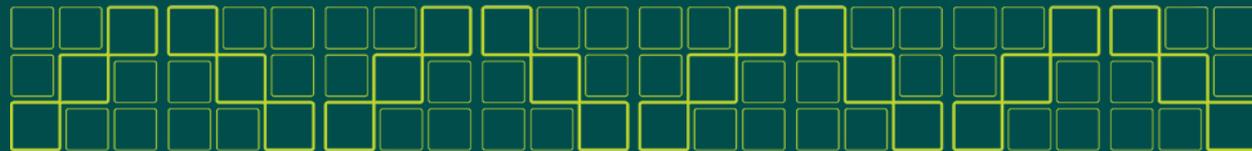

OITE presentations for GRAD/Prof School Fair

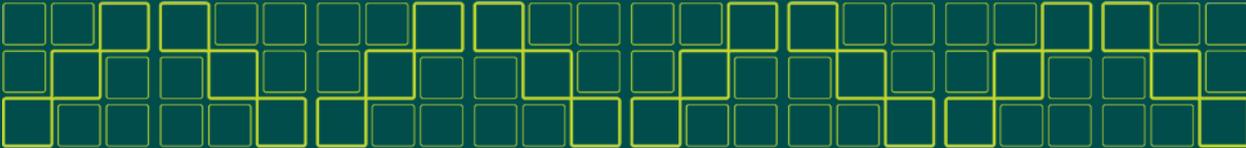
July 16, 2014



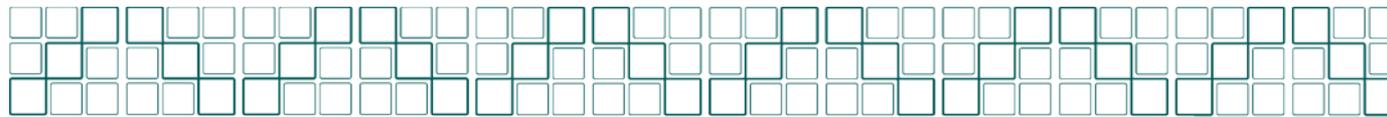
A Master's Degree: Will It Get You Where You Want to Go?

Phil Ryan
Director of Student Services, GPP
NIH OITE

Shauna Clark
Director, NIH Academy
NIH OITE

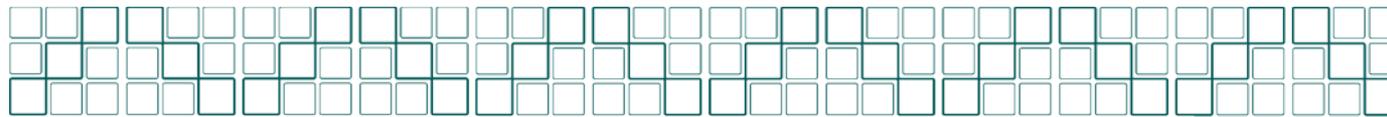


NATIONAL INSTITUTES OF HEALTH



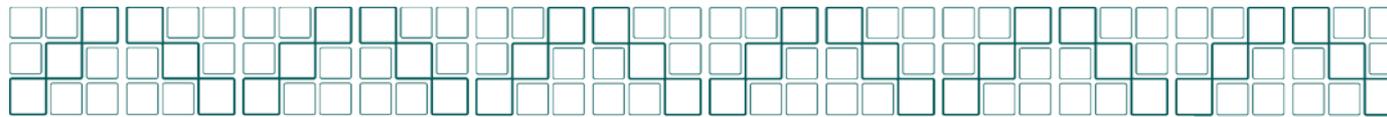
Why we have this workshop

- “Students who expect more prestigious jobs are more likely to attain higher levels of education”
- “...more than two-thirds reported they had received as much information as they needed about graduate school before enrolling.”
- “However, only slightly more than one-third felt they had received as much information as needed to understand their career options prior to entering graduate school.”
- How can you know enough to decide on a terminal degree, if you don’t know what jobs/careers are available with that degree?
- *-Pathways Through Graduate School and Into Careers (2012)*



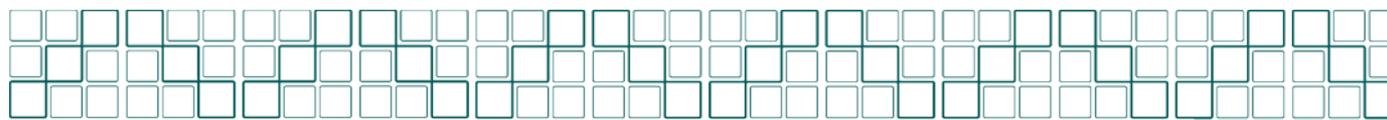
Deciding on Graduate School





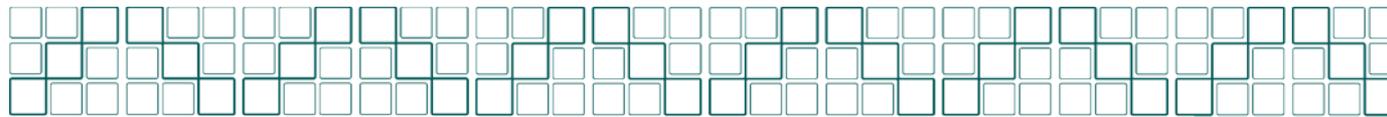
Masters vs PhD

- Designed around the Market
- 1-2 Years
- Classmates often Career Professionals
- Ceiling
- Designed around discovery
- 4-7 Years
- Classmates are dedicated researchers
- Floor



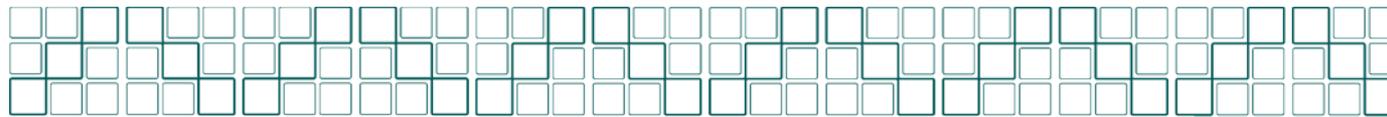
Different types of Masters

- **M.S. – Field**
 - Virology, Biochemistry, etc.
 - Knowledge driven
- **M.S. – Specialty/Professional Science Masters**
 - Biotechnology, Bioinformatics, Regulatory Affairs, etc.
 - Skills driven
 - Post-PhD Masters Programs
- **Professional Masters**
 - MPH, MPA, etc.
 - Combination of both



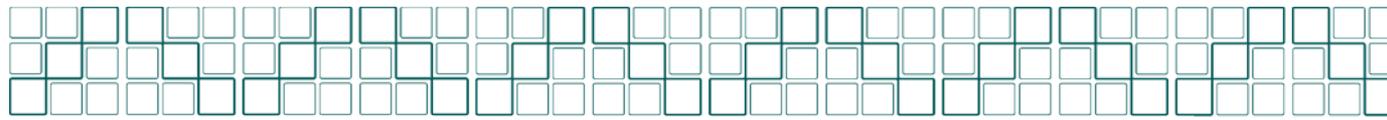
Preparation is critical

- Self-assessment (what do I like)
- Exploration (what is out there)
- Focusing (what do I need to be competitive)
- Deciding



Know thyself...

- What do I want from my life and work?
- What motivates me to excel and what is success for me?
- What do I love to do, e.g. activities, hobbies, subjects, book topics?
- What are my personal traits, motivational drivers and needs?
- What is most important to me e.g. achievement, salary, creativity, helping others?
- What do I do well and which skills do I most like to use?



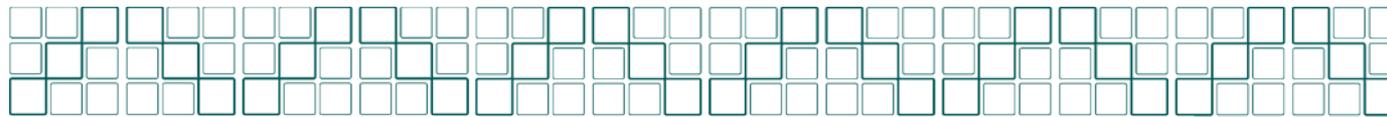
Things to Consider – Self assessment

- What field do you want to go into?
 - Biomedical engineering
 - Microbiology
 - Medicine
- What sector do you want to go into?
 - Academia
 - Pharmaceuticals
 - Biotechnology
 - Venture Capital
- What is going on in those sectors?



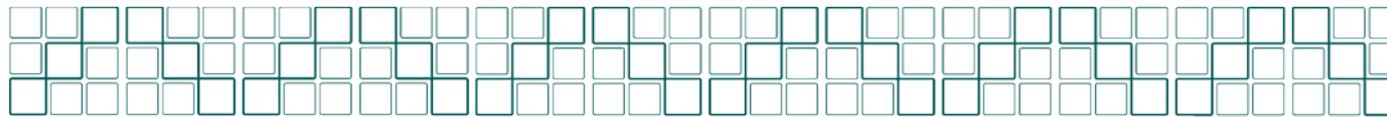
Things to Consider - Exploration

- What is the terminal job you want?
 - Working at the bench your whole career?
 - Leading a team? A group? A department?
 - Will having a masters hold you back?
- Will having a PhD be too much or Master not be enough?
 - If you want to be a Professor, get a PhD
 - If you want to lead a department a PhD will help



Questions for Exploration

- What types of jobs are out there that interest you?
 - Guidance counselor
 - Career counselor
 - Search Job sites
- What types of jobs do master's and doctoral degree holders have? Do they differ? How?
 - Entry level positions for each
 - Mid-career positions
 - End of career positions
- Who can/should you talk ask these questions?



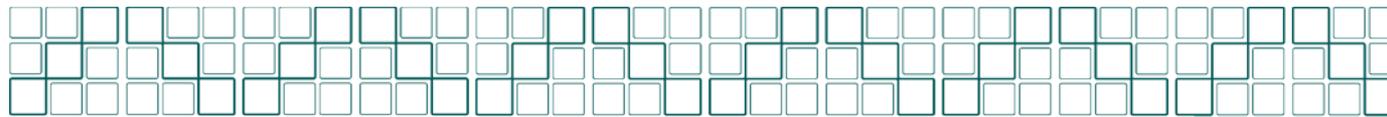
Things to Consider - Focusing

- Will having a PhD be too much or Master not be enough?
- Cost/Benefit ratios
 - Time
 - Money
 - Quality of life early and late career
- Location, Location, Location
- You have time.



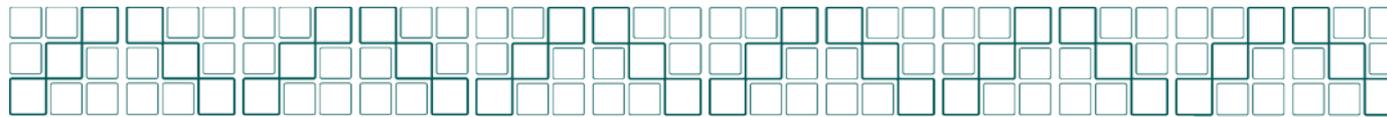
Questions for focusing

- Will earning a doctoral degree offer a substantial benefit in your employment and advancement opportunities?
 - Some professions require a PhD
 - Some jobs won't hire PhDs
- How much will each degree cost? How much will you earn after obtaining each degree? Is the outcome worth the cost? (Return on Investment – ROI)
- Are you interested enough to pursue many years of schooling?



