



EMORY
UNIVERSITY
SCHOOL OF
MEDICINE

Office of Postdoctoral Education

CAREERS IN SCIENCE WHAT ARE MY OPTIONS?



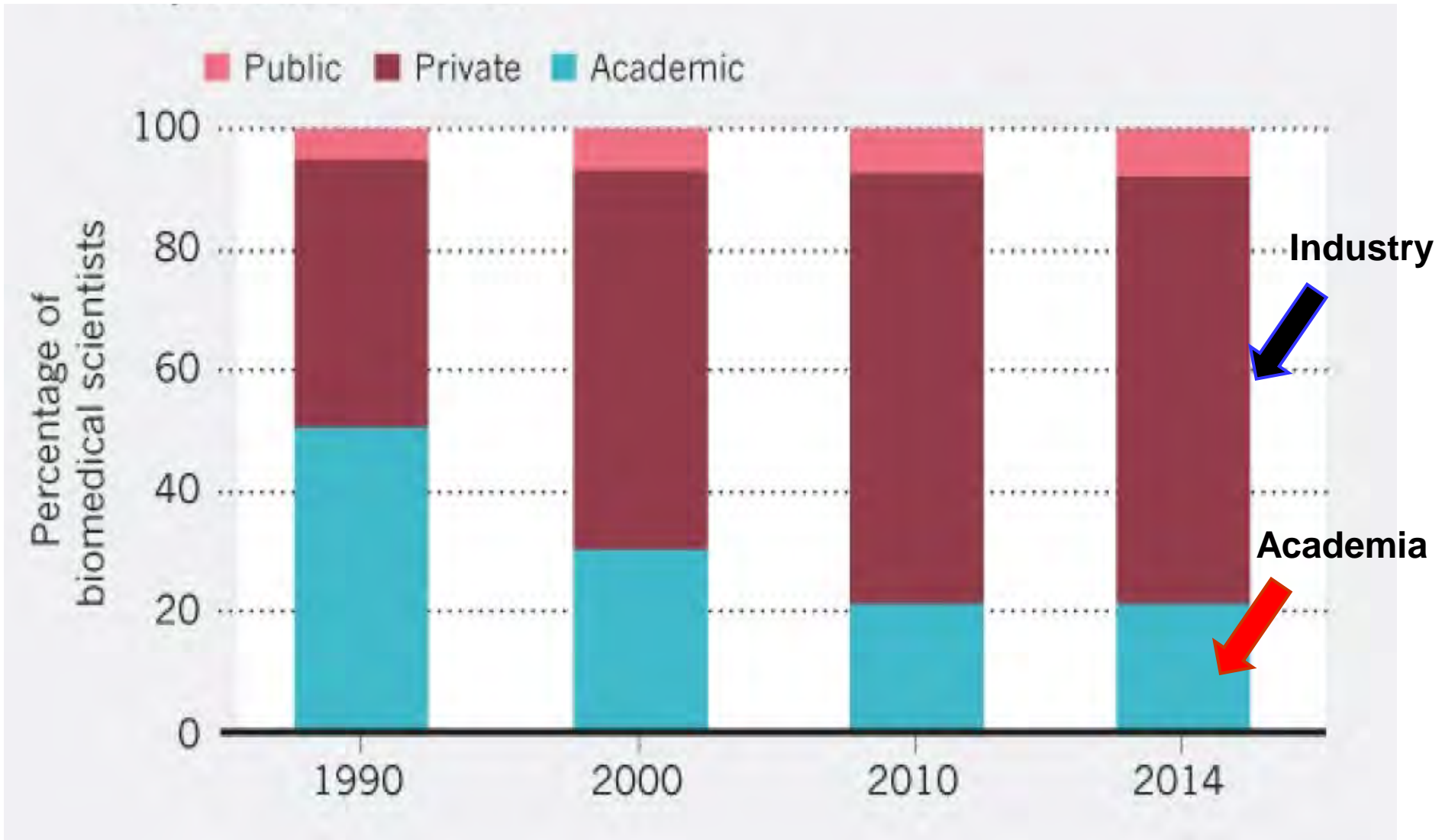
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Assistant Dean – School of Medicine
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Professor of Pediatrics and Biochemistry
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What Do You **DO** With A Biomedical Degree?

