



How to Give a Job Seminar and Why It's Not the Same as a Regular Scientific Presentation

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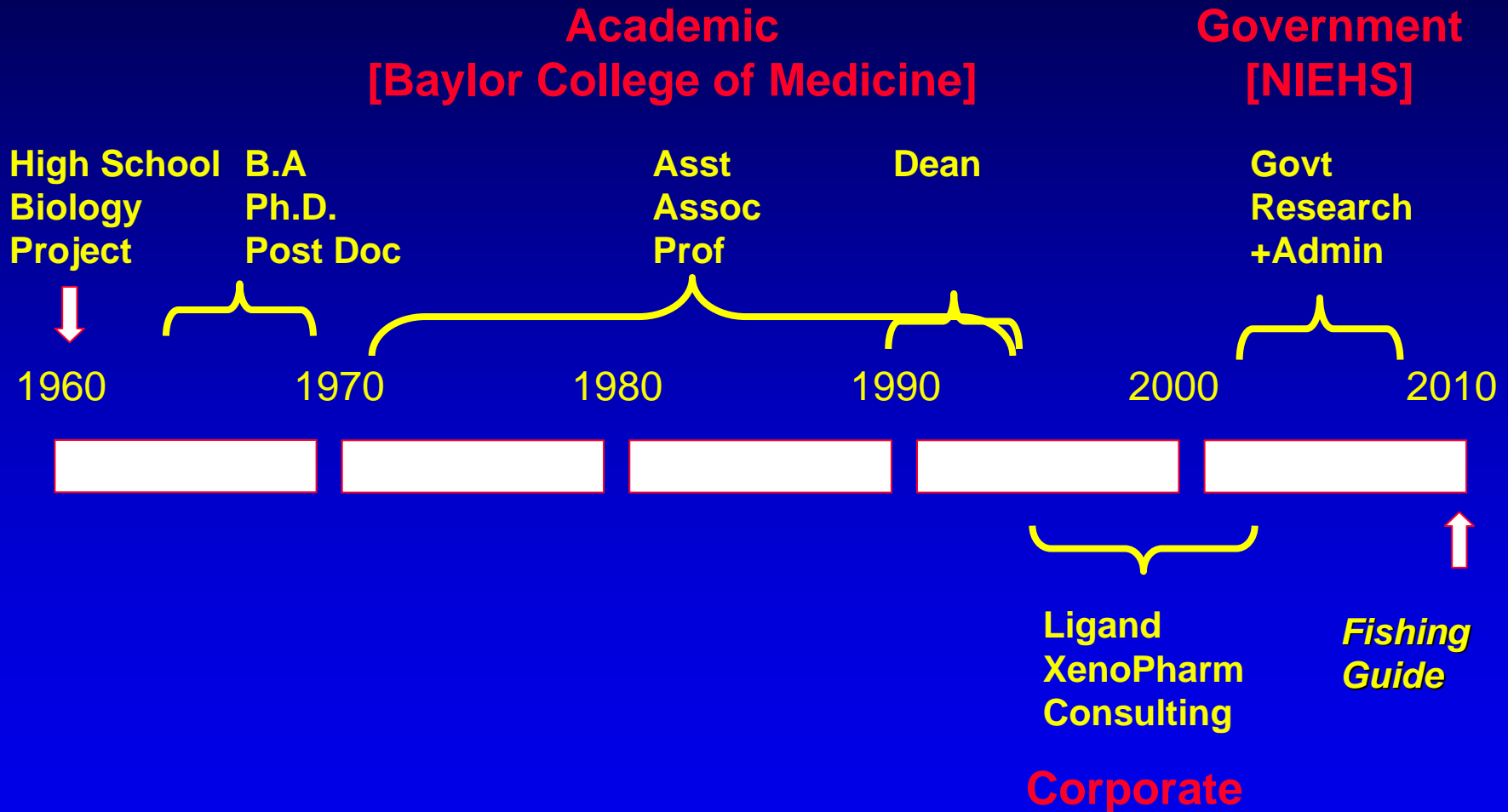
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OITE Trainees Toolkit Jan 2009