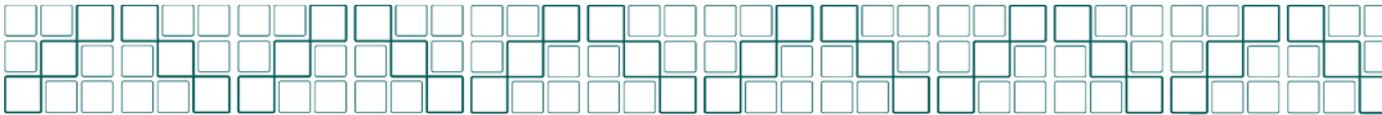
Other Things to Consider

- Institutional quality
 - A PhD is a PhD
 - Not all Master's degrees are the same
- Tuition cost
 - Master's are less likely to have financial support
- Length of Program
 - 1-2 years for most Masters
 - 5-7 years for most PhDs (although will probably shorten)

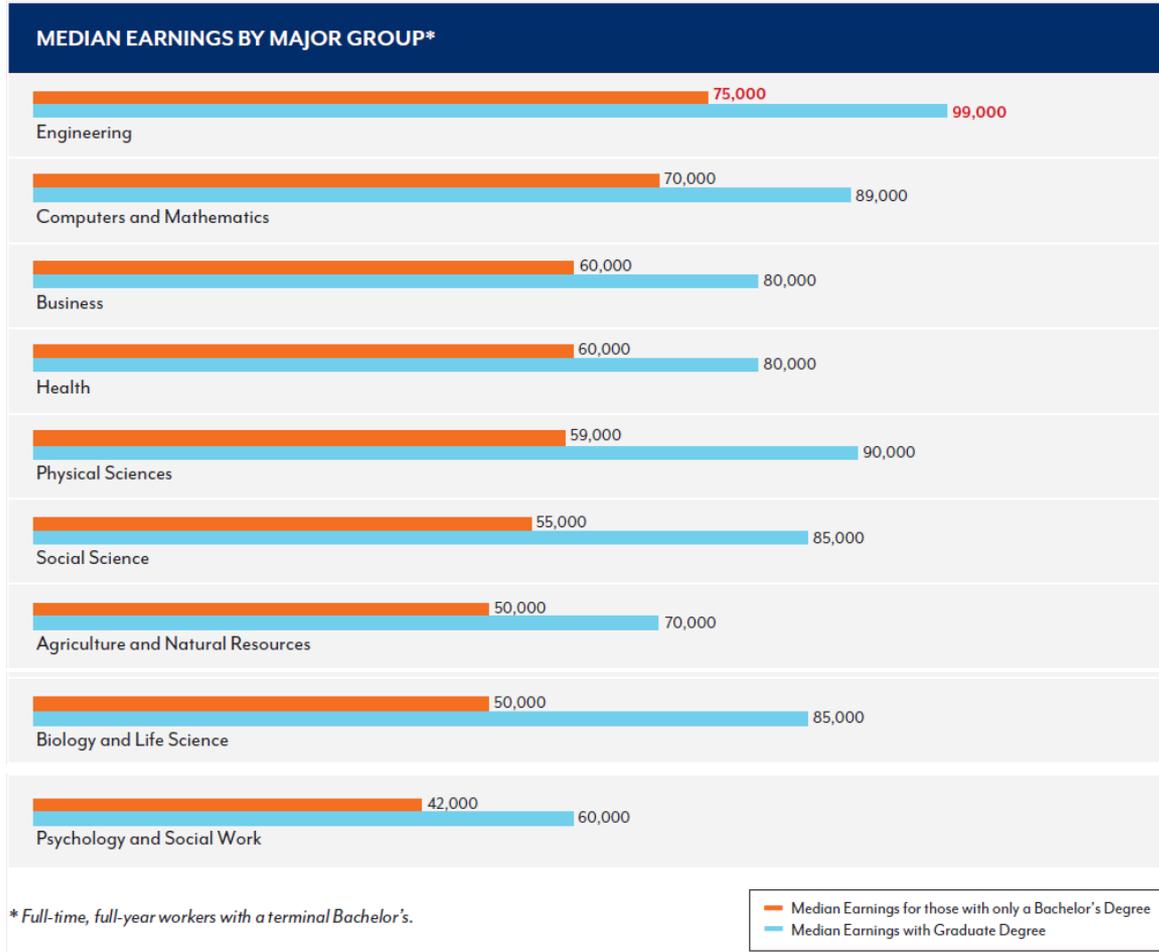
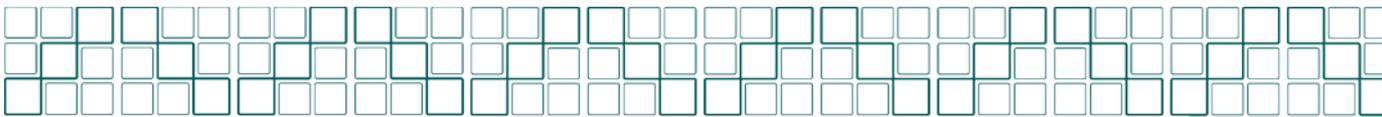


Return on Investment

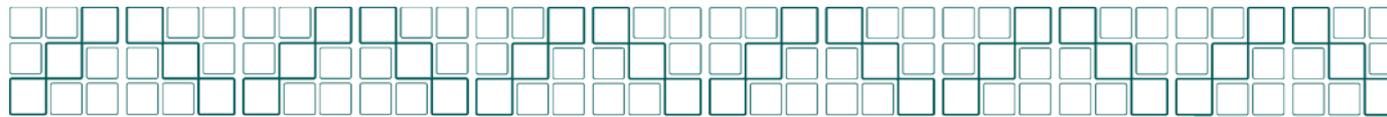
- Debt incurred vs Economic outlook
 - Most schools will publish the average debt with which their students finish
 - The field makes a HUGE difference on whether it is worth it
- Rule of Thumb
 - The debt should not exceed the starting salary



* Full-time, full-year workers with a terminal Bachelor's.



In 2009, median salary of master's recipients was ~25% more than colleagues with only a bachelor's degree



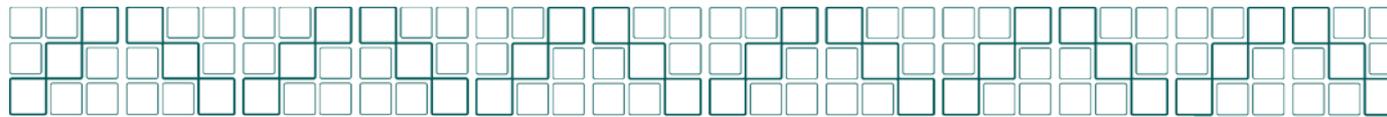
Return on Investment

■ Time

- A PhD delays entry to workforce
- In a lot of fields, experience trumps education
- In a lot of fields, you get promoted faster and further with a PhD

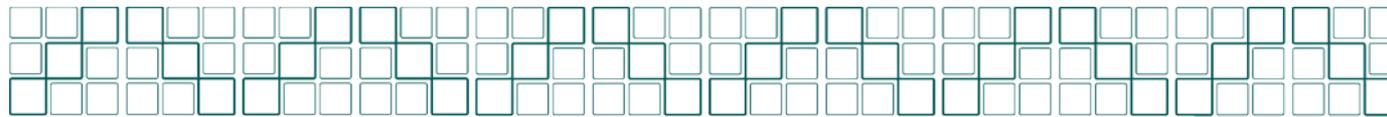
■ Passion

- If the knowledge and discovery and love of learning is driving you, then the other factors matter less
- “Real life” does not begin when you are done with school and get a “real” job.



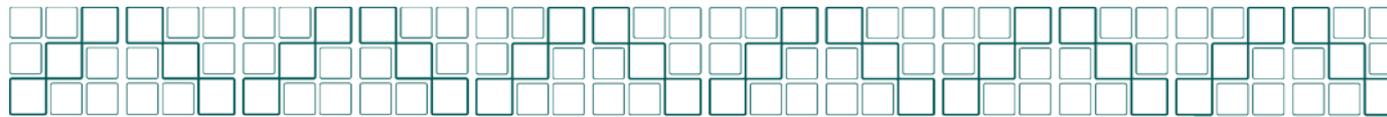
Research Scientist

- Bachelors or Masters degree in Molecular Biology, Genetics or related field
- Pay rate: \$50K to \$65K



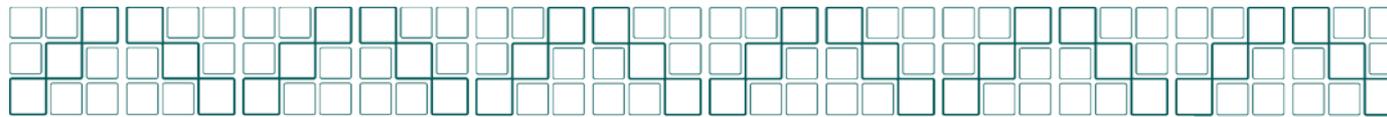
Research Scientist

- Bachelor's degree in in an appropriate scientific field is required, Master's or PhD is preferred.
- Five (5) years of experience with bench level science work required.
- Salary commensurate with experience



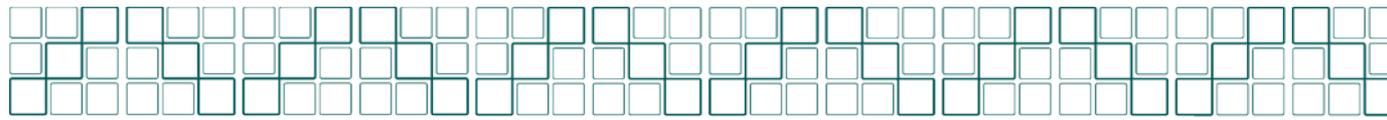
Instructor – Community College

- Minimum of a masters degree in microbiology or appropriately related field from a regionally accredited institution of higher education.
- Evidence of substantial coursework in microbiology at the bachelors, masters or doctoral level.
- Experience in teaching undergraduate science courses with laboratory components. Experience in community college science teaching preferred.



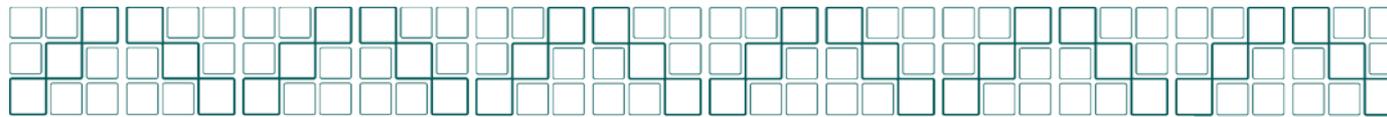
Account Manager - Biomedical

- responsible for securing new accounts and managing current pharmaceutical, academic and OEM accounts.
- responsible for day to day communications, developing account specific pricing models, and contract negotiation.
- Job Requirements:
 - Bachelor's or Masters degree in cell biology, biochemistry or related field is required.
 - 2+ years relevant experience managing key accounts is required with in the Bio-Med or Bio-Pharma industry.
- Salary - \$70K plus bonuses



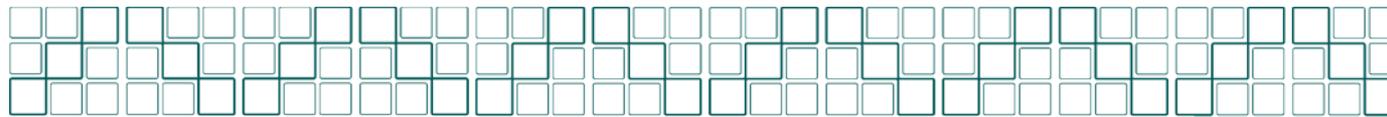
Manager, CMF Customized Implants

- **Qualifications/Work Experience:** • 5+ years of product development experience in the medical device industry or equivalent
- **Education:** Bachelor degree in Mechanical or Biomedical Engineering, Science, or a related field of study.
Prefer Masters degree in a technical or management discipline.



