

# NCI PAVES Seminar 5 Choosing Between a Career in Academia and Industry: Perspectives and Advice



**APRIL 30, 2021** 

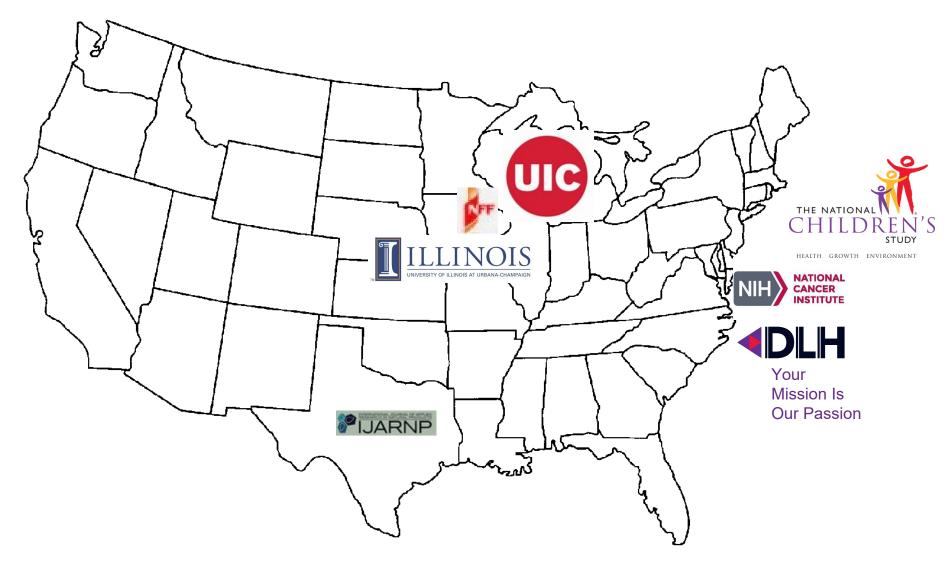
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#### Outline

- Our Career Paths
- Academia
  - Pros and Cons
- Working at DLH
- ◀ Industry
  - A day in the life
  - Pros and Cons
  - Considerations when choosing jobs in Industry
- ◀ Tips for success
- **■** Q & A

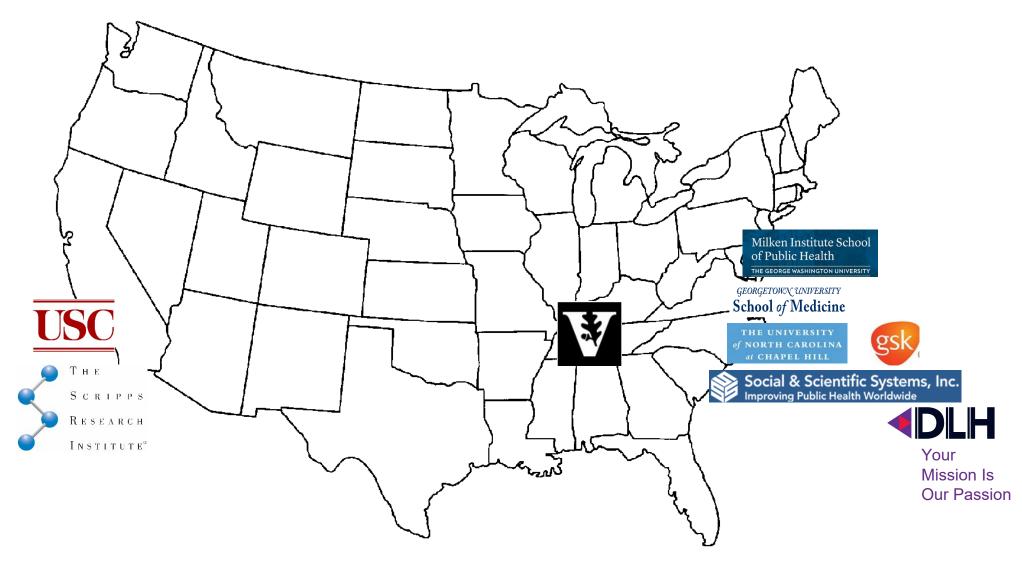


# Davyd Chung – My Career Path





# Sandra Halverson - My Career Path





## **Academia**



#### Academia

#### Tenure Track



#### Expectation of sustained:

- High scientific output & achievement
- Teaching
- University service
- Recognition as an expert in your field
- Funding
- Leadership

Usually all within a 7-year window for tenure

#### Research Track



- Research is the main focus
- Little or no teaching "required"
- Funding still required
- 1- to 3- year contracts (that can be renewed based on funding)