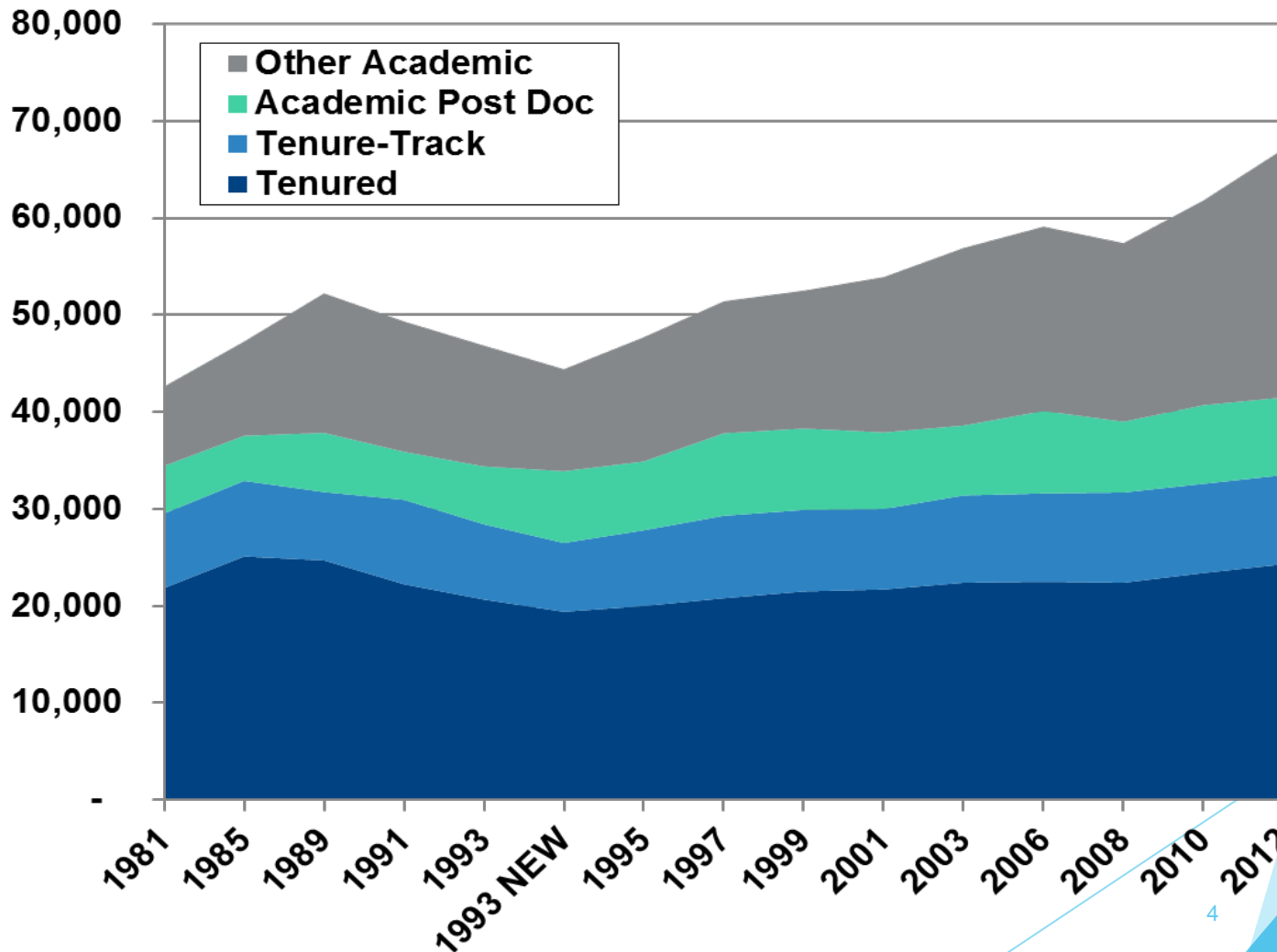


Artist: Jen Lechner

JOB S: Private Sector >> Academia

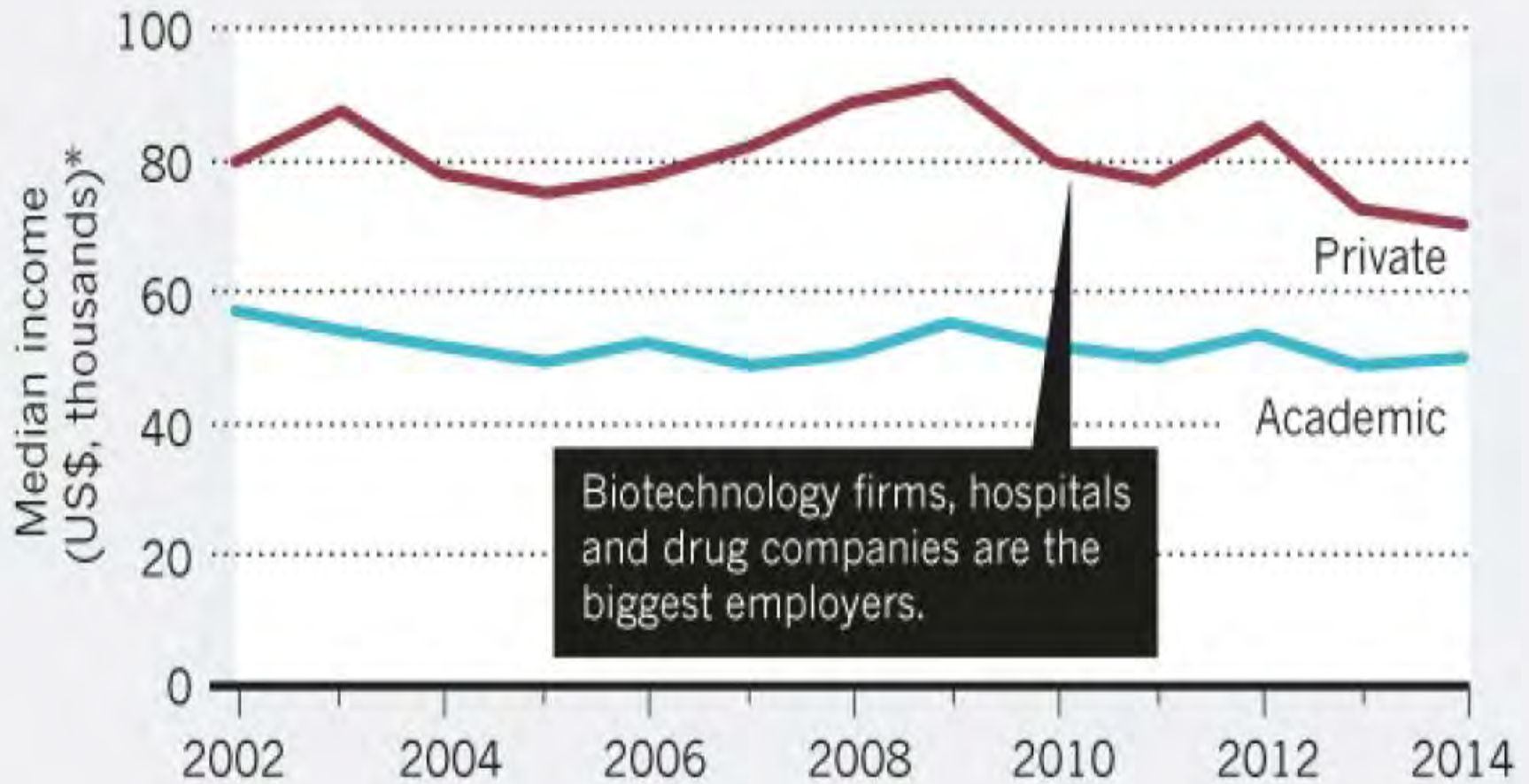


Academically Employed Biomedical PhDs by Tenure Status

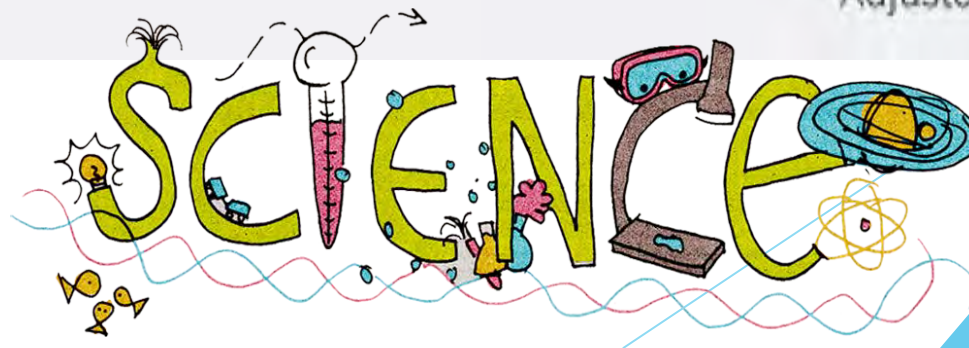


Source: National Science Foundation <http://sestat.nsf.gov/>





*Adjusted to 2014 US dollars.



POTENTIAL CAREERS OUTSIDE OF ACADEMIA

Market Research Analyst

Market Research Analyst – especially significant in innovation-based sectors such as electronics, IT or biotechnology.

Bureau of Labor Statistics – 20% job growth

Market research analysts – gain complete understanding of the commercial landscape associated with a specific technology or sector.

PhD – ability to analyze large amounts of information and identify comparative advantages between two technologies – very valuable in this role.

Business Development Manager

Projected growth rate: 16.4%.

Science PhDs – increasingly hired as Business Development Managers.

Excel at understanding complex technologies, which is crucial to technology-based sectors such as biotechnology, software, consumer electronics, and pharmaceuticals.

Key responsibilities – develop new business opportunities, manage existing products, develop market strategies, and build new business partnerships.

Competitive Intelligence Analyst

Competitive Intelligence (CI) Analysts: gather information about products that are in a competing company's pipeline and analyzing these products to determine how they will affect the market.

Areas of expertise: software, healthcare, pharmaceutical, financial

Product Manager

Product Managers: manage the entire life-cycle of an innovative product.

Oversee the development of a product and the management of product after it launches.

Demand for Product Managers in technology-based sectors is increasing by 23% annually.