Project Manager

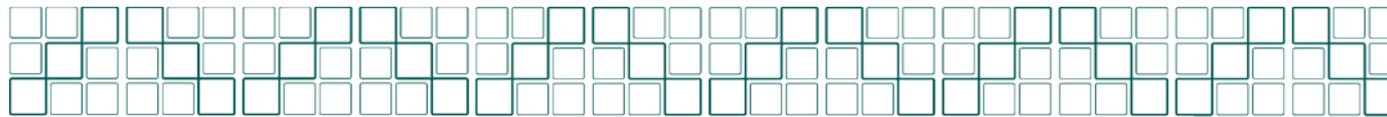
- Prefer 3+ years of experience in... with a Bachelors degree and 2+ years required with a Masters degree
- Prefer Masters Degree
- Salary commensurate with experience



Project Manager

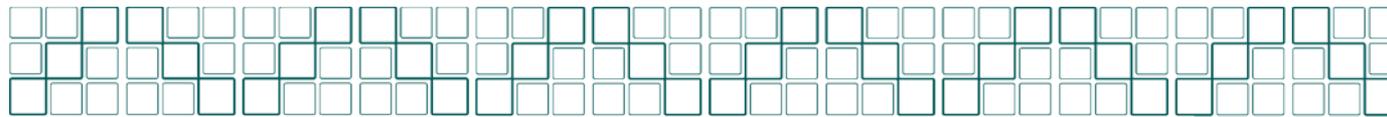
- EDUCATION & PROFESSIONAL EXPERIENCE
 - PhD, Masters, RN or Bachelor's Degree with a minimum of five years Oncology-based MSL experience

 - Five years minimum experience in the oncology-related pharmaceutical



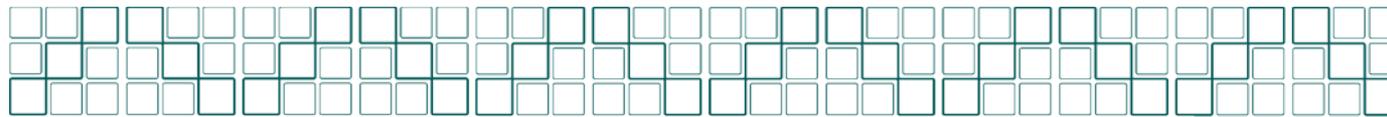
Staff Development Scientist

- Bachelor's degree in chemistry, immunology, cell biology, or related field with 9+ years relevant experience OR
- Master's degree in chemistry, immunology, cell biology, or related field with 7+ years relevant experience OR
- Doctoral degree in chemistry, immunology, cell biology, or related field with 4+ years relevant experience.



Senior R & D Manager

- Qualifications Requirements include: Masters in ...PhD preferred.
- Minimum of 7 years experience (for MS) or 5 years experience (for PhD) in the medical device industry in R&D.
- Salary – Commensurate with experience



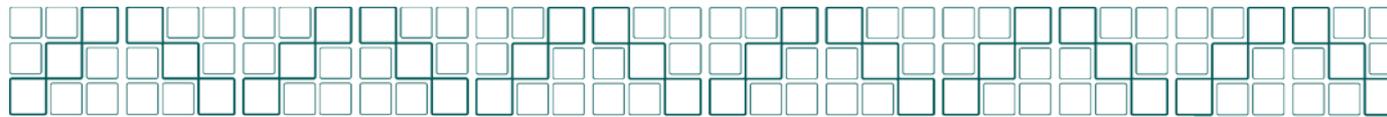
Summary

- Step one - Know thyself

- Step two – Explore your options

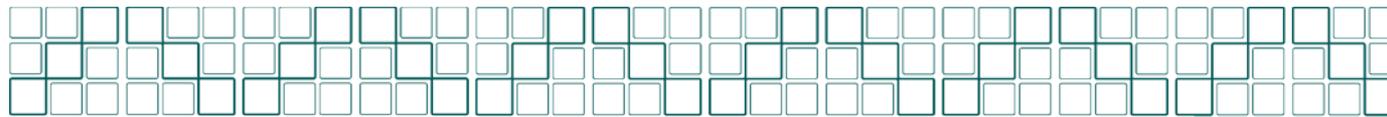
- Step three – Focus on where you want to go

- Step four – Decide what the next step is...
 - You can always change directions later



You Have Time

- Really...you do!

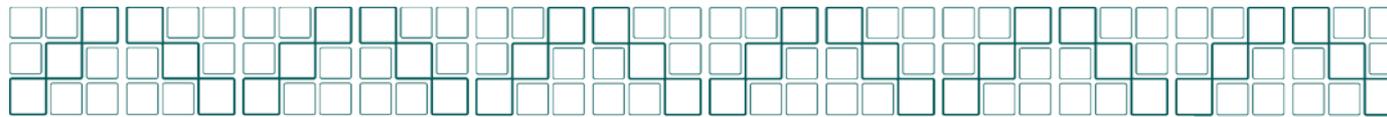


More resources

- Join our Listserv to get info while you are not at the NIH
 - Go to www.training.nih.gov to sign up.
- Connect with me on Linked-In and join the NIH Intramural Science Linked-In group
- Watch previous OITE career workshops, including many on CVs, resumes and cover letters
- Read the OITE Careers blog
- Join the OITE NIH Training Alumni database if you are/were a student or fellow here
- Email me at conlanlo@mail.nih.gov

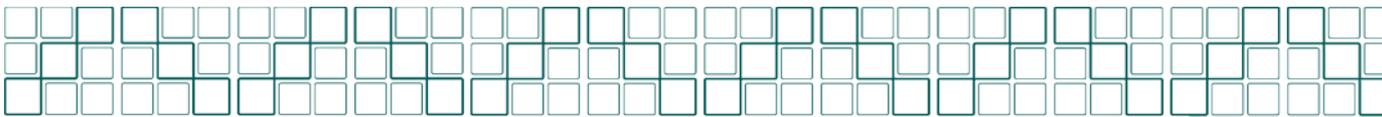
PLANNING AHEAD: **Non-Bench Careers –** **Expanding Your Options**

Amanda Dumsch
Career Counselor, NIH OITE



**“He who fails to plan
is planning to fail.”**

--Winston Churchill

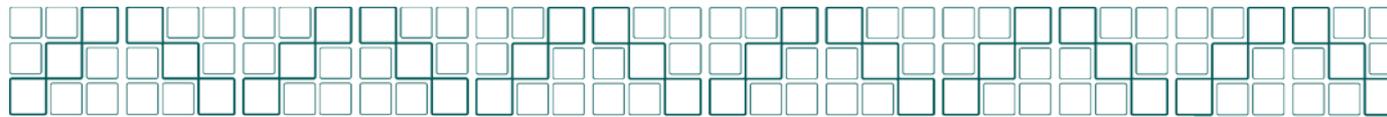


Creating Your Plan

(What is a PDP/IDP?)

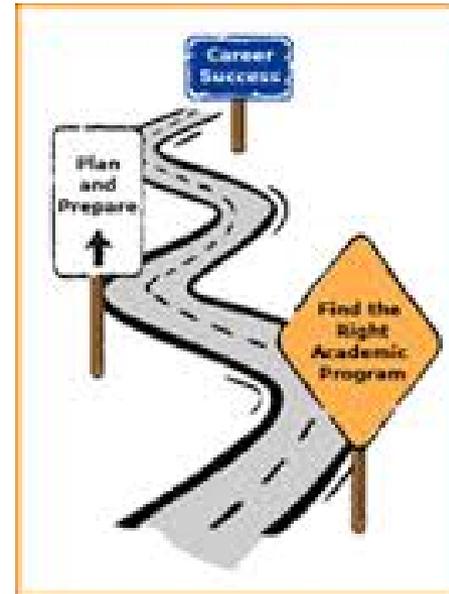
A Professional Development Plan (PDP) or Individual Development Plan (IDP) is a highly personalized written document which is used to help an individual evaluate and prioritize their professional activities and goals.

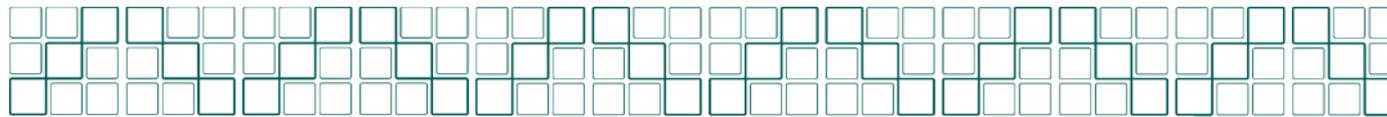




Why should you have one?

- Career Roadmap
- Tangible Tool
- Future Reference
- Visual Outline
- Structured Timeline

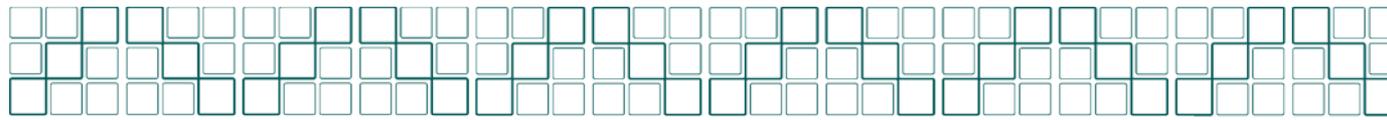




How Can I Create My Plan?

- You can create a PDP/IDP in five steps:
 - Step #1: Self-Analysis
 - Step #2: Goal Setting
 - Step #3: Research
 - Step #4: Decision-Making
 - Step #5: Action Items

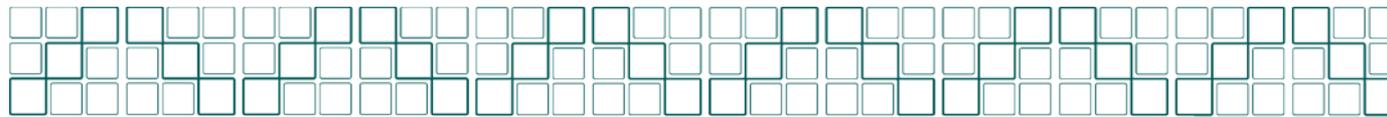
- Will only focus on Steps 1-3 today



STEP #1: *Self-Analysis*

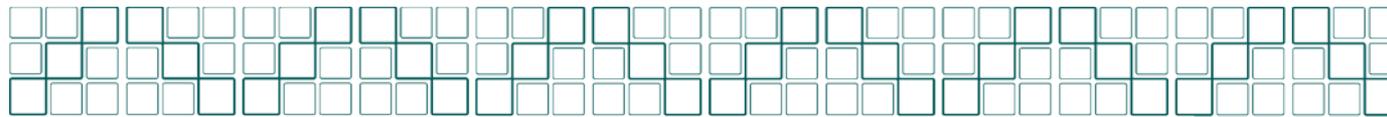
- Assess your **SVI**:
 - Skills
 - Analytical, Communication, Leadership, etc.
 - Values
 - Helping people, Making a profit, Autonomy
 - Interests
 - Science, Arts, Languages, Mechanics, etc.