# Academia (Our Pros and Cons)

#### Pros

- Rich research and colleague environment
- Loved mentoring students
- Many opportunities for growth
- Enthusiasm that students bring
- Numerous resources
- Opportunity to direct our own research

#### Cons

- Competing priorities
- Constant pressure to publish
- Constant pressure to obtain funding
- Teaching can be a time sink
- University responsibilities time sink
- Research always seemed to end up at the bottom of the list
- Finding the work-life balance



#### Academia – Questions to Ask Yourself

- Is tenure or research track right for me?
- Is the position largely "soft" or "hard" money?
- If research driven:
  - O Do I like writing grant applications?
  - Am I good at writing grant applications?
  - o And if not, what can I do to get there?
- Do I have a good understanding of what my other responsibilities are?
  - Teaching (Do I really like teaching? Would I rather serve as a mentor?)
- Does this university have mentors and resources to support junior faculty?
- Does the tenure time clock pause for pregnancy/adoptions?



# **Industry**



## Industry

- Pharmaceuticals
  - o Genentech, Pfizer, Bristol-Myers Squibb, GSK
- Contract Research Organizations (CROs)
  - DLH/SSS, Booz Allen, NORC, Gallup, Syneos Health (clinical trials/regulatory)
- Companies
  - Nestlé, Baxter (medical supplies), Deloitte (consulting)
- Biotech
  - Abbott, Illumina, Medical device and equipment
- Biorepositories
  - o Fisher, BioReliance
- Fee for service
  - DNA isolation, Sequencing (The Broad, Academic Cores, Metabolomics)
- Nonprofit, Advocacy Groups, American Cancer Society
- "Out of the box"
  - o Law firms, Patents, Journalism, Proposal and Technical writers, Marketing



# Types of Roles at DLH and other CROs

- Epidemiologist
  - Don't just search for this title, but consider adjacent areas too
- Survey methodologist, biostatistician
- Practice area director, principal, program manager, study director/manager
- Senior research scientist
- Public health advisor
- Epidemiology lab director
- Business development
- Account executives
- Chief scientist

#### **PhD Disciplines**

- Epidemiology
- Statistics
- Biostatistics
- Bioinformatics
- Mathematics
- Computer Science
- Psychology
- Neurosciences
- Laboratory Sciences
- Biological Sciences

#### **Masters' Disciplines**

- Public Health
- Statistics
- Engineering
- Chemistry
- Mathematics
- Business
- Anthropology
- Microbiology
- Computer Programming



## Industry - Tracks

**Expert** 



- Research & project focused
- Basic Science
- Clinical Trials
- Product development
- Biostatistical analysis
- Some management may be involved
- Some business (client or partner facing, scientific conferences)

#### Corporate



- Company focused
- Management plays a much greater role
- Business development & strategy
- Budget & fiscal responsibility
- More likely to interface with clients
- Some project work may be involved
- Don't have to give up the science



### Industry

#### Pros

- Work happens much more quickly
- Greater opportunity to move across projects
- Salary
- Some business development and growth responsibility may be involved
- Still satisfies personal need to be involved in good science
- Flexibility to work remote
- Not all about the grants
- Team-based approach to developing proposals and reviews

#### Cons

- Don't always get to choose what you work on
- You may have to deal with challenging clients, timelines, and budgets
- At times, you have to be comfortable with taking a back seat - you may not be the PI anymore
- You have to be comfortable with a rapid change in priorities
- "Degree of corporateness"



## Industry: Questions to ask yourself

- How much control do I want over my research portfolio?
- Do I like working across many projects or do I prefer focusing on a single project/area?
- Am I OK in taking a step back from being a PI?
  - "back seat" or in the service of a client or program
- Am I comfortable with rapid change?
- Am I interested in an expert track or management track?
  - Do I like dealing with budgets and contracts?
  - Am I comfortable in a business development role or strategic role?
  - Do I like to manage people (and am I trained and good at it?)





