

# Life After Academic Medicine: Exploring Careers in Biopharma

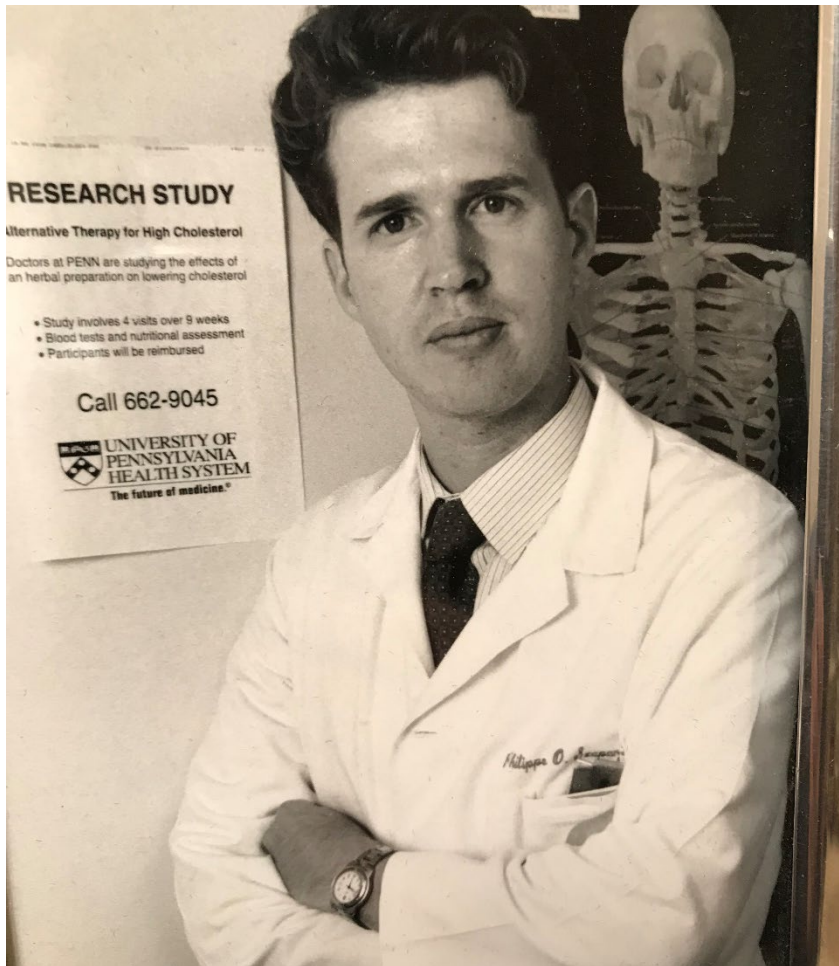
## Panel Discussion

University of Pennsylvania  
April 16<sup>th</sup>, 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



