How to prepare the academic job application for a tenure track position in the sciences

The job has been narrowed down to you and 200 other applicants.
Where will a biology PhD take you?

Arrows represent annual fluxes. Circles are total current workforce numbers.

86,000
current US biology PhD students

Every year, 16,000 students start biology PhD programs

9,000
Receive PhDs

7 years
average time to degree

720
Leave the US

37-68,000
current postdocs

? years
US PhDs spend an average of 4 years, but others must spend longer to account for number of postdocs.

70% (5,800)
Postdoc

30% (2,500)
Don’t postdoc

37% drop out

1,900 to 3,900
foreign-trained PhDs start postdocs

30% do more than one postdoc

15% of postdocs get tenure-track faculty jobs within 6 years post PhD.

29,000
current tenured and tenure track faculty

20% get non-tenure track academic jobs within 6 years post PhD.

25,000
current non-tenure track academic positions

24,000
current non-research, science related jobs

17,000
current bio PhDs doing non-science jobs

22,500
current industry researchers

7,000
current gov’t researchers

A faculty job is an “alternative” career.

At this rate, <8% of entering PhD students will become tenure-track faculty. Yet, 53% rank research professorships as their most desired career.²

¹ - Science Careers Annual Postdoc Survey (2012) http://purl.org/numboc
³ - Seussmann & Rouch 2012 PUBS ONE; DOI: 10.1371/journal.pone.0069807

Unless otherwise noted, NIH Biomedical Workforce Working Group (2012)

10% of former postdocs (up from 2% in 2010) consider themselves unemployed.¹
The future of the postdoc

There is a growing number of postdocs and few places in academia for them to go. But change could be on the way.

Kendall Powell

07 April 2015
For one position....

• Hundreds of applicants
  – 10-15 invited for phone interview
    • 3-5 invited for campus interview
      – One offer (usually...)

How do you make it to the short list?
The application process

• Ad posted (summer/fall)
• Job applications due (fall)
• Phone interviews (late fall/early winter)
• On-campus interviews (winter)
• Offers (spring)
• Negotiations (spring/early summer)
• Start new position (fall or defer)
Workshop panelists

• Jenny Talbot, Assistant Professor, Boston University
• Allison Walker, Assistant Professor, Acadia University
• Peter Kennedy, Associate Professor, University of Minnesota (formerly an Assistant Professor at Lewis and Clark)
• Andrea Porras-Alfaro, Associate Professor, Western Illinois University
• Rytas Vilgalys, Professor, Duke University
• Sara Branco, Assistant Professor, Montana State University (beginning Fall 2017)
• Meredith Blackwell, Professor, Louisiana State University
Schedule

- **8:40am**: Types of academic jobs and who should apply – Rytas Vilgalys
- **9am**: App. Materials for research institutions – Jenny Talbot
- **9:20am**: App. Materials for teaching-focused institutions – Allison Walker
- **9:40am**: Types of interviews and how to prepare – Andrea Porras-Alfaro
- **10-10:30am**: Break
- **10:30am**: The job talk (all panelists contribute)
- **10:50am**: How to navigate offers and negotiations – Sara Branco
- **11:10am**: Advice for starting a new lab – Peter Kennedy
- **11:30 am**: Questions and Discussion
- **11:45am**: Closing remarks – Meredith Blackwell
Publication metrics and success on the academic job market

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These authors contributed equally to this work

http://pipredictor.com/

van Dijk, David et al. 2014. Current Biology
Books

The Chicago Guide to Landing a Job in Academic Biology
C. Ray Chandler
Lorne M. Wolfe
Daniel E. L. Promislow

The Professor Is In
The Essential Guide to Turning Your Ph.D. Into a Job
Karen Kelsky, Ph.D.