



BioBasics: Biotech for the Non-Scientist

Dates: July 12-13, 2012 **Time:** 9:00am-4:30pm

Location: Latham & Watkins, 140 Scott Drive, Menlo Park, CA 94025

Fee: BayBio Members: \$845 Non-Members: \$945

Day One

Industry Overview 9:00–9:30

Biotechnology Defined
Industry Sectors
Academia

Biology: The Basis of Biotech 9:30–10:30

Biotechnology Goals
Cell Structure & Function
Lab: DNA Isolation & Extraction

Break 10:30–10:45

DNA 10:45–12:30

DNA Structure & Function
Chromosomes & Genes
Activity: Genetics Wheel
Mutations
Genetic Variation
Activity: Genetic Variation Taste Test
Genetic Basis of Disease
Personalized Medicine

Lunch 12:30–1:30

Gene Expression: Proteins 1:30–2:45

DNA to Proteins
Transcriptions & Translation
Protein Structure & Function
Activity: Protein Synthesis Paper Lab
Proteins in Disease
RNA Interference

Break 2:45–3:00

Genetic Engineering 3:00–4:15

Plasmids
Recombinant DNA
Genetically Engineered Cells
Recombinant Proteins
Biologics
Disease Models

Q&A/Review 4:15–4:30

Day Two

Genomics 9:00–10:00

Genomics Defined
Tools: PCR, DNA Sequencing, Microarrays
Activity: Microarray to Determine Drug Metabolism

Antibodies: Key to Research & Biologics 10:00–11:00

Antibodies Defined
Antibodies Production
Therapeutic Applications
Research Applications
Diagnostic Applications

Break 11:00–11:15

Proteomics 11:15–12:30

Proteomics Defined
Tools: Chromatography, Mass Spec, Protein Microarrays
Lab: Protein Electrophoresis

Lunch 12:30–1:30

Stem Cells & Regenerative Medicine 1:30–2:15

Stem Cell Properties
Promises & Challenges
Organ & Tissue Replacement

Break 2:15–2:30

Drug Discovery & Development 2:30–3:30

Target Identification & Validation
Therapeutic Options
Regulatory Agencies
Preclinical & Clinical Trials

Biosimilars & Biomanufacturing 3:30–4:15

Biosimilars Defined
Generics vs. Biosimilars
Biosimilar Challenges
Biomanufacturing Overview

Q&A/Review 4:15-4:30

Deliverables: A reference manual containing all of the slides used in the class, all labs and activities, a glossary of biotech terms and a certificate of completion. Lunch will be served.

Refund Policy: Refunds are not given. Registrants may not switch classes. If a registrant cannot attend, someone from their organization may take their place. Please contact Kerri Muir with substitute name and contact information.

Questions? Contact Kerri Muir at 410.377.4429 x 22 or Muir@BiotechPrimerInc.com.

To Register: www.BiotechPrimerInc.com and click on “Registration.”

Instructor: Karin Lucas, Ph.D. - Dr. Lucas received her Ph.D. from University of California, San Diego where she studied inflammatory pain processing. Dr. Lucas began her career in the biotech industry as a scientist and project director at Cardinal Health, where she helped advance the development of over 25 therapeutic products, working with small biotech start-ups as well as large pharmaceutical companies in all stages of development. She subsequently worked as a protein formulation scientist and manager at Biogen Idec where she developed protein pharmaceuticals for the treatment of cancer, multiple sclerosis, chronic pain and hemophilia. A part-time instructor with BioTech Primer since 2004, Dr. Lucas assumed the role of Director of Education & Training in 2011. Through instruction and curriculum development she shares her passion for science and technology with a wide audience of non-scientist professionals who have an interest in the biotech industry.

What People Are Saying:

Lori Lindburg, Director, BayBio Institute, “We partner with BioTech Primer to bring their nationally recognized BioBasics course to our local members. The course is relevant to employees from all sectors of the industry, and helps to ensure that BayBio members remain current on the science and technology that drive San Francisco’s biotech community.”

Bruce W. Jenett, Partner, Co-Chair, Global Life Sector, DLA Piper LLP (US), “It’s important that our life sciences lawyers across the globe have an understanding of the fundamental science of biotechnology in order to help our biotech clients handle the unique challenges which they face. BioTech Primer was able to explain clearly and effectively the science and technology behind the creation of biotech products. We learned a lot and had fun learning it.”

Claudio Ramirez, Consul, Consulate of Canada, “The BioTech Primer course provided me with a robust scientific understanding of the biotech industry and will greatly enhance my credibility with clients, i.e. my ability to grasp their business models.”

Erin Deemer, Leadership Development, Biogen Idec
“BioTech Primer helps our non-scientists understand the basic science & technology used to develop our products. This knowledge leads to more productive communication with our researchers & clients.”