Life After Academic Medicine: Exploring Careers in Biopharma

Panel Discussion

University of Pennsylvania
April 16th, 2019
Objectives

- Provide diverse perspectives on scientific career opportunities in the biopharmaceutical industry

- Panel includes physicians and scientists representing:
  - Discovery
  - Translational Medicine
  - Biomarkers
  - Late Development

- Panel will briefly tell you their stories

- Panel mostly here to answer your questions
My Background

- Medical School at University of Chicago
- Residency in Internal Medicine at UCSF
- Assistant Professor on CE track at Penn 1997 - 2005
Important Steps along the Way

- Clinician Educator in DGIM at 9 Penn Tower Internist
- Connected with research mentors
- Got K-23 award & started MSCE
- Wrote grants & papers & saw patients in lipid clinic
- Worked in early development CV/Metabolism at Wyeth
- Worked at Centocor/J&J in late development Immunology
- Now working in Lung Cancer Initiative focused on prevention, early detection and cure of early stage disease
My Career “Path”

- Cladistics, Smithsonian
- Undergraduate Evolutionary Biology, University of Puget Sound
- Introduced to Immunology at Yale
- Ph.D. in Immunology, Harvard University
- Post-doc Janssen, La Jolla, CA
- Scientist Janssen R&D, La Jolla CA and now Springhouse, PA

“Diversity” of life, people & experiences

“Diversity” in the immune system
Started as a math major
Switched to chemical engineering
Realized I was bad at biology
Started at UPenn Chemical and Biomolecular Engineering PhD program
Took ONE biology class...
Took a risk...
Joined a molecular and computational biology lab
Joined Janssen as bioinformatician
Now I use all these skills!
Cal’s Group at Janssen: Early GI Biomarkers

- Develop computational and molecular tools to study drug mechanism of action in early clinical studies
  - Does the drug reach the target tissue?
  - Does the drug engage the target?
  - Does target engagement affect the intended biological pathway?

- Multi-disciplinary group: computational biologists and molecular biologists

- Why?
  - Kill programs before running large clinical studies
  - Help choose a dose for future studies
  - Predict which patient populations might respond best
Key Takeaways

• **Network** with people outside of your current field

• Identify **multiple mentors** willing to guide you

• **Follow** scientific & health care **trends**: read & listen

• Be open to **new ideas**

• Get comfortable working in uncertain environments