analysis	ORNL	Paul Leiby
3:00	3:15	Break		
3:15	3:45	Bioeconomy Scenario Analysis and Modeling	NREL	Emily Newes
3:45	4:15	Bioproducts Transition System Dynamics	NREL	Rebecca Hanes
4:15	4:45	Scientific Methods for Biomass Reference Scenarios	ORNL	Keith Kline
4:45	5:05	Bioenergy Knowledge Discovery Framework	ORNL	Aaron Myers
5:05	5:35	Reviewer / Lead Reviewer De-briefing		
Day 2 - Tuesday, March 5, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	9:50	Analysis and Sustainability: Opening Remarks	BETO	Alicia Lindauer
9:50	10:30	REET Deployment and Biofuel Pathway Research and Analysis	ANL	Michael Wang
10:30	11:00	Carbon Cycling, Environmental & Rural Economic Impacts of Collecting & Processing Specific Woody Feedstocks in Biofuels	NCSU	Steve Kelley
11:00	11:30	GCAM Bioenergy and Land Use Modeling and Directed R&D	PNNL	Marshall Wise
11:30	1:00	Lunch		
1:00	1:30	Bioeconomy Carbon Flux Assessment – BECCS	ORNL	Matthew Langholtz
1:30	2:00	Harnessing the Bioeconomy for Carbon Drawdown: Potential and Innovation Needs	LLNL	AJ Simon
2:00	2:30	Integrated life cycle sustainability analysis (ILCSA)	NREL	Patrick Lamers
2:30	3:00	Quantifying and Visualizing Progress Towards Sustainability	ORNL	Esther Parish
3:00	3:15	Break		
3:15	3:45	Water Resource Management for Bioenergy and Bioproducts	ANL	May Wu
3:45	4:15	Biofuel Air Emissions Analysis	NREL	Danny Inman
4:15	4:45	Collaborations to Assess Land Effects of Bioenergy	ORNL	Keith Kline
4:45	5:15	Biofuels Information Center	NREL	Kristi Moriarty
5:15	5:45	Reviewer/Lead Reviewer De-briefing		
Day 3 - Wednesday, March 6, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	9:50	Introduction	BETO	Alicia Lindauer

9:50	10:35	Enabling Sustainable Landscape Design for Continual Improvement of Operating Bioenergy Supply Systems	Antares Group Inc	Kevin Comer
10:35	11:05	Integrated Landscape Management	INL	Mike Griffel
11:05	11:35	Economic Analysis of Risk	INL	Jason Hansen
11:35	1:00	Lunch		
1:00	1:45	Biomass Production and Nitrogen Recovery	ANL	Cristina Negri
1:45	2:15	Short Rotation Woody Biomass Sustainability	ORNL	Natalie Griffiths
2:15	2:45	Sustainable Biomass through Forest Restoration	PNNL	Mark Wigmosta
2:45	3:10	Break		
3:10	3:40	Visualizing Ecosystem Service Portfolios of Agricultural and Forestry Biomass Production	ORNL	Yetta Jager
3:40	4:10	Spatially Resolved Measurements of Environmental Sustainability Indicators For Bioenergy	ORNL	Natalie Griffiths
4:10	5:00	Reviewer/Lead Reviewer De-briefing		

Performance-Advantaged Bioproducts and Separations

Day 1 - Monday, March 4, 2019				
Start Time	End Time	Presentation	Organization	Presenter
1:00	1:15	Separations Consortium: Session Introduction	BETO	Nichole Fitzgerald
1:15	1:35	Separations Consortium - Overview	ANL	Jennifer Dunn
1:35	2:10	Separations Consortium - Separations for Biochemical Processes	NREL	Eric Karp
2:10	2:45	Separations Consortium - Separations for Thermochemical Processes	NREL	Kim Magrini
2:45	3:15	Break		
3:15	3:45	Separations Consortium - Analysis	NREL	Mary Biddy
3:45	4:15	Separations Consortium - Overview of CRADAs	LBNL	Todd Pray
4:15	4:45	Reviewer/Lead Reviewer De-briefing		
Day 2 - Tuesday, March 5, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	9:50	Performance-Advantaged Bioproducts: Session Introduction	BETO	Nichole Fitzgerald
9:50	10:20	Biomass Conversion to Acrylonitrile Monomer-Precursor for Production of Carbon Fibers	Southern Research Institute	Amit Goyal
10:20	10:50	Renewable Carbon Fibers Consortium	NREL	Mary Biddy
10:50	11:20	Melt-stable engineered lignin thermoplastic: a printable resin	ORNL	Amit Naskar
11:20	11:50	Bioderived Materials for Large-Scale Additive Manufacturing	ORNL	Erin Webb
11:50	1:00	Lunch		
1:00	1:05	Performance-Advantaged Bioproducts: A Consortium Approach – Opening Remarks	BETO	Nichole Fitzgerald
1:05	1:35	Analysis in support of novel biobased products and functional replacements	NREL	Mary Biddy
1:35	2:05	Inverse biopolymer design through machine learning and molecular simulation	NREL	Mike Crowley
2:05	2:35	Performance-Advantaged Bioproducts via Selective Biological and Catalytic Conversions	NREL	Gregg Beckham
2:35	3:05	Analysis in Support of Performance Advantaged Bio-Products from Catalytic Fast Pyrolysis	NREL	Mark Nimlos