Schrader Career Timeline





THE OBJECT IS TO GET THE JOB OFFER

**That requires a vectorial exchange
of scientific information between
YOU and the Audience**



The Job Search Committee

- **Most of the search committee don't have a clue about your field**
 - Few know your boss
 - Few know your techniques
 - None know your jargon
- **They have defined criteria to meet**
 - What technology you will anchor
 - What project(s) you will serve on to start
 - What headcount you will inherit
 - What scientific resources you will need
 - Whose former lab space you are getting



You Must Stand Out in the Crowd

- **Are you just a worker in a big factory?**
- **What exactly did YOU do?**
- **Did you think up the ideas or just do what you were told?**
- **Did you collaborate?**
- **Did you ride everybody's coattails?**
- **Are you a good thinker?**
- **Can you discuss science interactively?**



Before You Go Presentation Skill

- **PRACTICE** your seminar, and not just in front of the lab
- It ought to be understandable to a reasonably-well-informed scientist, not just a specialist
- Practice your delivery
 - Tape record, or ask your friends to tell you if you say “uhhhh” all the time.
 - Practice with the pointer; don’t use it like a light saber.. It is very distracting!



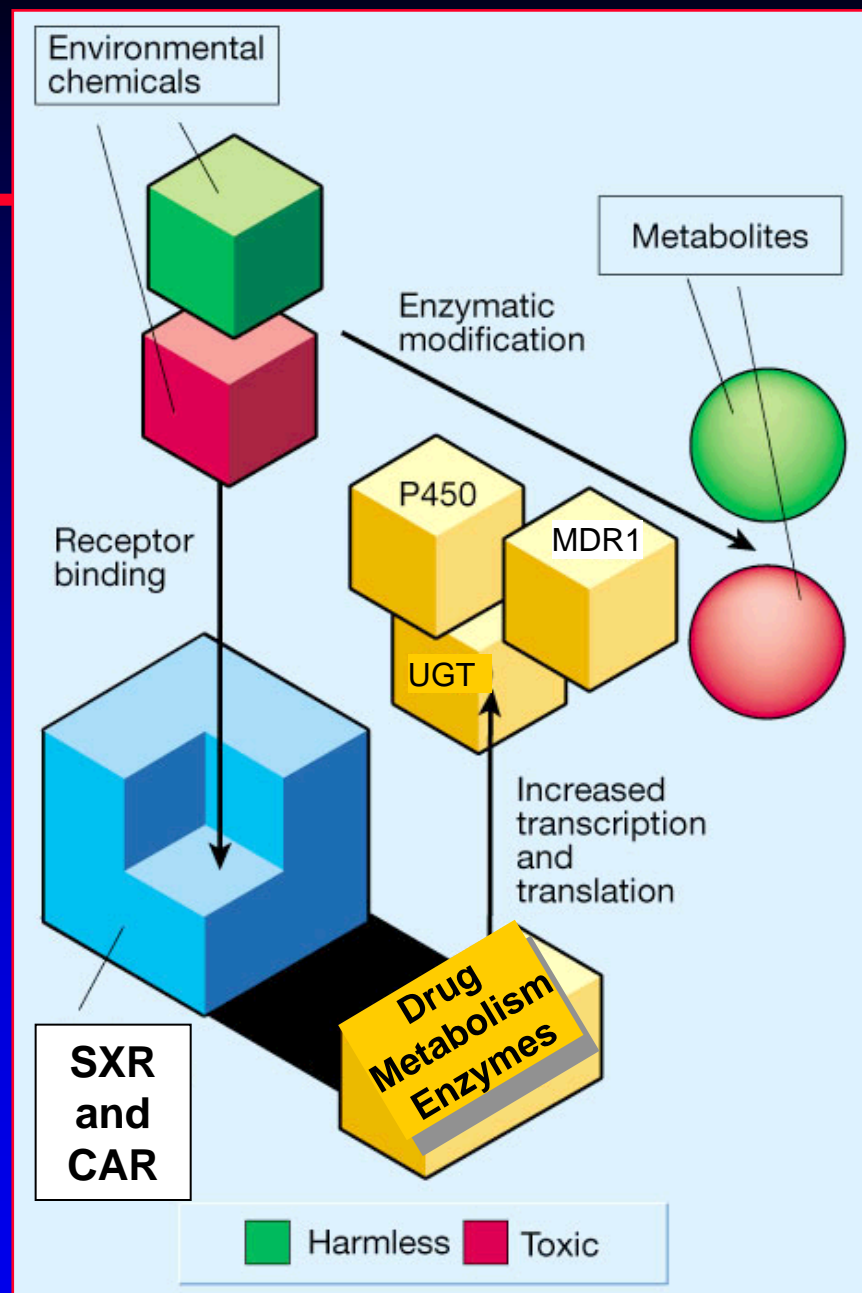
Before You Go Preparing the Slides

- **SIMPLIFY and LINEARIZE**
 - You are trying to educate them about your complex studies.
 - Cut and edit out panels of images, etc., to show **ONLY** the salient features needed to bring the listener to a solid conclusion.
 - Delete side issues
 - Any slide that you pass over in under 15 seconds is **OUT!**
- **Use procedural cartoons to describe methods**
 - Skip the tiny details, unless they are critical and you developed them.



