JGI JOINT GENOME INSTITUTE
UNITED STATES DEPARTMENT OF ENERGY

Synthetic Biology Internal Review Process and Biosecurity Screening

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SynBio Internal Review Committee

Purpose

- Review all Synthetic Biology user proposals
- Primary focus on environmental, biocontainment, biosafety, and biosecurity aspects
- Consider ethical, legal, and societal aspects

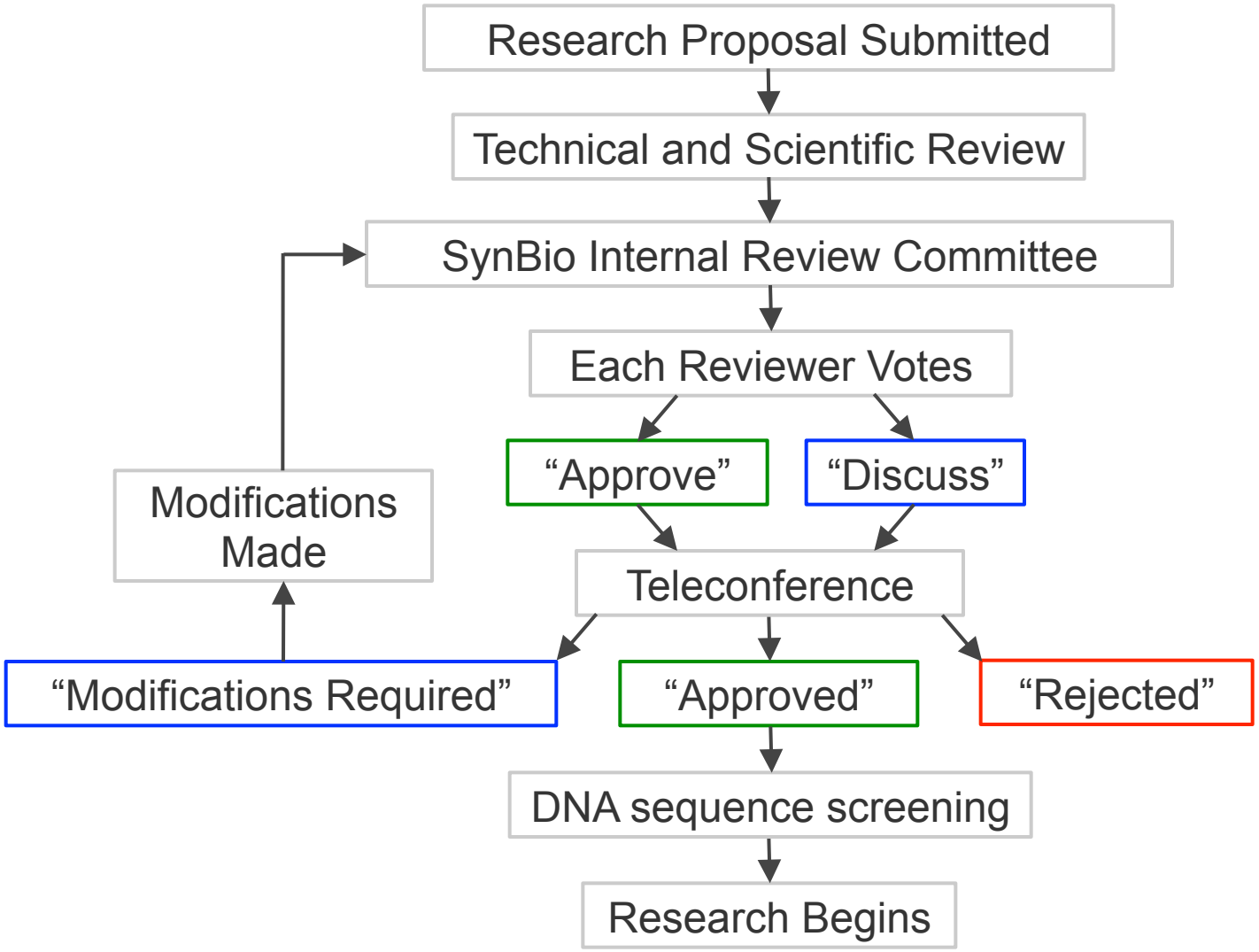
Composition

- Berkeley Lab staff
- External experts
- Members of the public (in the future)

