



Societal Issues in Synthetic Biology

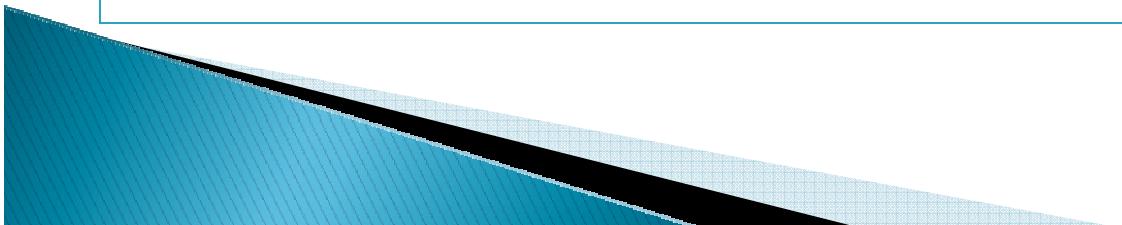
Paula J. Olsiewski, Ph.D.

July 10, 2009

Alfred P. Sloan Foundation

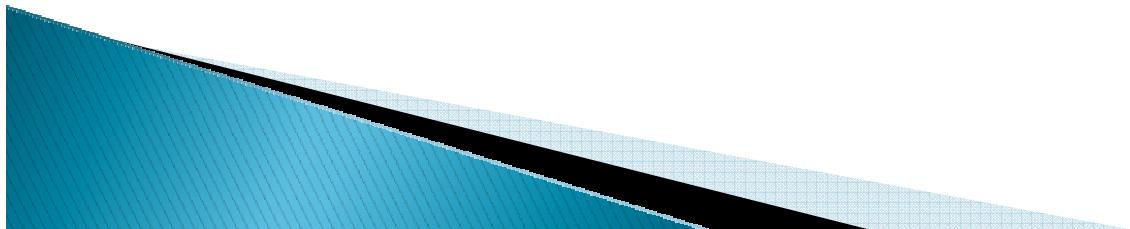
Early Important Grants

- ▶ 2001 Grant: US National Academy of Sciences “Biotechnology Research in an Age of Terrorism” aka “The Fink Report”
- ▶ 2005 Grant: JCVI/MIT/CSIS : “Synthetic Genomics: Options for Governance”



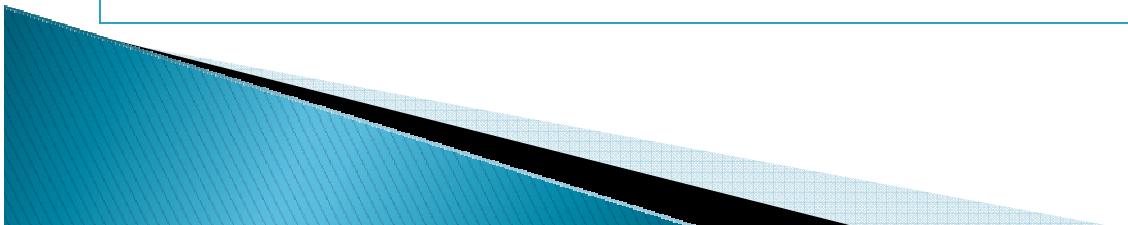
2008 Initiative: Desired Outcomes

- ▶ Improve understanding of ethical, social and policy issues by scientists and engineers
- ▶ Improve understanding of the science and engineering issues by policy makers, journalists, and the public
- ▶ Improve biosecurity and biosafety
- ▶ Create a cadre of young scholars working on the ethical, social and policy issues



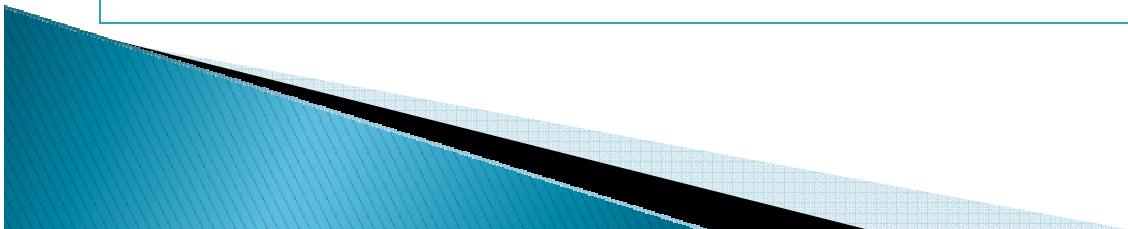
Current Projects

- ▶ US National Academies- this meeting!
- ▶ The Hastings Center
- ▶ J. Craig Venter Institute
- ▶ Woodrow Wilson International Center for Scholars



