Job talk for a faculty position

October 11, 2018
Learning Outcomes

By the end of the program, participants will be able to:

- Discuss the structure and purpose of a faculty job talk
- Describe the differences between a job talk and a lab meeting presentation or conference presentation/RIPS
- Describe the different elements of a successful faculty job talk, based on the ACRA framework qualifications
What type of presentation is this?

Teaching demo: Teach a portion of a class (i.e. DNA replication or Maternal health care)

Research talk: Primarily your past research and overview of your future research program

Chalk talk: Future research (i.e. your first R01 grant) *primarily at R1 institutions

Mixed: Any combination of teaching, research, and/or chalk talk presentation
What I’m not going to spend much time covering

- In depth general information about slide and presentation formatting:
  - Watch Susan McConnell’s “Designing effective scientific presentations” video (42 min)
    - bit.ly/iBiology-presentations
- Teaching demo
- Chalk talk
  - For more information: career.ucsf.edu/seminar-chalk-talk
- Application material preparation
  - For more information: bit.ly/eventspacup
What do you think are 1 major similarity & 1 major difference between a scientific conference talk/RIPS, lab meeting talk, and the faculty job talk?

Go to: socrative.com and choose “student login.” Then enter room: OCPD1
Building the faculty job talk

How the audience determines the way you structure your presentation

How to demonstrate the qualities the audience is evaluating: past/current work & research vision
Audience: who are they?
What do they care about?
Audience: who are they? What do they care about?

At what type of institution are you interviewing?
Research-Intensive Institutions (R)

Research & Teaching Focused (RT)
- Primarily Undergraduate Institution (PUI)
- Liberal Arts College
- Master’s Granting Institution

Teaching-Only Institutions (T)
What does it take to get hired as faculty in the US?

Academic Career Readiness Assessment
### R institutions

**Long-term fundability**

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications</td>
<td>Impact is what matters (not necessarily impact factor)</td>
</tr>
<tr>
<td>Research vision &amp; strategy</td>
<td>Clear vision and strategy</td>
</tr>
<tr>
<td></td>
<td>Novelty, creativity</td>
</tr>
<tr>
<td>Funding plan</td>
<td>Specific aims realistic for an R01 grant</td>
</tr>
<tr>
<td></td>
<td>Funding plan includes research beyond first R01 grant</td>
</tr>
<tr>
<td>Research independence</td>
<td>Independence (from PI)</td>
</tr>
<tr>
<td>Fit</td>
<td>No overlap with others at this institution</td>
</tr>
<tr>
<td></td>
<td>Understand the institution’s mission</td>
</tr>
<tr>
<td></td>
<td>Synergy with other scientists is a plus</td>
</tr>
<tr>
<td>Recommendations</td>
<td>From all advisors and PIs</td>
</tr>
<tr>
<td></td>
<td>Reputation of recommender matters</td>
</tr>
<tr>
<td></td>
<td>How well the recommender knows you matters</td>
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<tr>
<td></td>
<td>Need to be stellar (future leader)</td>
</tr>
<tr>
<td>Grants and fellowships</td>
<td>Not required</td>
</tr>
<tr>
<td></td>
<td>BUT may help indirectly</td>
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</tbody>
</table>
# RT institutions

## Resources and students

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<th>Qualification</th>
<th>Focus</th>
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</table>
| **Fit**       | Research: No overlap with other faculty  
Teaching: can teach most classes needed  
You have sought teaching and mentoring experiences  
You seem to really want to work there |
| **Research program** | Feasibility with limited resources  
Feasibility with undergraduates (and Masters)  
Exciting to students |
| **Comm of Research** | Spikes interest of non-expert faculty and undergraduates |
| **Teaching** | Teaching Experience: often required, amount of involvement matters  
Teaching Potential matters: be informed about research in education, and ready to be mentored |
| **Collegiality** | Are you a good colleague? Are you respectful toward st?  
Can you share materials, space, ideas, resources? |
| **Publications** | Variable - at the minimum, demonstrates you can write |
Audience: who are they?  
What do they care about?  

At what type of institution are you interviewing?
Who is in your audience?

<table>
<thead>
<tr>
<th>R institutions</th>
<th>RT institutions (PUI, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientists in your area of expertise</td>
<td></td>
</tr>
<tr>
<td>Scientists outside your area of expertise &amp; field</td>
<td></td>
</tr>
<tr>
<td>Graduate students &amp; postdocs</td>
<td>Undergraduate &amp; Master’s students</td>
</tr>
<tr>
<td>(Non-scientists - i.e. Administrators, HR)</td>
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</table>
Who in the audience should you tailor your talk for?

Go to: socrative.com and choose “student login.” Then enter room: OCPD1

A. Members of the search committee
B. Experts in your area of expertise
C. Members of the department
D. Trainees (undergraduates/graduate students & postdocs)
E. All of the above

Everyone in the room
Different factors to consider about your audience

Everyone in the room matters

At R institutions in particular, convince the audience that you are an expert in your field

Audience may not have read your papers
Structuring your data as you consider your audience

How to get to the goals of 1) reaching all members of your audience and 2) demonstrating your expertise?

Start Broad - summarize (using background slides, summary slides & framework, conclusive slide titles)

Non experts - ex: some members of search committee, faculty (in other departments?)

Graduate students/postdocs, faculty in department

Experts in your field

Ask yourself: “Will YYYY in my audience understand XXXX when I discuss it in this way?”

