

# Drug Development Primer

**Drug Development Primer** is a one-day course concentrating on the FDA regulatory considerations required to successfully bring a drug to market in the US. Discussion points focus on biologic products. Numerous personal accounts illustrate the decision-making process biopharma's use, giving you an overview of strategic development.

## Four takeaways:

1. Overview of the FDA regulatory process
2. Introduction to drug development terminology and most used acronyms
3. Familiarity with preclinical testing requirements
4. Understanding of the clinical studies process

## Course Agenda

### **Drug Development Overview 9:00–9:45**

Success metrics and chances of success  
Timelines and costs  
Commercial considerations

### **Drug Discovery 9:45-10:45**

Target identification  
Potential targets: pharmacology  
Target validation  
Assay development and screening  
Lead optimization  
*Case study: multiple sclerosis*

### **Break 10:45–11:00**

### **The FDA Regulatory Process 11:00-12:00**

FDA mission and organization  
PDUFA  
REMS and black box warning  
FDA formal meetings with sponsors  
Regulatory interactions and tools  
Generics, biosimilars, orphan drugs  
Regulatory compliance  
*Activity: key risk factors*

### **Lunch 12:00-1:00**

### **Preclinical Development 1:00–2:00**

Preclinical trials  
Preclinical testing  
Initial new drug (IND) application  
New drug application (NDA)  
Biologics license agreement (BLA)

### **Break 2:00–2:15**

### **Clinical Development 2:00–4:15**

Ethical considerations  
Investigator sites  
Clinical protocols  
Endpoint: clinical vs surrogate  
Study design considerations and choices:  
    parallel, crossover, basket, umbrella,  
    adaptive designs  
Phase I  
Pharmacokinetics (PK) and pharmacodynamics (PD)  
Phase IIA and IIB  
Phase IIIA and IIIB  
FDA approval process  
Phase IV  
Drug safety and pharmacovigilance

### **Wrap-Up 4:15-4:30**