

**Interagency Workshop on Synthetic Biology
Examining Needs to Realize Future Potential
October 16-17, 2019
North Bethesda Marriott**

Wednesday, October 16, 2019

8:00 AM	Registration/Breakfast	Foyer - Salon Room F
8:30 AM	Introduction, Overview, and Goals <i>Sheng Lin-Gibson, NIST, Jessica Tucker, NIH, Theresa Good, NSF</i>	Salon Room F
8:50 AM	Role of Synthetic Biology in a Global Bioeconomy <i>Mary Maxon, LBNL</i>	Salon Room F
9:10 AM	EBRC Roadmap – an opportunity to chart a course for future collaboration <i>Doug Friedman/Emily Aurand, EBRC</i>	Salon Room F
9:30 AM	Opportunities in synthetic biology – reflections on the past and a vision for the future <i>Jim Collins, MIT</i>	Salon Room F
10:00 AM	Break	Foyer - Salon Room F
10:15 AM	Transforming Bioenergy and Agriculture with Synthetic Biology <i>June Medford, Colorado State</i>	Salon Room F
10:40 AM	Break out groups to examine case studies in bioenergy/agriculture sector Group Leaders: <i>Cynthia Collins, Patrick Shih, Nathan Hillson, Nigel Mouncey, Jennifer Kuzma</i> <ul style="list-style-type: none">• Presentation of the case study• Break out group discussion of questions (same questions for each case)<ul style="list-style-type: none">○ What is the timeline for feasibility? 5 years, 10 years, 20 years○ Is it technically feasible? If not, what are the major technical hurdles to be overcome? Are there additional basic science, enabling technologies, infrastructure needs?○ What are the key opportunities for collaboration that could jump start/accelerate this use case?○ What are the barriers to public acceptance and commercialization?	<i>Great Falls (Collins) Middlebrook (Shih) Timberlawn (Hillson) Seneca (Mouncey) Strathmore (Kuzma)</i>
12:00 PM	Working Lunch	
12:45 PM	Breakout group report out & discussion Discussion Leader: <i>Sean Cutler, UC Riverside</i>	Salon Room F
1:45 PM	Transforming Cellular Factories with Synthetic Biology <i>Pam Silver, Harvard</i>	Salon Room F

2:10 PM	Breakout groups to examine case studies in cellular factories sector Group Leaders: <i>Mike Jewett, Kristala Prather, Eric Klavins, Kate Adamala, Neal Devaraj</i>	<i>Great Falls (Jewett) Middlebrook (Prather) Timberlawn (Klavins) Seneca (Adamala) Strathmore (Devaraj)</i>
3:30 PM	Break	<i>Foyer – Salon Room F</i>
3:45 PM	Break out group report out & discussion Discussion Leader: <i>John Glass, JCVI</i>	<i>Salon Room F</i>
4:30 PM	Public Acceptance of Synthetic Biology <i>Barbara Harthorn, University of California Santa Barbara</i>	<i>Salon Room F</i>
4:50 PM	Unmet computational needs <i>Doug Densmore, Boston University (Contributions from Chris Myers and Eric Klavins)</i>	<i>Salon Room F</i>
5:10 PM	Unmet basic science needs <i>John Glass, JCVI</i>	<i>Salon Room F</i>
5:30 PM	Synthesis of Day 1 – common themes & opportunities <i>Theresa Good, NSF & Jessica Tucker, NIH</i>	<i>Salon Room F</i>

Thursday, October 17, 2019

8:00 AM	Registration/Breakfast	Foyer - Salon Room F
8:15 AM	Recap, Goals for Day 2 <i>Alias Smith, NSF</i>	Salon Room F
8:20 AM	Transforming Medicine with Synthetic Biology <i>Bruce Levine, University of Pennsylvania</i>	Salon Room F
8:45 AM	Break out groups to examine case studies in medicine sector Group Leaders: <i>Lydia Contreras, Chris Myer, Laura Segatori, Ahmad Khalil, Doug Densmore</i>	Great Falls (Contreras) Middlebrook (Myer) Timberlawn (Segatori) Seneca (Khalil) Strathmore (Densmore)
10:00 AM	Break	Foyer - Salon Room F
10:15 AM	Breakout group report out & discussion Discussion Leader: <i>Ron Weiss, MIT</i>	Salon Room F
11:10 AM	Unmet needs – a company perspective <i>Asa Oudes, Benchling</i>	Salon Room F
11:30 AM	Transforming Biomanufacturing with Synthetic Biology <i>Patrick Boyle, Ginkgo Bioworks or Michael Koepke, Lanza Tech</i>	Salon Room F
11:55 AM	Breakout groups to examine case studies in biomanufacturing sector Group Leaders: <i>Michael Dossier, Derek Abbott, Rebecca Nugent, Ali Friedland, Kelvin Lee</i>	Great Falls (Dossier) Middlebrook (Abbott) Timberlawn (Nugent) Seneca (Friedland) Strathmore (Lee)
12:00 PM	Working Lunch	
2:00 PM	Breakout group report out & discussion Discussion Leader: <i>Patrick Boyle or Michael Koepke</i>	Salon Room F
2:45 PM	Imagining a future enabled by synthetic biology <i>Drew Endy, Stanford</i>	Salon Room F
3:15 PM	General Discussion – where are the gaps and opportunities that will enable us to realize the future potential in the field <i>Sheng Lin-Gibson, NIST</i>	Salon Room F
4:00 PM	Adjourn Day 2	