

Synthetic Biology and Biomedicine: Progress, Outlook, and Challenges
Doubletree Hotel, Bethesda, Maryland
February 11-12, 2010
(Draft – 12/8/2009)

Workshop Co-Chairs:

Drew Endy, Ph.D.
Assistant Professor
Department of Bioengineering
Stanford University

Aristides Patrinos, Ph.D.
President
Synthetic Genomics Inc.

Workshop Objectives:

1. Communicate progress in the emerging field of synthetic biology.
2. Identify potential applications of synthetic biology in cancer research.
3. Discuss opportunities for fundamental impact in biomedicine.
4. Identify challenges and needs for future development.

Agenda

February 11, 2010

7:15am Registration

8:00am – 8:15am Opening Remarks

Session I: Current State-of-the-Art in Synthetic Biology
Chair: Ari Patrinos

8:15am – 8:35am	Drew Endy	Overview
8:35am – 9:05am	George Church	synthetic genetics
9:05am – 9:35am	Daniel Gibson	synthetic genomics
9:35am – 10:05am	Ron Weiss	synthetic networks

10:05am – 10:20am	Break	
10:20am – 10:50am	Steve Benner	bio synthesis
10:50am – 11:20am	Panel Discussion	

Session II: Bioethics in Synthetic Biology
Chair: Drew Endy

11:20pm – 11:50pm	Robert Friedman	
11:50pm – 12:20pm		
12:30pm – 1:30pm	Lunch	

Session III: Applications of Synthetic Biology in Cancer Research
Chair: Jay Keasling

1:30am – 2:00	Robert Gatenby	
2:00pm – 2:30pm	Jay Keasling	
2:30pm – 3:00pm	Christina Smolke	
3:00pm – 3:30pm	Chris Anderson	
3:30pm – 3:45pm	Break	
3:45pm – 4:15pm	Pam Silver	
4:15pm – 4:45pm	Adam Arkin (pending confirmation)	
4:45pm – 5:15pm	Lynne Regan	
5:15pm – 5:45pm	Panel Discussion	
6:00pm – 7:30pm	Reception	

February 12, 2010

Session IV: Opportunities for Fundamental Impact in Biomedicine

Chair: Ari Patrinos

8:00am – 8:30am	Wendell Lim
8:30am – 9:00am	Jeff Hasty
9:00am – 9:30am	Jef Boeke
9:30am – 10:00am	Panel Discussion
10:00am – 10:15am	Break

Session V: Breakout Discussions on Challenges and Needs

Chair: Karin Remington

10:15am – 10:20am	Instruction of the Session
10:20am – 11:30am	Breakout Sessions <ol style="list-style-type: none">1. Challenges and Needs in Scientific Advance Lead Discussant: Eric Jakobsson2. Challenges and Needs in Technology Development Lead Discussant: Jay Keasling3. Challenges and Needs in Clinical and Translational Research Lead Discussant: Robert Gatenby4. Challenges and Needs in Education Lead Discussant: Wendell Lim
11:30am – 12:30am	Reports from Breakout Session Lead Discussants
12:30am – 12:50pm	Summary from the Co-Chairs
1:00pm	Workshop Adjourns