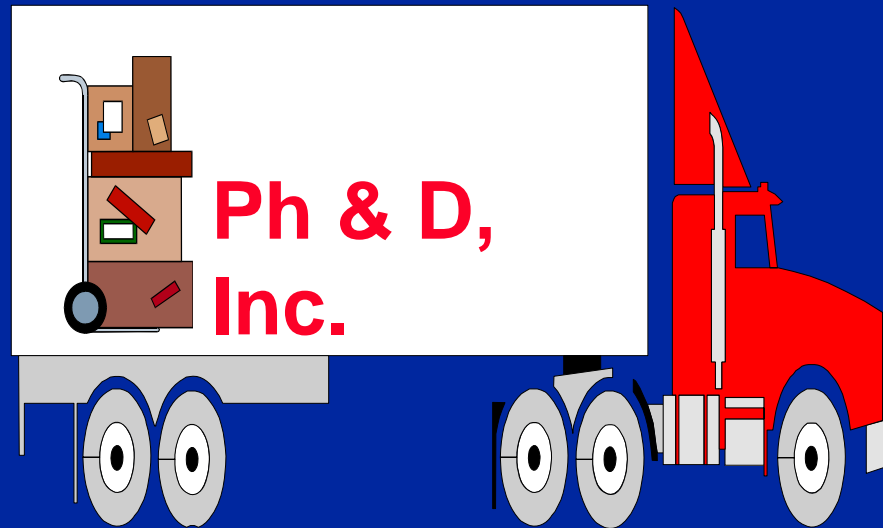


Moving On to Your Next Position



Survival Skills & Ethics Program

Faculty

- Beth Fischer
- Michael Zigmond

Funding

- NIMH
- NINDS
- University of Pittsburgh



www.survival.pitt.edu

Acknowledgements

- *Science Next Wave*
 - David Jensen
 - Peter Fiske
 - **Robert Bolles**
 - What Color is Your Parachute
 - **Laurence Bolt**
 - Zen & Art of Making Living
- ... and many others



What is the employment picture?

?



Getting a job

- the dream

training = job



Getting a job

- the dream
- the nightmare
 - 100s of letters
 - few responses
 - no interviews
 - no jobs



Getting a job

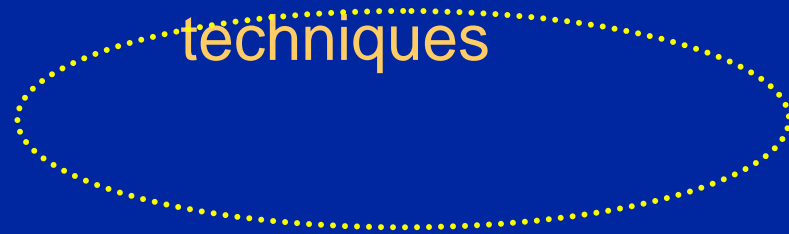
- the dream
- the nightmare
- the reality
 - degree \neq job
 - much competition
 - jobs available
 - relevant
 - rewarding



Many people fail to find a fulfilling career

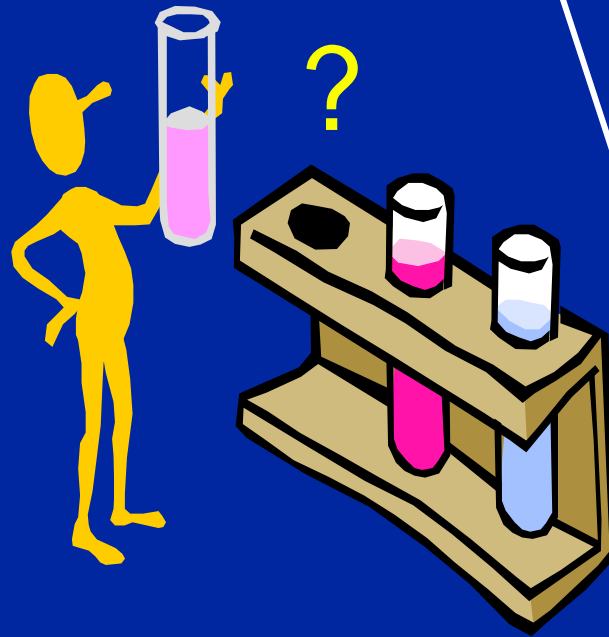


- lack of
 - vision
 - training
 - experience
- too many constraints
- poor problem solving techniques

