Mentorship and Faculty Startup

Key Activities that require wisdom and advice:

1. Lab Startup

2. Research directions and grants

3. Teaching

4. Service

5. Tenure and beyond

6. Mentoring your own trainees

Most scientists enter their first (and second) faculty position with almost no understanding of the financial and management aspect of running a research group, little teaching experience, no knowledge of faculty life,

Your first mentors should be faculty you trust here at Stanford to help guide you through the startup Process.

Also, find young faculty at your future institution to help you before you arrive.

Find experienced people who share your background and have been through the process

Search for Faculty Mentors at your new institution

- a couple

    experienced

    younger, recent hire

Guide you through the travails and challenges
of junior faculty-hood

Teaching?

• undergraduate or graduate classes?

• how is teaching valued?

• teaching load?

• new technologies and approaches

Service?

• Committes? Which ones? If at all?

• leadership training

• understanding the University and its workings

Mentoring your own trainees

• clear guidelines and expectations

• regular meetings to assess progress

• set goals and review

• encourage multiple mentors

• discuss and expose your trainees to career options

Getting started

1. Before you arrive: the "startup package"
2. Managing your startup funds
   Setting up your laboratory--purchasing equipment and reagents
3. Getting people in your laboratory
   Recruiting students
   Hiring postdoctoral fellows and staff
4. Managing your resources
5. Managing your people
6. Growing your laboratory
7. Preparing for your first grant
8. Budgets and finance

Startup Packages

Startup funds represent your major source of money
For the first 2-3 years of your laboratory.
Spend Wisely!

With startup money you may have to:
1. Buy Equipment
2. Pay part of your salary
3. Pay for staff, student, postdoc salaries
4. Pay for reagents
5. Pay for instrument user fees
6. Pay for maintenance contracts
7. Pay for renovations

Negotiating a good startup package.

1.   Calculate the equipment, glassware, reagent needs
To stock your laboratory.
2. Get quotes for large equipment purchases.
3. Let the department pay your salary for first years
4. Avoid heavy user fees for years 1-3
5. Light teaching load
6. Administrative support provided by Dept.
7. You do not pay for lab renovations

Get all promises in writing from the chair/Dean of your
Department and school.

Startup--how big numbers move rapidly to small

Joanna Smythe Blow receives a startup package of $600,000. She starts on July 1, 2006 as an assistant Professor at a salary of 80,000 year in a prominent Medical school. What happens to startup.

She has her salary covered in years 1 & 2, then must Pay 25% and finally 50% of her salary from her funds In years 3 & 4

She will equip her lab with standard wet lab equipment, And purchases a xylophobochromatoscope (central for Her work) for $250,000

She will hire 2 postdocs (without funding), 1 lab tech And a graduate student (not on fellowship)

Start with 600,000 on July 1, 2006

Purchases xylophobochromatoscope--$250,000
On day 1. 350,000 left.

Purchases $100,000 of lab equipment. Say
UV spec, FPLC, centrifuges, PCR machine, glassware

250,000 left

Hires 2 postdocs--50,000/year each (salary + benefits).
1 Lab tech--50,000/year

In 2 years, no more money!!!

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Your Lab Space and Arrival

How much do you need?--learning about Square footage
and bench space.

What is yours and what is common space.

Is it ready? Are renovations needed?

What is involved in renovating space?

Should you wait or go?

Remember…..Renovations can take (a lot) of time

Start early, before arrival.

Example:

I do NMR…….I arrive in July, but no spectrometer
Must:

a. Order spectrometer

b. Prepare/renovate room
    a. Planning, permits, waiting, construction

Managing your startup funds: Equipment purchases

One of the joys and pitfalls of faculty-hood is lab Setup--you get to go on a shopping spree

However, go slow…..

- see how other laboratories are equipped
- get advice about vendors
- get quotes from multiple sources
- use shared equipment where possible
- buy what you need to use every day!

However, don't overspend

Better to have a lab full of people and sparse in equipment

Establish relationships with critical vendors

• negotiate price, accessories, delivery date
remember…some instruments take time
to deliver

• assure that space is available and appropriate
for sitting a given widget

• think about service contracts

• understand the basics of the university
procurement system

Filling your lab….with people

Staffing is the most important aspect of starting a lab

Three genres:

• graduate students (undergraduates)

•postdoctoral researchers

• technical staff

First, Determine your true needs

What will be the initial focus of the laboratory?

Who will train the members of the laboratory?

What is the "talent pool" like?

Don't be flattered!