This committee is one of the firsts of its kind

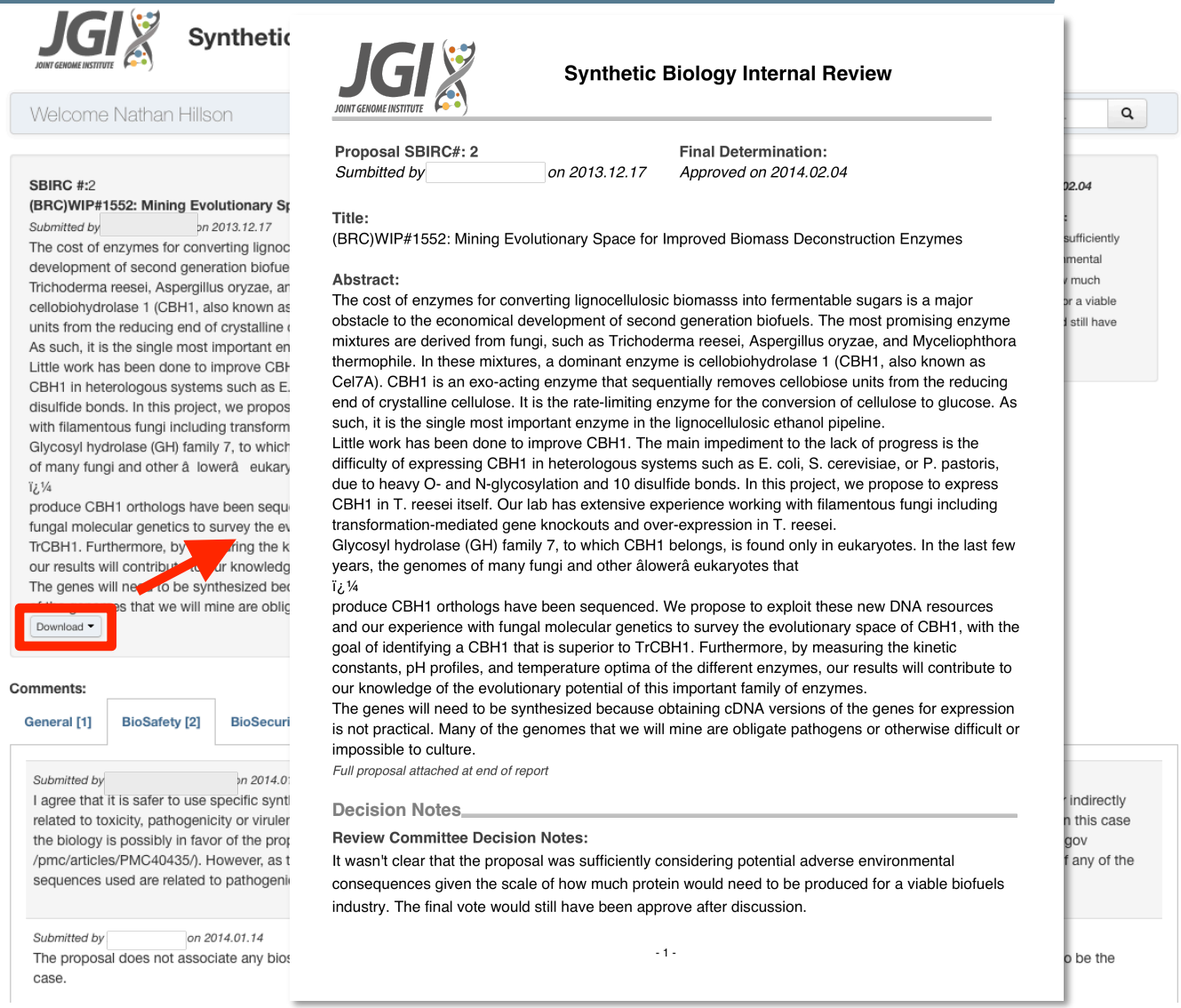
- The JGI is providing leadership
- Other institutions could adopt this successful process
- Review process software will faciliate replication