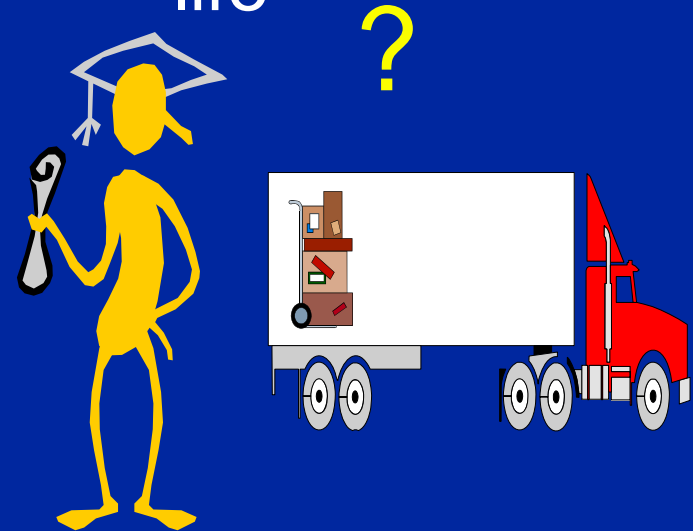


How do people solve problems?

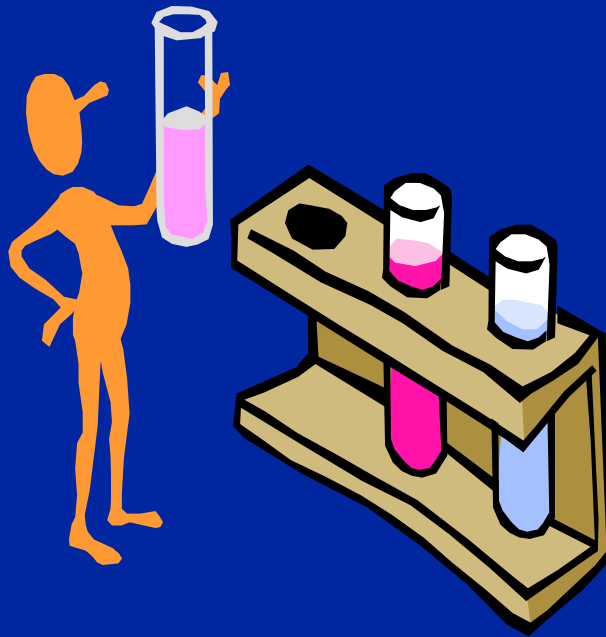
In the lab



In the rest of their
life



How do you solve a research problem?



problem solving

1. define the problem
2. acquire knowledge
 - information
 - experience
3. think creatively
4. develop logical plan
5. work very hard

How do most people look for their next position?

moving on

1. delay to last minute
2. look in *Science*
3. write lots of letters
 - “To committee:...”
 - (one size fits all)
4. await responses

problem solving

1. define the problem
2. acquire knowledge
 - information
 - experience
3. think creatively
4. develop logical plan
5. work very hard

How do most people look for their next position?

and moving on

moving on

1. delay to last minute
2. look in *Science*
3. write lots of letters
 - “To committee:...
 - one size fits all
4. await responses

problem solving

1. define the problem
2. acquire knowledge
 - information
 - experience
3. think creatively
4. develop logical plan
5. work very hard

Getting additional information

- specific opportunities
- how to approach employers
- the full range of career options
- yourself

What is the order of importance?

Getting additional information

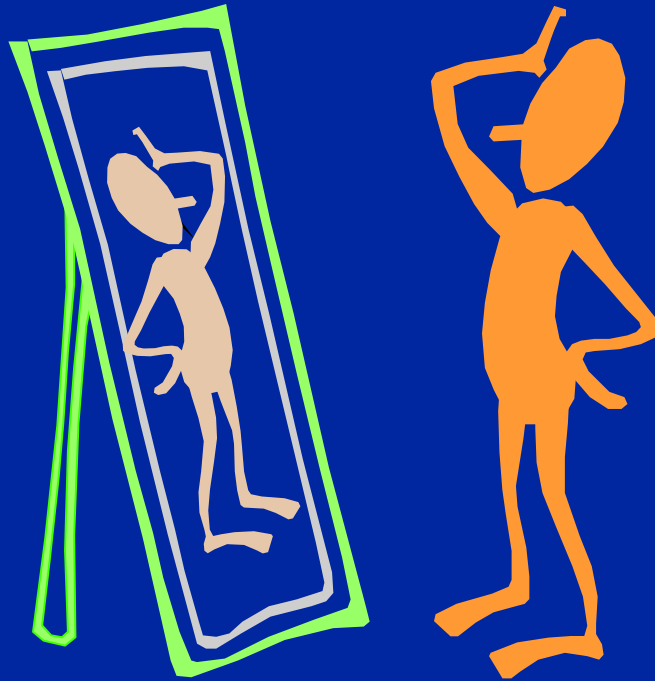
4. specific opportunities
3. how to approach employers
2. the full range of career options
1. yourself

What is the order of importance?

