

Selections From Fiscal Year 2019 Multi-Topic Funding Opportunity Announcement

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Selectee	Location (city, state)	Project Title	Federal Share
Topic Area 1: Cultivation Intensification Processes for Algae			
New Mexico Consortium	Los Alamos, NM	Optimizing Selection Pressures and Pest Management to Maximize Algal Biomass Yield (OSPREY)	\$4,999,475
Global Algae Innovations	San Diego, CA	Innovations in Algae Cultivation	\$4,500,000
Colorado School of Mines	Golden, CO	Algal Productivity Enhancements by Rapid Screening and Selection of Improved Biomass and Lipid Producing Phototrophs (APEX)	\$3,936,302
University of Illinois at Urbana-Champaign	Champaign, IL	Improving the Productivity and Performance of Large-Scale Integrated Algal Systems for Wastewater Treatment and Biofuel Production	\$3,011,601
Arizona State University	Tempe, AZ	Decision-Model Supported Algal Cultivation Process Enhancement	\$3,500,000

Topic Area 2: Biomass Component Variability and Feedstock Conversion Interface

Montana State University	Bozeman, MT	Enhanced Feedstock Characterization and Modeling to Facilitate Optimal Preprocessing and Deconstruction of Corn Stover	\$1,300,000
University of Wisconsin-Madison	Madison, WI	WIFT: Single-pass, Weather Independent Fractionation Technology for Improved Property Control of Corn Stover Feedstock	\$1,248,748
University of Kentucky	Lexington, KY	Sulfur Profiling in Pine Residues and Its Impact on Thermochemical Conversion	\$1,641,922
University of South Carolina	North Charleston, SC	Polymer Products from Lignin Through De-aromatization and COOH Functionalization	\$879,000
Purdue University	West Lafayette, IN	Modeling Feedstock Performance and Conversion Operations	\$1,378,384
University of Georgia	Athens, GA	Machine Learning Based Modeling Framework to Relate Biomass Tissue Properties With Handling And Conversion Performances	\$1,451,342
Penn State University	University Park, PA	Characterization of Mechanical Biomass Particle-Particle and Particle-Wall Interactions	\$707,323

Topic Area 3: Efficient Wood Heaters

MF Fire Inc.	Baltimore, MD	Swirl Stove: Swirling Combustion for Efficient Wood Burning	\$998,937
ISB Marketing	South Bend, IL	Automated Wood Stove UFEC23	\$1,019,252
MF Fire Inc.	Baltimore, MD	Fire MAPS - Secure Performance Monitoring and User Alerts System	\$989,644

Topic Area 4: Systems Research of Advanced Hydrocarbon Biofuel Technologies

T2C-Energy, LLC	Pinellas Park, FL	TRIFTS Catalytic Conversion of Biogas to Drop-in Renewable Diesel Fuel	\$2,327,759
OxEon Energy LLC	North Salt Lake, UT	Production of Liquid Hydrocarbons from Biomass Generated Carbon Dioxide	\$1,995,389

RTI International	Research Triangle Park, NC	Integrated Reactive Catalytic Fast Pyrolysis System for Advanced Hydrocarbon Biofuels	\$2,400,000
Gas Technology Institute	Des Plaines, IL	Integration of IH ₂ with the Cool H ₂ Reformer for the Conversion of Cellulosic Biomass to Drop in Fuel	\$1,276,852
Topic Area 5: Optimization of Bio-Derived Jet Fuel Blends			
Purdue University	West Lafayette, IN	Higher Energy-content Jet Blending Components Derived from Ethanol	\$1,774,214
University of Colorado Boulder	Boulder, CO	Cellulosic Derived Advantaged Jet Fuel	\$1,791,048
Vertimass	Irvine, CA	Production Of Renewable Cycloalkanes From Ethanol For Blending With Jet Fuel To Enhance Energy Density And Material Compatibility And Reduce Particulate Emissions	\$1,434,738
Topic Area 6: Renewable Energy from Urban and Suburban Wastes			
Colorado State University	Fort Collins, CO	Electro-Enhanced Conversion of Wet Waste to Products Beyond Methane	\$5,067,538
Topic Area 7: Advanced Bioprocessing and Agile BioFoundry			
Pow Genetic Solutions, Inc	Berkeley, CA	Tightly Regulated Separation of Growth and Production in a Contamination-Resistant Two-Chamber System for Robust Continuous Bioprocessing	\$2,468,821
Invizyne Technologies, Inc.	Rolling Hills Estates, CA	Towards Economical Cell-free Isobutanol Production	\$2,078,605
University of California, Berkeley	Berkeley, CA	Accelerating Polyketide Synthase Engineering for High TRY Production of Biofuels and Bioproducts	\$2,500,000
University of Washington	Seattle, WA	Developing Multi-Gene CRISPRa/i Programs to Accelerate DBTL Cycles in ABF Hosts Engineered for Chemical Production	\$1,815,906
Topic Area 8: Plastics in the Circular Carbon Economy			
Northwestern University	Evanston, IL	ResIn: Responsible Innovation for Highly Recyclable Plastics	\$2,499,999
Spero	Goleta, CA	Recyclable Thermoset Polymers from Lignin Derived Phenols	\$2,000,000

University of Massachusetts Lowell	Lowell, MA	Bioconversion of Heterogeneous Polyester Wastes to High-Value Chemical Products	\$1,500,814
Washington State University	Pullman, WA	Upcycling of CFRP Waste: Viable Eco-friendly Chemical Recycling and Manufacturing of Novel Repairable and Recyclable Composites	\$1,609,883
Topic Area 9: Rethinking Anaerobic Digestion			
State University of New York, Albany	Albany, NY	Novel and Viable Technologies for Converting Wet Organic Waste Streams to High Value Products	\$2,698,542
Washington State University	Pullman, WA	An Advanced Pretreatment/Anaerobic Digestion (APAD) Technology for Increased Conversion of Sewage Sludge to Bio-Natural Gas in Small-Scale Wastewater Plants of Less Than Five Dry Ton Sewage Sludge/Day	\$2,428,281
Topic Area 10: Reducing Water, Energy, and Emissions in Bioenergy			
University of California, Berkeley	Berkeley, CA	Multi-Input, Multi-Output Biorefineries to Reduce Greenhouse Gas and Air Pollutant Emissions	\$1,000,000
Colorado State University	Fort Collins, CO	Agent-based Modeling for the Multi-objective Optimization of Energy Production Pathways	\$1,000,000