Overview of the Pathway Triggered by Xenobiotic Sensor Proteins

From Lazar, M.A.
Nature, 407, 852-853, 2000





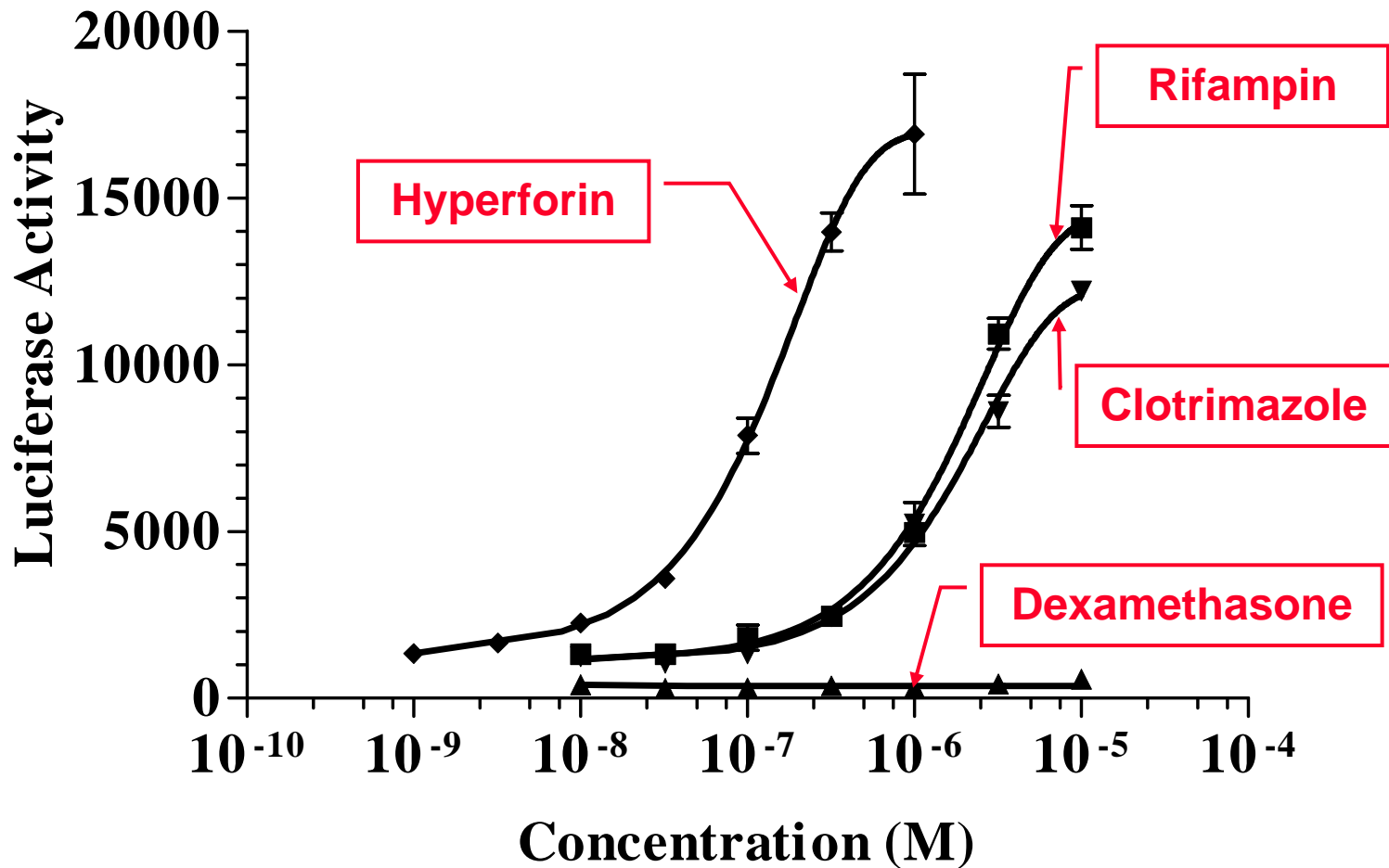
Before You Go

Reviewing the Data You'll Present

- **Don't try to convince the audience of something that is unsupported by the image in front of them, e.g.:**
 - **Overlapping SEM error bars mean NO SIGNIFICANT DIFFERENCE, not “slight effect”**
 - **Gel bands that are not different to the eye can't be explained away by “it doesn't show very well in this particular gel, but...”**
 - **Companies want to see dose-response curves and error bars, not bar charts**
- **Review the human disease context of your work and be prepared to discuss that aspect if it comes up**