Getting additional information

- ➔ 1. yourself
- 2. the full range of options
- 3. how to approach employers
- 4. specific opportunities

Information about yourself



Information about yourself:

what do you *enjoy*?

- evaluating reports
- experimental design
- data collection
- data analysis
- oral presentations
- technical writing
- working with others
- supervising
 - junior students
 - technicians
- teaching
 - undergraduates
 - graduate students
 - medical students
- establishing policy

Information about yourself: what do you *want*?

- independence
- responsibility
- impact
- income
- security
- effort
- stress



Information about yourself: what are your *strengths*?

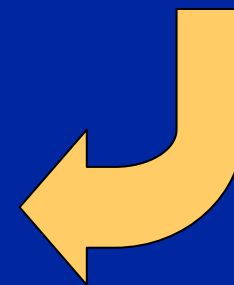
- lab skills
 - general
 - specific
- accomplishments
 - publications
 - awards
 - education
 - experience
- knowledge
 - depth
 - breadth
- recommendations
 - supervisors
 - others in field
- social skills
- leadership



Information about yourself: what are your *strengths*?

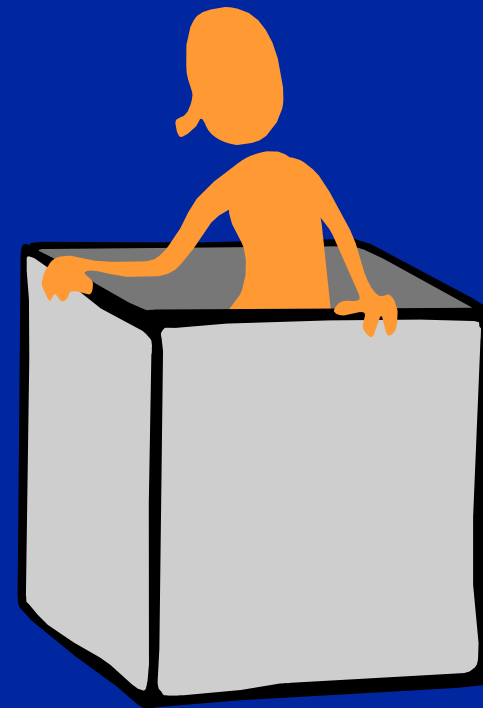
- lab skills
 - general
 - specific
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 - depth
 - breadth
- accomplishments
 - publications
 - awards
 - education
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- recommendations
 - supervisors
 - others in field
 - social skills
 - leadership

what is the most
critical variable?



Information about yourself: what are your *constraints*?

- responsibilities
 - partner
 - family
- income needs
- community
 - religion
 - race, ethnicity
- side interests



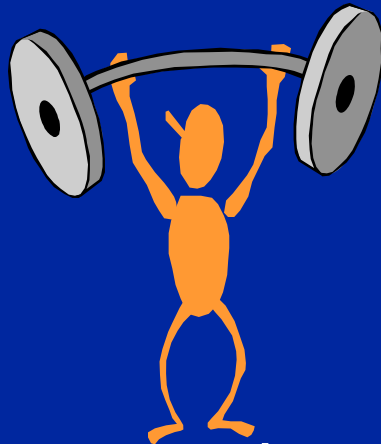
Information about yourself



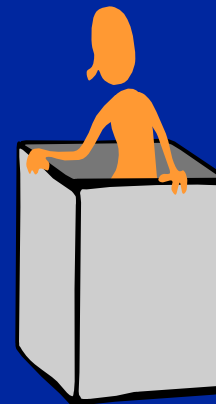
enjoy



enjoy



strengths



constraints

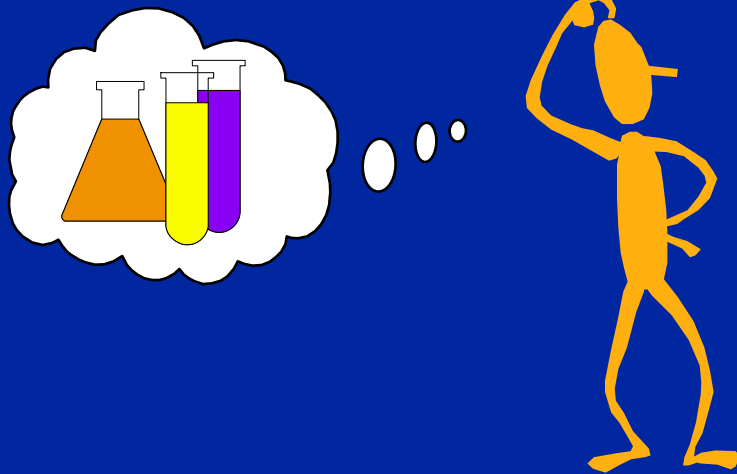
Getting additional information

1. yourself
- 2. the full range of career options
3. how to approach employers
4. specific opportunities