3:05	3:20	Break		
3:20	3:50	Tailored Polymers through Rational Monomer Development	LANL	Andrew Sutton
3:50	4:30	Reviewer/Lead Reviewer De-briefing		

Waste to Energy

Day 1 - Monday, March 4, 2019				
Start Time	End Time	Presentation	Organization	Presenter
1:00	1:10	Waste to Energy: Session Introduction	BETO	Mark Philbrick and David Babson
1:10	1:40	Thermochemical Interface (for Algae and HTL)	PNNL	Dan Anderson
1:40	2:10	Bench Scale HTL of Wet Waste Feedstocks	PNNL	Justin Billing
2:10	2:40	Analysis and Sustainability Interface - PNNL	PNNL	Lesley Snowden-Swan
2:40	3:00	Reviewer networking opportunity		
3:00	3:15	Break		
3:15	3:45	Production of Methane From Organic Waste Streams with Novel Biofilm-Enhanced Anaerobic Membrane Bioreactors	ANL, LANL	Meltem Urgun-Demirtas
3:45	4:15	Biomethanation to Upgrade Biogas to Pipeline Grade Methane	NREL	Kevin Harrison
4:15	4:45	Modular Microbial Electromethanogenesis Flow Reactor for Biogas Upgrading	LLNL	Sarah Baker
4:45	5:10	Reviewer/Lead Reviewer De-briefing		
Day 2 - Tuesday, March 5, 2019				
9:45	10:15	Waste-to-Energy: Feedstock Evaluation and Biofuels Production Potential - PNNL	PNNL	Tim Seiple
10:15	10:45	Waste-to-Energy: Feedstock Evaluation and Biofuels Production Potential - NREL	NREL	Anelia Milbrandt
10:45	11:15	Waste to Energy System Simulation Model	NREL	Danny Inman
11:15	11:45	Panelist free time		
11:45	1:00	Lunch		
1:00	1:30	Arrested Methanogenesis for Volatile Fatty Acid Production	ANL	Meltem Urgun-Demirtas
1:30	2:00	Separations in Support of Arresting Anaerobic Digestion	NREL	Eric Karp
2:00	2:30	Reverse Engineering Anaerobic Digestion of Wet Waste for Biofuels Intermediates and Bioproducts	NREL	Steve Decker
2:30	3:00	Analysis in Support of Biofuels and Bioproducts from Organic Wet Waste Feedstocks	NREL	Ling Tao
3:00	3:15	Break		
3:15	3:45	Biogas to Liquid Fuels and Chemicals Using a Methanotrophic Microorganism	NREL	Mike Guarnieri

3:45	4:15	Biogas Valorization: Development of a Biogas-to- Muconic Acid Bioprocess	NREL	Mike Guarnieri
4:15	5:15	Reviewer/Lead Reviewer De-briefing		