Recruiting Graduate Students

- Get yourself known
  - give a seminar
  - teach a graduate class

- use rotation system as a way to get your laboratory known

- choose wisely/talk to your colleagues

- make your expectations clearly known

- lead by example--first graduate students are often the key to success

- build slowly

Recruiting Postdoctoral Fellows:

• start looking immediately

• adds don't work

• go to conferences/meetings to get yourself known

• use overflow from your colleagues

        would you postdoc for you?

Good postdoc(s) is the key to early career success

Recruiting Postdocs

Check references, best from people you know and trust
Call--people often tell you the truth over the phone.

I usually request 3 letters of recommendation

Invite for an interview--NEVER hire someone sight-unseen

Structure the interview day (not too much)

Candidate should present a seminar first
judge their scientific approach
their skill set
Their ability to think critically, answer questions
Their personality--are they testy? Nasty?

Candidate should meet with individual lab members

Recruiting Postdocs

Get the opinion of others (lab members, etc)
Ask Key questions.

Why do you want to work in my lab?

What are your career goals?

What projects have you led?

Do you like to work independently?

What are possibilities for postdoctoral
fellowship funding?

Offering a position

Usually University has an official wording of
An offer letter.

Term of employment

Salary--usually set by university--use NIH guidelines

Visa issues for foreign fellows….usually J-1

Contact others who have interviewed and tell them
Politely that you will not be offering them a position

Hiring Staff

- Think hard about this…..they are real employees

- Will it be worth the expense?

- What tasks will you have them do?

- Define the job precisely.

- What are the advantages/disadvantages?

Building towards your first grant:

• need preliminary data!!!…not worth submitting to NIH without it.

• NIH funding right now is difficult (paylines 15%) but not impossible….lots of sympathy to young investigators

• Takes 9 months from submission to $$$ if you are lucky
 so plan accordingly

• Get advice from your (younger) colleagues

**Get Advice from your mentors on your grant
and timing of submission**

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NIH budgets

NIH budgets are normally modular (you ask for funds in $25,000 increments, up to 250,000 per year.

Costs are divided into direct (they go to you) and indirect (they go to the university). You request direct costs

-your salary (part)
-staff salary
-postdoc salary
-graduate student stipend
-reagents/consumables
-equipment

Lets say 30% of your salary + benefits
        40,000
1 postdoc 45,000
1 tech   50,000
1 graduate student 35,000

170,000 already
Now consumables etc……

When should you submit?

What about alternate sources of funding?

Awards
Keck, Packard, Searle, etc.

other grant sources

NIH Grant Submission and Preparation

- RO1--Investigator-initiated research

- P01--Program project grants (collaborative)

  - due 3 times a year

  Feb. (march) 1, June (july) 1, Oct (Nov) 1.

Standard RO1 Contents

• specific aims

• background and significance

•preliminary results and/or progress report on past grant
period

• research design and methods

Spans 3-5 years of work
3-5 researchers

Submission

Assignment of a Scientific Review Group (SRG)
often called a "study section"

Scientific Review

Research Project Evaluation Criteria

Significance: Does this study address an important problem?
If the aims of the application are achieved, how will scientific knowledge be advanced?
What will be the effect of these studies on the concepts or methods that drive this field?
Approach: Are the conceptual framework, design, methods, and analyses adequately developed, well-integrated, and appropriate to the aims of the project?
Does the applicant acknowledge potential problem areas and consider alternative tactics?
Innovation: Does the project employ novel concepts, approaches or methods?
Are the aims original and innovative?
Does the project challenge existing paradigms or develop new methodologies
or technologies?

Composition of the SRA "study section"

20 members--one chairperson

4-5 NMR people

4-5 x-ray crystallographers

4-5 computational biologists

Mixed constituencies…..

Grant is assigned to 4 members of the study section

  for detailed review--1-2 months before meeting.

  2--primary reviewers (written comments)

  2--secondary reviewers (oral or written comments)

Study Section Meeting

- 2 full days

- all grants for a given cycle are discussed and scored

- initial discussion on triage--lowest 50% are NOT discussed.

- primary reviewers read their comments

  - secondary reviewers comment

  - general discussion

- scores are given

Grant Scoring

Scores range from 1.0 (highest priority) to 5.0 (lowest)

The overall score from the SRG is changed to a 100 score

"Priority Score" 100-500

Percentile Ranking

Funding---based on Priority Score/percentile

Payline changes with budget 12-30% of grants
Funded.

System Works and is as fair as it gets

Lots of sympathy for beginning investigators

Managing your grant funds:
       get advice from colleagues and staff
       good accounting and regular reports
       learn how to balance multiple sources of money

Successful grant management avoids many problems

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Good Luck!!