Considering career options

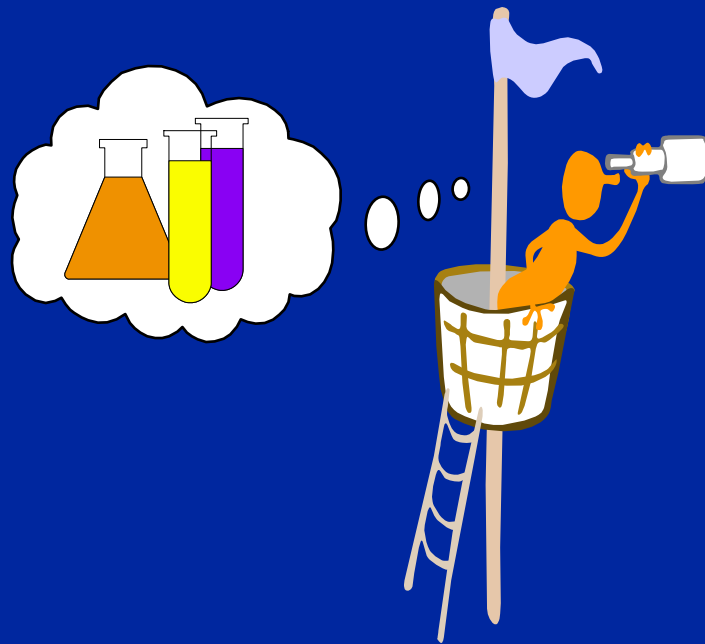
Research

- university



Considering career options

Research



- university
 - medical
 - veterinary
 - pharmacy
 - dentistry
 - arts/science

Considering career options

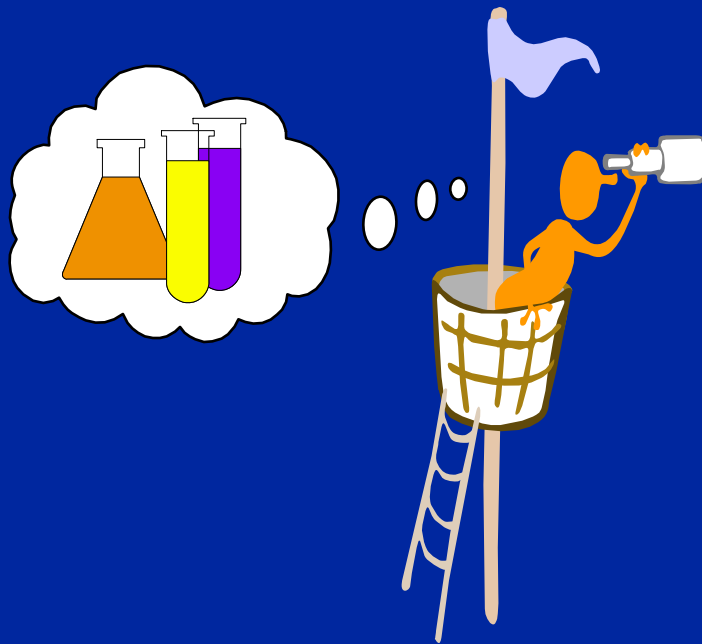
Research



- university
- research institute
 - federal
 - state/local
 - private

Considering career options

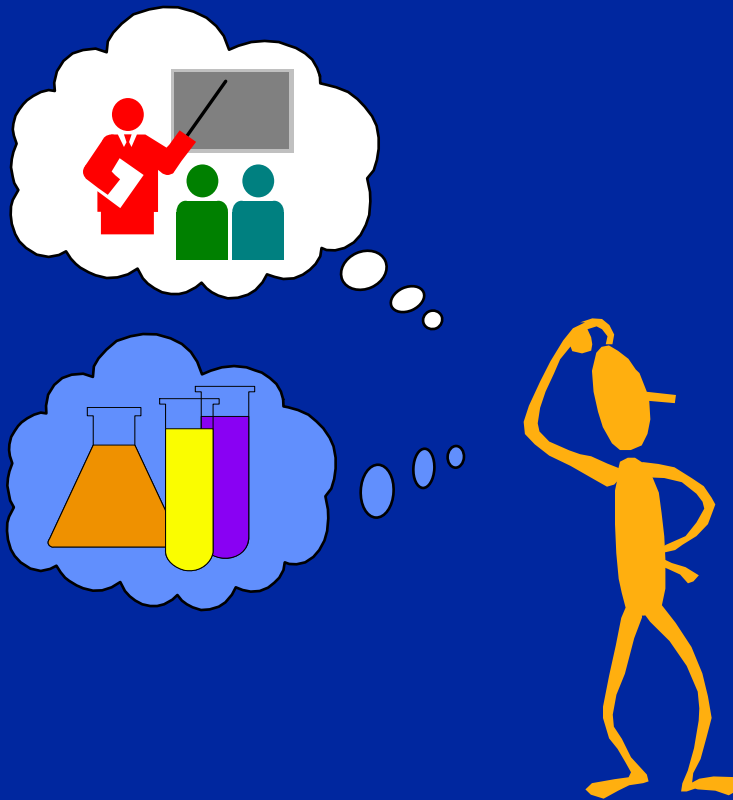
Research



- university
- research institute
- industry
 - pharmaceutical
 - biotech
 - equipment

Considering career options

Teaching



Considering career options

Teaching



- university
- college
- continuing ed
- museums
- web-based
- K - 12

Considering career options

Clinical



- private practice

- academic position

still further
Considering career options



Your imagination is your preview of
life's coming attractions.

Albert Einstein

still further Considering career options

- Administration
 - education
 - research
 - Grants
 - Core facility management
 - project management
 - Journalism
 - News reporter
 - Publishing
 - Journal Editor
 - Text book writing
 - Medical Writer
 - Public policy
 - Law
 - intellectual property
 - scientific integrity
 - Finance
 - Private
