

PRO TIP: How to give a chalk talk for a tenure-track position in the biomedical sciences

Leslie B. Vosshall, PhD leslie@rockefeller.edu February 23, 2015

Most academic departments evaluating candidates for tenure-track assistant professor positions are looking for scientists who meet these 3 criteria:

1. Are effective: have they been productive and done the right experiments?
2. Are rigorous: can their results be believed and are they thinking critically when explaining their future research program?
3. Have a vision: have they laid out a research program likely to produce important biological insights in 5-10 years?

Some other important questions that hiring institutions will ask:

4. Is the candidate collegial? Is this person likely to “fit” the department and be constructive, not disruptive?
5. Does the candidate “fit” scientifically? Will this work add to our department and/or institution, is this person useful in bringing a new technique or approach, are they likely to do work that we will care about, and that will bring prestige to the department?
6. Is this research program fundable? Will this work/this candidate be able to raise funds to support the research program?
7. Will this candidate be an effective teacher and mentor? Does the candidate have the temperament to recruit/retain the best trainees and employees?

If you are invited back to give a chalk talk, you will be evaluated in some way on all 7 criteria.

Here are some hints to demystify the chalk talk process and give you the best possible chance to succeed.

You are given a white board and dry erase pens and will have 45-60 min to defend your research program. Although you may be given 15 minutes to decompress in the room prior to your chalk talk, avoid the temptation to fill the entire white board with small illegible text comprising your entire research program. That tends to scare the committee and won't be effective when you are sketching out the research program in real-time. It is far more effective to write a few strategic words while the chalk talk is in progress. If you can't resist doing some pre-writing, you can put the 3 aims at the very left of the board. Reserve the rest of the board for use during the chalk talk. You will typically NOT be using your computer to show slides. Count on 30 min of you talking, with lots of interruptions along the way. There will be between 3 and 12 people in the room, generally the chair of the search and a mix of junior and senior faculty selected to represent the broad research interests of the department/institute.

IMPORTANT: The panel will be composed of experts in your field and those who are less familiar with your area. You will need to persuade both the experts and non-experts. In other words, be technical enough to keep the experts interested without losing the non-experts.

Chalk talk: pacing is key!

Be prepared to present the broad overview of your research program with a nesting structure. Do not be that person who has only finished the introduction of Aim 1 at the 30 minute mark, and has not conveyed what the research program is about!!

A successful chalk talk is organized into 3 sequential parts:

1. In 1-2 sentences at the beginning convey the overall importance of your research. This serves as an executive summary of everything you are about to tell them. This should be conceptual and not technical. Why should they care about your work?
2. Use the next 2 minutes going over the 3 specific aims—write them on the board LEGIBLY. Put a few keywords under each aim so people remember what it is. Focus on what/why/how/when of the research. It can be helpful to indicate the timeframe over which you anticipate carrying out each aim, and the workforce carrying it out. That indicates that you have a grasp of project planning. E.g. Aim 1, years 1-2, 1 tech + 1 PhD student; Aim 2, years 1.5-4, 2 postdocs + 2 students, etc. Here you should be brisk and confident to prevent being interrupted by questions and being dragged into details prior to presenting the research program.
3. Progressively explain the program one aim at a time. Most applicants should plan on presenting 3 aims. If you have just 1-2 aims, it looks like you will run out of ideas quickly. With 4+ aims, the panel will assume you are diffuse or naïve. Focus on conceptual ideas, but provide enough experimental/technical information so that people understand what/how/when you will be doing.

Expect to be interrupted and respond to questions succinctly but with enough detail to satisfy the questioner. Don't be in a rush to get back to the presentation. But also don't spend 5 minutes offering a rambling incoherent answer to a question. Everyone will get bored and start thinking about other things. They, not you, are driving the length and format of the chalk talk. That's why points 1-3 above are so critical.

Important! Be calm and non-defensive throughout. If you seem defensive or evasive or dismissive in any way, it very badly affects your chances

Make sure you practice the chalk talk!! Have your current lab do a mock chalk talk and ask them to be as critical as possible. We did this in my lab recently, and even the 1st year students understood immediately how to be incredibly aggressive in taking on the chalk talk presenter.

GOOD LUCK!!!