

Skype/video interviews preparations

- Find a quiet room, not too big (voice might echo), without distracting backgrounds
- You might want to use the TV seminar room (or 6th floor seminar room)
You can face the white board and use the white board as a cheat sheet (without moving your eyesight too much), or you can project your screen on the TV, so your eyes can be at the same level as the camera on your laptop (I didn't try, just an idea)
- Put your laptop on a box to make the camera at the same level as your eyes.
- Keep the distance of the camera ~ your arm length (make you in a good portion on the screen~2/3 of the screen)
- Dress nice (with shirts, at least, top of your body). Some people do care about your outfit (an advice from a search committee chair).
- Connect through an ethernet port
- Test the voice volume
- At the beginning of the interview, you can ask them if the volume and video quality are good
- **PRACTICE** all the questions with your labmates or PI, make it sound natural
- Some questions can be asked in different ways, ex: tell us about yourself=how's your career shaped
- Focus on what they want to know, means they don't care about your undergraduate or what triggered you to become a scientist. They want to know that your interest aligns with theirs and you can provide what they want
- Ex: I always say: I am interested in host-pathogen interactions/infectious diseases. I did my PhD in Arne's lab to study Pseudomonas T3SS and I am well-trained with bacterial genetics/biochemistry. Then I wanted to learn more from host side so I joined Matthias' lab to study bacterial effectors/host targets...
- Show enthusiasm (this is important)
- Talk in a stable pace so they can hear your answers clearly
- Spend time on doing research about the department in order to tailor your answers for the department
- Spend time on the job-ad descriptions. Although sometimes it can be a broad search but things they put on the ads are at least the things they know that they want = help them find that you are a good fit for the department
- The questions are usually broad and general
- Be prepared with "Diversity & Inclusions" questions
- Answers should be logical and concise

Q/A I prepared for Wake Forest skype interview

(Keep in mind: all these questions could be asked again during on-site interviews as well)

1. Tell us about yourself:

- I am a microbiologist and I study host-pathogen interactions
- Did my PhD with Arne and studied regulation of T3SS in *P. aeruginosa* (well-trained in bacterial genetics and molecular biology)
- Wanted to learn more from “The Host” side, so I joined Matthias’ lab
- Use *L. pneumophila* effectors, mainly effectors that are “Kinases”, in order to identify host pathways involved in microbial pathogenesis
- Discovered the novel role of the host Hippo pathway during *L. pneumophila* infection.
- Completed the trainings in both bacterial side and host side with the **NOVEL discovery** of the new role of the Hippo pathway during infection and the tools for identifying more host pathways participated in microbial pathogenesis.
- **READY** to move on to expand my research as an independent investigator

2. How will your research program develop in 5/10/25 years?

- 5 years:
 - 1st year-submit the first grant for the Hippo project (preliminary data with the Hippo knockout cell lines),
 - 2nd-3rd year-publish papers about the Hippo/LegK7 projects, and prepare second grant based on LegK2/Rab32 project,
 - 4th-5th year-expand to other kinase projects (the LetA/S project).
- 10 years:
 - Make major discoveries about the Hippo pathway in infectious diseases.
 - Discover more novel host pathways or defense mechanisms involved in bacterial pathogenesis.
- 25 years (Long-term):
 - Comprehensive view of host pathways involved in bacterial pathogenesis.
 - Develop small molecules target effector kinases as potential therapeutics for treating infection.
 - Regulation of T4SS machinery.

3. Why are you interested in our department? How do you complement our research programs?

- **EXCITED** about Job ad: Host-pathogen interactions and Innate immune responses to pathogens→ exactly what I am doing!!!
 - Diverse research programs that study different pathogens and host immunity.
 - My model organism ***Legionella* is a GREAT tool** to study pathogenesis of intracellular bacteria and host innate immune responses. (you need a *Legionella* person in your department)
 - Collaboration with other group to study the **NEW ROLE** of the host Hippo pathway in immunity and pathogenesis of different pathogens
 - I have tools and experience in studying kinases/phosphorylation/signaling transduction
 - Hippo pathway is critical for tumor development (EVEN GBMs)→ my research can **bridge between infectious disease, immunity and cancer.**
4. Potential grants: (I have **A LOT OF** preliminary data.)
- NIH (R01, bacterial pathogenesis study section, host interactions with bacterial pathogens)
 - American Cancer Society (Hippo)
 - American Lung Association (pneumonia)
 - NSF Career (kinases, undergraduate research, outreach-*Legionella* in Flint)
5. How does my research program differ from Matthias's lab?
- Mainly focus on using effector kinases to identify host pathways that are involved in bacterial pathogenesis.
 - More interested in host-side and immunity. For example: the role of the **Hippo pathway** in immune cells .
6. How many people do you plan/envision to have in your lab?
- 4-7 people.
 - At early stage: 1-2 graduate students+ 1 technician.
 - With grants, postdocs, students
7. What courses do you think you can teach?
- Microbiology/Biochemistry/Bacterial genetics
 - Host-pathogen interactions/Innate immunity/Signaling transduction
8. What is your biggest concern?
- How do I recruit good students to join my lab because I am junior

- I am a good example of a successful trainee by junior mentors
- I am experienced in working with junior faculty. I KNOW HOW students feel with young faculty.

9. What is your strength?

- I am **CREATIVE**. ex: non-radioactive substrate screening platform. Genetic screen systems in Arne's lab.
- Very **INDEPENDENT**, PcrG paper, LegK7 paper
- Willing to share and collaborate

10. What do you consider to be your most significant scientific contribution?

- The Hippo pathway in infectious diseases
- **Because the Hippo pathway is highly conserved**, plays important roles in tissue development and cancer
- **BUT Little** is known for its role during infection and host immunity

11. What resources would you need to develop/maintain a successful program?

- Microarray chip scanner (~60K)
- Genomic/proteomic core facilities (RNAseq, Mass-spec)
- Access to imaging/microscopy facility
- CRISPR knockout service

12. Tell us about your mentoring experience

- Have lots experience mentoring students with different backgrounds/genders/educational levels
- Designed different projects and used different approaches to train them and to help them achieve their goals
- Maya is a high school student for a minority group/Didn't know how to pipet/completed a small project and presented a poster
- Jana is a undergraduate student/Let her use what she learned to design the experiments
- Two post-bachelor students/Let them do independent projects/learn time management/**Both are winners of poster awards in NIH-wide competition**
- Katy→MD-PhD student, Mitch→got into all the graduate programs he has applied

13. Potential collaborators in the department/university

- Department:
Hippo in microbial pathogenesis: Miller/McCall/Ornelles/Westcott/Zafar
Kinases/protein phosphorylation: Miller/Debinski
Hippo core kinase—LATS1/2 in GBMs (IDH mutations), anti-tumor immunity
- University:
Hui-Guan Lin?
Any structural biologists?

14. Is there anything beyond what you had already shared in your application that you would like to tell now?

- Emphasize the grant writing/paper writing workshops at the NIH

15. Leadership experience

- Member of postdoc committee
- Leading/organizing a research team that has three postdocs in Matthias' lab to study a research project about innate immunity

16. Most difficult challenge in your career? How do you overcome it?

- Working with unfriendly postdocs who are not motivated and not holding high research standards
- Talk to PIs
- Closely interacts with other postdocs who are motivated to build a better research environment

Questions for them:

1. Graduate student programs, PhD/MS?
2. Student support, like tuition and stipend, is provided by the Department?
3. Member composition in labs: How many PhD students/Postdoc?
4. Intramural funding opportunities? State funding opportunities?