Advanced Development and Optimization: Integration and Scale-Up

Day 1 - Monday, March 4, 2019				
Start Time	End Time	Presentation	Organization	Presenter
1:00	1:30	Advanced Development and Optimization: Integration and Scale-Up -- Session Introduction	BETO	Liz Moore
1:30	2:00	An Affordable Advanced Biomass Cookstove with Thin Film Thermoelectric Generator	LBNL	Vi Rapp
2:00	2:30	Development and Standardization of Techniques for Bio-oil Characterization	NREL	Jack Ferrell
2:30	3:00	The Engineering of Catalyst Scale Up	NREL	Fred Baddour
3:00	3:15	Break		
3:15	3:45	LIBERTY - Launch of an Integrated Bio-refinery with Eco-sustainable and Renewable Technologies in Y2009	POET Project Liberty, LLC	Mike Dishman
3:45	4:15	Biomass - Feedstock User Facility	INL	Neal Yancey
4:15	4:45	Improved Feeding and Residual Solids Recovery System for IBR	Thermochemical Recovery International Inc.	Ravi Chandran
4:45	5:10	Reviewer/Lead Reviewer De-briefing		
Day 2 - Tuesday, March 5, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	10:15	Advanced Development and Optimization: Integration and Scale-Up -- Opening Remarks	BETO	Liz Moore
10:15	10:45	Biomass Gasification for Chemicals Production Using Chemical Looping Techniques	The Ohio State University	Andrew Tong
10:45	11:15	Building Blocks from Biocrude: High Value Methoxyphenols	Research Triangle Institute (RTI)	Ofei Mante
11:15	11:45	Pilot-Scale Algal Oil Production	Global Algae Innovations	David Hazlebeck
11:45	1:00	Lunch		
1:00	1:30	Integration and Scale Up - NREL	NREL	Kristin Smith
1:30	2:00	Strategies for Co-processing in Refineries	NREL	Robert Baldwin
2:00	2:30	Improved Hydrogen Utilization and Carbon Recovery for Higher Efficiency Thermochemical Bio-oil Pathways	Research Triangle Institute	David Dayton
2:30	3:00	Low Carbon Hydrocarbon Fuels From Industrial Off Gas	LanzaTech, Inc.	Laurel Harmon
3:00	3:15	Break		
3:15	3:45	Small Scale Decentralized Fuel Production Facilities Via Advanced Heat Exchanger-Enabled Biorefineries	ThermoChem Recovery International, Inc.	Ravi Chandran

3:45	4:15	Converting MSW Into Low-Cost, Renewable Jet Fuel	Fulcrum Bioenergy	Pete Tiverios
4:15	4:45	Woody Biomass Biorefinery Capability Development	Red Rocks Biofuels	Jeff Manternach
4:45	5:15	Reviewer/Lead Reviewer De-briefing		
Day 3 - Wednesday, March 6, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	10:15	Advanced Development and Optimization: Integration and Scale-Up -- Opening Remarks	BETO	Liz Moore
10:15	10:45	Upgrading of Stillage Syrup into Single Cell Protein for Aquaculture Feed	White Dog Labs	Shawn Jones
10:45	11:15	Pilot-Scale Biochemical and Hydrothermal Integrated Biorefinery (IBR) for Cost-Effective Production of Fuels and Value Added Products	South Dakota School of Mines and Technology	Rajesh Shende
11:15	11:45	Multi-stream Integrated Biorefinery Enabled by Waste Processing	Texas A&M Agrilife Research	Joshua Yuan
11:45	1:00	Lunch		
1:00	1:30	Hydrothermal Processing of Biomass	PNNL	Dan Anderson
1:30	2:00	HYPOWERS: Hydrothermal Processing of Wastewater Solids	Water Research Foundation (WRF)	Jeff Moeller
2:00	2:30	Rialto Advanced Pyrolysis Integrated Biorefinery	Rialto Bioenergy Facility LLC	Yaniv Scherson
2:30	3:00	LBNL ABPDU Support	LBNL	Todd Pray
3:00	3:15	Break		
3:15	3:45	Pilot Scale Integration	NREL	Dan Schell
3:45	4:15	Advanced Biofuels and Bioproducts with AVAP	AVAPCO LLC	Theodora Retsina
4:15	4:45	Materials Degradation in Biomass Derived Oil	ORNL	Jim Keiser
4:45	5:15	Reviewer/Lead Reviewer De-briefing		

Feedstock Supply and Logistics

Day 3 – Wednesday, March 6, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	10:00	Feedstock Supply and Logistics: Session Introduction	BETO	Mark Elless
10:15	10:45	Feedstock Supply Chain Analysis	INL	David Thompson
10:45	11:15	Supply Scenario Analysis	ORNL	Matthew Langholtz
11:15	11:45	Resource Mobilization	INL	Damon Hartley
11:45	1:00	Lunch		
1:00	1:30	Development of a Wet Logistics System for Bulk Corn Stover	INL	Lynn Wendt
1:30	2:00	Size Reduction, Drying and Densification of High Moisture Biomass	INL	Jaya Tumuluru
2:00	2:30	Biomass Supply Chain Risk Standards	INL	Rachel Emerson
2:30	3:00	Sensors and Measurement in Harvest & Collection for Rapid Quality Control of Corn Stover	INL	Bill Smith
3:00	3:15	Break		
3:15	3:35	Demonstration of an Advanced Supply Chain for Lower Cost, Higher Quality Biomass Feedstock Delivery	FDC Enterprises	Kevin Comer
3:35	3:55	Next Generation Logistics Systems for Delivering Optimal Biomass Feedstocks to Biorefining Industries in the Southeastern United States	University of Tennessee	Tim Rials
3:55	4:15	Improved Advanced Biomass Logistics Utilizing Woody and other Feedstocks in the Northeast and Pacific Northwest	The Research Foundation of SUNY/SUNY-ESF	Tim Volk
4:15	4:45	CEMAC: Evaluation of Agricultural Equipment Manufacturing for a Bio-based Economy	NREL	Chad Augustine
4:45	5:05	Waste to Wisdom: Utilizing Forest Residues for the Production of Bioenergy and Biobased Products	Humboldt State University	Han-Sup Han
5:05	5:35	Reviewer/Lead Reviewer De-briefing		

