



# Designer Organisms:

## A Citizen's Assessment of the Promise and Perils of Synthetic Biology

Welcome to the 2011 Citizen's Conference on Synthetic Biology.

We have invited you to take part in a Citizen's Conference on synthetic biology because the Federal Government wishes to learn about your views on what should be done about researching and developing this emerging field of converging science and technology.

The Executive Office of the President is developing a strategy document that it wishes to present to Congress, which proposes to accelerate, with appropriate attention to social, environmental and ethical risks, the pace of current research and development in certain areas of synthetic biology, an area of scientific inquiry and technological development which harnesses techniques and methodologies from a variety of fields including genetics, molecular biology, information technology and nanotechnology, to design and develop complex biological systems that do not occur in nature.

Following considerations have contributed to this decision:

- The Presidential Commission for the Study of Bioethical Issues concluded that the likelihood of creation of life through research and development in biology and genetics still remains remote. With the moral and ethical issues surrounding the creation of life being temporarily set aside, the commission found it realistic to expect that over time research in synthetic biology will lead to new products for clean energy, pollution control, and more affordable agricultural products, vaccines, and other medicines.
- The failure of the 111<sup>th</sup> Congress to enact comprehensive legislation in the areas of energy and climate change makes the prospect for a bi-partisan consensus and legislation on these issues extremely unlikely in the foreseeable future.
- A National Survey conducted by the Woodrow Wilson Center for Scholars show that by two to one, Americans believe synthetic biology should be allowed to move forward with a focus on uncovering possible effects on humans and the environment.
- Responding to continuing economic malaise, declining tax revenues, rising healthcare costs, and political pressures to reduce the federal budget deficit through deep cuts in spending, the President is pivoting his budgetary strategy from stimulus spending to a cut-and-invest agenda where he is proposing to slash spending in some domestic programs to both reduce deficits and make room for increases in education, infrastructure, clean energy, innovation and research to promote long-term economic growth and global competitiveness.

Recognizing that the promise and perils of synthetic biology stand the chance of helping and hurting human conditions in a scale not imaginable before, the network for Expert and Citizen's Assessment of Science and Technology (ECAST), which consists of nonpartisan policy research organizations, science museums and universities, is organizing this conference to collect views from ordinary citizens.

In this conference you will share your views with fellow citizens. You will also get an opportunity to ask questions of each other and obtain answers from experts involved in the field. At the end of your discussions you will be asked to present your consensus view in the form of written and oral testimonies in a public hearing to a mock interagency panel of program managers from different federal agencies.

The attached documents provide basic information and links to resources about synthetic biology.

"Science informs us. It does not tell us what to do. The choice is ours."

We hope you will take this important opportunity to share with the panel and fellow citizens your views about measures that will have dramatic consequences not only in your lives, but also those around the globe and those yet to come.



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### Project Timeline:

Monday, February 14  
(TJ Room 215)

#### Briefing and overview of the project

- Distribution of background material
- Group members, representative and recorder assignment
- *Assignment #1*: Read background material and come prepared to discuss in class on February 18.

Friday, February 18  
(TJ Room 215)

#### Initial face to face deliberation in class within groups

- Answers questions about social, ethical, legal concerns
- Discuss these concerns within group members
- Identify areas where more information is needed
- *Assignment #2*: List questions to ask experts

Monday, February 21 – 28  
(Remote Access)

#### On line deliberation

- Post on-line questions for experts and follow up as necessary
- *Assignment #3*: Review on-line discussion and come prepared to discuss them in class on March 2.

Wednesday, March 2  
(TJ Room 215)

#### Final face to face deliberation in class

- Review and discuss list of concerns
- Develop recommendations around them
- Identify, prioritize and draft recommendations
- *Assignment #4*: Prepare written (email by Friday, March 4) and oral testimony (5 minutes) for mock Inter-agency panel

Monday, March 7  
(ASU-DC Center, 1834  
Connecticut Ave, NW,  
Washington, DC 20009)

#### Public testimony to mock Inter-agency panel

- Group representative present oral testimony to mock Inter-agency panel (5 minutes each)
- Group representative answers questions from members of the panel and general public