 - public
 - Sales and technical service
 - Computers
 - Bioinformatics
 - Data management
 - Graphic arts
- ...and many more

What have you learned
thus far in your training?



What have you learned thus far in your training?

- background in field
- specific focus
- technical skills

What have you learned thus far in your training?

- background in field
- specific focus
- technical skills
- critical thinking
- problem selection
- problem solution
- time management
- accuracy

What have you learned thus far in your training?

- background in field
- specific focus
- technical skills
- critical thinking
- problem selection
- problem solution
- time management
- accuracy
- dealing with difficulties
 - challenge and uncertainty
 - difficult people
 - stress
 - failure
- communication skills
 - oral
 - written
- excitement of research

What have you learned thus far in your training?

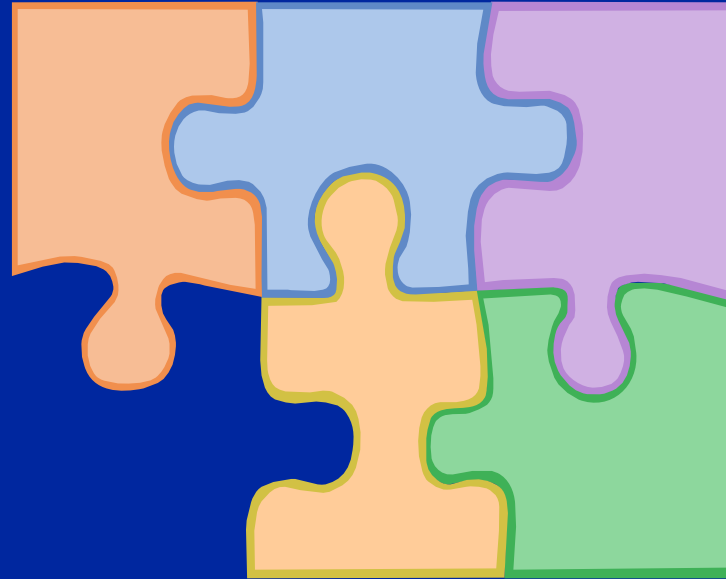
- background in field
- specific focus
- technical skills
- critical thinking
- problem-solving
- problem-solving
- when to use
- accuracy
- dealing with difficulties
 - challenge and uncertainty
- excitement of research

The end of education is to *discipline* rather than *furnish* the mind.

