

# Wednesday, May 29

8:30-11:40 AM | Keller 3-125

## Synthetic Biology: An Overview of Industrial Potential

Biocatalysis and Biotechnology (BB)

Romas Kazlauskas, coordinator

Synthetic biology is the design and engineering of biological components and systems that do not already exist in the natural world. Application areas include biofuels, bioremediation, and biomaterials. Academic speakers will describe emerging methods, while industrial speaker will describe current uses of biology in industry.

### AGENDA

<u>Time</u>	<u>Title</u>	<u>Authors</u>
<b>8:30</b>	Introduction	<b>Romas Kazlauskas-UMN</b>
<b>8:35</b>	Synthetic Biology, Enzymatic Catalysis & Natural Active Ingredients	<b>Tong Mu-Wanhua</b>
<b>9:00</b>	Systematic Analysis of the Roles of Individual Sec Pathway Components in Bacillus subtilis	<b>Christina Bongiorno-DuPont</b>
<b>9:25</b>	The use of 3M's Microneedle Systems and Toll-like Receptor 7/8 Agonists to Increase Vaccine Effectiveness	<b>Mark Tomai- 3M</b>
<b>9:50</b>	<b>Break</b>	
<b>10:20</b>	Engineering Species-like Barriers to Reproduction with Applications in GMO Crop Development and Pest Control	<b>Michael Smanski-UMN</b>
<b>10:45</b>	Bioengineering with Synthetic Cells	<b>Kate Adamala-UMN</b>
<b>11:10</b>	Localized Elevated Mutagenesis to Accelerate and Focus Nature's Evolution	<b>Xiao Yi-UMN</b>