

## Approved Proposals FY19

Following are the approved user proposals for fiscal year 2019, including CSP, [CSP New Investigator](#), Synthesis, and [FICUS JGI-EMSL](#).

### Community Science Program (CSP)

Proposer	Affiliation	Project Description
Airo, Alessandro	Berlin Institute of Technology (Germany)	<a href="#">Past and modern microbial communities in million-year-old Atacama Desert and their role in biogeochemical cycling in hyperarid environments</a>
Blanchard, Jeffrey	University of Massachusetts-Amherst	<a href="#">Molecular responses to a short-term temperature shift in a long-term soil warming experiment at Harvard Forest</a>
Bowen, Jennifer	Northeastern University	<a href="#">Nitrate in coastal waters: shifting the balance from carbon sink to carbon source</a>
Brown, Judith	The University of Arizona	<a href="#">Characterizing infections and host-pathogen interactions of <i>Chlorella</i> spp. by the predatory algal bacterial pathogen, <i>Vampirovibrio chlorellavorus</i></a>

Carini, Paul	The University of Arizona	<a href="#">Adaptive strategies in a cosmopolitan and abundant soil bacterium: metabolic flexibility or genome divergence?</a>
D'Hont, Angelique	CIRAD (France)	<a href="#">Genomic diversity in the Saccharum complex for improvement of sugarcane as an energy crop</a>
Freitag, Michael	Oregon State University	<a href="#">The curse of being first meets the need to be complete: Finishing genomes to leverage additional information from completed and ongoing JGI CSPs</a>
Gladieux, Pierre	INRA (France)	<a href="#">Comparative genomics and association mapping in Sordariales: insights into functional diversity in Neurospora and its relatives</a>
Greenham, Katie	University of Minnesota	<a href="#">Leveraging pan-genomes to investigate diel transcriptomic and metabolomic responses to abiotic stress in B. rapa and B. napus diversity panels.</a>
Hazen, Samuel	University Of Massachusetts-Amherst	<a href="#">Regulatory Genomics of Plant Biomass Accumulation</a>
Leakey, Andrew	University of Illinois at Urbana-Champaign	<a href="#">Transcriptomics of water use efficiency traits in Sorghum and Setaria</a>
Liao, Hui-Ling	NFREC/University of Florida	<a href="#">Genetic, community, and ecosystem consequences of co-introduction of mycorrhizal fungi with exotic pines</a>

Malagnac, Fabienne	University Paris Sud (France)	<a href="#">Linking epigenomic regulation of carbon acquisition to nutrient use in fungi</a>
McMahon, Trina	University of Wisconsin-Madison	<a href="#">Extended temporal dynamics of microbially-mediated freshwater carbon processing as revealed through time-series metagenomes</a>
Moore, Bradley	University of California, San Diego	<a href="#">Exploring algal biodiversity for the production of chemical feedstocks and other biotechnological applications</a>
Nagy, Laszlo	Biological Research Center (Hungary)	<a href="#">Fungal Comparative ENCODE Project: FUNCODE</a>
Rodrigues, Jorge	University of California, Davis	<a href="#">Partitioning the Biological Causes of Methane Flux Variation in the Amazon Rainforest</a>
Salome, Patrice	University of California, Los Angeles	<a href="#">Control of mRNA half-life Across the Diurnal Cycle in the Model Alga Chlamydomonas</a>
Van de Peer, Yves	Ghent University/VIB (Belgium)	<a href="#">Marine Angiosperm Genome Initiative (MAGI)</a>
Weston, David	Oak Ridge National Laboratory	<a href="#">Elucidating Sphagnum Microbiome Genetic Interactions for Improved Plant Growth to Warming</a>
Whitman, William	University of Georgia	<a href="#">Genome Encyclopedia of Bacteria and Archaea VI: Functional Genomics of Type Strains</a>

Wilhelm, Steven	The University of Tennessee	<a href="#">Algal, Bacterial and Viral Interactions as the Backdrop to Marine Carbon and Trace Metal Cycling</a>
Wrighton, Kelly	Colorado State University	<a href="#">From genomes to updated biogeochemical models: Targeting critical knowledge gaps in methanogenesis from soil systems</a>