- Analyze your:
 - Strengths
 - Weaknesses



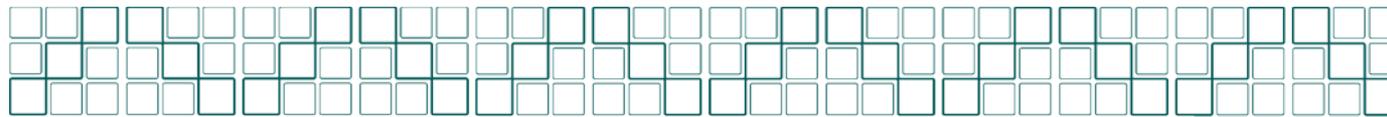
Self-Analysis Resources

- Talk with:
 - Mentors
 - Colleagues and friends
 - Career counselors
- Reflect on classes, internships, experiences
- Do Self-Assessments:
 - **Myers Briggs**
 - **Strong Interest Inventory**
 - **The Self Directed Search**
 - **My NextMove.org** * free
Free online interest profiler tool
 - **Career Values Test** *
Free online at: <http://stewartcoopercoon.com/jobsearch/career-values/>



STEP #2: *Goal Setting*

- After looking at where you are, look at where you want to go:
 - **1 Year**
 - **3 Years**
 - **5 Years**
 - **10 Years**



SMART Goals

■ Set goals that are:

Example:

□ **S**pecific

“Lobby for more locally grown food in the dining halls.”

□ **M**easurable

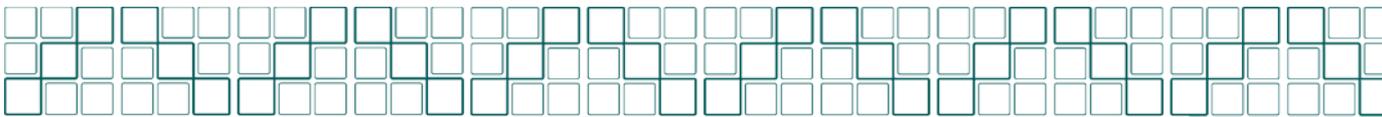
□ **A**ttainable

□ **R**ealistic

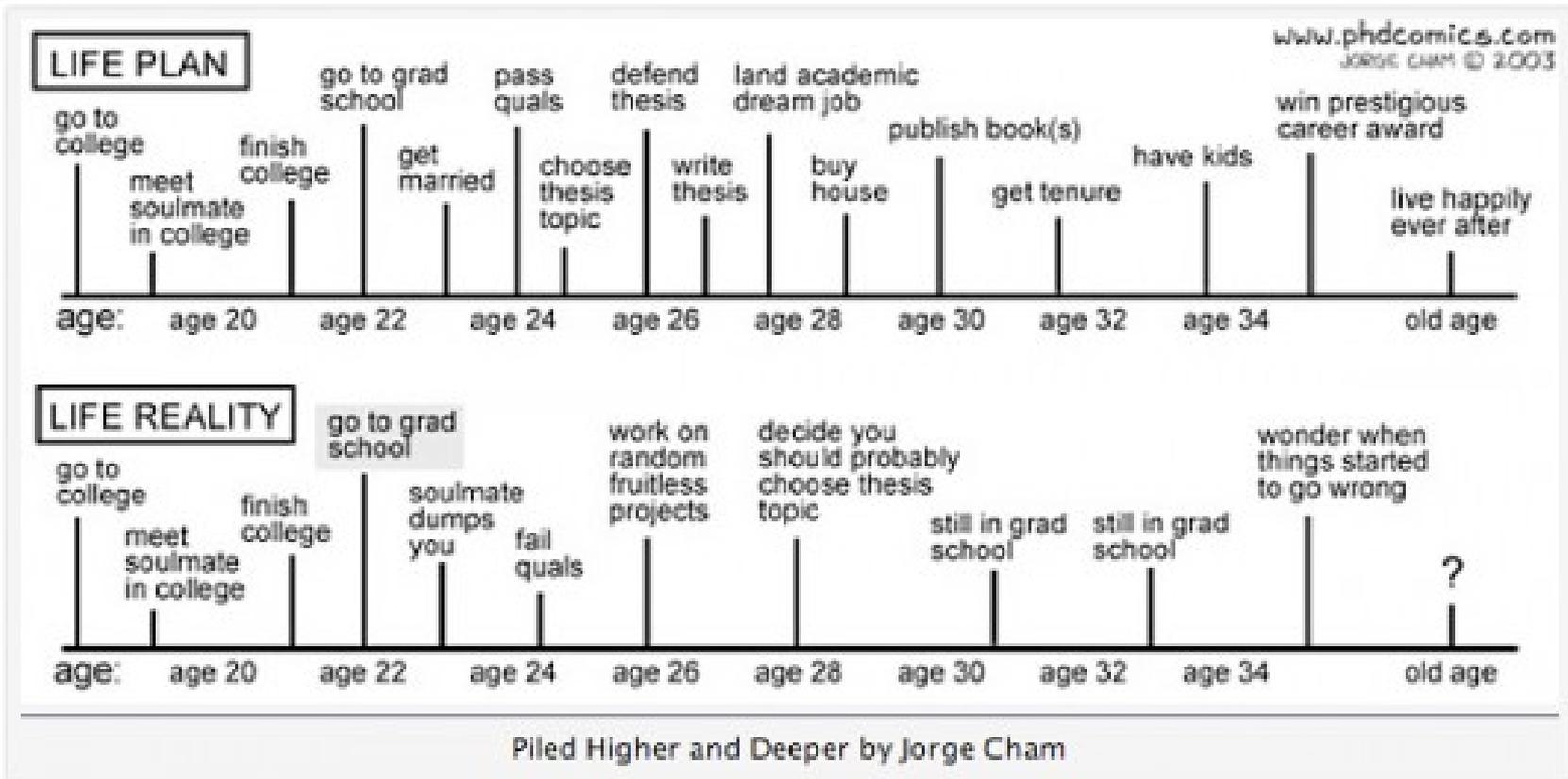
□ **T**imely

Or:

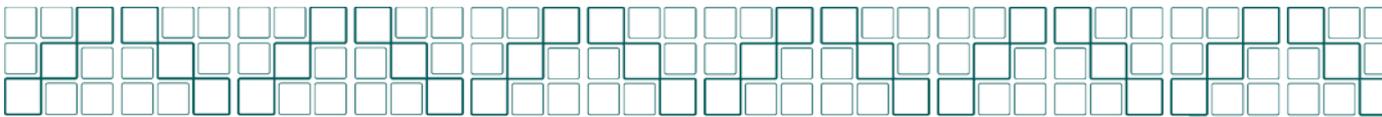
*“**Collect 1,000 petition signatures** from students, **sit down and meet** with the cafeteria manager, **sit down with** the student body president, **present research** to administrators on the costs and benefits, and **discuss vending possibilities** with local farmers and growers in order to serve more locally grown food in the dining halls **by start of new academic year.**”*



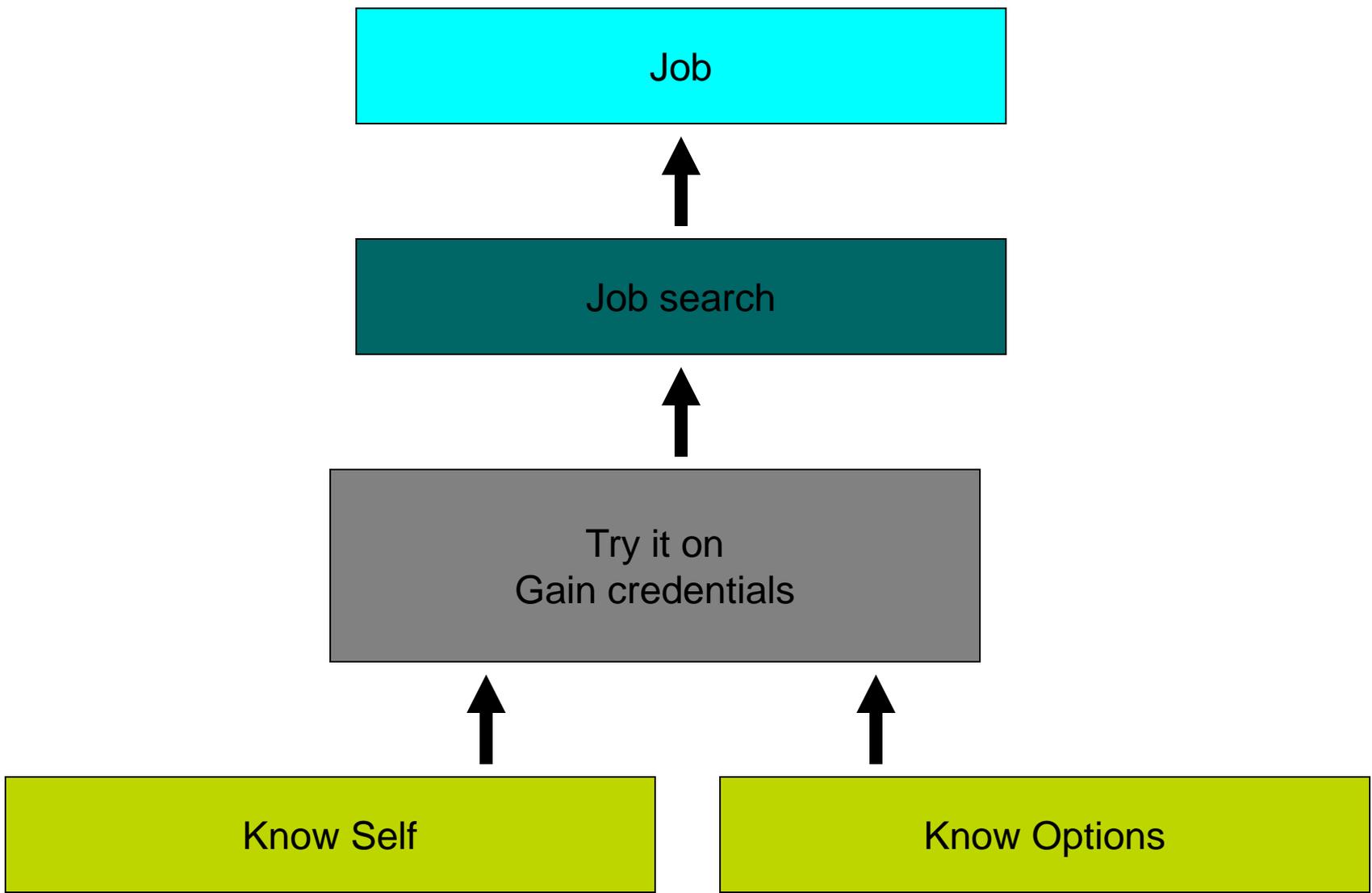
Manage Your Expectations

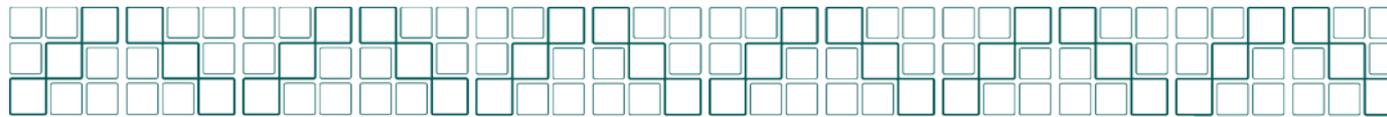


PhD Comic by Jorge Cham of "Piled Higher and Deeper"