Lignin Utilization

Day 3 – Wednesday, March 6, 2019				
Start Time	End Time	Presentation	Organization	Presenter
9:45	10:00	Lignin Utilization: Session Introduction	BETO	Jay Fitzgerald
10:00	10:30	Upgrading Lignin-containing Biorefinery Residues for Bioplastics	Texas A & M	Joshua Yuan
10:30	11:00	Biomass Electrochemical Reactor for Upgrading Biorefinery Waste to Industrial Chemicals and Hydrogen	Ohio University	John Staser
11:00	11:30	Lignin First Biorefinery Development	NREL	Gregg Beckham
11:30	12:00	Oxidative Valorization of Lignin	PNNL	Xiao Zhang
12:00	1:00	Lunch		
1:00	1:30	Lignin Utilization	NREL	Gregg Beckham
1:30	2:00	Gas Phase Selective Partial Oxidation of Lignin for Co-products from Biomass Conversion	NREL	Matt Yung
2:00	2:30	Electrocatalytic Oxidation of Lignin Oligomers	NREL	Josh Schaidle
2:30	3:00	Biological Lignin Valorization - NREL	NREL	Davinia Salvachua
3:00	3:15	Break		
3:15	3:45	Biological Lignin Valorization – SNL	SNL	Alberto Rodriguez
3:45	4:15	Metabolic Engineering for Lignin Conversion	ORNL	Adam Guss
4:15	4:45	Biological Conversion of Thermochemical Aqueous Streams	NREL	Gregg Beckham
5:15	5:45	Reviewer/Lead Reviewer De-briefing		

Agile BioFoundry

Day 4 - Thursday, March 7, 2019				
Start Time	End Time	Presentation	Organization	Presenter
8:30	8:40	Agile BioFoundry: Session Introduction	BETO	Jay Fitzgerald
8:40	9:30	Agile BioFoundry Overview	LBNL	Nathan Hillson
9:30	10:00	Break		
10:00	10:40	<i>Pseudomonas putida</i>	NREL	Gregg Beckham
10:40	11:20	<i>Rhodospiridium toruloides</i>	SNL	John Gladden
11:20	12:00	<i>Aspergillus pseudoterreus</i>	PNNL	Jon Magnuson
12:00	1:00	Lunch		
1:00	1:50	Design-Build-Test-Learn Infrastructure	LBNL	Nathan Hillson
1:50	2:20	Integrated Analysis	NREL	Mary Bidy
2:20	2:50	Host Onboarding	ORNL	Adam Guss
2:50	3:15	Break		
3:15	3:45	Process Integration and Scale-Up	LBNL	Deepti Tanjore
3:45	4:15	Industry Outreach	ANL	Phil Laible
4:15	4:45	Directed Funding Opportunities and Partnerships	LBNL	Blake Simmons
4:45	5:15	Reviewer/Lead Reviewer De-briefing		

Carbon Dioxide Utilization

Day 4 – Thursday, March 7, 2019				
Start Time	End Time	Presentation	Organization	Presenter
8:30	8:40	Carbon Dioxide Utilization: Session Introduction	BETO	Ian Rowe
8:40	9:10	Feasibility Study of Utilizing Electricity to Produce Intermediates from CO ₂	NREL	Josh Schaidle
9:10	9:40	Break		
9:40	10:10	CO ₂ Utilization: Thermo- and Electro-Catalytic Routes to Fuels and Chemicals	NREL	Jack Ferrell
10:10	10:30	CCB DFAs: Catalyst Development for Selective Electrochemical Reduction of CO ₂ to High-value Chemical Precursors w/Opus-12	NREL	Fred Baddour
10:30	11:00	Hybrid Electro- and Thermo-Catalytic Upgrading of CO ₂ to Fuels and C ₂ + Chemicals	ORNL	Adam Rondinone
11:30	12:00	CO ₂ Valorization Via Rewiring Carbon Metabolic Network	NREL	PinChing Maness
12:00	1:00	Lunch		
1:00	1:30	Improving Formate Upgrading by Cupriavidus Necator	NREL	Christopher Johnson
1:30	2:00	Enhancing Acetogen Formate Utilization to Value-Added Products	NREL	Jonathan Lo
2:00	2:30	Synthetic C1 Condensation Cycle for Formate-Mediated ElectroSynthesis - NREL	NREL	Wei Xiong
3:00	3:15	Break		
3:15	3:45	Integration of CO ₂ Electrolysis with Microbial Syngas; Upgrading to Rewire the Carbon Economy	NREL	Michael Resch
3:45	4:15	Biomethanation to Upgrade Biogas to Pipeline Grade Methane	NREL	Kevin Harrison
4:15	4:45	Novel Cell-Free Enzymatic Systems for CO ₂ Capture and Utilization: Bio-energy based Biologically Carbon Capture and Valorization (BeCC&V)	NREL	Min Zhang
4:45	5:15	Reviewer/Lead Reviewer De-briefing		