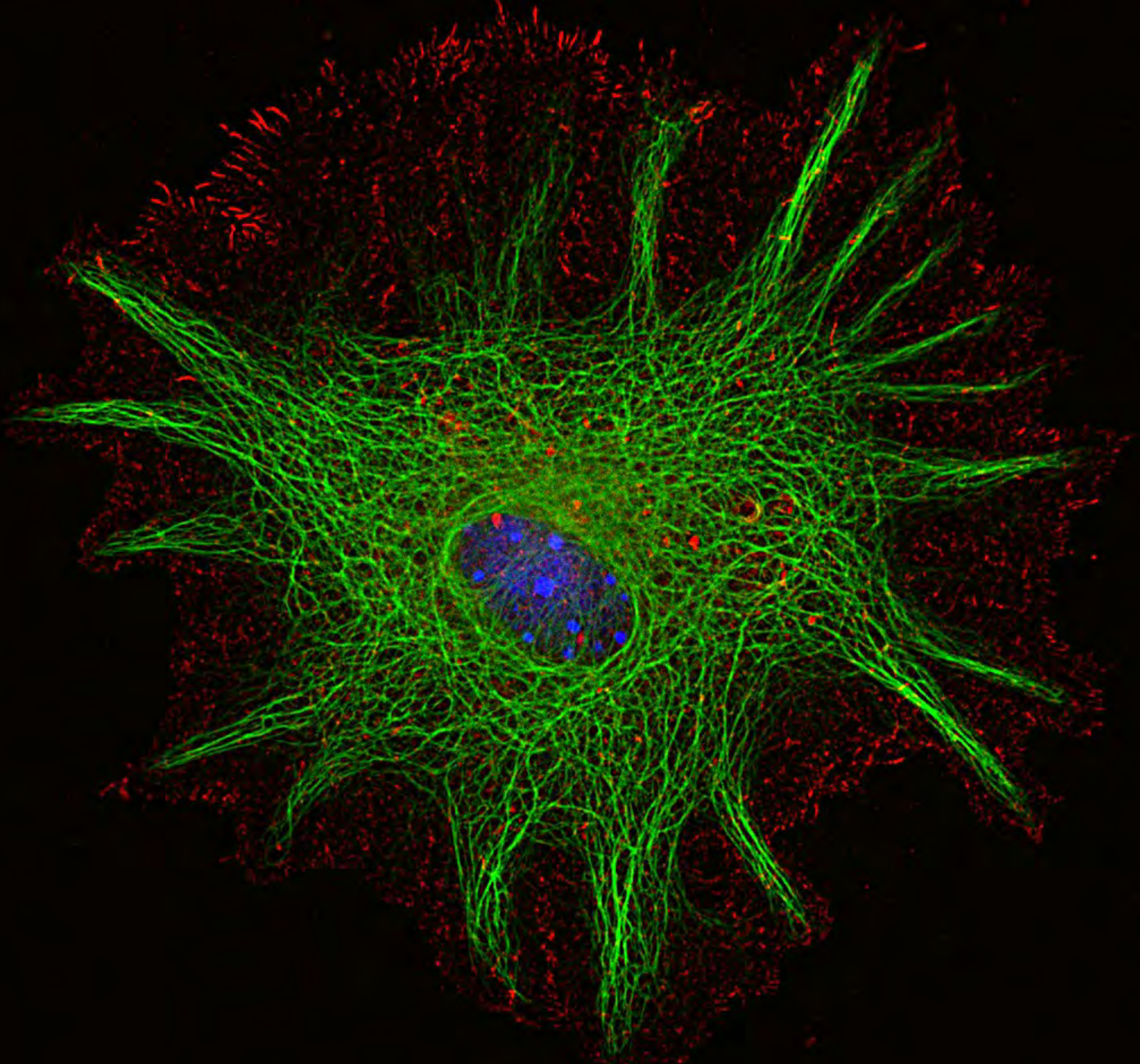
Responsible for analyzing a product's market performance as well as determining ways to boost a product's commercial success while simultaneously determining how to phase out or terminate older versions of the product.

Medical Communication Specialist

Medical Communication Specialists are broadly described as technical writers involved in the development and production of communication medical and healthcare related materials.

Bureau of Labor Statistics: grow by 15%

Responsibilities – write and edit materials that healthcare organizations will use to communicate with target audience (patients, clients and medical professionals).



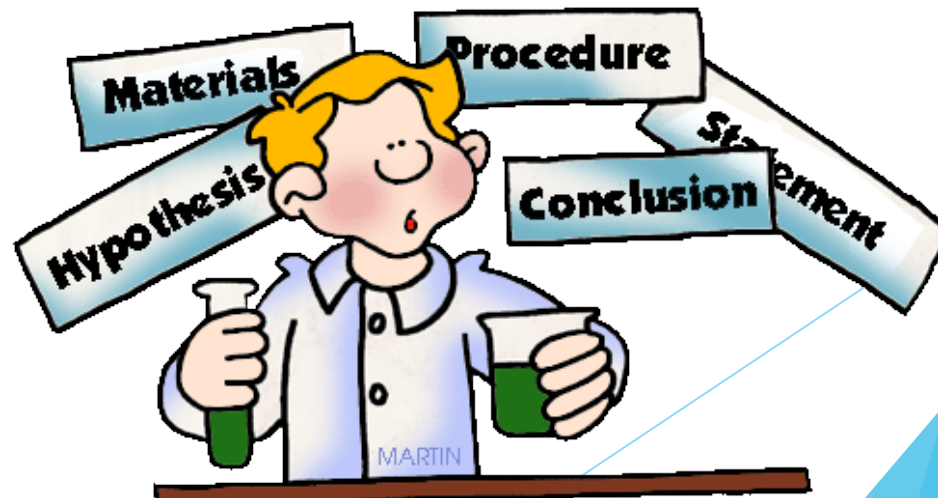


**How does that
information
impact
your decisions?**

Goals/Expectations

“DRIVE” your choice of career and future
Use Career Development opportunities

- Know yourself & how you like to work
- Explore multiple career options
- Ask questions
- Ask your mentor to support you