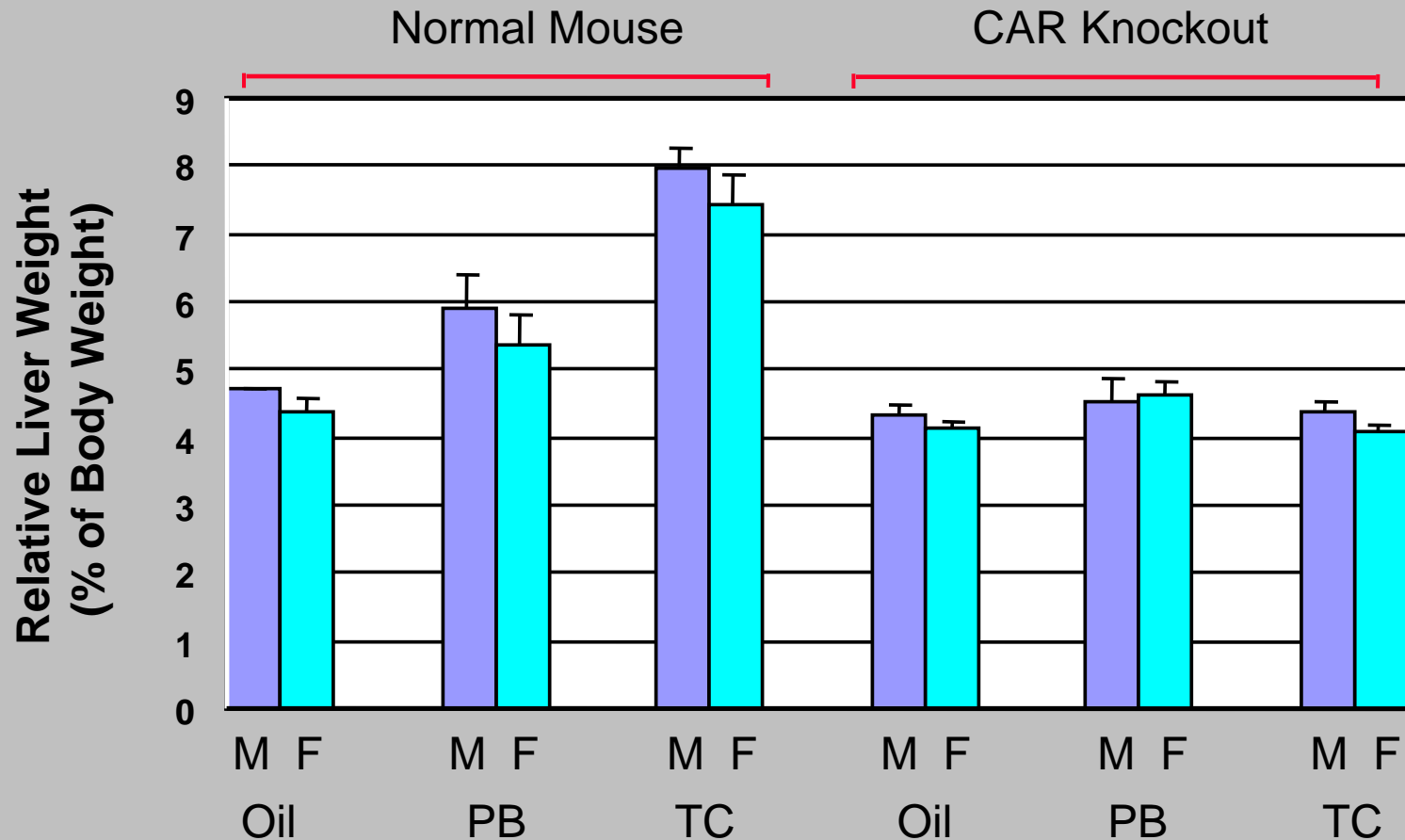


Dose-response Curves of Reference Drugs Gal4-SXR Chimera Assay





CAR Mediates Liver Enlargement (Hepatomegaly)





Before You Go Checking for Antagonism

- **Are any of the people you're going to see major players in your field?**
 - Don't give away any of the juicy lab secrets unless you and your boss are in agreement
 - Be sure to know in advance if they are likely to be in agreement with you or not
- **Do a quick check for late-breaking articles**
 - Someone will want to impress their own boss by asking you about an article that just appeared.



The Job Seminar

Overall Organization and Grammar*

- **FIRST 10 MINUTES (THIRD PERSON PLURAL: “They did this or that”)**
 - History of the field, and where your boss’s lab fits into the story.
 - END WITH where the field stood when you joined the lab
- **MIDDLE 30 MINUTES (FIRST PERSON SINGULAR: “I did this, I found that, I concluded xyz”)**
 - What you and your boss decided you should work on
 - How you approached it, what you found
 - How you interpreted the data and where you went next
 - END WITH what we know now that you’re done
- **LAST 5 MINUTES (FIRST PERSON PLURAL: “Our lab is planning to do xyz next, following up on my work”)**

* Use the ACTIVE VOICE, “we found” not “it was found that”



Expectations During the Seminar

- **MAKE IT FINISH IN LESS THAN 50 MINUTES!**
 - Academics have to get back to something else
 - Company seminars often run over one hour
- **They will interrupt to ask pointed questions**
- **Don't give answers unless you are sure.**
 - Especially, they may ask questions about drugs or brand names.. Don't guess
 - Don't argue or tell them they're wrong. Stick to your guns, but say "that's a good point..."
 - If they suggest a good experiment, or ask if you've done something, give the answer if it's been done.
 - Don't try to snow them by saying that it has been done, because the next question will be "what were the results?"
- **You can't know everything**



