

The DOE Joint Genome Institute: A dedicated user facility for environmental & energy genomics

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The Joint Genome Institute is a DOE user facility that provides researchers from around the world access to advanced sequencing and analysis, enabling them to address important questions in the areas of bioenergy, carbon cycling and biogeochemical cycling. Each year we solicit large- and small-scale community science program (CSP) proposals. Large-scale proposals are typically complex studies that integrate multiple data types including genome sequencing, metagenomics, metatranscriptomics and single cell analysis. Twice a year we review small scale CSPs and allocate sequencing based on brief white paper proposals. JGI also works with the DOE's Environmental Molecular Science Laboratory to fund projects that combine the unique capabilities of these labs to solve more focused, high-risk/high payoff problems in bioenergy. We continue to develop new analytical capabilities in sequence analysis and in emerging areas including DNA synthesis and metabolomics. JGI also conducts research in terrestrial carbon cycling, plant genomics and plant-microbe interactions. This combination of user and internal science are an important resource for environmental system science.