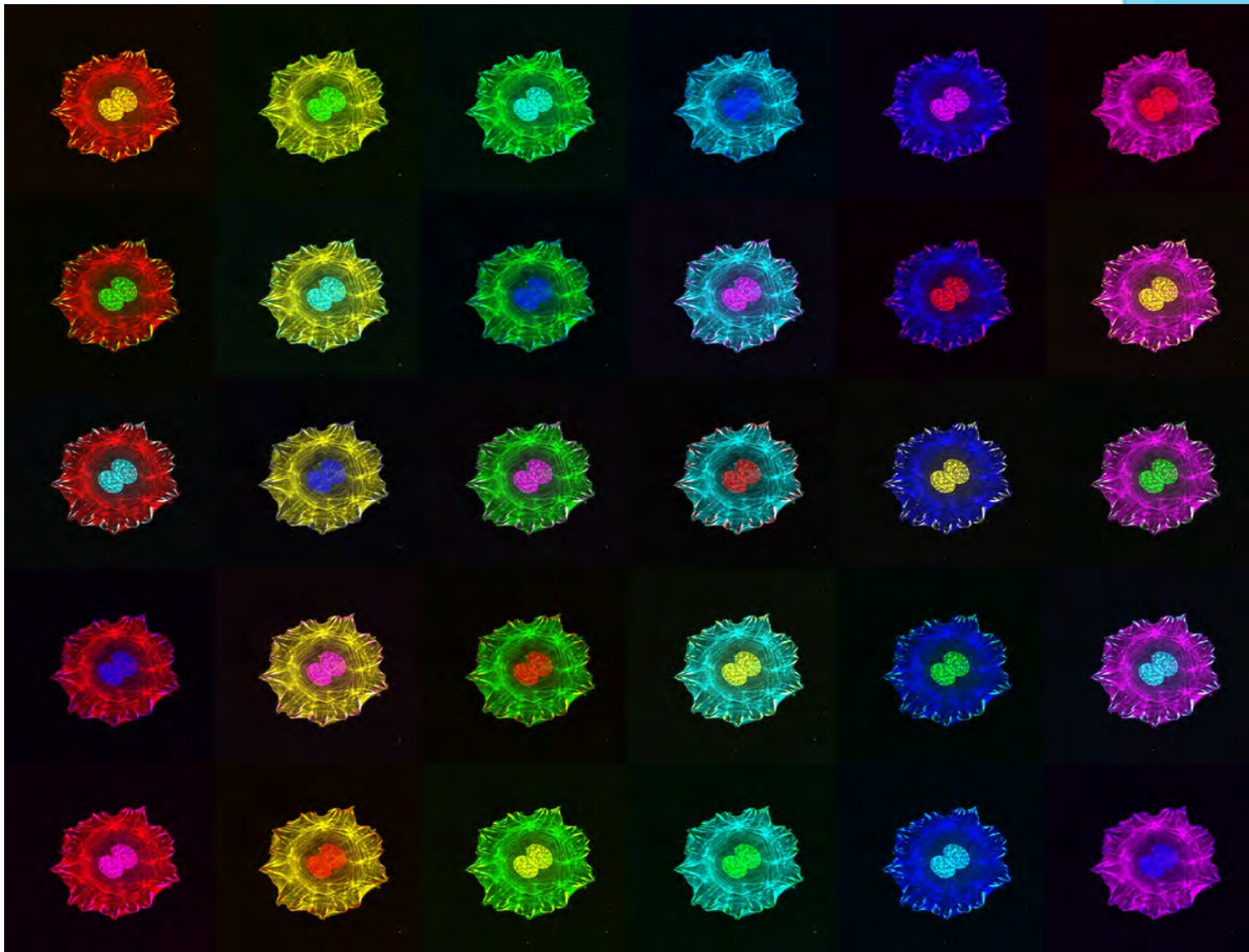
**FIND THIS
PERSON!**

NEXT STEPS





**What Is Your Long
Term Dream Job?**



**ALL CAREERS COME IN
MULTIPLE FLAVORS**

First Principles of Science Careers

- ▶ No one size fits all
- ▶ You have MANY options in all employment sectors
- ▶ You will get a job based on your research accomplishments AND your broader skill set
- ▶ Working with supportive mentors can make all the difference

Academia Questions

- Faculty
- Support Staff
- PI or Team Science
- Administrators
- Tier 1, 2, or 3
Research
Institutions
- Teaching



Artist: Jen Lechner

Common Themes Among Those Who Like Research

1. curiosity to discover the unknown (as a motivator to do research)
2. enjoyment & persistence in problem solving
3. a high level of independence
4. the desire to help others indirectly through research
5. a flexible, sometimes ill-defined approach to the future



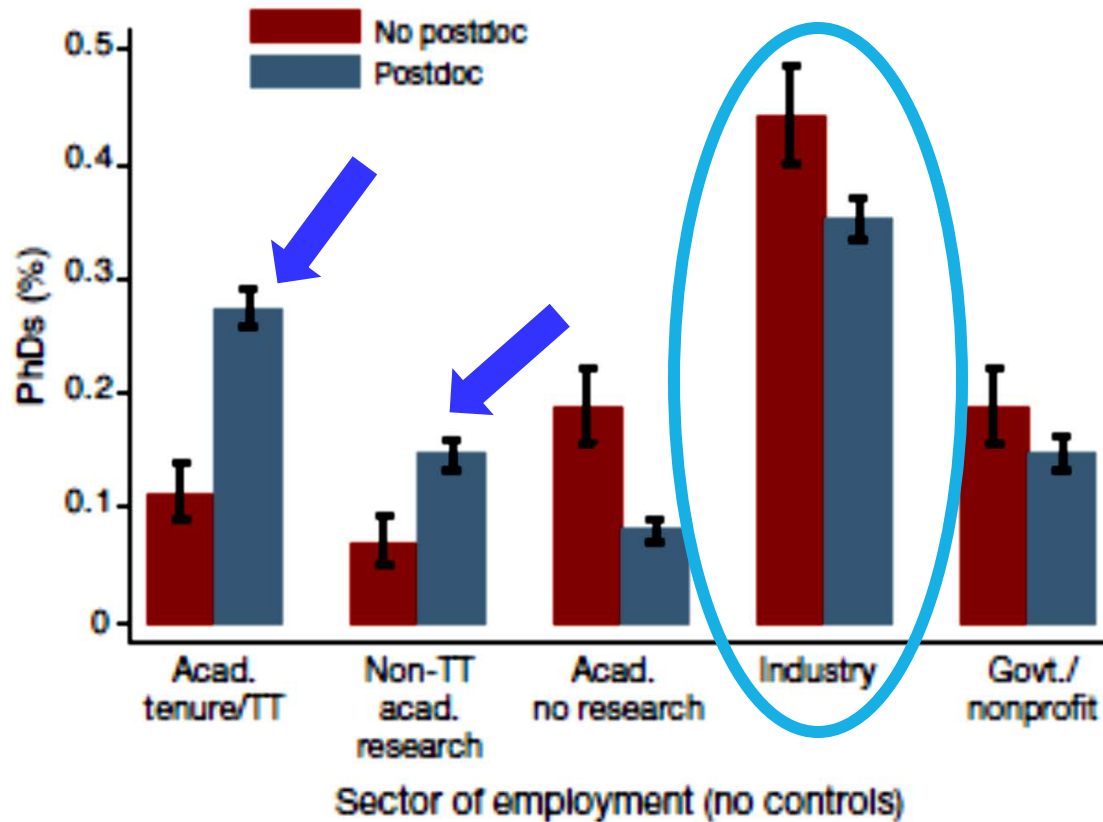
**Should You Do a Postdoctoral
Fellowship?**