GETTING AN ACADEMIC JOB



The Real World of Academics

You Get Ahead Based Upon Three Aspects of Your Job:

- **Research**
 - Distinctive area within the department
 - Grants
 - Publications
- **Teaching**
 - Graduate or undergraduate?
 - Medical curriculum
- **Service function**
 - Committees
 - Core Laboratory



The Search Committee will be asking themselves “Can this person....”

- Compete in **science** in your chosen field
- Anchor a **key technology** and/or run a core facility
 - Gene transfer, knockout mouse, tissue culture
- **Teach** a required course, especially in medical school?
 - Histology, anatomy, pharmacology
 - “New curriculum” team-taught combined approach.
 - Does your work have “clinical relevance” to a 21-year-old first-year medical student?
- Write/think/plan/self-promote well enough to become **fully funded** from external sources within a couple of years and stay that way?



GETTING A COMPANY JOB



Scientific Research in a Company

● Good News

- Teamwork
- Fewer pressures to publish
- Planned approach
- No budget problems
- Access to new methodology
- Stock options, salary

● Bad News

- Shared science
- Can't publish the hot stuff
- More paperwork
- Deadlines
- Ultimate control by non-scientists
- No students, fellows



What A Company Hopes to Find

- **TEAM PLAYER**
- **Reliable**
- **On-time performance**
- **Good “people skills”**
- **Smart, self-correcting**
- **Able to accept criticism and make corrections**
- **Future potential**
- **Excellent scientific capabilities**



Research Distinctions Between Early-stage and Late-stage Companies

- **Early-stage (e.g., startup biotech)**
 - Much can be published, presented at meetings
 - Latitude to pick the direction and approach
 - Work much like an academic lab
 - You will multi-task
- **Late-stage (e.g., big pharma, big biotech)**
 - Key work is private, only off-hours science is cleared for public
 - Direction according to team needs and planning
 - Stratified levels of authority like Gov't.
 - Keep eye on the ball