Cycle Review: Career Planning

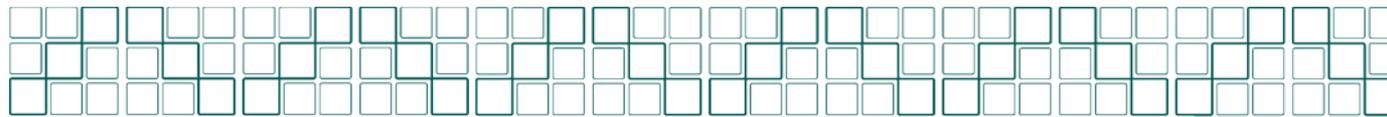




STEP #3: *Research*

- Identify the skills you need to get where you want to go
 - Hard skills, soft skills, certifications, degrees

- How do you find this out?
 - Read books
 - Read blogs and websites
 - Talk with mentors, colleagues and friends
 - Attend career workshops and symposia
 - Do INFORMATIONAL INTERVIEWS



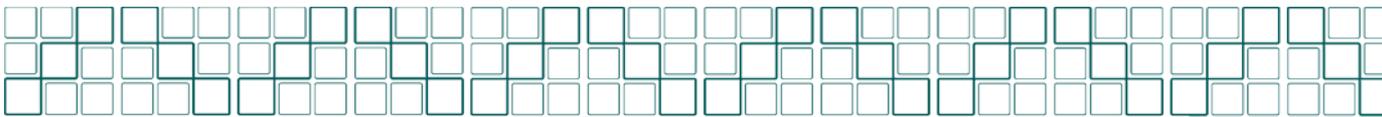
Research - Books & Websites

■ BOOKS:

- *Alternative Careers in Science* by Robbins-Roth
- *Career Opportunities in Biotech and Drug Development* by Freedman
- *Put Your Science to Work* by Fiske
- *So What Are You Going to Do With That?* By Bassala and Debelius

■ WEBSITES:

- OITE “How to Series”
 - https://www.training.nih.gov/oite_videocasts
- ScienceCareers.orgs – Columns, Forums & Planning Tools
 - MyIDP.ScienceCareers.org
- Bureau of Labor Statistics Occupational Outlook Handbook
 - <http://www.bls.gov/ooh/>
- Forbes, Washingtonian, US News & Money Reports



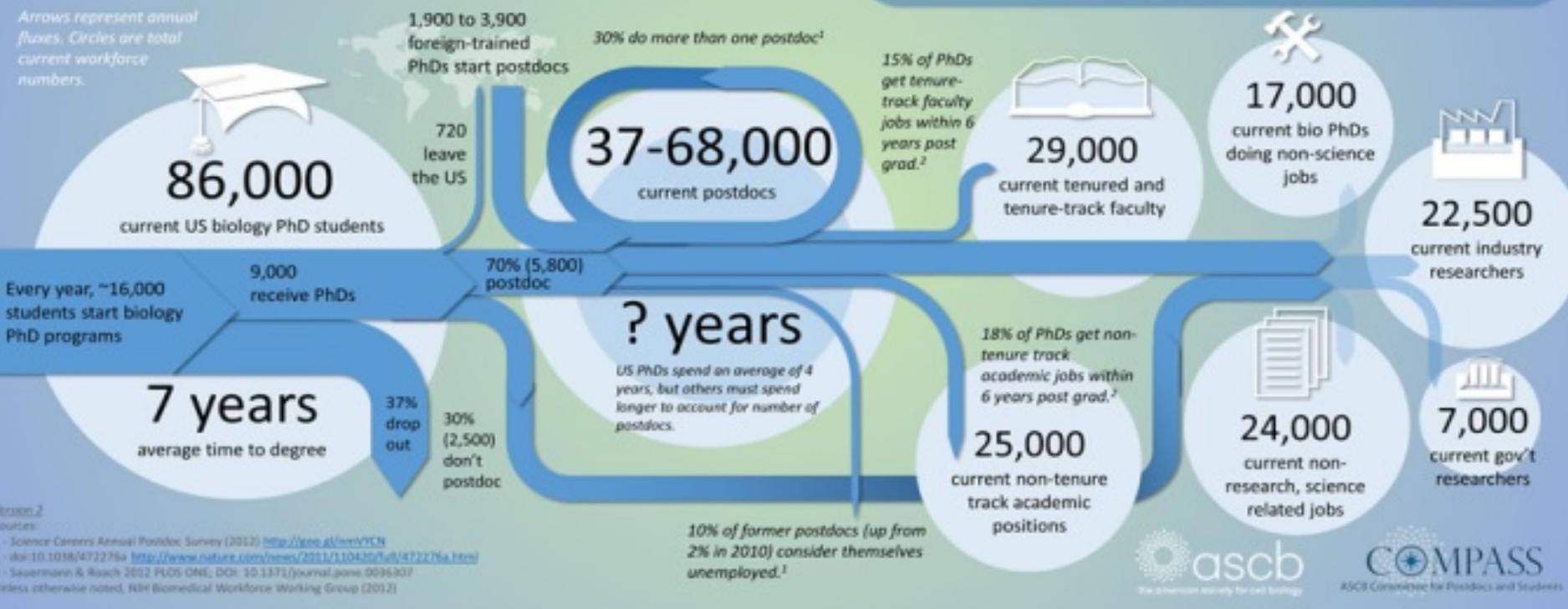
Where will a biology PhD take you?

A faculty job is an "alternative" career.



At this rate, <10% of entering PhD students will become tenure-track faculty. Yet, 53% rank research professorships as their most desired career.¹

Arrows represent annual fluxes. Circles are total current workforce numbers.



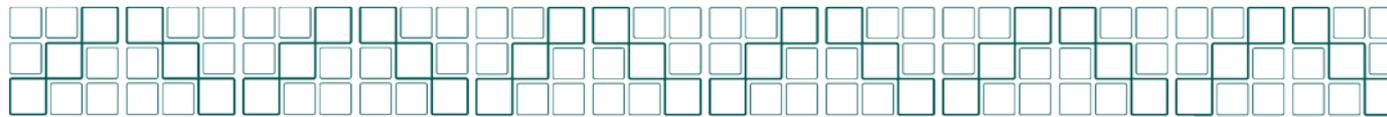
Version 2
Sources:
1 - Science Careers Annual Postdoc Survey (2012) <http://www.nrcytcn>
2 - doi:10.1016/472276 <http://www.nature.com/news/2011/11/042076/472276.html>
3 - Saemann & Raach 2012 PLOS ONE; DOI: 10.1371/journal.pone.0096307
Unless otherwise noted, NIH Biomedical Workforce Working Group (2012)



Graphic Courtesy of American Society for Cell Biology on Science Careers

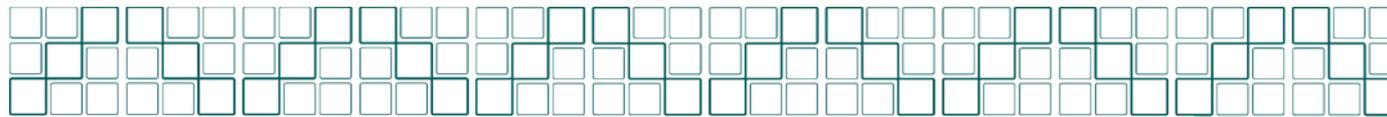
Faculty Jobs are "Alternative" Careers:

* Less than 10% of entering PhD students will become tenure-track faculty yet 53% rank research professorships as most desired career



What do Scientists do Away From the Bench?

- Policy, marketing, writing, editing, teaching, business, finance...
- And MORE!



Focus on: Science Policy

■ What is it?

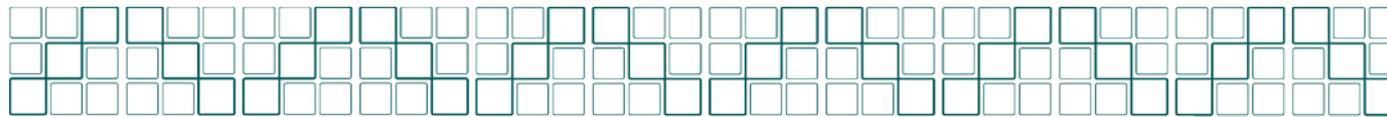
- Assessing scientific data, writing briefs, communicating with scientists, general public & lawmakers
- Focus on advocacy, analysis, and advising at the intersection of science and public policy

■ Where they work?

- Federal Agencies, like the Department of Energy or the Environmental Protection Agency
- Nongovernmental organizations (NGOs) such as scientific societies, think tanks, interest groups, nonprofits, universities

■ Common Titles:

- Policy Advisor, Health Analyst, Scientific Program Manager, etc.



Focus on: Science Writing

■ What is it?

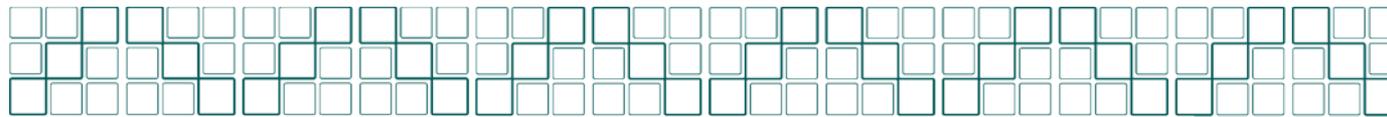
- Reading and processing large amounts of scientific information
- Writing Briefings, literature reviews, long technical reports, meeting proceedings, project summaries, press releases, progress reports etc.

■ Where they work?

