



# The Nuts and Bolts of Academic Job Search

Jeffrey M. Karp, Ph.D.

Ali Khademhosseini, Ph.D



Harvard-MIT Division of Health Sciences and Technology  
Harvard Medical School  
Massachusetts Institute of Technology



## 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.academickeys.com>

“<http://nextwave.sciencemag.org/cdc/>”

A screenshot of the Science Next Wave website header. The top navigation bar includes links for 'ABOUT US', 'SUBSCRIPTIONS', 'FEEDBACK', 'SIGN IN', and 'AAAS'. Below this, there are links for 'SITEMAP' and 'E-MAIL UPDATES'. The main header features the 'Science' logo, the 'next wave' logo, and the text 'Career Development Center for Postdocs and Junior Faculty'. To the right, there are logos for 'BURROUGHS WELLCOME FUND' and 'HOWARD HUGHES MEDICAL INSTITUTE'. A blue banner at the bottom of the header reads 'This week at the Career Development Center...'.

Science next wave ABOUT US SUBSCRIPTIONS FEEDBACK SIGN IN AAAS  
SITEMAP E-MAIL UPDATES  
Career Development Center for Postdocs and Junior Faculty  
BURROUGHS WELLCOME FUND HOWARD HUGHES MEDICAL INSTITUTE  
This week at the Career Development Center...



# Academic cycle

- 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
- 1<sup>st</sup> Interview (usually December to March)
- 2<sup>nd</sup> visit (usually March to May)
- Negotiate and accept/decline offer (May-June)
- Start position (July/August/Sept)
- Most decisions occur during academic year



# Application package

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

- Cover letter
- CV
- List of references (3-5)
- Research plan (5-20 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
  
- 2<sup>nd</sup> 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 1<sup>st</sup> 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

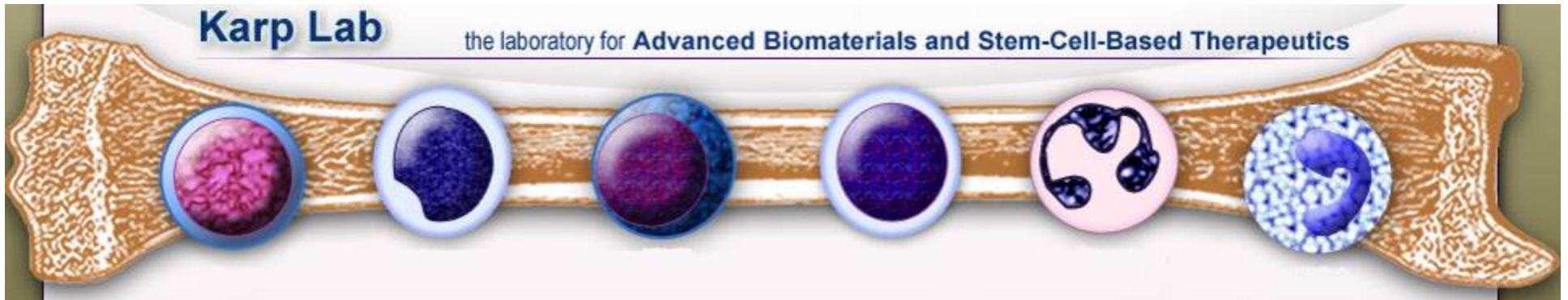
- Mentors

- Prof. Robert Langer
- Prof. Molly Shoichet
- Prof. John Davies
- Prof. Jaro Sodek
- Prof. Bill Stanford
- Others...

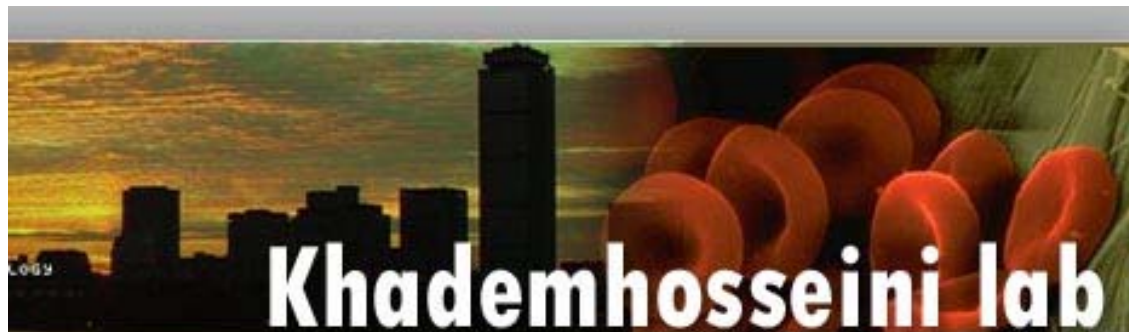
- Peers

- Langer lab
- Prof. Ali Khademhosseini
- Prof. Jason Burdick
- Prof. Steve Little
- Prof. Gil Kaplan
- etc.

- Departments that gave me interviews 😊



jeffkarp@mit.edu



alikh@mit.edu