Co-Optimization of Fuels and Engines

Day 4 - Thursday, March 7, 2019				
Start Time	End Time	Presentation	Organization	Presenter
8:30	8:40	Co-Optimization of Fuels and Engines: Session Introduction	BETO	Alicia Lindauer
8:40	9:10	Co-Optima Overview	Co-Optima Consortium	Daniel Gaspar
9:10	9:40	Co-Optima Bioblendstock Structure Property and Predictions	Co-Optima Consortium	Anthe George
9:40	10:00	Break		
10:00	10:30	Co-Optima Bioblendstock Generation	Co-Optima Consortium	Derek Vardon
10:30	11:00	Co-Optima Bioblendstock Fuel Property Characterization	Co-Optima Consortium	Gina Fioroni
11:00	11:30	Integrated Analysis of Efficiency-Enhancing Bio-Blendstocks	Co-Optima Consortium	Jennifer Dunn
11:30	12:00	Break		
12:00	1:00	Lunch		
1:00	1:30	Combustion of Petroleum-Based Transportation Fuels and Their Blends with Biofuels: A New Approach for Developing Surrogates and Understanding the Effects of Blending	Cornell University	C. Thomas Avedisian
1:30	2:00	Multitude Characterization and Prediction of DOE Advanced Biofuels Properties	The University of Central Florida Board of Trustees	Kareem Ahmed
2:00	2:30	Rapid Construction of Validated Chemistry Models for Advanced Biofuels	Massachusetts Institute of Technology	William Green
2:30	3:00	MISR: Miniature Ignition Screening Rapid Compression Machine for Kinetic Measurements of Novel Fuels	University of Illinois at Chicago	Patrick Lynch
3:00	3:30	Reviewer/Lead Reviewer De-briefing		

Advanced Development and Optimization: Analysis and Modeling

Day 4 - Thursday, March 7, 2019				
Start Time	End Time	Presentation	Organization	Presenter
8:30	8:40	Advanced Development and Optimization: Analysis and Modeling Session Introduction	BETO	Siva Sivasubramanian
8:40	9:10	Codes and Standards in IBR's	ORNL	Erin Webb
9:10	9:40	Feedstock to Function: Improving Biobased Product and Fuel Development Through Adaptive Technoeconomic and Performance Modeling	LBNL	Vi Rapp
9:40	10:00	Break		
10:00	10:30	Integrated Computational Tools to Optimize and De-Risk Feedstock Handling & High-Pressure Reactor Feedings Systems: Application to Red Rock Biofuels' Biorefinery	NREL	Jonathan J. Stickel
10:30	11:00	Integrated Process Optimization for Biochemical Conversion	Clemson University	Sandra Eksioglu
11:00	11:30	Analytical Modeling of Biomass Transport and Feeding Systems	Purdue University	Michael Ladisch
11:30	12:00	Improved Biomass Feedstock Materials Handling and Feeding Engineering Data Sets, Design Methods, and Modeling/Simulation Tools	Forest Concepts, LLC	James Dooley
12:00	1:00	Lunch		
1:00	1:30	Sustainable Production of JP-10	LANL	Andrew Sutton
1:30	2:00	Analysis for JET High Performance Fuels	SNL	Anthe George
2:00	2:30	GARDN Collaboration U.S. - Canada Aviation Fuels at PNNL	PNNL	Corinne Drennan
2:30	3:00	Evaluation of Bio-oils for Use in Marine Engines	ORNL	Michael Kass
3:00	3:15	Break		
3:15	3:45	Reviewer/Lead Reviewer De-briefing		