- Universities, nonprofits, media organizations, government, industry, freelance

■ Common Titles:

- Technical Writer, Science/Scientific Writer, Communications Officer, Technical Editor, Scientific Editor, Freelancer



Focus on: Marketing/Sales

■ **What is it?**

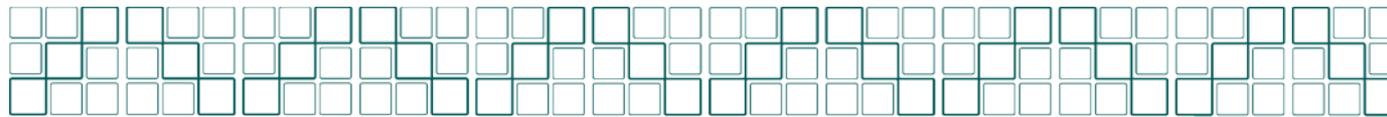
- Understanding market research and psychology in order to stimulate a demand in the market
- Utilizing communication skills and strategy to achieve company's goal (a profit)

■ **Where they work?**

- Industry, biotech, pharma

■ **Common Titles:**

- Sales Manager, Outreach Associate, Market Analyst, Development Manager



SVI Match

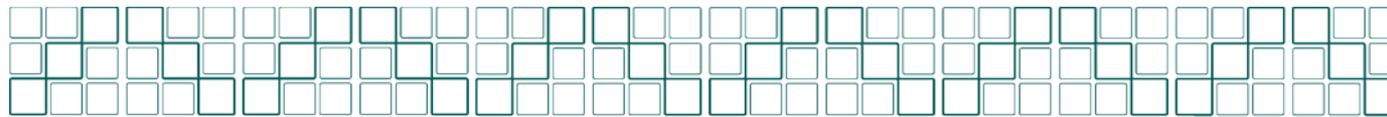
- Understand there is *lots* of variability within each field

- For example, Science Writing positions:

Technical Writer **VS** **Communications Director**

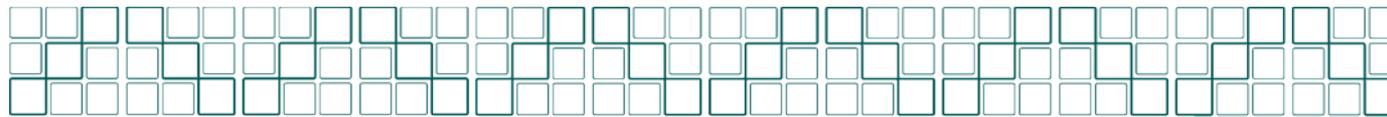
- For example, Marketing/Sales positions:

Outreach Associate **VS** **Market Analyst**



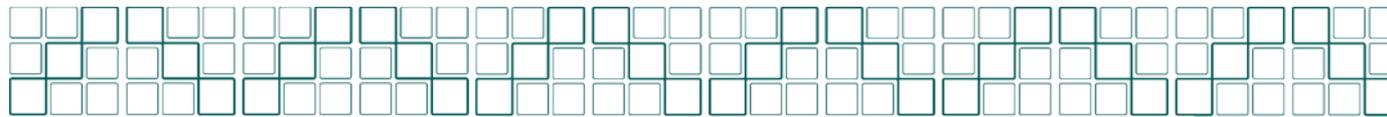
Research through Informational Interviews

- To learn EVEN MORE about each job from people who actually do it on a daily basis!
- To help you identify the SVI (Skills, Values, Interests) of people working in that position and see how they match with your own.
- To broaden your career options or to explore a career you know you are interested in
- To expand your professional network
- To access up-to-date career information and access the underground job market
- To identify your professional strengths and weaknesses
- To build confidence for when it matters the most



How to Prepare During Your PhD

- Again, variable based on focus area
- **TWO MAIN SKILLS:**
 - Non-technical writing skills
 - Leadership skills



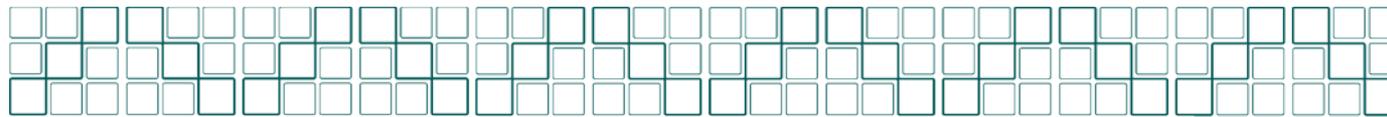
Resources

- Connect with us on Linked-In and join the NIH Intramural Science Linked-In group
- Watch previous OITE career workshops, including the How To Series
- **Read the OITE Careers blog – Alumni Spotlight**
- Join the OITE NIH Training Alumni database if you are/were a student or fellow here
- **Email me at Amanda.Dumsch@nih.gov**

Industry Careers

Lori M. Conlan, PhD
Director, Office of Postdoctoral
Services and the Career Services
Center





What's Out There?

Kinds of Companies

Pharma

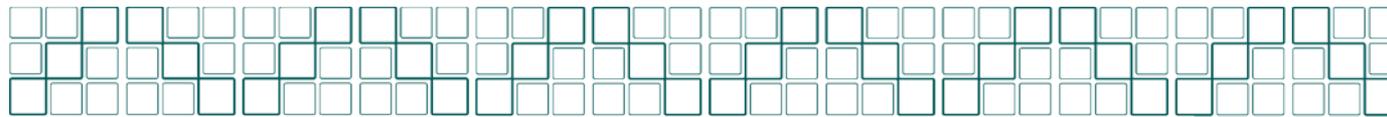
Biotechs

Science supply

Medical Devices and Diagnostics

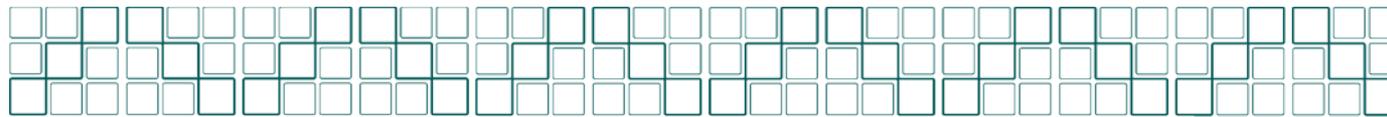
Contract Research Organizations

Non-profits, NGOs



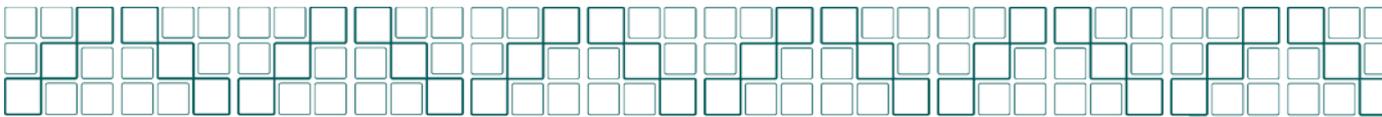
Where are the Jobs?

Mega-companies	Annual revenues greater than \$10B 70,000+ employees worldwide
Large Companies	Annual revenues between \$1B - \$10B 2500 - 70,000 employees
Medium Companies	Annual revenues between \$500M - \$1B 100 - 2500 employees
Small Companies	Annual revenues between \$100M - \$500M 20 - 100 employees
Early Stage / Start-ups	Annual revenues between \$0 - \$100M 1 - 20 employees

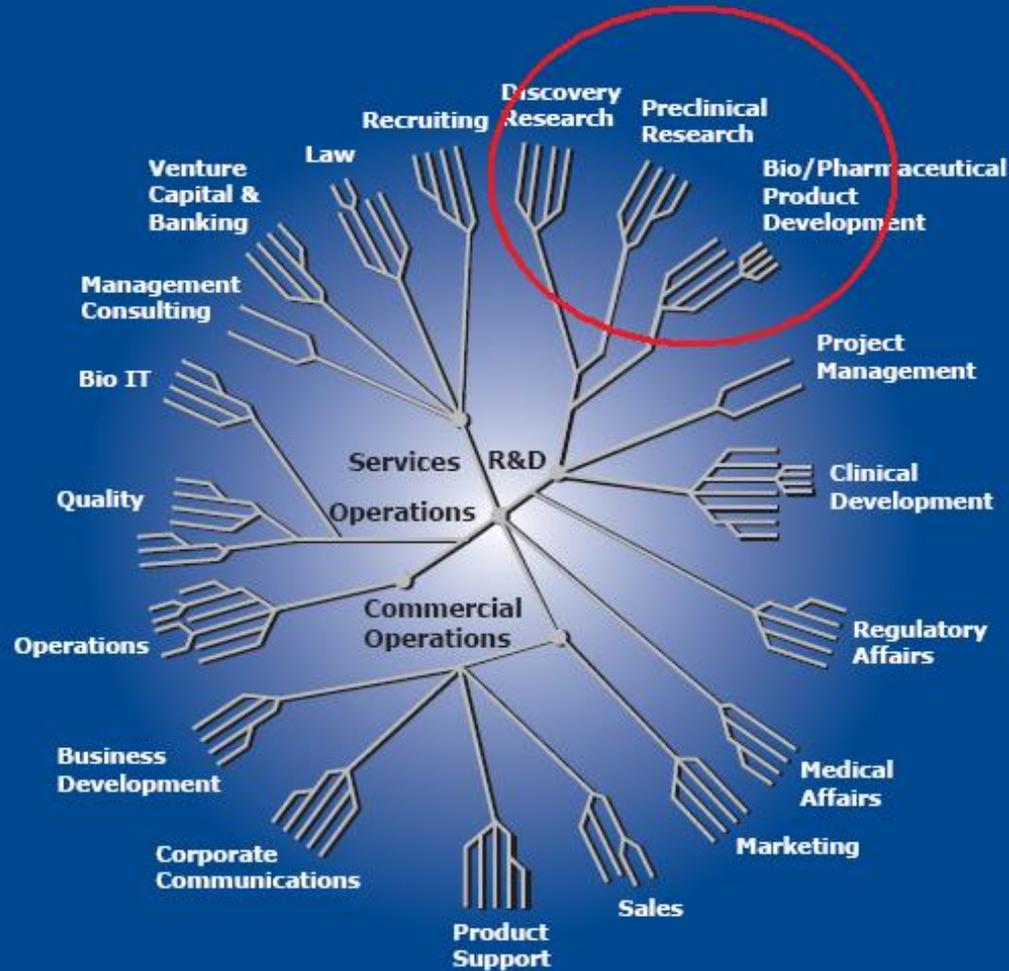


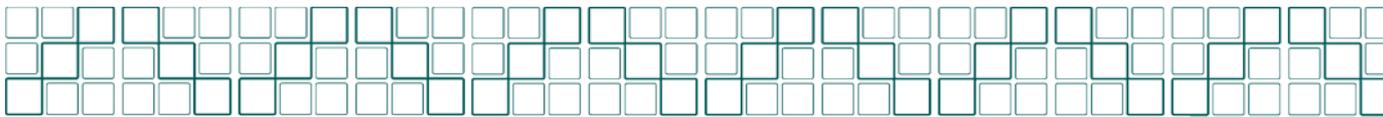
Example Companies

	Mega	Large	Mid-size	Small	Early Stage/ Start-up
Pharmaceutical	Pfizer BMS GSK	Medimmune Teva B. I.	Endo Eisai Millennium	Macrogenics Purdue	Vanda
Biotech	Amgen	Celgene	Shire HGS	Vertex Alexion	Achillion GlycoMimetics NovaVax
Device	J & J	Baxter	Covidien	PPG	
Consumables	GE	Thermo Fischer Scientific	Life Technologies	Qiagen OriGene	
Contract Organization	Quintiles Covance	PPD	Accelovance	Westat	KAI Research, Inc.



Careers Overview in the Life Sciences





Opportunities in R & D

Discovery

Drug discovery research; also positions in life sciences companies that provide platform technologies, instruments, reagents and medical devices. **Qualifications: PhD with some specialization in post-doctoral work**

Preclinical

Conduct research to identify, synthesize and characterize new drug candidates. **Qualifications: PhD with some specialization in post-doctoral work**

Clinical

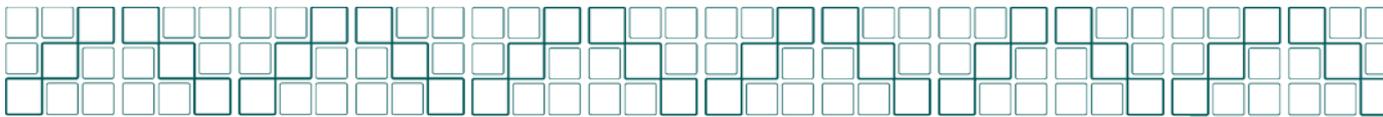
Conduct research to test drug safety and efficacy in humans. **Qualifications: Involvement in clinical trial planning, protocol development or evaluation, execution and monitoring of clinical trials.**

Project Mgt.

