

The Business of Research

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Disclosure

The following relationships exist related to this presentation:

None

The following relationships exist:

Advisory Board participant: EMD Serono, Novartis

Special Advisor: Kite Pharma

Goal: be a successful research scientist



Undergrad
Grad School
First postdoc

Refined Goal: be a successful, funded, tenured tumor immunology research professor performing translational cancer research at a top university that values bench-to-bedside research, with colleagues that I can work well with and actually like.

Goal: be a successful research scientist

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What the rest will be about

Refined Goal: be a **successful, funded, tenured** tumor immunology research professor performing translational cancer research at a top university that values bench-to-bedside research, with colleagues that I can work well with and actually like.

Good fit for environment

How? Look around and see what everyone else's careers and successes look like.
Figure out what they did to get there, and **do that**.

Also, listen to people complain, figure out what happened to get them into bad situations, and ***don't do that***.

Specifics:

1.Say “yes” regularly, pretty much whenever someone asks you to do something (must be followed by #2).

2.Do whatever you said that you’d do, do a really good job, and do it on time.

3.Repeat.

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You gain experience and contacts by participating on committees, poster judging, being a grant co-investigator, giving a seminar, teaching a class, reviewing manuscripts and abstracts, joining a working group or society.

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Some of these
will be cool.

You are seen as: a focused, reliable, hard working colleague who contributes positively to the department/program/university. You are an asset and will be remembered positively for future opportunities.

You can start saying “no” because you are too busy being involved with more important/interesting things later.

More Specifics:

1. Get funding. Any funding, from anywhere.
2. Find people who will read your applications and critique them.
3. Listen carefully to critical comments. Busy, experienced people who could have given you the brush-off took time out of their day to read your application and comment on it. *They are (probably) trying to help you.*
4. Present your data wherever you have the opportunity to do so. See #3.

More Specifics:

Start with a \$5,000-\$25,000 internal seed grant or developmental grant

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4. Present your data wherever you have the opportunity to do so. See #3.

Practice your talk. **KEEP TO TIME.** Show 1-2 slides per minute. Your “1 hour seminar” should take 45-50 minutes when you practice it. *Too short* = you don’t have enough data. *Too long* = you annoyed your audience and did not leave time for questions and discussion.

Criticisms (even constructive criticisms) are hard to give and hard to receive. Make notes, keep your emotions in check and do nothing for >24 hours until you calm down and get rational again. There is something to be learned from what you heard. Learn it.

More Grant Specifics:

1. Biosketches now need to be adjusted specific to every new grant. *Keep up your CV in real time*, then you can use it to keep up all biosketches (and any other personnel and *promotion-related* documents).
2. Fill out all of the forms. Make sure they match each other.
3. Read successful grants, start to finish (not just the 12 pages of research strategy). If you can get the “pink sheets” as well, even better.
4. If you get the pink sheets, get someone to decode them for you.

More Grant Specifics:

Shows attention to detail, and keeps from annoying the reviewer. If the reviewer starts to see mistakes and inconsistencies, then they focus on that, and not your science.

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Grant reviewers have jargon, too. Learning it can help you.

Historical note: grant critiques used to be printed on pink paper and mailed (in the US mail) to the grant submitter.

More Specifics:

Take advantage of the training and support offered by your environment:

Classes, seminars, career training workshops

“Making the Right Moves” handbook from HHMI was good.

Pre-submission internal written grant reviews

Internal “work in progress” seminar presentations

Writing groups

More Specifics:

Write manuscripts and get them published in great (or good or decent) places.

Suggested math:

#abstracts = #original research papers

(clinical trials: 2 abstracts/research paper)

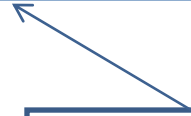
#reviews/commentaries < #original research papers

First+last authorships = 33% of publications

More Specifics:

Write manuscripts and get them published in great (or good or decent) places.

If specific impact factors need to be achieved, find that out



You work on projects, present interim data, then publish them

Suggested math:

#abstracts = #original research papers

(clinical trials: 2 abstracts/research paper)

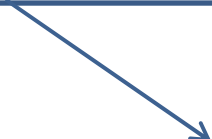
You don't pad your CV with reviews

#reviews/commentaries < #original research papers



First+last authorships = 33% of publications

You lead some projects and collaborate on others (Exact math varies with institution)



Lab Management

1. Find good lab staff
2. Treat them right
3. Create a good environment for them to succeed
4. Tell the lab what is expected of them, give feedback
5. Sometimes you have to discipline and fire people
6. The success of your students/postdocs is your success

Lab Management

1. Find good lab staff
2. Treat them right

1. Personal recommendations are great. Always call people who know the applicant ***on the phone***. This way, they will more likely tell you the truth and know they can't be sued for it, and you can hear their tone and any hesitations to your questions.
2. Be the best mentor you can be. No yelling or unprofessional behavior. Refer them to others for feedback and additional mentoring. Help them get the next position. If you are running out of money, tell them in time for them to get another job. If they need help (technical or otherwise) point them in the right direction.

Lab Management

3. Create a good environment for them to succeed
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5. Sometimes you have to discipline and fire people
6. The success of your students/postdocs is your success

3. If they do the work well, they should complete and publish good projects. You create that environment, they do the work.
4. One first-author paper a year? Two? SITC abstract each Fall? Critical preliminary data for a grant application? Learning a new system? Make it clear.
5. Learn the HR rules for disciplinary actions, and document everything in an unbiased way. First, try to help fix things, Second, do exactly what is needed to fire them under the rules.
6. Better mentors get better student/postdocs who generate more better data faster for better papers and more grants.

Lab Money Management

1. Stay within your budget

2. Track spending

3. Don't underspend

4. Don't overspend

5. If you need a no-cost extension, ask for one

6. If you need the grant restructured, ask for that

7. You need to spend money to make money

Lab Money Management

1. Stay within your budget

2. Track spending

Meet monthly or bi-monthly with your grants manager.

3. Don't underspend

4. Don't overspend

You only have the amount you have, and the NIH may (will) cut the money they said they'd give you. Do not over-spend and don't leave more than 25% unspent per grant year.

5. If you need a no-cost extension, ask for one

If things are going slowly and you'll have money left, work with your grants people to arrange an extension to the grant's end date (no extra money, just time).

6. If you need the grant restructured, ask for that

If things are going at a very different pace from what you anticipated, work with your grants people and NIH (or grant source staff) to arrange to have the funds restructured to meet a new timeline.

7. You need to spend money to make money

Sometimes it "pays" to spend a big chunk of funding on an important new thing to enable stronger future work and more/better grants.....choose wisely.

Why is money management important?

If you run out:

1. You have to fire people
2. You can't buy anything for experiments
3. Your bosses are annoyed/disappointed
4. No new data means no next grant

If you are running out:

1. Slowly downsize the lab (help lab staff find a new position)
2. Reduce spending rate (tell the lab how much they can spend per month—it may make them “more creative”)
3. Apply for money anywhere and everywhere (if the pay line is 10%, and you apply for 10 new grants....maybe you'll get one)
4. Talk to your bosses (there may be internal “bridge” funds you can apply for)

In Closing

Biomedical research can be the best job in the world.

Stay focused on your goals and you will make strides forward, generate great new, important data and enjoy success.

Acknowledgements

Mentors:

(Not my grad school PI)

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