Building Your Lab*

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Abstract

This is a conversion of a presentation given at the Negotiating the Ideal Faculty Position Workshop given on October 14-16, 2007.

1 Building Your Lab

- Space
- Equipment
- Personnel

2 Physical Space

- Moving into existing space
- Lab remodels
- New building space

3 Existing space

- Is the space adequate for your needs?
  - Proximity to colleagues
  - Access to Dept/University equipment
  - Proper Air/Vacuum/Water for equipment
  - Hoods (chemical and tissue culture)
  - Air handling and vibration
- Does it have desk space for students and postdocs?
- Is office space separate?

4 Build or Remodel

- Start early
- Do the research
- Set a bottom line
- Be actively involved in the process

*Version 1.2: Feb 1, 2009 9:26 pm -0600
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5 Start Early

- It usually takes 6-12 months to build or remodel a lab
- Specify a desired date of completion during the negotiation
- Contact equipment vendors (for specs)
- Consider options for teaching or grant writing efforts until the space is complete
- Identify temporary space for lab work

6 Do the Research (I)

- Visit state-of-the-art labs
- Site visit
  - Meet your project manager
  - Location: avoid location-specific problems that affect your research, e.g., vibration, freight elevator availability, etc.
  - Infrastructure: air conditioning, ventilation, DI water system, gas lines, etc.
  - Ask people who know the lab

7 Do the Research (II)

- Collect information on equipment
  - power requirement
  - heat generation
  - waste generation
  - Other needs for equipment: gases, water, etc.
- Leave space for future expansion
  - Predict future equipment needs

8 Set a Bottom Line

- Make a list of "must" and "must not" and be firm
- Do not expect future improvement
- Take into consideration future research needs

9 Be Actively Involved

- Why
  - You know your needs the best.
  - Good communication avoids mistakes.
- What
  - Project schedule and progress
  - Specific information on equipment
  - Special needs
- How
  - Follow the progress
  - Communicate with the contractors

10 Equipment and Supplies

Equipment purchase

- Be aware of available discount, e.g., "New lab set up" programs at large vendors like Fisher and VWR
- Negotiate with many vendors
- Usually 1-3 months of lead time for major equipment

11 Populating your lab

- Technical Staff
- Graduate students vs. postdocs
  - How available are students?
  - How difficult is it to recruit postdocs?
  - Are technicians the best use of limited resources?
  - What Dept/University funding mechanism are available for students or postdocs?

12 Lab Personnel

- Personnel management
- Establishing a "lab culture" is very important
- Be proactive in addressing potential personnel conflicts
  - No one wants to work in a caustic or poisonous lab environment
- Lead by example