Ensure that projects are moving forward according to pre-established timelines, scope and budget. **Qualifications: MD/PhD with project management experience**

Bio-Pharm Product Devel.

Creating, formulating and manufacturing drug products. **Qualifications: PhD and formulation experience**



Opportunities in Commercial

Marketing

The development and communication of product strategic plans to achieve objectives. **Qualifications: BS/BA/MBA**

Sales

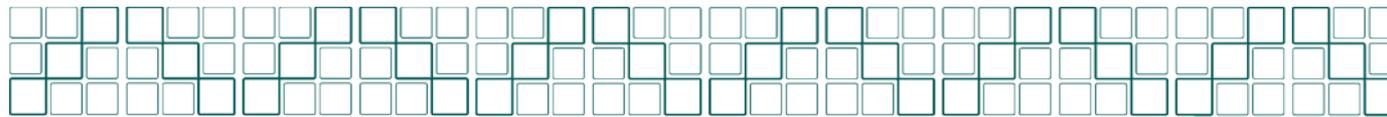
Interact with customers to generate revenues and provide education. **Qualifications: BS/BA and sales experience**

Business Development

Identify and consummate deals that further the company's strategy. **Qualifications: BS/BA/PhD in select therapeutic areas**

Corp. Comm.

Generate interest in a brand and faith in company's ethos. **Qualifications: Ability to "distill" technical information for a variety of audiences**



Opportunities Between R&D and Commercial

Product Support

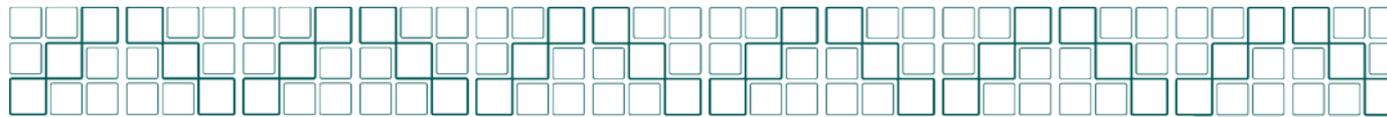
Provide technical support to enable customers to use products correctly and successfully. **Qualifications: MD or PhD with product / therapeutic expertise**

Medical Affairs

Provide medical and scientific support for company's marketing effort. **Qualifications: MD, PhD or PharmD**

Regulatory Affairs

Ensure that discovery and development processes are consistent with regulatory processes. **Qualifications: MD or PhD with knowledge of Agency requirements**



Opportunities In Operations

Operations

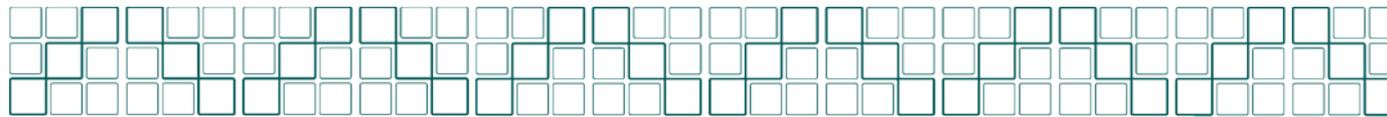
Ensure smooth operations of all processes; manufacturing.
Qualifications: BA / BS or MBA, promotional position for those with advanced science degrees

Bio IT

Systems validation, data management, algorithm and software development. **Qualifications: BA / BS with computer skills**

Quality

Ensure products are consistent and that all company processes comply with agency standards. **Qualifications: BS / BA, PhD is common in supervisory roles**



Opportunities in Services

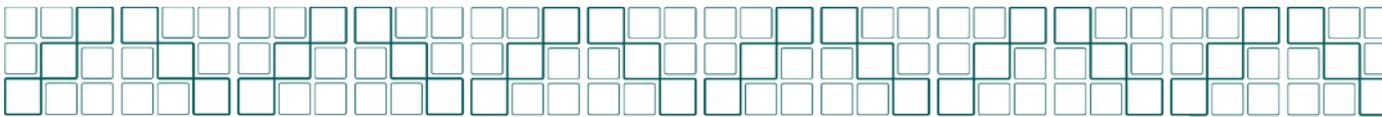
Virtually all functions within a company can also be outsourced to a contract provider; i.e. Development, Regulatory, Manufacturing, Medical Affairs, Marketing, Sales, Product Support, Legal etc. Qualifications: similar to those for the internal functions

Agencies Discovery, research, development and regulatory responsibilities performed in Government supported labs. **Qualifications: MD or PhD**

Management Consulting Provide strategic and technical advice to company management. **Qualifications: MD's and PhD's generally for technical and subject matter expertise**

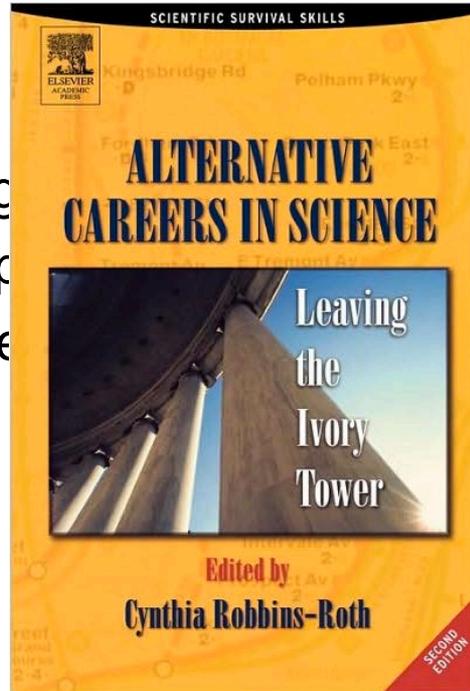
Health Care Finance Evaluate technologies to support or reject capital investment. **Qualifications: MD or PhD with a knowledge of business operations**

Recruiting Match qualified candidates with job opportunities. **Qualifications: MD's and PhD's can be beneficial in recruiting for technical and scientific positions**



If you like

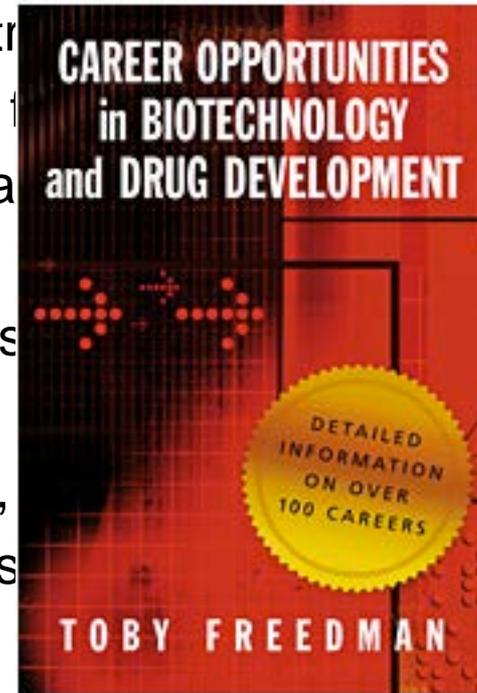
- Benchmark
- Details
- Financial data
- Organizing things
- Influencing people
- Looking at hot topics
- Being creative
- Writing
- Speaking



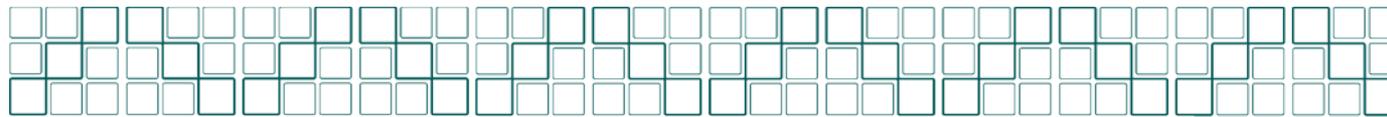
Then look at:

- R&D, manufacturing, QC/QA, toxicology/safety

atory, tech tr
 elopment, t
 n or clinical
 elopment
 , tech trans
 ng
 ch writing,
 ales, tech s



, tech supp
 policy

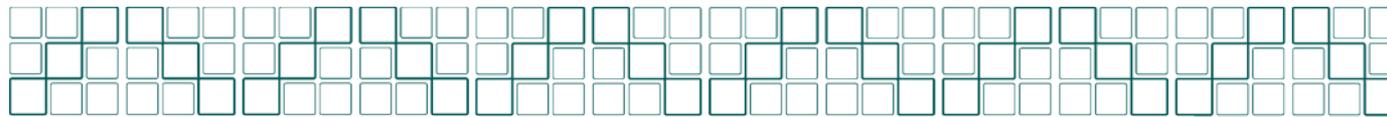


Where the Opportunities Are Likely to Be

2014 - 2018

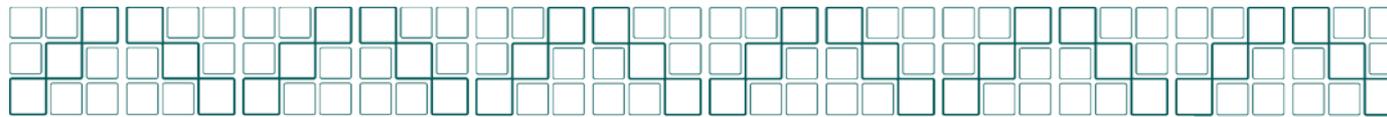
Research Positions	Predominantly in biotech and early-stage
Development Positions	Mid- to mega-companies and CRO's
Business Development	Out-licensing - Smaller companies and early-stage In-licensing - Larger companies
Medical Affairs	Larger companies with marketing and launch products
Regulatory Affairs	Mid- to mega-companies and FDA
Product Support	Larger companies with marketing and launch products
Quality	Companies with manufacturing and Contract Manufacturing Organizations
Management Consulting	Consulting companies, companies in transition and medical insurance providers

<u>Technician I</u>	\$45,000	BS
<u>Technician II</u>	\$50,000	BS
<u>Research Associate I</u>	\$55,163	BS
<u>Postdoctoral Fellow</u>	\$60,276	PhD
<u>Research Associate II</u>	\$60,372	BS/MS
<u>Associate Scientist I</u>	\$67,156	MS (maybe BS)
<u>Associate Scientist II</u>	\$83,545	MS(maybe BS)
<u>Scientist I</u>	\$89,986	PhD/MD
<u>Scientist II</u>	\$115,950	PhD/MD
<u>Project Manager</u>	\$118,000	
<u>Senior Manager</u>	\$128,582	PhD/MD
<u>Senior Scientist</u>	\$136,679	PhD/MD
<u>Director</u>	\$187,500	PhD/MD



Finding a Job

- Identify companies with money and/or cash infusions
 - Fierce, BIO, OnBioVC
- Identify companies with R&D projects that interest you
- Identify companies in an area you would like to live
- Build a Network- university alumni, NIH Alumni database, LinkedIn
- Prepare an industry resume