## Industry - A Day in the Life

- Assess status of projects I direct (schedule, deliverables, budget, risk)
- Assess status of projects in my center that I oversee; oversee grants program
- Ensure scientific integrity
- Meet with clients
- Business development activities
  - Meeting with potential clients, building networks, and partnerships
  - Growing pipeline of opportunities (contracts, grants, cooperative agreements)
- Participate in corporate strategy meetings
- Budget reconciliation and planning (tracking DL, OH costs, revenue, profit)
- Staffing (directing, mentoring, dealing with performance issues, hiring, staff reduction)
- Some travel (for projects, business, oversight)
- Make decisions (the work of others is often dependent on my decisions)
- Write, review proposals
- Attend and present at conferences and scientific meetings
- Writing grant applications
- Conduct research



### **DLH Experience**

- Core areas for Public Health and Scientific Research
  - Clinical trials research services
  - Epidemiological and public health services
  - Data analytics, management, solutions
  - Health policy, services, and communications
- Operational management of more than 1,800 clinical trials and 110 epidemiological studies
- Enrolled over 400,000 volunteers/patients at over 650 sites in more than 50 countries
- Handled and managed of over 10 million bio-specimens
- Work has resulted in over 2600 peer-reviewed publications
- Covid-19 vaccination and testing for federal employees and contracting staff
- Collection of COVID data in epidemiologic studies



### DLH full-service research support for Epidemiologic and Clinical Research

- Multi-modal Data Collection
- Survey Research Center
  - Telephone and Remote Survey Operations
- Clinical and Data Coordination Center
- Center for Epidemiologic Field Studies
  - Epidemiology Study design
  - Epidemiology Laboratory
- Bio-specimen collection and management
- Medical records and coding
- Chronic Health, Infectious Diseases, Disaster, Environmental, Occupational, Toxicology, Covid Research



# Working at DLH

**Clinical Trials** 



ACTIV-5 -BET Trial
Big Effect Trial for
COVID therapeutics

**Epidemiological Studies** 





Head Start Monitoring
And Evaluation



Health Technology and Logistics

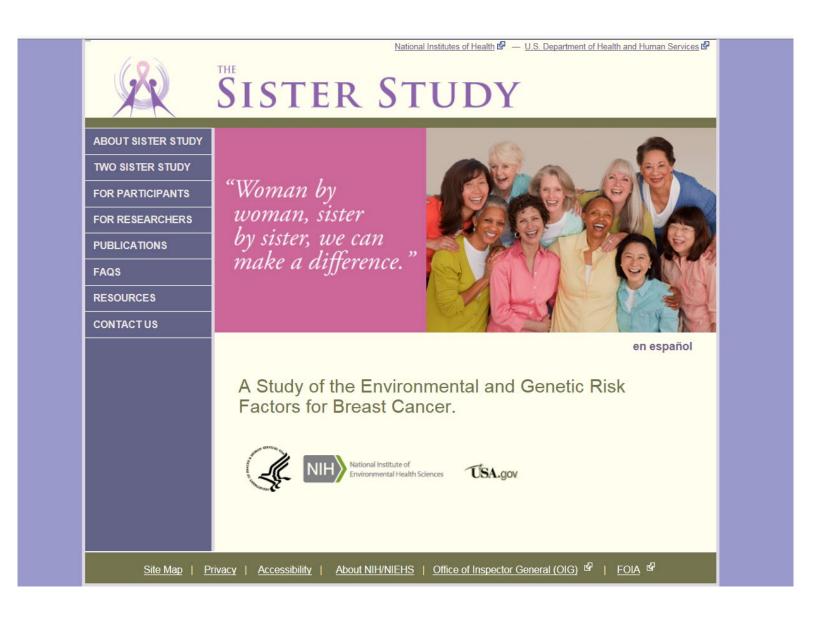


VA CMOPS
Consolidated Mail
Outpatient Pharmacy



### The Sister Study

- NIH/NIEHS
   epidemiologic
   longitudinal study with
   over 50,000
   participants nationally,
   including Puerto Rico
- Have led this Study for over 20 years
- This past year has included the addition of Covid-related work





### Industry – Tips for Success

- Understand what you are getting into
  - Job descriptions, scientific conferences, LinkedIn, personal contacts
- Get as much experience in operations, data collection, study design, laboratory, any other content area
- Get as much experience as you can in peripheral areas (management, budget control, hiring, writing, scientific communication, public speaking)
  - "Value"
- Find an "industry" mentor
  - Identify successful colleagues and ask questions about why they made the decisions they made
  - Identify your weaknesses, and work with mentor to turn those weaknesses into strengths
- Not all industry is created equal
  - May require a change to find the one that works best for you
  - Non-profit, employee-owned, for profit, publicly traded company



#### **Our Two Cents**

- Never stop adding tools to your toolkit
- Surround yourself with people who you trust and who will give you an honest evaluation/critique
  - And ask for it on a regular basis
- Develop collaborations and networking with industry researchers and practice area directors
- Don't underestimate the power of networking in the job-hunting process
  - LinkedIn, Alumni Association, career development office, colleagues, friends
- Recognize that it may not only be a change in position, but also in mindset
- It is all about finding the right fit and start early



One last thought...

# Don't be afraid to change your path



#### Find us on LinkedIn

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Q&A





