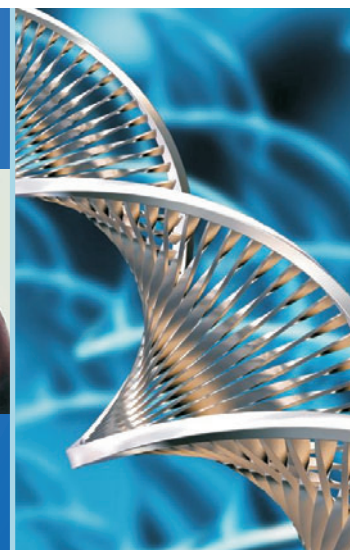


BioBasics: Biotech for the Non-Scientist

Date: December 13-14, 2012
Time: 9:00am - 4:30pm
Fee: MassBio Members \$1160
Non-Members \$1310
Location: MassBio Offices
300 Technology Square • 8th Floor
Cambridge, MA 02139



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

Geonomics 9:00 – 10:00

Geonomics 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 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

Course Description

BioBasics is a two-day course for the non-scientist which highlights science and technology concepts that are the basis of the biotechnology industry. The course is for participants that require a working knowledge of fundamental terms and applications.



Instructor: Collins Jones, Ph.D.

Dr. Collins Jones has been an instructor and scientific advisor for BioTech Primer since 2002. He also works closely with a number of leading companies in the biotechnology industry including BioReliance, Human Genome Sciences, & Qiagen. Dr. Jones develops and implements training that is current and industry relevant. Dr. Jones spent ten years as a research scientist at the National Institute of Health in Bethesda, Maryland. During his tenure at the NIH he investigated the relation between hepatic drug metabolism and liver tumor promotion at the National Cancer Institute. Subsequently he was awarded a National Research Council grant and assisted in the development of an in vivo imaging method at the National Institutes of Aging.

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. A light breakfast and lunch will be served. In addition, participants will be given access for 60 days to BioPrinciples Online, an 8 hour, highly interactive online course on the basics of biotech. This online course costs \$595 if purchased separately.

Refunds:

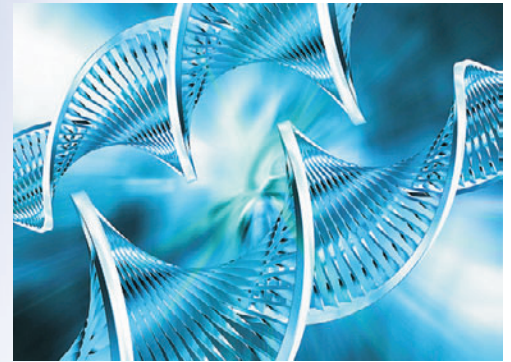
Refunds are not given. Registrants may not switch classes. If a registrant cannot attend, someone from their organization may take their place. Please contact Kerri Muir with substitute name and contact information.

Questions?

Contact Kerri Muir at 410.377.4429 x22 or Muir@BiotechPrimerInc.com

To Register:

<https://secure.massbioed.org/courses> Follow the links to the BioBasics course.



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What People are Saying.....

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.”

Michael O'Malley, Director of Product Marketing, HyLighter

“I want to let you know how valuable, informative and enjoyable it was to attend the BioBasics session. It was exceptional and perhaps two of the best days I've ever invested in training. The content of the course was exactly what I had hoped it would be: comprehensive and exactly the right amount of detail in each section. The course and presentation material were excellent and the lab was great as it really brought to life the material. this was just a terrific overall program in every aspect and I'd highly recommend 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, ie: my ability to grasp their business models.”