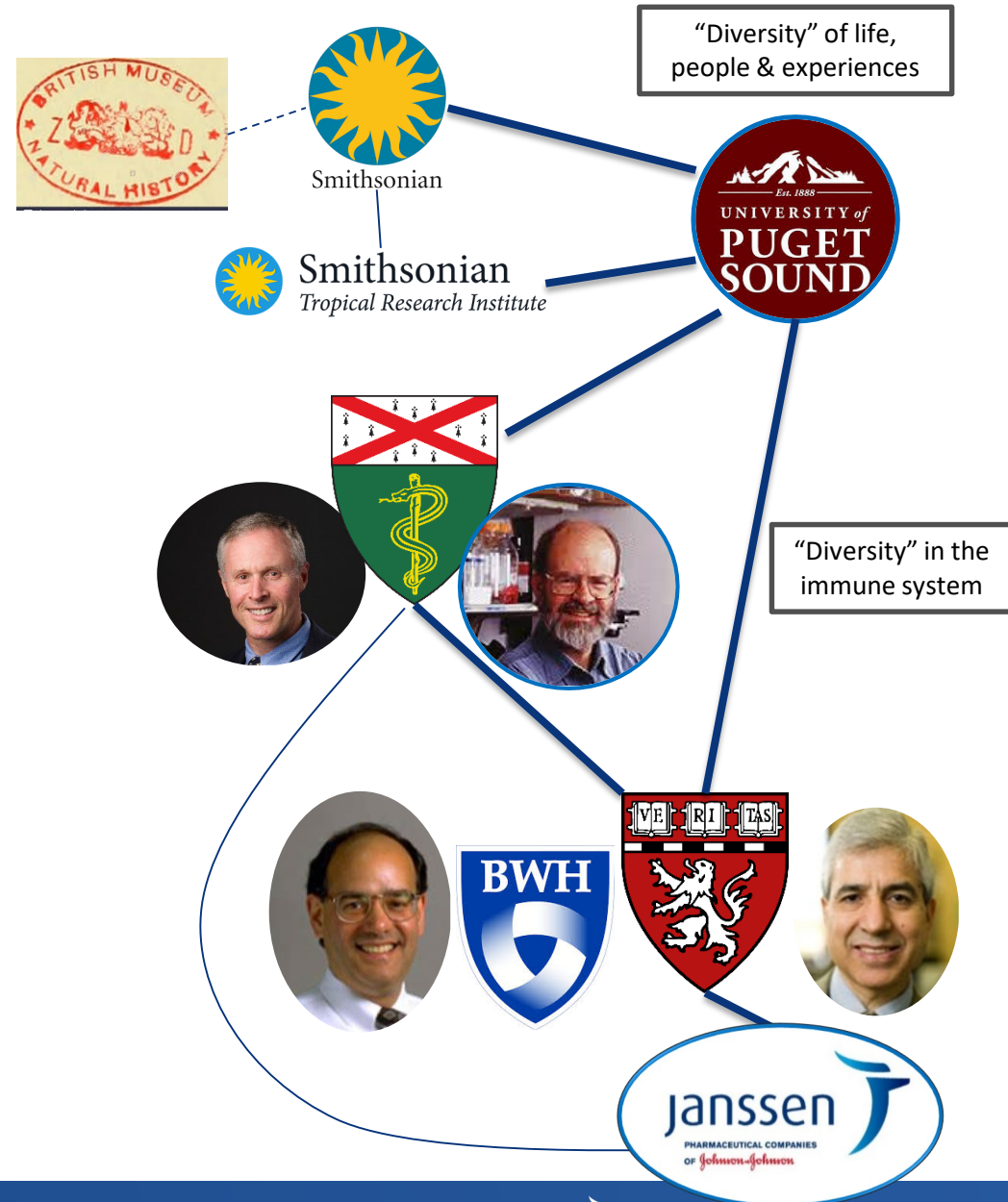
*Johnson & Johnson* INNOVATION

**Navin Rao, PhD**  
**Senior Scientific Director**  
**(Simple Biologist)**  
**Immunology Discovery**

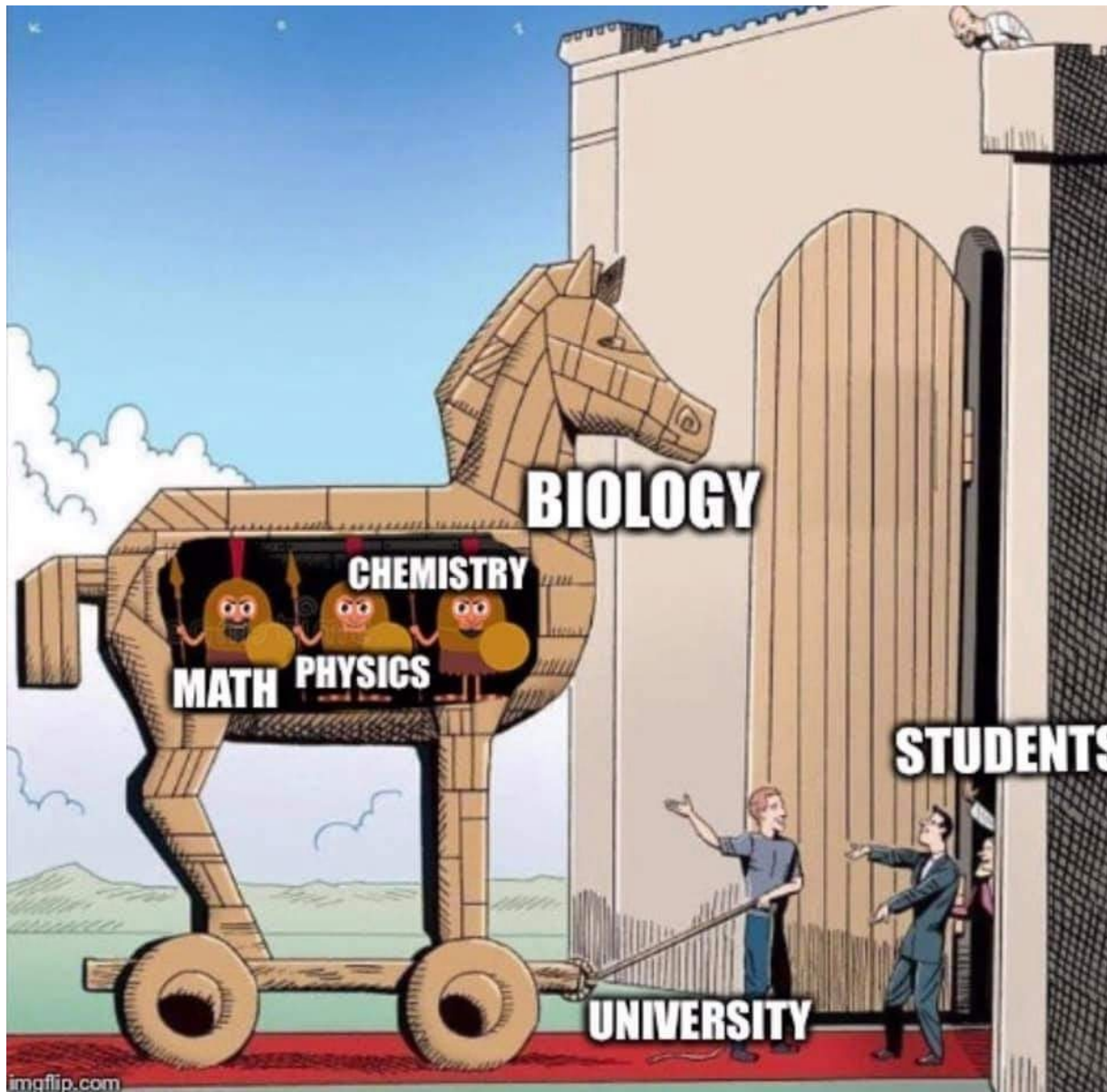
# My Career "Path"



- 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



**Cal Monast, PhD**  
**Associate Director**  
**Immunology Biomarkers**





Math

Started as a math major

Engineering

Switched to chemical engineering

Realized I was bad at biology

Started at UPenn Chemical and Biomolecular Engineering PhD program

Biology

Took ONE biology class...

Took a risk...

Joined a molecular and computational biology lab

Computational Biology

Joined Janssen as bioinformatician

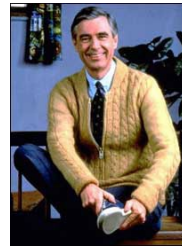
Drug Development

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

# Esi Lamou  , MD, PhD



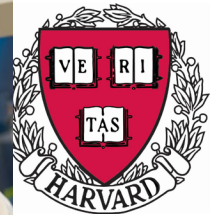
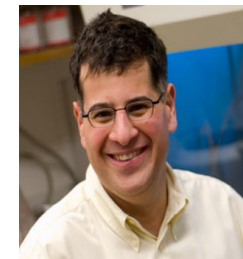
Morgan Stanley  
Children's Hospital  
of New York-Presbyterian  
Columbia University Medical Center



 **Boston Children's Hospital**  
Until every child is well™



COLUMBIA UNIVERSITY  
College of Physicians  
and Surgeons



 PHARMACEUTICAL COMPANIES OF  
*Johnson & Johnson*

janssen

PHARMACEUTICAL COMPANIES

OF *Johnson & Johnson*



# 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