

Navigating the first three years as junior faculty: building your research enterprise



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<http://www.youtube.com/user/GoProCamera?v=bd7wvpyzNc0&feature=pyv&ad=4490186534&kw=boat%20crashes&gclid=CNXNpPyM3KACFRBM5QodxUIdCw>

Sizing up institutions for the best fit



1. Evaluation of the institution.

- What is the general mission?
 - If teaching, what is the time commitment?
 - If research, what is the time commitment?
 - If clinical, what is the time commitment?
 - Service to the university community.
 - How much weight is given for each for tenure?
 - What is the amount of federal funds brought in by investigators at the institutional and departmental level?

Sizing up institutions for the best fit



2. Evaluation of the department.

- What is the general mission?
 - Clinical versus Basic science.
 - What school is the department in?
 - Size and diversity.
 - Is it unified or does it function as sub-groups?
 - Are there other faculty (intra/extra) you can tap into?
 - Do you see your style/personality fitting in?
 - What venues are available to you for recruiting students?

Sizing up institutions for the best fit



3. Evaluate reputation of the Chair.
4. Evaluate infrastructure: lab space, core facilities, shared equipment, technology.
5. Don't settle.

Launching your research/scholarly activity



1. **Set long-term goals (5-yrs) for your research program.**
 - What will be the primary focus of your research?
 - What will be your secondary interests?
2. **Set short-term goals (2-yrs) to build up a foundation for your long-term goals.**
 - Generate necessary research tools/systems.
 - Generate preliminary data for R01-size grants.
 - Publish leftover papers from postdoc.
 - Has your primary project matured enough?

1st year: It's all about you!



1. Spend ALL of your energy on building up your lab and advancing your science.
 - Say “no” to teaching and service-oriented committees.
 - You are the brains and the hands. Do experiments.
 - Hire a technician and train to be independent.
 - Participate in activities that make you visible to students.
 - Seek out senior faculty mentors. Be proactive!
 - Apply for grants where the cost/benefit ratio is good.
 - Stay focused and build on your postdoc research.
 - History is absolutely critical for further funding.

2nd year: Transitioning from the scientist to teacher, mentor, administrator, accountant, fundraiser, colleague



INPUT

Jr. faculty peers

Student trainees

OUTPUT

Sr. faculty mentors

Postdoc trainees

Collaborators/
former mentors

Technicians

Non-trainee students
(med, grad, undergrad)

Workshops/
Faculty development

Teaching

Study sections/
Journal reviewer

Presentations

Trial & error

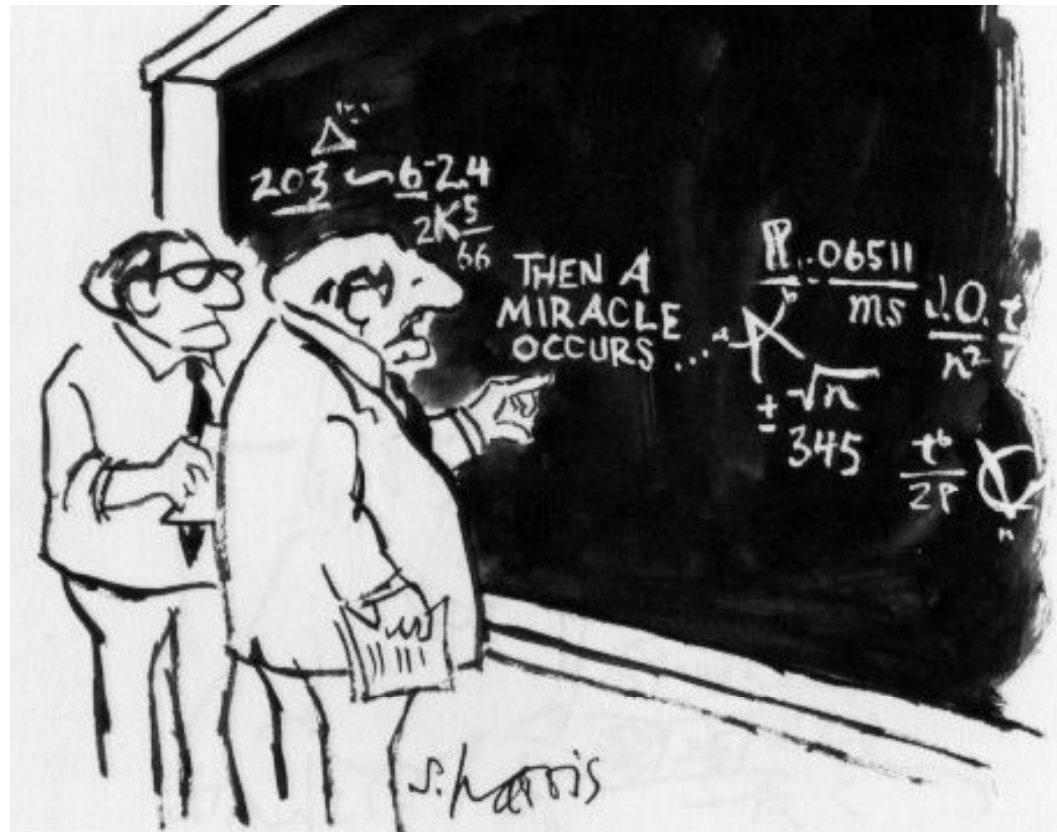
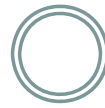
Grant writing