Tryon Edwards

kills

Finding a match



Finding a match

you

- what you enjoy
- what you want
- your strengths
- your constraints

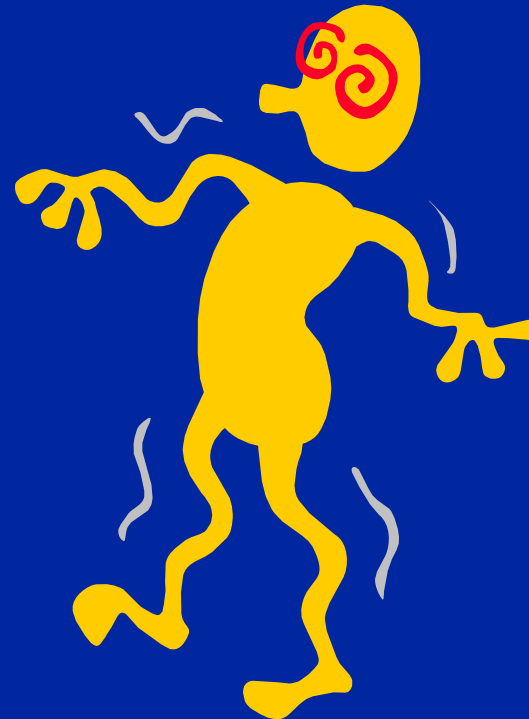
the job

- responsibilities
- income
- effort
- impact
- location

Considering broad range of careers

problems

- lack of support
 - advisors
 - peers
 - friends and family
- lack of information
- absence of network



Considering broad range of careers


problems

- lack of support
 - advisors
 - peers
 - friends and family
- lack of information
- absence of network

advantages

- closer match to you
 - enjoy
 - want
 - strengths
 - constraints
- more opportunities

Getting additional information

1. yourself
2. the full range of options
-  3. how to approach employers
4. specific opportunities

Where do you get information



Where do you get information

general

- articles
 - books
 - journals and newspapers
 - internet
- courses
- internships
- informational interviews



Informational interviews

- identify career you want to know more about
- learn what you can on your own
- contact someone in the field (email; phone)
- ask for brief (30 min) informational meeting
(not for job)
- arrive with questions and take good notes

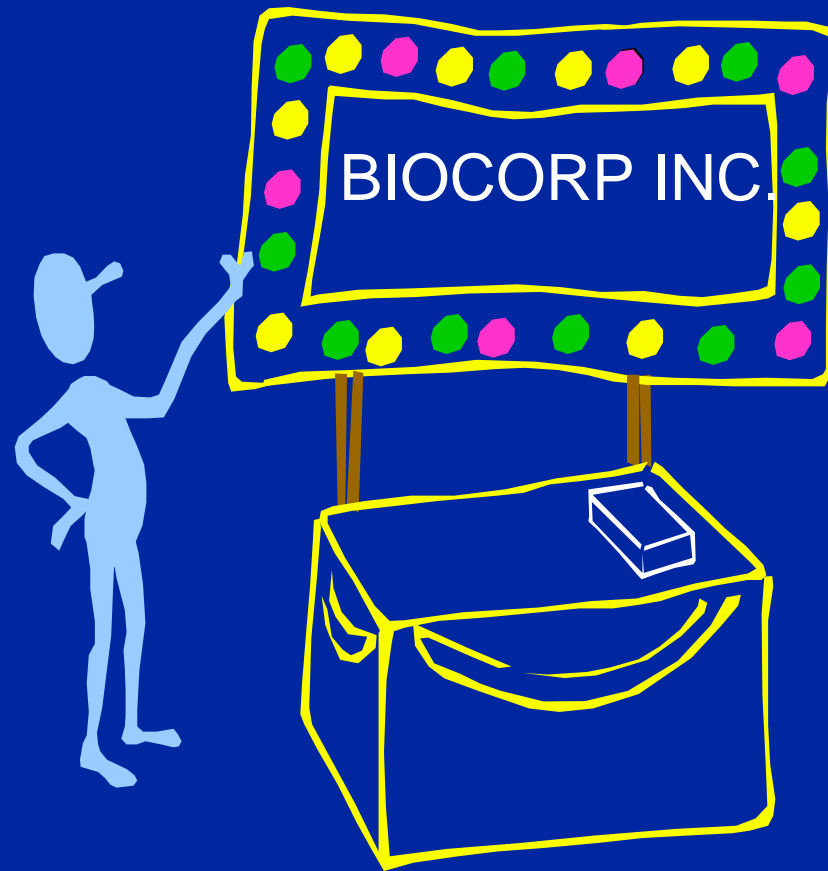
Where do you get information

general

- articles
- courses
- internships
- informational interviews
- job fairs



Attending a Job Fair



Why attend a job fair?

- seek a full interview
- collect information
 - current job openings
 - employment trends
 - types of careers
- get advice
- build network
 - employers
 - attendees
- practice selling yourself

Preparing to attend a job fair

- find out what employers will participate
- determine which you are interested in
- practice your presentations
 - 1-2 min self introduction
 - answers to common questions
- make a list of things you want to learn
- develop your questions

Your questions (industry)

- current openings
- their hiring patterns
- % of personnel with PhDs
- growth of different divisions
- career paths

Attending a job fair

- arrive early
- walking around is not enough:
participate!

