The Nuts and Bolts of Academic Job Search

Ali Khademhosseini, Ph.D.

in collaboration with

Jeffrey M. Karp, Ph.D.
Jason Burdick, Ph.D.

Harvard-MIT Division of Health Sciences and Technology
Harvard Medical School
Massachusetts Institute of Technology
• Preparation of application packet as early as possible

• Submit application packet (Sept./Oct. – some at end of July)

• Attend field specific meetings (BMES, MRS, AIChE), during Fall

• 1st Interview (usually December to March)

• 2nd visit (usually March to May)

• Negotiate and accept/decline offer (May-June)

• Start position (July/August/Sept)

• Most decisions occur during academic year
Where to find advertised positions?

- Academic journals (Science, Nature, etc.)
- Society newsletters, journals and websites
  - BMES, SFB, MRS, TERMIS, AIChE, ACS
- Departmental websites
- Emails to your department head/advisor
- Conference postings
- Talking / networking
- Other sources:
  http://www.academickeyes.com

“http://nextwave.sciencemag.org/cdc/”
Application package

(Ask your friends, lab mates, mentors for examples and have them review)

• Cover letter
• CV
• List of references (3-5)
• Research plan (1-15 pages)
• Teaching statement (~1 page)
What are they looking for?

Why would they pick you over the other 200 applicants?

• Great reference letters
• Publications!
• Presentations, grants/fellowships, awards
• Does your research plan fit in with their wants and needs?
• Relevant background, ability to teach core curriculum
• Pedigree
• Ability to work in multiple areas (funding)
PROPOSAL

Why would they pick you over the other 200 applicants?

• You should aim for a good story (VISION)
  - what is hot in your field (nature, science)
  - what are key limitations of your field
  - complements existing expertise
  - Proposal may have 3 core ideas

  5 page proposal
  1. STORY (how do three ideas connect)
  2-4. Motivation, aims, strategy (like grant)
  5. References
Interview day

- 1-2 days long
- 20-30 minute meetings with faculty
- Seminar
- Teaching?
- Research plan seminar (i.e. chalk talk)?
- Meetings with students
- Meetings with department head, dean

- 2nd trip usually with an offer
Interview Day Tip

“This is the job that I have always wanted and I am going to get it”

“I am a leader in this field and have vision with a significant impact”

It WILL be tiring, but also FUN…”
Interview killers

• Lack of enthusiasm
• Inability to interact well with the faculty
  – You are becoming a part of their family
  – Be personable
• Do not fit the vision or direction
• Do not have the background to teach
Interview killers

• Lack of original or clear research plan
  – Lacking focus and originality
  – Know the specific aims of your first proposals
  – Have a timeline about which grants and when you want to apply?
  – How is your research different than others in the field?
  – How is what you’re doing significant?
What’s included in the offer?

- Salary (9-months+some summer salary)
- Equipment/supplies money
- Graduate student support
- Lab space
- Reduced teaching load during 1st year

- Get everything in writing!
Additional things to consider

• Room to expand in the offer commensurate with indirect costs
• Administrative support
• Ability to be diverse in research
• Mentorship – who?
• Proximity of lab space
“Negotiation” Time

Talk to your friends and mentors and LISTEN

Figure out: what is considered “reasonable”? what you need to succeed?

Find out: lab space considerations salary for grad students and others startup
Sign it
&
Let the fun begin 😊
Acknowledgements

• Mentors
  - Prof. Robert Langer

• Peers
  - Prof. Jeff Karp
  - Prof. Jason Burdick
  - Prof. Utkan Demirci
  - Langer lab
  - etc.

- Departments that gave me interviews 😊