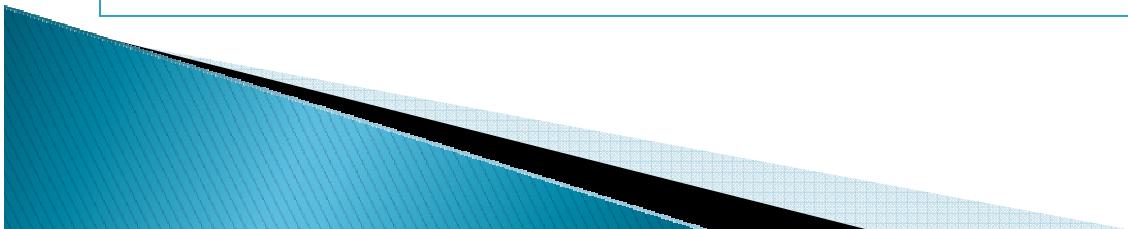
The Hastings Center

- ▶ Investigate ethical issues; Serious scholarly research to inform policy discussions
- ▶ Roger Brent, President and Research Director, The Molecular Sciences Institute, Science Advisor
- ▶ The Nonphysical Moral Concerns Raised by Synthetic Biology
- ▶ Nonphysical Moral Concerns, Political Discourse, and Public Policy
- ▶ The Risks and Hopes for Synthetic Biology



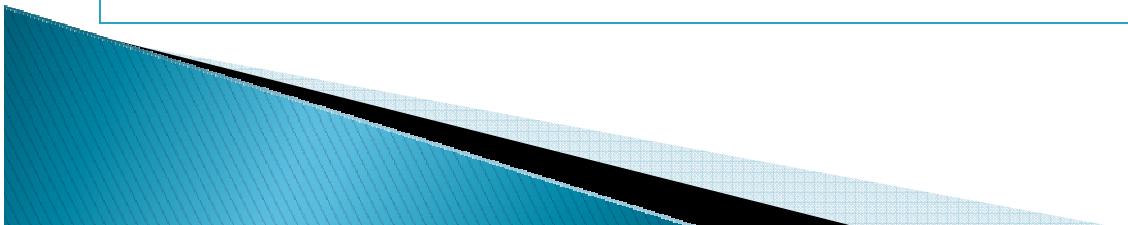
J. Craig Venter Institute

- ▶ Synthetic Genomics: Scientists' Understanding of Society's Concerns; Society's Understanding of the Science and Scientists
- ▶ Help scientists and bio-engineers understand how society views their work
- ▶ Educate journalists, so that they can better inform the public about the technology
- ▶ Inform policymakers to help them structure better rules, laws, guidance, and oversight



JCVI: Methodology

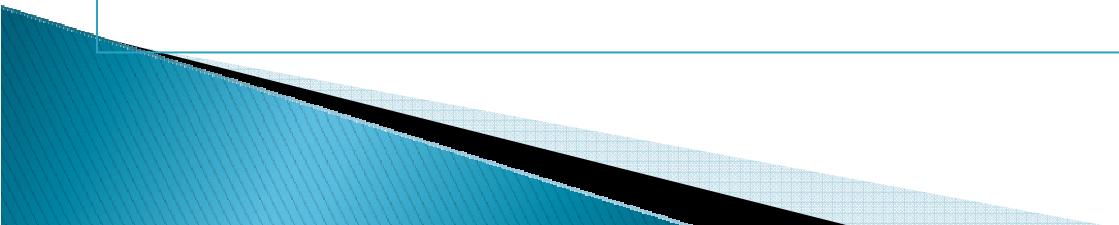
- ▶ Series of multi-day workshops
- ▶ Issues of Concern
 - Environmental/ecological
 - Philosophical/ethical/theological
 - Intellectual property/distribution
- ▶ Series of scenario-based analyses to better understand nature of concerns, e.g.:
 - Constructing organelles
 - Constructing microorganisms
 - Constructing eukaryotes



Woodrow Wilson International Center for Scholars

- ▶ Goal: Identify and start to address risks
 - Understand public perception
 - Evaluate adequacy of current regulatory framework
 - Educate policy makers

www.synbioproject.org/



Questions?

Olsiewski@sloan.org