Presenting yourself

- you are always being interviewed
- the basics
 - make good eye contact
 - smile
 - shake hands
 - speak up
 - be confident
 - don't fidget

Attending a job fair

- focus on most interesting employers first
- describe what you are looking for:
 - type of position
 - just collecting info
- don't monopolize the representative
- collect business cards

Attending a job fair

- distribute copies of your resume
- make notes right after discussions
- network, network, network

Attending a job fair

- you may be one of many with similar qualifications
- stand out
 - demonstrate you have done research on them
 - show how you fit their needs
 - strong & attractive resume
 - stop by 2nd time?

Getting additional information

1. yourself
2. the full range of options
3. how to approach employers
- 4. specific opportunities

Where do you get information

specific opportunities

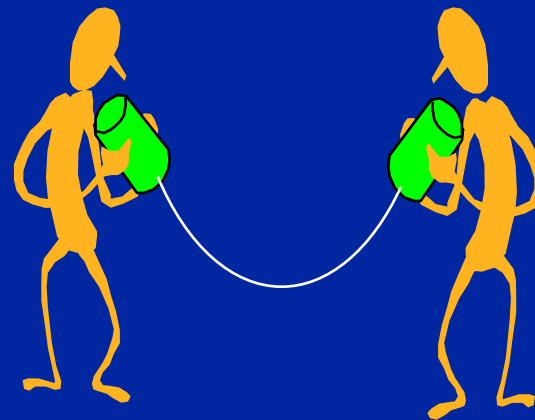
- ads
 - journals
 - newspapers
 - web sites
- placement services
 - head hunters
 - professional meetings
- network



Networking

- the key source of info
- >75% of all jobs
- developing your network
 - takes effort
 - is essential

how large is your network?



Developing your network

- meet people at your institution
- meet others
 - visitors to your institution
 - conference participant
 - people at their institutions
- include family and friends

Getting postdoctoral training



What is a “postdoc”?

- 2-4 years of research training after PhD
- few if any other responsibilities
- can be at university, institute, industry
- typical starting stipend: \$37,000

Objectives of postdoctoral training

- additional training
 - new area
 - new techniques
 - exposure to different environment
 - additional credentials (esp. publications)
 - increased network
 - jump-start on later research
- Postdoc training: Useful? Necessary?

How does one obtain a postdoctoral position?

- determine what you wish to learn
 - area
 - technique
- identify **best** people in the field
- become familiar with their work
- approach them as for a job

Selecting a research director

- common interests between you and director
- experience and track record
 - research
 - training
- time available for you
- rapport
 - you and director
 - you and rest of research group
- intellectual community

Contacting potential advisors

how

- letter
- email
- conversation

where

- their institution
- your institution
- professional

meetings

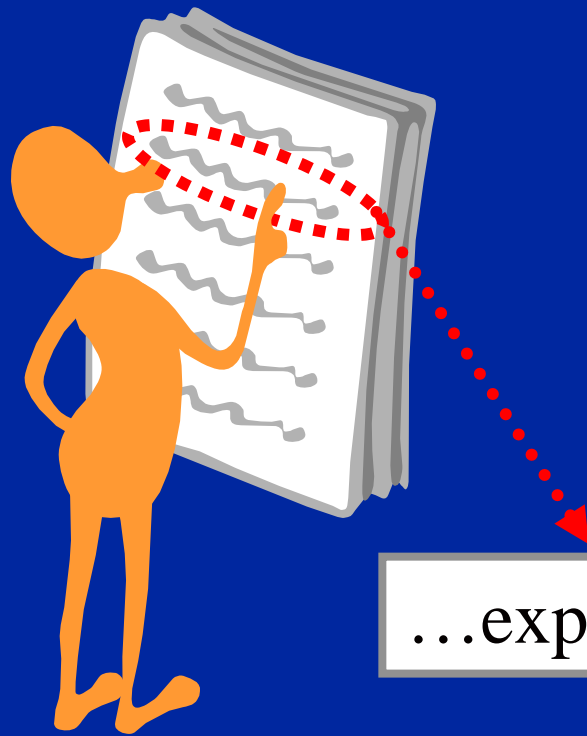
what

- reason for your interest
- your background
- what you can offer

Things to get straight *before* you arrive as a postdoc

- financial support
 - salary
 - health care
- minimum duration
- starting date
- key aspects of your research opportunities
 - type of projects
 - methods you can learn

Getting experience before getting a job



...experience required.

