

Day 1 - SATURDAY May 21, 2016

7:45 – 8:30am Registration & Breakfast [MIT-Wong Auditorium E51-115]

8:15 – 8:30am Welcome & Introduction (**Ron & Mo**)

8:30 – 9:15am Opening Plenary: **Irving Weissman**
“Normal and Neoplastic Stem Cells”

9:15 – 10:30am **Session 1: Stem Cells and Development**
Moderator: **Ron Weiss**

Speakers:

Tara Deans: “Using Synthetic Biology to Regulate Gene Expression in Stem Cells”

Axel Visel: “Distant-Acting Enhancers: A Non-Coding Toolbox for Mammalian Development”

Poster talk:

Elise Cachat: “Synthetic Roads to Morphogenesis and Patterning”

10:30 – 11:00am Coffee Break

11:00 – 12:15pm **Session 2: RNA Regulation**
Moderator: **Yvonne Chen**

Speakers:

Hiro Saito: “Synthetic RNA Switches and Circuits to Program Target Cell Populations”

Georg Seelig: “Learning the Sequence Determinants of Alternative Splicing from Millions of Random Sequences”

Poster talk:

Taek Kang: “Discriminating Direct and Indirect Connectivities in Biological Networks”

12:15 - 1:45pm Lunch [**Ting Foyer**: area directly outside Wong Auditorium]

1:45 – 3:00pm **Session 3: Metabolism and Production**
Moderator: **Reshma Shetty**

Speakers:

Karen Polizzi: “Understanding and Manipulating Mammalian Metabolism for the Production of Therapeutic Glycoproteins”

Eriko Takano: “Harnessing Synthetic Biology for the Production of High-value Chemicals”

Poster talk:

Ross Jones: “Characterizing the Effect of Shared Transcriptional Resources in Mammalian Cells”

3:00 – 3:15pm Coffee Break

3:15 – 4:30pm **Session 4: Tissue Fabrication and Multicellular Structures**
Moderator: **Leonidas Bleris**

Speakers:

Celeste Nelson: “Epithelial origami: The Science and Art of Tissue Folding”

Chris Chen: “Engineering Tissue Structure and Function: How Simple is Complex Enough?”

Poster talk:

Leonardo Morsut: “Towards Engineering Development: A Family of Synthetic Communication Pathways to Control Multicellular Self-organization”

4:30 – 4:45pm Break

4:45 – 6:00pm **Session 5: Human Microbiome**
Moderator: **Mo Khalil**

Speakers:

Chris Voigt: -tba-

Harris Wang: “Mammalian Synthetic Biology Through Engineering the Host-associated Microbiota”

Poster talk:

Alejandro Chavez: “Cas9-mediated Whole Cell Engineering”

6:15 – 8:30pm Poster Session & Grand Reception [Samberg Conference Center (E52)]

Day 2 - SUNDAY May 22, 2016

8:00 – 8:30am Breakfast [MIT-Wong Auditorium E51-115]

8:30 – 9:15am Closing Plenary: **Arlene Sharpe**
“The PD-1 pathway – from Discovery to Translation for Cancer Immunotherapy”

9:15 – 10:45am **Session 6: New Therapeutic Approaches**
Moderator: **Mo Khalil**

Speakers:

Leor Weinberger: “Harnessing ‘noise’ for cell-fate control & therapy”

Wilson Wong: -tba-

Steve Elledge: “Using Synthetic Biology to Generate Representations of Human and Viral Proteomes for Immunological and Functional Studies”

10:45 – 11:00am Coffee Break

11:00 – 12:30pm **Session 7: Industry, Regulations and IP Panel**
Moderator: **Nevin Summers** (MIT)

Speakers:

Tim Charlebois, Pfizer

Siyuan Chen, Twist Bioscience

Ken Oye, MIT

Nicholas Short, MIT

Panel Discussion

Moderator: **David Hanselman** (SGI)

Panel list:

Todd Peterson, SGI

Tim Charlebois, Pfizer

Ken Oye, MIT

Nicholas Short, MIT

12:30pm Closing Remarks & Boxed Lunch to go