How Many Years?

What is a Postdoc?

- A postgraduate trainee with a Ph.D., M.D., DVM, etc
- Performs full-time research under the guidance of a faculty mentor.
- Transition Period:
 - Training opportunity are for you to grow into an independent scientist
 - Learn new skills
 - Take a new direction
 - Produce quality research and paper
 - Define your career path in science
 - - seeking the “Perfect Job”





Percentage of biomedical PhDs who started their careers with a postdoc and those who did not – 10 years after the degree was awarded.



**What Direction Is
Right For Me?**

So, how will you decide?

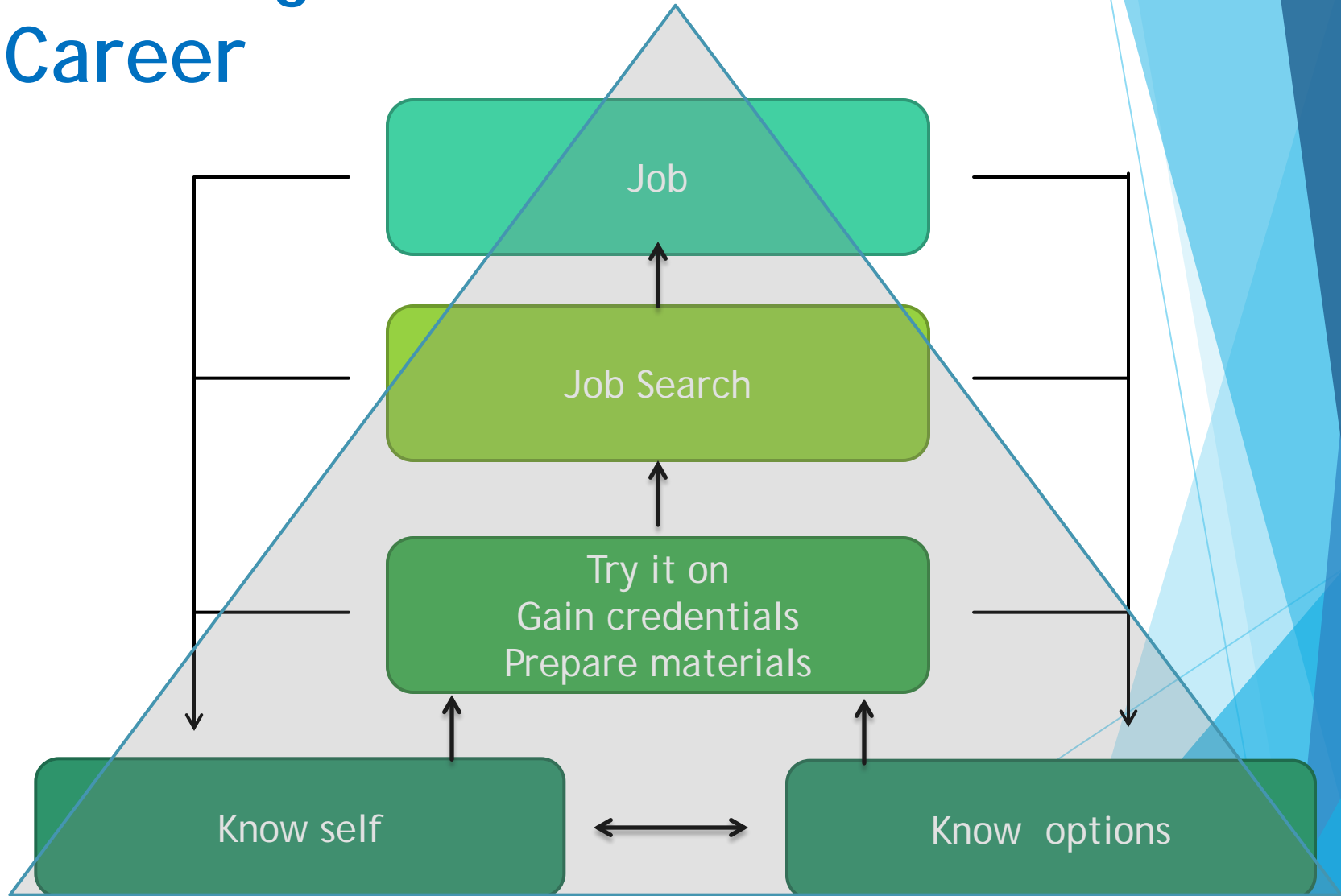
- 1. Find info on training and career options**
- 2. Conduct informational interviews with people doing these options**
- 3. Consult a research study that followed students in PhD, MD, MD/PhD programs**
- 4. Try temporary experiences**

Do all methods!