Getting experience before getting a job

type of job

industry

college

administration

journalism

in general

where to get experience

industrial postdoc

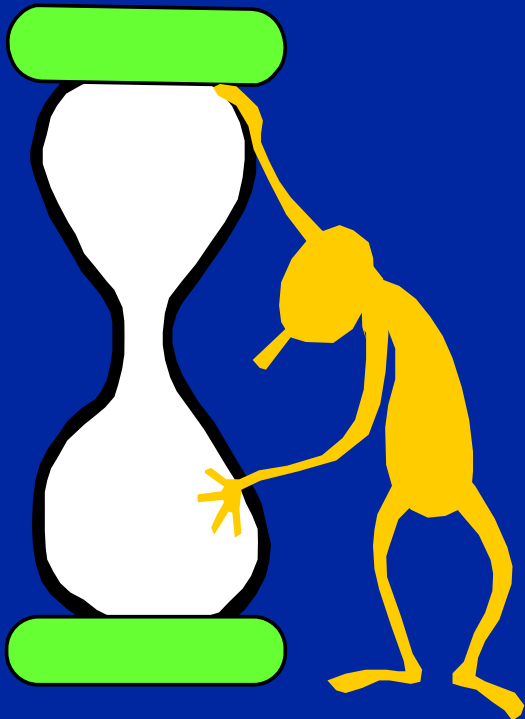
sabbatical replacement

internship

freelance

temp work

When to start preparing for your next move?

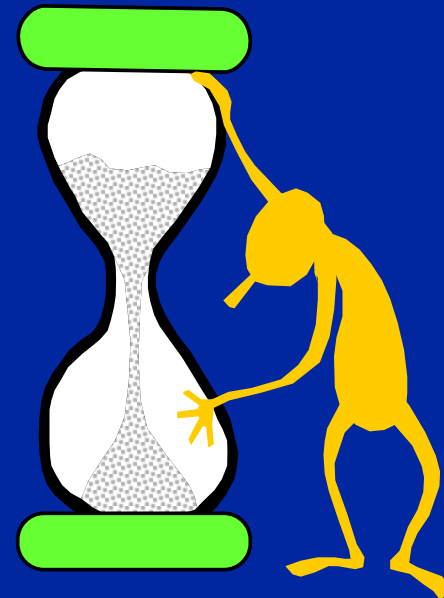


- in general: immediately
 - consider options
 - develop skills
 - establish references
 - develop network
- specific move
 - 12-18 months before leaving, or
 - as soon as someone inquires (whichever comes first)

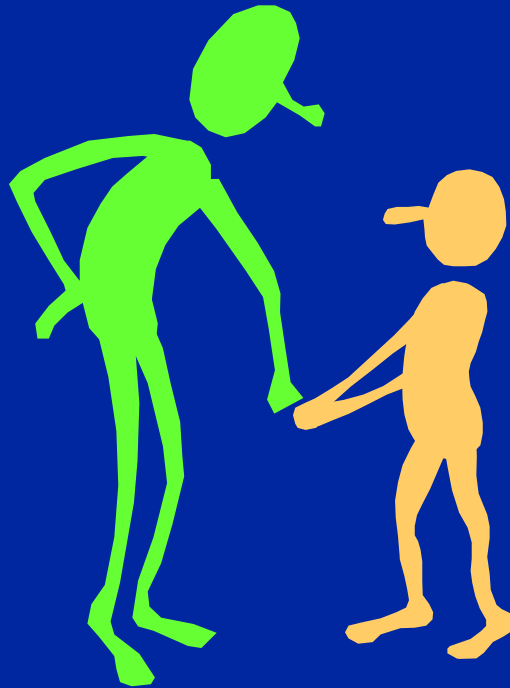
When to start preparing for your next move?

how long to stay in current rank?

- advanced degrees
 - PhD: 4-5 yrs
 - MD: 4 yrs
 - MD/PhD: 7-8 yrs
- postdoc
 - same position 2-4 yrs
 - total: 5 yrs



Final advice



Final advice

- find *mentors*

Final advice

- find *mentors*
- acquire *full range* of skills
 - doing science
 - communication skills
 - obtaining funds
 - supervising, mentoring, teaching
 - social skills

Final advice

- find *mentors*
- acquire *full range* of skills
- make choices carefully

Final advice

- find *mentors*
- acquire *full range* of skills
- make choices carefully
- be brave...and persistent

Whatever you do or dream
you can do – begin it.
Boldness has genius and
power and magic in it.



Johann Goethe

Useful Links

- Science NextWave and Careers
<http://nextwave.sciencemag.org/>
www.sciencecareers.sciencemag.org
- AAAS Science & Technology Policy Fellowships
http://fellowships.aaas.org/02_Areas/02_Global_Stewardship.shtml
- The Scientist: Best Places to Work 2008: Postdocs
<http://www.the-scientist.com/2008/3/1/53/1/>
- Genentech Postdoctoral Program
<http://www.gene.com/gene/research/postdoctoral/index.html>