

BioBriefing: Biotech for the Non-Scientist

This is a lively one-day course that provides participants the knowledge to better engage with industry leaders at BIO2020. BioBriefing explains the science driving the biotechnology industry. This course is ideal for anyone who works on the business side of a biopharma company or provides services to the biopharma industry and does not have a science background. Learn from an industry insider who knows the technology, products, and companies.

Five Takeaways

1. Scientific basics needed to better understand the biopharma industry
2. Command of essential industry terminology
3. Improved ability to communicate with scientists, colleagues, and clients
4. Roadmap of the life science industry sectors
5. Fluency in drug manufacturing

Agenda

How Industry Sectors Are Organized 9:00-9:30

Biotechnology defined

Healthcare sectors: biopharma and medical device

How Biology Is the Basis of Biotechnology 9:30-10:20

Goals of biotech

Cell types used in biotech

Cell structure and function

Industry application: receptors and drug targets

Cell signaling network

Industry applications: agonists and antagonists

Break 10:20-10:30

How DNA and Proteins Are Biotech's Workhorses

10:30-11:15

DNA structure and function

DNA codes for proteins

Lab: DNA isolation and extraction

Protein structure and function

Post-translational modifications

Industry applications: therapeutic monoclonal antibodies

How Disease Occurs in Your Body 11:15-12:00

Mutation types and causes

Genetic basis of disease

Activity: genetic variation of taste

Pathogens

Bacterial infectious disease

Viral infectious disease

Lunch 12:00-12:45

How Your Body Fights Disease 12:45-1:45

The immune system

B-cells and antibodies

Epitopes

T-cells

Break 1:45-2:00

How Biologics Fight Disease 2:00-2:50

Compare small and large molecule drugs

Biologics

Monoclonal antibody characteristics

Monoclonal antibodies mechanisms of actions

Trigger immune response

Block signaling molecule

Capture signaling molecule

Capture pathogen

Antibody-drug conjugate

Bispecific antibody

Checkpoint inhibitors

Break 2:50-3:00

How Biologics Are Made 3:00-3:45

Biomanufacturing process overview

Cell banks

Upstream processing

Downstream processing

Formulation

Analytical testing final product

Ask Me/Tell Me 3:45-4:15

Wrap-Up 4:15-4:30