Notes from an academic discussion on financial planning

**Academic group discussion**

Scenario - You are a new junior faculty member who is just starting up your lab. What financial strategies do you use to manage your budget and make financial decisions?

**The group will cover these concepts:**

1. How to calculate burn rate  
   a. How far in advance to calculate the burn rate?  
   b. What expenses go into the calculation?  
2. Examples of opportunity cost in the lab  
   a. Picking projects  
   b. Deciding on collaborations  
3. Discuss strategies that impact financial planning for stakeholders  
   a. Purchasing equipment  
   b. Hiring personnel  
   c. Applying for grants

**Questions asked:** [Discussion in gray text]

- **How can forecasting my budget help me decide whether to apply for grants?** Forecasting can help you determine how many months or years you have to run the lab. One way to plan is have enough money to run a lab for at least two more years. Any decision about hiring or equipment, all of those things are put in that light. Why two years? It accounts for the time to write, revise and get a grant (NIH or foundation). You could do the initial submission and the revision and second submission; totaling an 18 month period.

- **In terms of budgeting projections, do you estimate a fixed cost? How much you spend every year on salaries, technology, equipment and reagents?** A general rule is that every person is going to cost you $10,000 a year in reagents. So if you have 5 people in your lab, budget $50,000 a year for reagents; then calculate the monthly cost.

- **What is a reasonable frequency to check your budget?** Depends on how your lab is doing. The rougher the times, the more often you might check. Maybe every other month, but at least every quarter.

- **What if you get exciting results and need to do an expensive experiment?** That’s an opportunity cost. If it’s going to be a $5,000 experiment, then sit down and figure out if there is some way to generate preliminary data to determine whether it’s worth investing in. But if it’s a $500 experiment, then just do it.

- **Would it benefit graduate students and postdocs to keep a budget?** It might help postdocs to think about it and start planning. But it could also be a burden. Maybe you want your grad students and postdocs to focus on the science and if buying a kit saves them a day, then it might be better. This type of planning could be useful to discuss before performing the experiments.
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- Do you set a budget for your trainees? You could set an amount like $500 or $1000 and any orders more than that would need approval.

- Is there a cost at which you’ll cut experiments? Say you go down a rabbit hole and realize the project won’t work out. Do you have an amount you spend? It could be a dollar amount, or a time limit, like six months. It’s hard to cut projects, emotionally and intellectually, especially if you and the trainee are invested. But you have to keep an eye out for it. You have to ask if you’re doing the right experiment, if there is a technical problem, or if you’re asking the right question.

- What about choosing between products or equipment to purchase? Consider the quality, of course. And think about value – maybe a $600 kit gives you 100 assays whereas a $400 kit gives you 25 assays. Pick the most economical to do your work.

- TIP- buy at the end of the year. December is a time when some sales people want to get rid of inventory or meet quotas. Prices are negotiable.

- When you are budgeting, do you also take into account tax and all the handling costs? Yes, take into account shipping costs when you budget.

- Does your academic department share budget sheets you can use? Yes, but if it’s not user friendly, consider making your own. Basically, it could have the allotted monthly expense at the top and then minus, minus, minus your expenses.

- Does your academic department have finance people to consult? Yes, and they are very helpful because they think about the finances all the time. Most scientists don’t think about finances, and wait for their budgets to be sent to them. But consider being proactive, so you’re not surprised, and can make decisions in your timeline (don’t wait for finance people to give you your projections).

- How do you make personnel decisions? Based on what you can afford? One saying is, “Don’t pass up on good people.” Hire them and figure out how to pay for them. One thing to leave up on your website is “Hiring postdocs”. If someone is really good, then hire them. You may want to be more careful with graduate students, because they can often require more mentoring. Also remember to encourage your grad students and postdocs to apply for fellowships.

- Does having a lab manager justify the higher salary? It depends on the size and needs of your lab. If you can afford it, then having someone with a knowledge base and institutional knowledge is helpful. It helps with transitions and helps keep the lab running more smoothly and organized. Or you could be organized about lab check-ins an check-outs.

- For the staff-type positions, do you offer incentives if they tell you they will leave? If someone gets another offer, I encourage them to bring it back so we can discuss their goals and their needs. Maybe I can offer them a raise. Otherwise, giving a raise is difficult unless it’s when a contract is up for negotiation, like a postdoc contract is up for renewal every two years [at UCSF]. When you consider it – the opportunity cost of hiring and training someone new is very high. It’s worth considering the financial incentive to retain good people.

- How do you find the right people to hire? Posting on generic society websites could result in
tons of CVs that aren’t tailored to your research. The opportunity cost is going through dozens of applicants that aren’t a good fit. Instead, send emails to established PI’s both within your field, and outside your field. Tell them what skills you are looking for in a postdoc. Have the candidate come in for an interview. Talk to everyone in the lab. If one of your lab members brings up a concern, it tends to be manifest into a real concern if you hire them. Does someone bring up the concern or do you think the new hire may disrupt the lab culture or environment? It’s more time and energy to handle conflicts in the lab and fire, so it’s better not to hire someone you’re not confident in. Examples could be a disorganized person, or isn’t a thoughtful experimenter (doesn’t do the right controls). Talk to the references, too. Ask about interpersonal skills.

- **How do you decide whether to invest time and money in collaboration?** Consider the nature of the project and your interest. Do you have the skills and infrastructure to collaborate if someone asks you – i.e. do you have someone willing to work on it and they are skilled at it. What is the scope of the project? How involved do you need to be? One experiment that’s a panel in a figure or are you planning experiments for the core of experiments? Does the collaborator have a good reputation as a good collaborator?