Manuscript writing

Regulatory affairs



3rd year (and counting...): Refining your skills as a mentor and as a grant writer



"I think you should be more explicit here in step two."

Proactively develop your grant writing



- **New investigators are evaluated heavily on their history of research.**
 - Build on what you established during your postdoc.
 - Pursue scientific questions that you have both the “know-how” and resources to accomplish, but are creative and high impact.
 - Establish collaborations with others for expertise in areas you are weak in.
 - In part, your history and thus, content of your proposals, will determine the study section for review. You want to be in one where people are familiar with your pedigree, science, and strengths.
 - Get your colleagues to provide feedback!



"Never, ever, think outside the box."

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Your research productivity is directly proportional to your ability to mentor



- **Being a scientist doesn't equal being a mentor.**
 - Observe mentoring style of faculty who are successful in training students/postdocs.
 - The culture of the lab reflects who you are as PI.
 - Clearly state your expectations.
 - Each person is different and you need to learn the most effective method to mentor them.

National Institutes of...

THE NINE TYPES OF PRINCIPAL INVESTIGATORS

Big Talker

These results have clear implications for the cure of cancer in our lifetime



(+) Makes your data seem really important
(-) Doesn't really understand what you do


Slave Driver

You know, 60hrs a week just isn't going to cut it in this lab



(+) You get lots done
(-) You forget your spouse's name


Demi God



(+) Power, prestige, better job prospects
(-) You never see them

Control Freak

Why didn't you use 25mM NaCl in the second wash?



(+) Knows exactly what experiment you're doing
(-) Knows exactly what experiment you're doing

Science Wonk

Why don't you try this new reverse gyropismatic amplifying DOR technique?



(+) Knows everything about science
(-) He's a total geek

Laid-Back


Make it quick, I've got a 2:00 tee-time



(+) Leaves you alone
(-) Doesn't care about your results

Psycho

WHAT DO YOU MEAN YOU MADE A MISTAKE!?



