

## Where Do Drugs Come From?

Spring 2019 OLLI Boulder  
Thursday 9:30 – 11:30 AM  
April 4, 11, 18, 25

Facilitator: Michele Smith, Ph. D.

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### SYLLABUS

#### Format of the course:

The class will be a combination of presentation and discussion about the stages of drug discovery and development. Examples of various stages from approved drugs will be included. Cost of prescription drugs will not be covered.

- Week 1      Introductions; short review of chemistry, biochemistry and biology; overview of the drug discovery and development process and terms.
- Week 2      Drug Discovery: Unmet medical need, Target identification, target validation, Hit identification, Lead identification, Lead Optimization; Candidate Selection
- Week 3      Drug Development: Drug manufacturing, Toxicology, Clinical Plan, Investigational New Drug (IND) Application.
- Week 4      Clinical Trials: Phase 1; Phase 2, Phase 3 New Drug Application (NDA); Food and Drug Administration (FDA) Approval; Phase 4; Post marketing surveillance