Skills Recruiters Seek

1. Communication
2. Problem solving
3. Team work
4. Self motivation
5. Initiative
6. Logical thinking
7. Ability to work under pressure
8. Time management
9. Work ethic
10. Dependability
11. Adaptability
12. Leadership
13. Organization
14. Self confidence

Reference: Monster 2011 Biotech Job Conditions Report

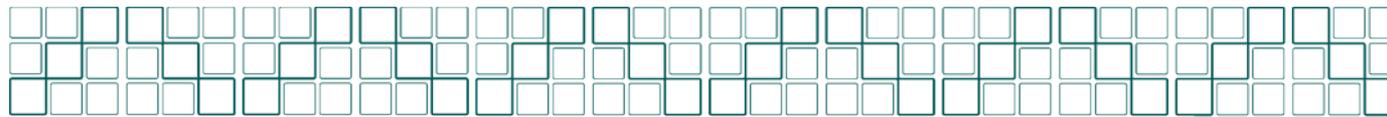


■ **Research Associate II, Formulation/Associate Scientist I, Formulation (\$60-\$65K)**

■ The candidate will be tasked with the characterization and formulation development of monoclonal antibody and novel molecule therapeutics, with a primary responsibility of supporting late stage formulation development activities. Preference will be given to those with experience in standard protein formulation development and characterization techniques (SEC, RP-HPLC, IEF, HIAC, and MFI, etc.), along with a fundamental understanding of the basic methodologies and practices of protein formulation. Experience with protein/peptide formulation, lyophilization, and protein characterization is a plus, but not required. The candidate will make detailed observations, analyze data, interpret results, maintain documentation, and prepare precise technical reports, summaries and protocols under supervision. The candidate is expected to present findings at internal meetings and contribute to the preparation of manuscripts, posters, and patent applications to highlight scientific achievement externally. The candidate also must be able function effectively as a member of a larger project and cross-functional teams as required.

Position Requirements

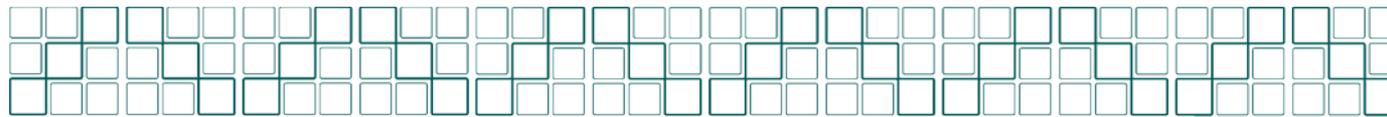
For the Research Associate II level, we require a BS degree with 2 - 5 years of relevant experience or an MS with 0 - 2 years of relevant experience. For the Associate Scientist I level, we require a BS with 5 - 8 years of relevant experience or an MS with 2 - 5 years of relevant experience.



■ Scientist I, Cell Line Development/Associate Scientist II, Cell Line Development (\$90K) Medimmune

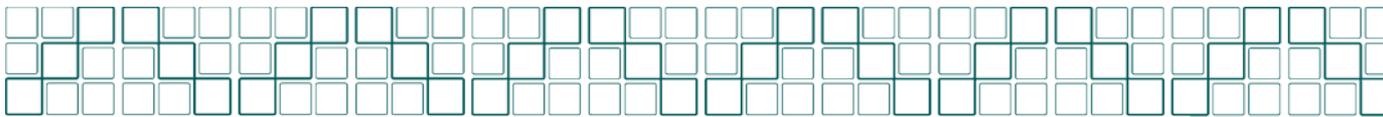
The successful candidate will develop stable production cell lines for therapeutic antibodies or other protein pharmaceuticals using mammalian cell lines (CHO and NS0). In addition, responsibilities will include: being a leader in technology development projects including some or all of the following: improving the molecular biology technologies involved in cell line development; implementing recombinase-mediated targeted integration of expression cassettes; developing high-throughput robotic procedures for clonal cell line generation, expansion and evaluation; flow sorting to clone or enrich high-expressing populations; developing automated data management systems; as well as microarray or protein array profiling of cell lines to diagnose expression bottlenecks. You will maintain knowledge of current cell culture literature, presenting and publishing results inside and outside MedImmune. As a team player in our department, you will maintain the laboratory and some of its equipment and provide technical support for upstream processes in therapeutic protein manufacturing and research groups. You will keep detailed and accurate records of your work. You will author and review SOPs, batch records, development reports, regulatory filings and assist in other areas as needed, including operating bioreactors.

- Position Requirements We can hire this position at the Scientist I or the Associate Scientist II level. For Scientist I: Ph.D. 0-3 years industry experience, or M.S. degree plus 8-10 years industry experience, or B.S. degree plus 10-13 years industry experience. For Associate Scientist II: B.S. plus 8-10 years industry experience or M.S. plus 5-8 years



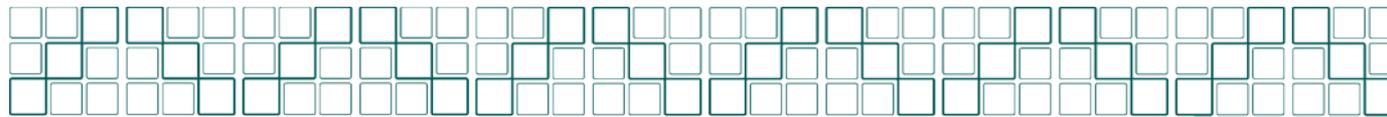
What is different about industry?

- Matrix teams
- Deadline driven
- Results driven
- Money driven
- Resources rich
- Protect intellectual property



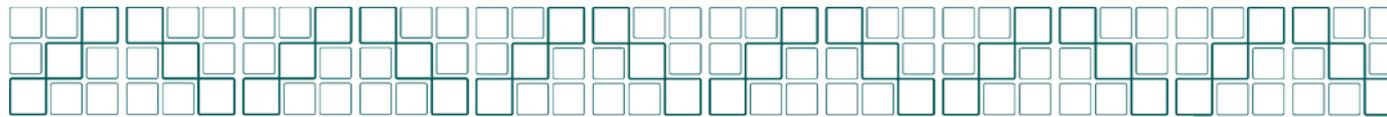
Common industry myths

- Industry does not do good science
 - Great science happens- they put those drugs into people
- No scientific freedom
 - Yes and no, you may have a defined project goal, but you can decide scientifically how to get there
- Your project can get yanked from you
 - Yes and no, priorities change and you may have to change too
- No job security
 - Yes and no, but once you have experience the next job is easier



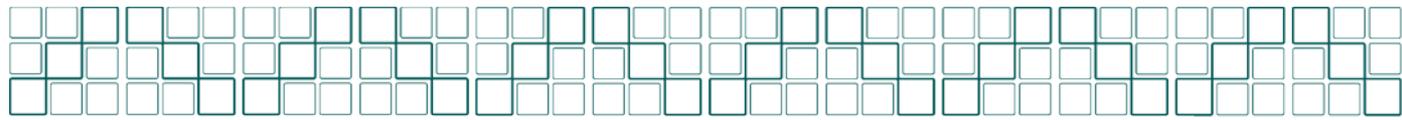
Other OITE stuff on industry

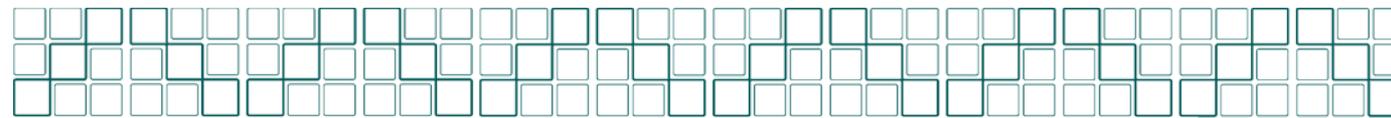
- [Top 10 List: Things Scientists Ask about Finding an Industry Job](#) (11/28/2012)
- [Industry Careers Overview and Job Packages](#) (1/24/2013)
- [An Overview of Careers in Industry for PhD Scientists](#) (10/5/2009)
- [The Industry Job Search: Navigating the Application Process](#) (12/7/2009)
- [Resumes and Cover Letters for Industry](#) (11/18/2008)
- [Industry: Interviews](#) (3/4/2013)
- [Business Etiquette](#) (NIH only) (3/25/2009)
- [Making the Transition to Industry](#) (4/6/2010)



More resources

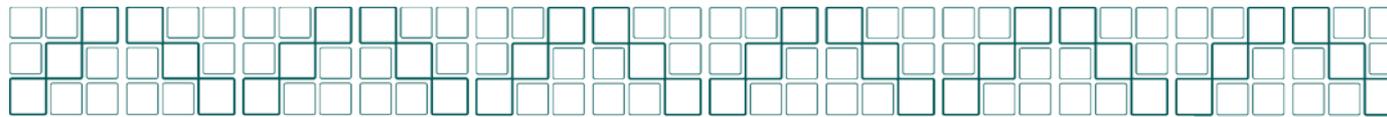
- Join our Listserv to get info while you are not at the NIH
 - Go to www.training.nih.gov to sign up.
- Connect with me on Linked-In and join the NIH Intramural Science Linked-In group
- Watch previous OITE career workshops, including many on CVs, resumes and cover letters
- Read the OITE Careers blog
- Join the OITE NIH Training Alumni database if you are/were a student or fellow here
- Email me at conlanlo@mail.nih.gov





Resources

- myidp.sciencecareers.org/ - great online assessment and career planner for science related career paths
- Make an on-line appointment at the OITE Career Center
 - **Anne and Amanda** - Career questions and assessments, all paths
 - **Bill Higgins** - Professional schools
 - **Brad** - Industry careers
- OITE careers BLOG
- Web Articles
 - Science careers - especially stuff by Dave Jensen
 - NatureJobs
 - BioSpace.com
 - ACS Careers Blog (and ACS website)
- Books
 - Career Opportunities in Biotech and Drug Development (Freedman)
 - Alternative Careers for Scientists (Robbins-Roth)
 - Non-traditional Careers for Scientists (Kreeger)



More resources

■ Previous videos on industry jobs:

[An Overview of Careers in Industry for PhD Scientists](#) (10/5/2009)

[The Industry Job Search: Navigating the Application Process](#) (12/7/2009)

[Resumes and Cover Letters for Industry](#) (11/18/2008)

[Interviewing outside the Ivory Tower](#) (12/2/2008)

[Business Etiquette](#) (NIH only) (3/25/2009)

[Making the Transition to Industry](#) (4/6/2010)

■ Videos on specific career paths:

[Careers in Science Education and Outreach: A "How to" Workshop](#) (11/23/10)

[Careers in Regulatory Affairs: Second in the "How to" Series](#) (11/23/10)

[Careers in Tech Transfer: Third in the "How to" Series](#) (2/16/11)

[Careers in Science Policy: Fourth in the "How to" Series](#) (2/16/11)

[Careers in Global Health: Fifth in the "How to" Series](#) (4/13/11)

[Careers in Science Writing: Sixth in the "How to Series"](#) (4/30/2012)

[Using LinkedIn Effectively: Seventh in the "How to" Series](#) (4/30/2012)

[Careers in Grants Management: Eighth in the "How to" Series](#) (6/5/12)

[Careers in the Federal Government: Ninth in the "How to" Series](#) (7/18/12)