SynBio Internal Review Process



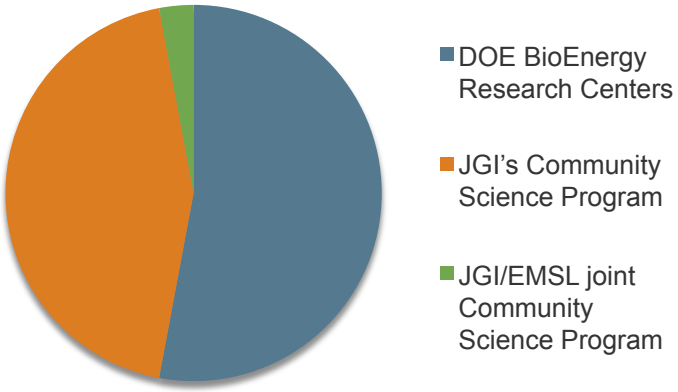
Investigator Guidelines

Web-based Review System

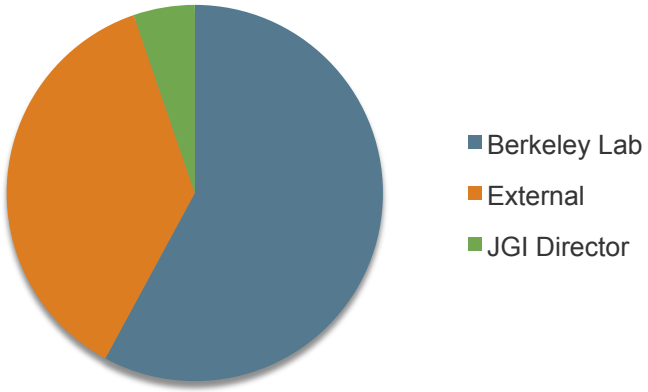


SynBio Internal Review Stats

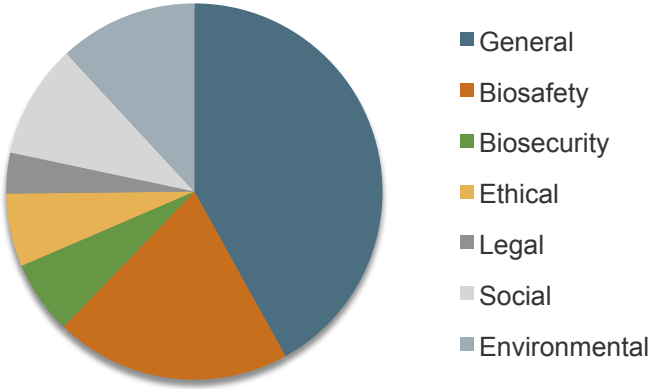
34 Proposals Reviewed



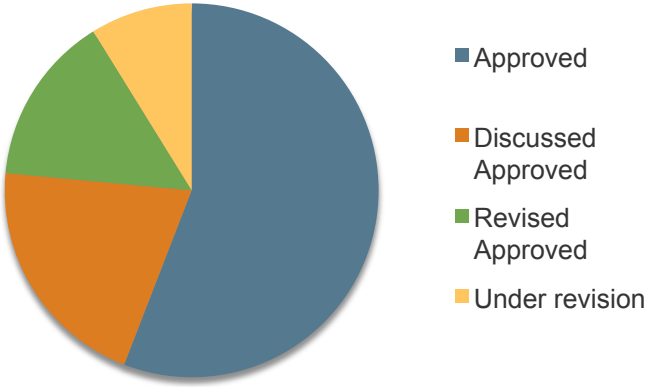
19 Reviewers



143 Reviewer Comments



Proposal Review Decisions



Biosecurity screening

International Gene Synthesis Consortium

- Harmonized screening protocol

User screening

- “Black lists” from U.S. Commerce, State, and Treasury Depts.
- Visual Compliance (VC) software for restricted party screening

Sequence screening

- “Sequences of concern”
- Select Agents and Toxins; Commerce and EU control lists
- New software (GenoGuard-inspired) for sequence screening

Sequence screening example