Feedstock-Conversion Interface Consortium

Day 4 - Thursday, March 7, 2019				
Start Time	End Time	Presentation	Organization	Presenter
8:15	8:30	Feedstock-Conversion Interface Consortium: Session Introduction	BETO	Beau Hoffman
8:30	8:50	FCIC Overview Presentation – 2017 and 2018	NREL	Michael Resch
8:50	9:30	Feedstock Variability and Specification Development	INL	Allison Ray
9:30	10:00	Break		
10:00	10:40	Process Integration	NREL	Ed Wolfrum
10:40	11:20	Feedstock Physical Performance Modeling	INL	Tyler Westover
11:20	12:00	Process Controls and Optimization	INL	Quang Nyugen
12:00	1:00	Lunch		
1:00	1:40	System-wide Throughput Analysis	INL	David Thompson
1:40	2:20	Industry Engagement and Project Management	NREL	Michael Resch
2:20	3:00	FCIC Future Plans (FY19 and beyond)	NREL	Zia Abdullah
3:00	3:15	Break		
3:15	3:45	Pretreatment and Process Hydrolysis	NREL	Mel Tucker
3:45	4:30	Reviewer/Lead Reviewer De-briefing		

Poster Session Day 1

March 4th, 2019 - 4:30PM – 6:30 PM

Poster	Title	Affiliation
Small Business Innovation Research (SBIR)		
1	Development of a Breeding System in Chlamydomonas Moewusii for Improved Production Strains	Global Algae Innovations, Inc.
2	Development of Breeding Strategies for Nitzschia sp.	Global Algae Innovations, Inc.
3	Zobi Based Processes for Ultra-low Energy Algal Harvesting and Dewatering	Global Algae Innovations, Inc.
4	Development of a High Throughput Algal Dewatering System Using Magnetic Particles	Manta Biofuel, LLC
5	Domestication of the Microalga Scenedesmus Obliquus for Biomass Feedstock Production	MicroBio Engineering
6	Algal Bioflocculation for Solid-Liquid Separation	MicroBio Engineering
7	Concentration and Dewatering of Micro-Algae Cultures with High Throughput Ceramic Membranes	Molecule Works Inc.
8	Advanced, Low-Cost, System for Algae Dewatering	Techverse, Inc.
9	Rational Enhancement of Enzyme Performance via Polymer Based Protein Engineering for Biodiesel Production	BioHybrid Solutions LLC
10	An Integrated Process for Butanol Production from Cellulosic Biomass and CO ₂ Using Engineered Clostridia in a Linear Immobilized Bioreactor	Bio-Missions LLC
11	Two-phase Production of an Organic Acid with CO ₂ Sequestration	Lygos
12	Utilization of Waste CO ₂ to Make Renewable Chemicals and Fuels	Opus 12 Incorporated
13	Scaling Bioelectrochemical Biomass Conversion Technologies	Faraday Technology, Inc.
14	Renewables-Driven Production of Organic Acids from Industrial CO ₂ Waste Streams	Sustainable Innovations, LLC
15	Low-Cost Alloy Coatings by Pulsed Electrodeposition for Combustors	Faraday Technology, Inc.
16	Fractionation and Dehydration of Existing Feedstock for Biomass and Biopower Production	Shockwave, LLC
17	Low-Energy Rotary Shear for Sub-millimeter Particle Production	Forest Concepts, LLC
18	Selective Catalysis for One-Step Lignocellulose Delignification and Lignin Valorization to High Value Methoxyphenols	Spero Energy, Inc.
19	Supramolecular Nanocellulose Drug Excipients	InnoSense LLC
20	Conversion of Waste Water Treatment Plant Fats Oils and Greases "Brown Grease" Into Bio Diesel Using Supercritical Fluids and Robust Catalyst Processes	CF Technologies, Inc.
21	Manufacture of 2,5-Furandicarboxylic Acid from Furfural Produced from a Wet Waste Stream	KSE, Inc
22	Hydrothermal Liquefaction of Food Waste and Remediation of Aqueous Byproducts	Mainstream Engineering Corporation
23	An Optimized Biocatalyst for Efficient Conversion of CH ₄ and CO ₂ into Bioproducts	MOgene Green Chemicals
24	Conversion of Biogas to Liquid Fuels on Superior Catalysts	NexTech Materials, Ltd.
25	Highly Efficient Modular Anaerobic Membrane Bioreactor (anmbr) for Biofuel Production from Wet Organic Waste Streams	TDA Research, Inc.
26	Novel Method for Conversion of Biomass to Fuel	TDA Research, Inc.
27	Production of High Value Products from Gaseous Waste Streams	Visolis, Inc
28	Production of C5 Hydrocarbons from Waste Biomass	Visolis, Inc