## CSP New Investigator

Proposer	Affiliation	Project Description
Bouskill, Nicholas	Lawrence Berkeley National Laboratory	Microbial environmental feedbacks and the evolution of soil organic matter
Carlos-Shanley, Camila	Texas State Univeristy	Functional genomics of gut bacteria from endangered species of beetles from the Edwards Aquifer
Dassanayake, Maheshi	Louisiana State University	A transcriptome atlas enabling discovery of genes evolved as adaptations to environmental stress in a model extremophyte, <i>Schrenkiella parvula</i>
Davis, Richard	Jacobs Engineering/JETS	Temporal and Spatial Exploration of Fumarolic Ice Cave Microbial Communities
Emerson, Joanne	University of California, Davis	Elucidating depth-resolved viral links to soil carbon chemistry and crop yields in agricultural systems
Fabiano, Elena	IIBCE	Searching for New Bacterial Functions in Antarctic Lithobionts

Hughes, Karen	University of Tennessee	Utilizing microbial functional responses to follow soil carbon and nutrient cycling recovery and resilience following the November 2016 fire in the Great Smoky Mountains National Park
Kluge, Mariana	SLU – Swedish University of Agricultural Sciences (Sweden)	The fungal contribution to the carbon cycle of Subarctic and Arctic permafrost areas
Moghe, Gaurav	Cornell University	High-throughput annotation of metabolic enzymes in <i>Brachypodium distachyon</i> using correlated transcriptomics and metabolomics
Rivers, Adam	USDA – Agricultural Research Service	Developing probabilistic graphical models and analysis software to integrate multi-omics data
Schultzhaus, Zachary	Naval Research Laboratory	Functional Genomics and Transcriptomics to Target Mechanisms of Radiation Resistance in Melanized Fungi
Searcy, Christopher	University of Miami	Fire selection and the carbon cycling potential of the soil microbiome
Strack, Maria	University of Waterloo (Canada)	Microbial processes in restored and unrestored post-extraction peatlands: key to understanding greenhouse gas emissions from managed wetland ecosystems

## FY 2019 Facilities Integrating Collaboration for User Science (FICUS) JGI-EMSL Plans

Proposer	Affiliation	Project Description
Boye, Kristin	Stanford Linear Accelerator Center	Microbial Metabolic Activity and Biogeochemical Reaction Networks in Redox Cycled Alluvial Systems
de Vries, Ron	Westerdijk Fungal Biodiversity Institute	Validation of The Transfer of Metabolic Models From <i>Aspergillus niger</i> to Other Fungi Using an Orthology-Based Approach
Hom, Erik	University of Mississippi	Probing Microbial Interactions and Coordinated Trophic Responses in Biological Soil Crusts
Moran, James	Pacific Northwest National Laboratory	Linking Phosphorus and Carbon in Rhizosphere Nutrient Cycling
O'Malley, Michelle	University of California, Santa Barbara	Deciphering the Structure & Function of Secondary Metabolites from Anaerobic Fungi
Oono, Ryoko	University of California, Santa Barbara	Plant Litter Degradation and Microbial Defense by Host-Specific Fungal Endophytes
Shaked, Yeala	Hebrew University of Jerusalem	Interactive Mechanisms of Mineral Dissolution by A Microbial Consortia
Solomon, Kevin	Purdue University	Epigenetic Regulation of Anaerobic Fungi for Increased Lignocellulose Degradation
Trinh, Cong	University of Tennessee	Understanding and Harnessing the Robustness of Undomesticated <i>Yarrowia lipolytica</i> Strains for Biosynthesis of Designer Bioesters
Weston, David	Oak Ridge National Laboratory	Consequences of Plant Genetic Variation and The Surrounding Microbiome on Nitrogen Fixation

Wilkins, Michael	Colorado State University	Hydrobiogeochemical Feedbacks Across Seasonal and Decadal Time-Scales: Implications For Solute Fate and Transport in Riverbed Ecosystems
Zimmerman, Richard	Old Dominion University	Experimental Impacts of Climate Warming and Ocean Acidification on Metabolic Function and Blue Carbon Accumulation by Eelgrass