Homework Before You Visit

- **Corporate Website**
 - **Corporate Mission: How do they plan to make money?**
 - **Scientific Mission: What is their technology base?**
 - ...Is it unique?
 - ...Is it proprietary?
 - **Scientific Founders**
 - **Scientific Advisory Board Membership**
 - **Corporate Board Membership**
 - **Patent Estate**
- **S.E.C. 10K Form**
 - **Significant matters, compensation of senior management, investors, equity partners**



The Job Interview Day: Doctoral Level

- No more than a day, maybe a half
- Seminar in biotech, maybe not in Big Pharma
- You may be taking someone else's job
 - They may not know it
 - They may interview you
- You will meet people on all levels
- You'll be done before 5 pm
 - Exit interview with HR person
 - No entertainment likely
 - No fraternity rush
- They will collect opinions, usually in writing



Composition of the Search Committee

- **Your direct supervisor**
- **Junior hotshot most familiar with current research in your area**
- **Other team members with whom you will work**
- **Some junior people, especially if they are known to be good interviewers**
- **Human Resources person who guides the process**



The Search Committee will be asking themselves “Can this person....”

- **IN ACADEMICS**

- **Compete in science** in your chosen field
- **Anchor a key technology** and/or run a core facility
- **Teach a course**, especially an entry-level requirement
- **Self-promote** to attract attention, fellows and grants
- **Publish** often and well
- **Become fully funded** and stay that way?

- **IN A BUSINESS**

- **Know a competitive scientific field**
- **Anchor a key technology** and/or run a process
- **Communicate effectively** by both oral and written means
- **Get along** in a team environment
- Plan and **meet timelines**
- Do work that makes **money for shareholders**



The Job Interview

- **Scientific**

- Are you well-versed in your field?
- Can you discuss the type of work they want you to do?
- Are you familiar with their published work?
- Are you familiar with the mechanism of action of their drugs or technology?

- **Corporate**

- Are you under/over-qualified?
- Will you be likely to stay?
- Are you a team player?
- Do you look like one of “them?”



Do's and Don't

- **DO** ask about their published work
- **DO** be sure that you meet your direct supervisor
- **DO** ask about your opportunities for advancement

- **DON'T** ask about their non-public work
 - They will not tell you how far along they are
 - They won't discuss proprietary methods or models
 - Their discussions may seem rather vague compared to discussions in academics
- **DON'T** expect them to keep the job open while you finish up your work
- **DON'T** expect to nit-pick over the size of your office, amount of lab space, etc... that only works in academics



What They Don't Particularly Care About

- **Your willingness to stay forever at their company**
 - People move frequently, giving only two weeks' notice
- **Your outside life**
 - Few will deal with your needs for flexible working time
 - All will deal with staggered start-stop time
- **Your other business dealings**
 - You are paid full-time; you cannot have dealings with competitors
- **Your other scientific interests**
 - You can work on stuff after hours; rarely do they want to even know about it.
 - You **CANNOT** bring or send out clones, reagents, protocols from any outside source... especially ones you made before.



The Job Offer

- **It will come from the Human Resources people, not from your supervisor**
- **It may come at the end of the day, but usually by FEDEX within a day or two.**
- **There will be a description of your reporting, your salary, stock options**
- **There will be a drop-dead date; it can be slightly extended but not for long.**
- **Clarify any uncertainties: relocation payments, bonus (rare) or anything else**