Poster Session Day 2

March 5th, 2019 - 4:30PM – 6:30 PM

Poster	Title	Affiliation
Agile BioFoundry Industry Partnerships		
1	Implementing a Design, Build, Test, Learn P. Kudriavzevii Engineering Cycle for Production of an Organic Acid Product	Lygos / SNL / LBNL / PNNL
2	Production of High-value Chemicals from Renewable Feedstocks	Visolis / NREL / ORNL
3	Progress Towards a New Model Chemolithoautotrophic Host	Kiverdi / LBNL / NREL / ORNL
4	Development of High Throughput Proteomics and Metabolomics Assays	Aglient / PNNL / LBNL / SNL
5	Agile Genetics for Biomanufacturing	Neidle Lab / LANL / NREL
6	Integration of Agile Biofoundry (ABF) Informatic Modules with Teselagen's BIOCAD/CAM Platform and Evaluation of Emerging Teselagen Functionality Support of ABF Workflows	TeslaGen / LBNL / SNL / PNNL
7	Data Integration and Deep Learning for Continuous Gas Fermentation Optimization	LanzaTech / ANL / NREL
Efficient Carbon Utilization in Algal Systems Funding Opportunity		
8	Air Carbon for Algae Production - AirCAP	MicroBio Engineering Inc.
9	Integrating an Industrial Source and Commercial Algae Farm with Innovative CO ₂ Transfer Membrane and Improved Strain Technologies	Colorado State University
10	Carbon Utilization Efficiency in Marine Algae Biofuel Production Systems Through Loss Minimization and Carbonate Chemistry Modification	Duke University
11	Algae Cultivation from Flue Gas with High CO ₂ Utilization Efficiency	Global Algae Innovations
12	Multi-pronged Approach of Improved Biological and Physicochemical Systems to Improving Carbon Utilization by Cyanobacterial Cultures	Arizona State University
13	Membrane Carbonation for 100% Efficient Delivery of Industrial CO ₂ Gases	Arizona State University
14	Direct Air Capture of CO ₂ and Delivery to Photobioreactors for Algal Biofuel Production	Georgia Institute of Technology
Affordable and Sustainable Energy Crops (ASEC) Funding Opportunity		
15	Next-Generation Feedstocks for the Emerging Bioeconomy	University of Illinois at Urbana-Champaign
16	Next Generation Miscanthus: Hybrid Performance Evaluation and Enhanced, Sustainable Feedstock Production and Supply in the Southeast U.S. for Biofuels and Bioproducts	North Carolina State University
17	Sustainable Herbaceous Energy Crop Production in the Southeast United States	Texas A&M AgriLife Research
BioEnergy Engineering for Products Synthesis (BEEPS) Funding Opportunity		
18	Accelerating Engineered Microbe Optimization Through Machine Learning and Multiomics Datasets	Lygos, Inc.
19	Advanced Algal Biofoundries for the Production of Polyurethane Precursors	University of California, San Diego
20	Biodiesel and Higher Value Products from Stillage Fiber	Xylome Corporation
21	Catalytic Upgrading of Carbohydrates in Waste Streams to Hydrocarbons	North Carolina State University
22	Cellulose-Chitin Composites for Performance Advantaged Barrier Packaging Bioproducts	Georgia Institute of Technology
23	Design and Development of Bio-Advantaged Vitrimers as Closed-Loop Bioproducts	University of California, Berkeley