Adapted from “Designing Effective Scientific Presentations” by Susan McConnell & “Giving a Job Talk in the Sciences” by Richard M. Reis
Strategies to consider everyone in your audience

Conclusive slide titles: Use these to summarize the main point of the slide - to help everyone in your audience follow your talk

Methodology: diagram to simplify for non-experts, and provide crucial details for experts
# Building the faculty job talk

<table>
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<tr>
<th>How the audience determines the way you structure your presentation</th>
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<tr>
<td>Different types of job talks depending on the institution</td>
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<tr>
<td>Audience composition &amp; how they will evaluate the talk drives your talk structure &amp; preparation</td>
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How to demonstrate the qualities the audience is evaluating:
- past/current work & research vision
Building the faculty job talk

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## Demonstrating these qualities: past/current work

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| Research accomplishments (Publications & works in progress) | Did you convince the audience & experts that you’re at the top of your field?  
  - Key: Tell the audience why what you’ve done/found is significant  
  - What impact your work has had or will have  
  Methodology: What have you done that is novel and what value does it add to your field?  
  Make your contribution to the work clear: how did you lead the direction of the work or were you following your PI’s instructions?  
  - How have you identified & filled a knowledge gap in your past work? How was your research question(s) from your past work developed?  
  - Use of “we” vs “I” vs naming specific contributors  
  Include your collaborators and your involvement in developing and managing them |
| Fit                                       | Do you have novel & exciting techniques/methods that are an added value to the department/institution?  
  Is there any overlap between your work and others’ at the institution that could be conceived as competition? Is there any synergy with others’ that could lead to collaborations? |
Introduction: Putting this together start building a cohesive story

- Introduction should engage everyone in your audience
- Pitfall: set up more like a lab meeting talk

- Broad

  Only necessary information

  Necessary information = what the audience needs to know to understand your core findings & significance

- Pitfall: Not introducing your Research Question(s)

- Focus onto your question/hypothesis

- Model/Roadmap slides: Great for building your story, summarizing key points, and demonstrating how you have filled key gaps in your field

Adapted from “The Craft of Scientific Presentations” by Michael Alley & “Designing Effective Scientific Presentations” by Susan McConnell
Model/Roadmap Examples

Topics summary sentence

Research Question 1
Diagram representing RQ1

Research Question 2
Diagram representing RQ2

Central Research Questions

Protein A → Protein B
Protein C → Protein D
Protein E?
Results: Making decisions when presenting your data

Broad - Would a diagram work to explain your experimental setup? Do you have conclusive slide titles?

Deep

How much new information will each member of your audience be able to understand as you present?

Recommendation: Presentation simple but conclusions are still convincing

What information (methods/results) are crucial to your message?

Adapted from “Designing Effective Scientific Presentations” by Susan McConnell & “Giving a Job Talk in the Sciences” by Richard M. Reis
Conclusions

What is the impact of this work?

How is your work significant?

Another chance to define your brand
Building the faculty job talk

How the audience determines the way you structure your presentation

How to demonstrate the qualities the audience is evaluating:
- past/current work & research vision

Use your talk to demonstrate your research accomplishments, including the significance of your work & the role you played in implementing the projects.
## Building the faculty job talk

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# Demonstrating these qualities: research vision

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| Research vision & strategy | Need to show your vision for your future research program, not just the next experiment or set of experiments  
- What is/are the major research questions you want to explore in the next 5-10 years? Will this fill a gap in the field, is it unique, is it creative, is it feasible?  
What new methodologies or adaption of current methodologies to novel research questions do you plan to use?  |
| Funding plan           | More time on this in your chalk talk: Specific aims realistic for an R01 grant  
Funding plan includes research beyond first R01 grant  |
| Research independence  | Is your perspective & plan unique from your advisor(s)?  
How does your combination of graduate student and postdoc work influence your plan?  |
Presenting your research vision

Pitfall of candidates: Even though you have had success in the past, you haven’t clearly laid out your future plans

What work you plan to do next (<5 and >5 years)

Opportunity to show your outlook and how it is different than your PI

How much time in your talk?
Perhaps 5%-25% of the talk, depending on:
1) Field
2) What the search committee would like you to discuss
3) Whether or not there is a chalk talk

General recommendation: 5-10 minutes of your talk
Your turn: What is your vision for your future research?

Briefly sketch out your plan

**R1/R2**

- Future research <5 years
  - Presents a compelling research plan, enough to secure funding from grants
- Future research >5 years
  - Outlines larger plan for future research

**RT**

- Future research
- Students in research
- Institutional resources
  - Outlines plan for next 2-3 years
  - Explicitly outlines projects suitable for that institution’s students
  - Explicitly states research plan feasible with institution’s resources
What next?

Come practice your talk and get feedback: career.ucsf.edu/appointments

Upcoming programming:

- Using the interview to tell if a workplace is a bad fit or toxic - Oct 17
- Negotiation series
  - Part I - Nov 1
  - Part II - Nov 14
- Chalk talk - Dec/Jan
Final Eval

Help us improve the workshop! Take the short evaluation: bit.ly/job-talk-eval
References

ACRA: https://career.ucsf.edu/ACRA

(click for “video podcast”)

Bill Schrader “How to give a job talk and why it’s not the same as a research talk” http://bit.ly/billschrader


Richard M. Reis “Giving a Job Talk in the Sciences” http://bit.ly/jobtalk1

Research statement rubric by Kelly Albus & Laurence Clement: https://career.ucsf.edu/pac-up-application

See Handout