(+) Keeps you on your toes
(-) Scary

Small Town Grocer



(+) Happy with his own little niche
(-) Little Ambition

Rising Star



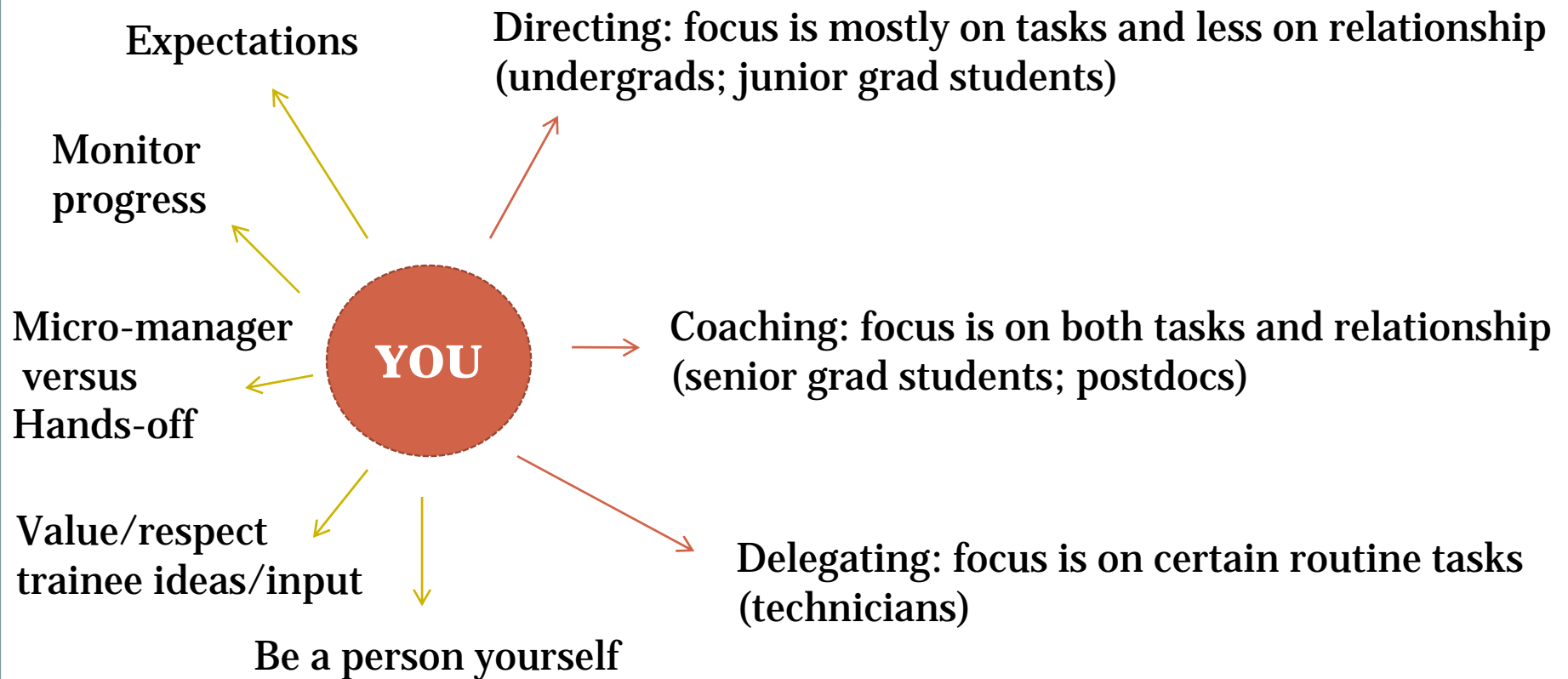
(+) Exciting Ride
(-) Not much room for you

Methods of mentorship



INPUT

OUTPUT



**How long your Prof.
thinks it should take
to do something**



**How long it'll
actually take you
to do it**



"Trivial"

=

There goes your week.

"Easy enough"

=

Pull your hair out for
a month.

"About a week"

=

Actually, this is pretty
easy. He/she doesn't
know there's technology
that will do this for you
now. Take the week off!

"Should keep you
occupied for the rest
of the term"

=

He/she will forget they
asked you to do this by
the end of the term.
Don't even bother.

"This might make a
good thesis topic"

=

Say hello to your
thesis topic.

"Hmmm..."

=

Uh oh.

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Things I learned as a postdoc that were invaluable for making it this far...



1. **Perseverance through failure.**
2. **Write, write, write fellowships.**
3. **Review your mentor's grants.**
4. **Review manuscripts. Learn how to properly critique.**
5. **Initiate collaborations on your own that will continue no matter where you go.**
6. **Discuss (NOW!) with your mentor what projects/resources you can take with you.**