What is your next step?
When will you take it?
What will you accomplish by taking
this step?
What help do you need?



Planning for a Successful Career



How Do You Position Yourself For Multiple Careers Without Weighing You Down or Freaking Out?



WHAT'S YOUR
STORY



Important Questions to Consider

What are your constraints?-- *things that are just facts*
What are you going to do with that fact?

What are your ground rules?

- Are you willing to risk financial instability?
- Are you willing to take a lower salary?
- Are you willing to go for more training?
- Are you willing to work more hours?
- Are you willing to relocate?



Initial Brainstorming Questions

- What do I enjoy doing most?
- What do I like most and least about my present career path?
- What are my values?
- What organizations or jobs sound interesting to me?
- When have I been my happiest at work?
- When have I been most unhappy?



Be Realistic



- What will success require of you?
- Are you willing to make that sacrifice and pay that price?
- What skills do you need to develop?
- What is your most important goal for the next year?
 - Why is that one the most important?
 - Why have you not achieved it already?
 - What do you need to do to achieve it?
 - Is that the most impactful step for you?

Things I love about a research career

- Intellectual challenge
- Teaching
- Flexible work schedule
- Independence
- Smart colleagues
- Learning new things
- Collaborating

Things I hate about a research career

- Long hours
- Low pay for education level
- Isolation
- Funding rat race
- Politics
- Arrogant colleagues
- Lack of teamwork



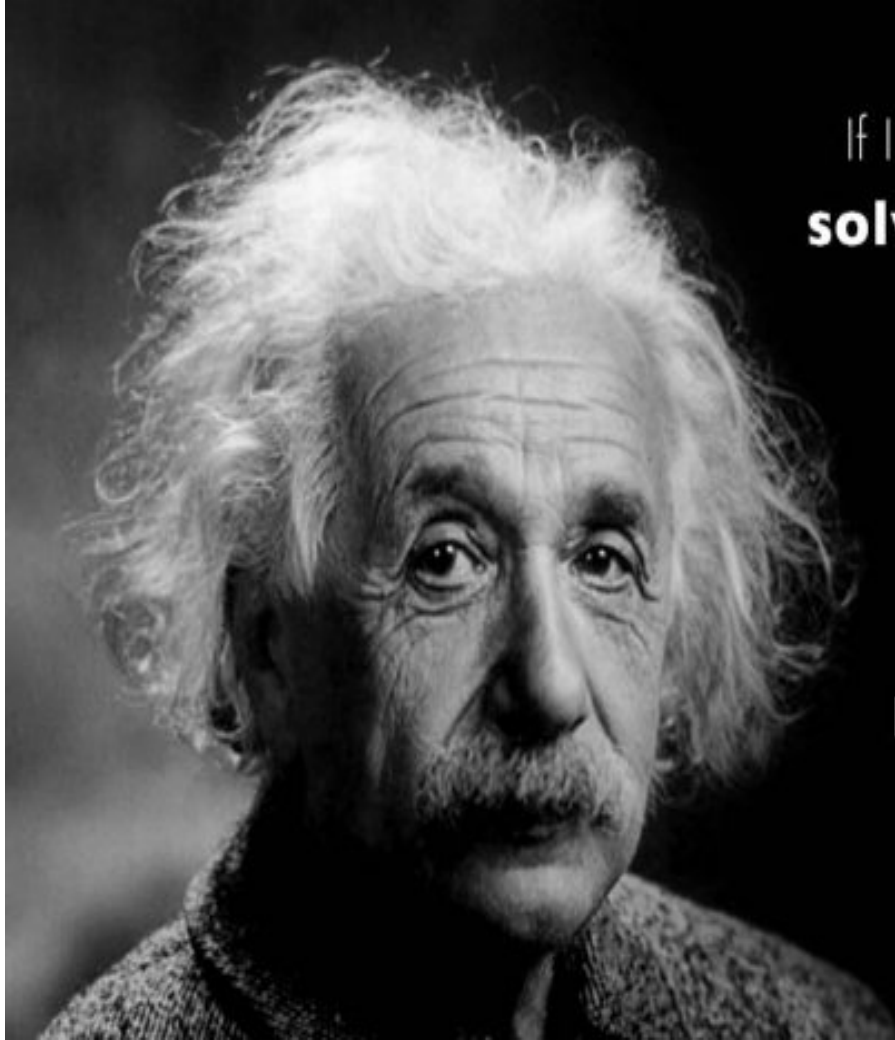
How do you build a career when you don't know what to build?

Before you do problem solving, you have to do problem finding

What is the right thing to be working on?

Design thinking - there is more than one you in there





If I had an hour to
solve a problem and my
life depended on it,
I would use the
first 55 minutes
determining the
proper questions to ask.

