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## Recent Work

### Title

Optimization of the 454 Production Sequencing Workflow at the DOE Joint Genome Institute

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## Optimization of the 454 Production Sequencing Workflow at the DOE Joint Genome Institute

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The U.S. Department of Energy (DOE) Joint Genome Institutes (JGI) Production Sequencing group is committed to the generation of high-quality genomic DNA sequence to support the mission areas of renewable energy generation, global carbon management, and environmental characterization and clean-up.

Within the Production Sequencing group a robust Roche GS-FLX sequencer pipeline has been established. Optimization of the pipeline has been ongoing with the aim of continual process improvement of the laboratory workflow. These process improvement projects are being lead by the JGIs Process Optimization, Sequencing Technologies, Instrumentation & Engineering, and the core 454 Production groups. Primary focus has been on improving the procedural ergonomics and the technicians operating environment, reducing manually intensive technician operations with tools and robotic automation, reducing associated production costs, and improving the overall process and generated sequence quality.

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