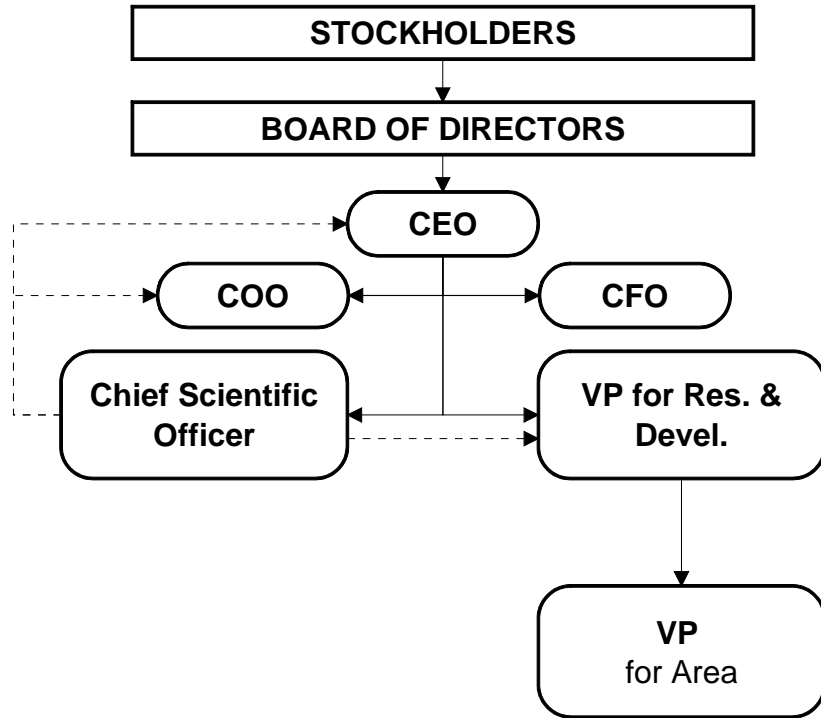
Welcome to MicroPanDNALogix

YOU ARE HERE

Staff Scientist
One Assistant

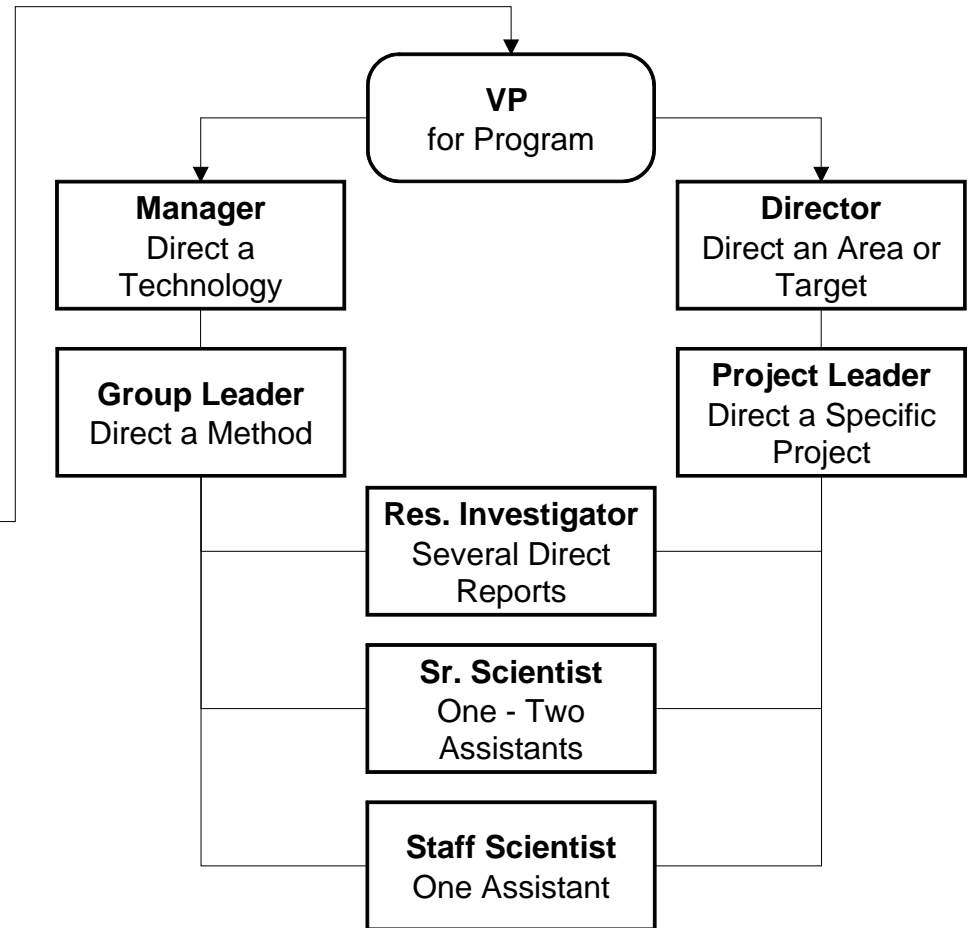


The Corporate Org Chart



The Strategic Team

The Operations Team





... and finally,

DON'T SCREW UP!