24	Development of a Scalable, Robust Electrocatalytic Technology for Conversion of CO ₂ to Formic Acid via Microstructured Materials	Montana State University
25	Development of Bacillus as an Industrial Host for the Microbial Production of Biopolymers	Zymochem Inc.
	A Carbon Conserving Biosynthetic Pathway for the Microbial Production of Fatty Acids from Glycerol Rich Waste Streams (SBIR)	
	Carbon Conserving Microbial Production of Adipic Acid from Sugars and Crude Glycerol Feedstocks (SBIR)	
26	Identifying Performance Advantaged Biobased Chemicals Utilizing Bioprivileged Molecules	Iowa State University
27	Integrated Biorefinery for Chemicals and Fuels Production from Waste Biomass	Visolis
28	Intensified Biogas Conversion to Value-Added Fuels and Chemicals	University of South Florida
29	Lignin Fractionation and Valorization: Focusing on both Value and Quality	Clemson University
30	Production of Bioproducts from Electrochemically-Generated C1 Intermediates	LanzaTech, Inc.
31	SPERLU: Selective Process for Efficient Removal of Lignin and Upgrading	Spero Energy, Inc.
Biopower Lab Call		
32	Enabling Complex Biomass Feedstock for Biopower Combustion and Autothermal Pyrolysis	ORNL
33	Torrefaction of Sorted MSW Pellets for Uniform Biopower Feedstock	INL
Co-Optimization of Fuels and Engines Funding Opportunity		
34	Bioproduction and Evaluation of Renewable Butyl Acetate as a Desirable Bioblendstock for Diesel Fuel	Auburn University
35	Mono-Ether and Alcohol Bioblendstocks to Reduce the Fuel Penalty of Mixing Controlled Compression Ignition Engine Aftertreatment	University of Wisconsin-Madison
36	Naphthenic Biofuel-Diesel Blend for Optimizing Mixing Controlled Compression Ignition Combustion	SUNY University at Stony Brook
37	Renewable Fuel Additives from Woody Biomass	University of Massachusetts Lowell
38	Tailored Bioblendstocks with Low Environmental Impact to Optimize MCCI Engines	University of Michigan
Advanced Development and Optimization		
39	Analysis for Ensyn Commercial Refinery Co-Processing	NREL
Feedstock Conversion Interface Consortium (FCIC) Industry Partnerships		
40	Investigating and Addressing the Wear Issue of the Rotary Shear Biomass Comminution System	Forest Concepts / ORNL
41	Moisture Management and Optimization in Municipal Solid Waste Feedstock through Mechanical Processing	Fulcrum Bioenergy, Inc/ INL
42	"Smart" Transfer Chutes with In-Line Acoustic Sensors for Bulk-Solids Handling Solutions	Jenike & Johanson / LANL
43	Achieving High Operating Reliability for Continuous Feeding of Biomass into a High-Pressure Reactor	Red Rock Biofuels / INL
44	Real time, Integrated Dynamic Control Optimization to Improve the Operational Reliability of a Gasifier	Sierra Energy / INL
45	Biomass Attribute-Based Reactor Feeder Design for Heterogeneous Agricultural Wastes	The Wonderful Company / NREL
Process Development for Advanced Biofuels and Biopower (PDABB) Funding Opportunity		
46	A Catalytic Process to Convert Municipal Solid Waste Components to Energy	Worcester Polytechnic Institute

47	Agricultural and Woody Biomass to Diesel Fuel with Bio-oil Intermediate	West Biofuels Development, LLC
48	Bio-crude Production and Upgrading to Renewable Diesel	Research Triangle Institute
49	Cool GTL® for the Production of Jet Fuel from Biogas	Gas Technology Institute
50	High-efficiency Process for RNG Production from Biogas using MOF-based Solid Adsorbents	Mosaic Materials
51	Hybrid HEFA-HDCJ Process for the Production of Jet Fuel Blendstocks	Washington State University
52	Maximizing Bio-Renewable Energy from Wet Wastes (M-BREWW)	University of Illinois at Urbana-Champaign
53	Novel Method for Biomass Conversion to Renewable Jet Fuel Blend	Technology Holding LLC
54	Ultra-low Sulfur Winterized Diesel	LanzaTech, Inc.
Bioprocessing Separations Consortium Industry Partnerships		
55	At-Scale Demonstration of In-Situ Product Recovery with Nano-Adsorbents	DMC Biotechnologies / ANL
56	Biomass Separation, Biopolymer Concentration and Salt Removal from a Marine Cyanobacterial Culture	HelioBioSys / LBNL
57	Water Removal Strategy Development	Kalion, Inc. / ORNL
58	Advancing Downstream Processing of Biopolymers from Methane	Mango Materials / LBNL
59	Two-Step Process to Pure Mevalonic Acid	Visolis / ANL
Technology Commercialization Fund (TCF)		
60	Advanced Cellobiohydrolases	NREL
61	Application of Resin-Wafer Electrodeionization Technology in Biorefineries	ANL
62	Fully Renewable Polyurethane Resins Produced from Algae and other Feedstocks	NREL
63	Lignin-Derived Ionic Liquids: Synthesis and Application in Biopolymer Processing	LBNL
64	Reactive Distillation: Alcohol-to-Jet Application	PNNL
65	Scaled Production of High Cctane Biofuel from Biomass-Derived dimethyl Ether	NREL
66	SIS Biofuel Absorbents	ANL
67	Sustainable Graphite for Lithium Ion Batteries	NREL
68	Transfer & Validation of Copyrighted NREL Spectroscopy IP for Rapid Biomass Composition to Next-Generation Ultra Low-Cost Near-Infrared (NIR) Spectrometers	NREL
Small Business Innovation Research (SBIR)		
69	Engineering Methane and Carbon Dioxide Pathways to Turn Renewable Biogas into Higher-Value Chemicals	Industrial Microbes, Inc.