

METABOLIC ENGINEERING FOR INDUSTRIAL BIOTECH

August 14 & 15, 2017 | San Diego, CA | \$900

This two-day course will focus on metabolic engineering as applied to high volume/low cost chemicals and materials and the unique choices and approaches that attend work in this area. A world class group of instructors from academia and industry will cover the agenda in an interactive format with case studies throughout.

Workshop Objectives:

- Gain an appreciation of the distinctive features of applying biotechnology and metabolic engineering in large scale, industrial projects.
- Survey the tools used in industrial biotechnology, and learn how systems approaches – in both biology and engineering – interact to define and provide direction for experimentation.
- Develop an historical perspective on the field, and a practical perspective gleaned from exposure to both successful and unsuccessful endeavors.
- Through case studies, understand the interplay between biology, engineering, and economic requirements, and how both theoretical and empirical approaches are used to move projects forward.

Who Should Attend?

- Individuals considering entering this area.
- Management personnel seeking to understand the unique context of industrial biotechnological projects.
- Engineers and scientists seeking to improve their overall understanding of the distinctive nature of industrial biotechnology.

Speakers

John Pierce, Ph.D.
Principal, Devenir Consulting, LLC

Adam Feist, Ph.D.
Project Scientist, UC San Diego

Ben Griffin, Ph.D.
Senior Director, Microbial and Enzyme Engineering, Synthetic Genomics

Jeff Lievens, Ph.D.
Senior Advisor to the CEO,
Bioengineering & Technology,
Genomatica

Jim Millis, M.S.
Chief Technology Officer,
BioAmber Inc.

Bernhard Palsson, Ph.D.
Principal Investigator, UC San Diego

Kirsty Salmon, Ph.D.
Head of Research, BP

FOR MORE INFORMATION

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Workshop Details

Dates and Times:

Momday & Tuesday, August 14 & 15, 2017

8:00 a.m. - 5:00 p.m.

Location:

UC San Diego Campus, La Jolla, CA



Agenda

DAY 1

Primer on Microbial Physiology

Tools of metabolic engineering

Bioprocess theoretical and physiological constraints & industrial host selection

Techno-economic modelling

Key challenges across phases of metabolic engineering/ strain development projects

Systems Biology

Metabolic Modeling

Case Study

DAY 2

Scale-up/scale-down

Designing strains to perform at scale

Evaluating strains at small scale

Testing strains; lab vs “real” feedstocks

How to scale down screening while still staying relevant

High-fidelity, high-throughput screening; data management, advanced learning algorithms

Case studies



REGISTER TODAY!
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