Albert Einstein



Putting Together the Puzzle



Independent of Career Choice, the Skills that REALLY Matter

Leadership

Humor

Tact

Understanding Risk and Reward

Organization

Sensitivity

Drive

Creativity

You can develop/learn these

Getting the Mentoring You Need -- Develop A Mentoring Team

- A single person cannot be an expert in everything you need.
- Develop a "mentoring team".
- Identify skill areas that need work & seek out different mentors for the different skills
- Extend your mentoring network beyond your current department or institution.
- Mentors in presentation skills or grant writing?

- Identify someone with a skill set that you would like to learn.
- Mentors in time management or work-life balance?
- If your potential mentor agrees to help, ask if you can meet on a regular basis. Those meetings should have a clear purpose and agenda - why are you meeting?

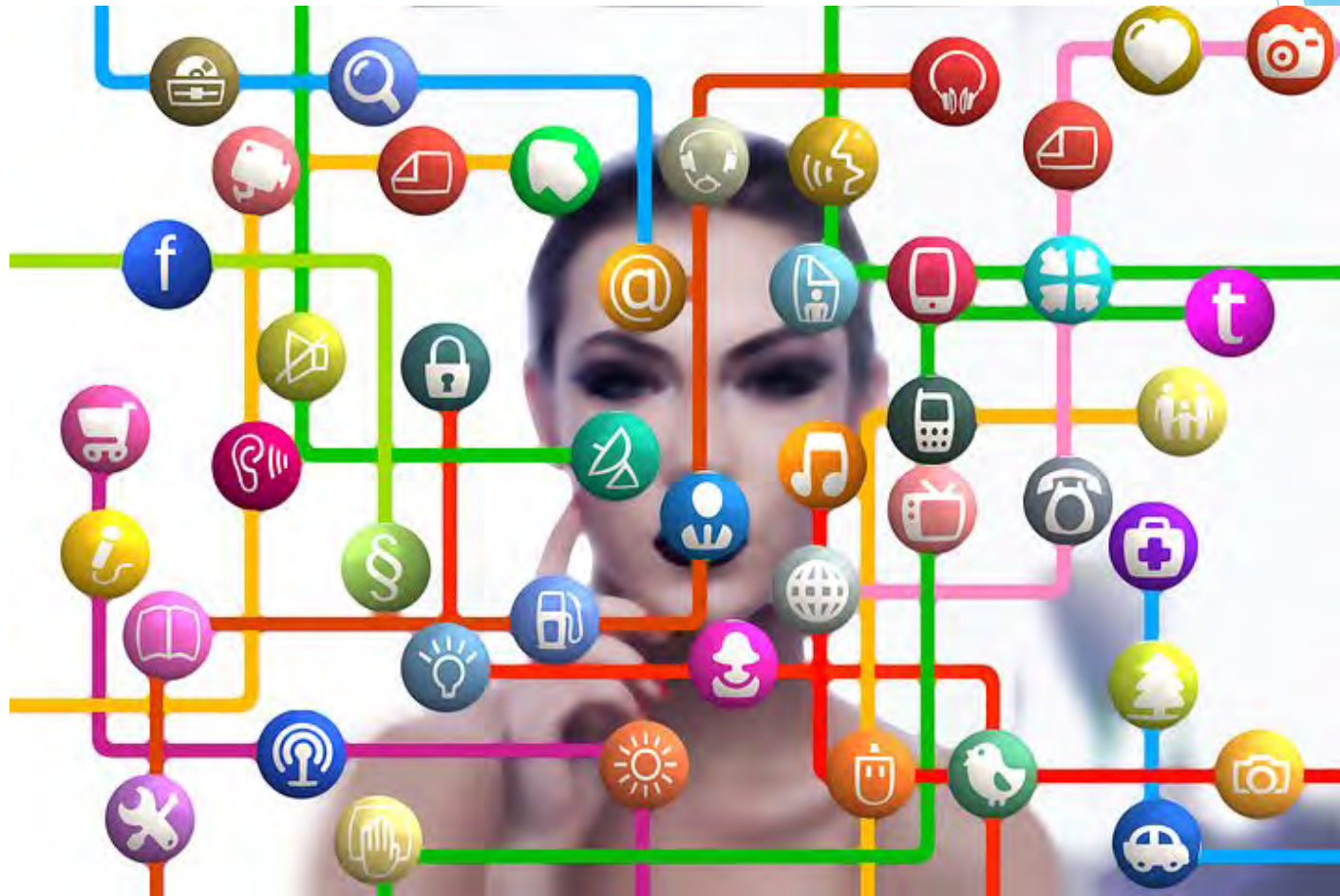




CONNECT WITH OTHERS

You must prepare yourself by gathering as much information about alternative career options for science graduates as possible.

Essential Career Tool NETWORK



The problem with the current approach that people are taking to find their careers they start with the wrong question.

And the wrong question is, how do I figure out that **one**, best solution for my life?

REMEMBER

**There is more than
one right answer for
you because you
have multiple gifts.**

***What are your
potential directions?***

***What do you need to
do to make a
particular direction
possible?***

REMEMBER

**This is NOT locked in
stone. As you gain
skills and build on
your gifts, your
choices and doors
will expand.**



*Artist:
Jen Lechner*

**You have brains
in your head.**

**You have feet
in your shoes.**

**You can steer
yourself in any
direction you
CHOOSE!**

~Dr. Seuss





*There is more to you as a scientist
than you think*

