Molecular & Cellular Biology in Seattle

AN INTERDISCIPLINARY Ph.D. PROGRAM OFFERED THROUGH
UNIVERSITY OF WASHINGTON and FRED HUTCH

Welcome!!!

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Molecular & Cellular Biology in Seattle

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Orientation outline

- Rotations
- Faculty Talks and Retreats
- Advisors
- Classes

Rotations

Picking a lab is the most important thing you will do in your first year!

This is the goal of rotations!

Rotations

- Choose a lab after three rotations
- A fourth rotation in the summer is possible, but requires discussion with the MCB directors
- A successful rotation is one in which you can definitively say whether or not you would like to join the lab

Rotations: questions to think about

- Are you excited by the kind of research done in the lab?
- Does the mentoring style of the advisor suit you (very important!)?
- What is the lab environment like (keep in mind lab environments change)?
- The purpose of the rotation is to find out if you like the lab or not!

Rotations: expectations

- You will be working full time during each quarter on classes, seminars, and rotations
- Attend and be involved in your lab's group meetings, special meetings, and seminars
- Devote yourself to thinking about your project and the other projects in the lab
- Learn something new
- Talk to everyone in the lab about their projects
- Connect with your PI

How to find rotations

- Use the MCB website
- Faculty are listed by Areas of Interest
- Big question: Is the lab taking students?

  Faculty should have indicated which quarters and whether they want a permanent student
- However, faculty might not indicate a permanent student because they are waiting for funding/other issues …

How to find rotations

- Meet faculty at the mandatory faculty talks
  - Sept 5: Fred Hutch, Thomas Building, B1-072/74/76, 10 AM -12:30 PM
  - Sept 6: UW main campus, T-435 Health Sciences Building, 10 AM - 12:30 PM
  - Sept 7: UW South Lake Union, Room 130A E building, 10 AM - 12:30 PM
  - Oct 23: Poster session, Foege Vista Cafe, 5 PM
- Ask Rich or Nina or one of the Area of Interest Directors for advice

How to find rotations

- Use current MCB students for advice!
  - come to the MCB BBQ Saturday: Sept 9, 12:30 PM, at Gas Works Park, shelter 1
  - come to the MCB Student Panel: Sept 19 5:30 PM, UW Health Sciences Building, I-132
  - talk to current students, but make decisions based on talking to faculty as well
  - do not disregard labs that don't have current MCB students (~250 labs, far fewer students)

How to find rotations

- Departmental Retreats
  - Talk to faculty at the retreats! This is a great chance to speak to many faculty easily
  - Talk to students and post-docs in labs that might interest you
  - Have fun
  - If you have signed up for a retreat, YOU NEED TO GO!

Important Rotation Dates

- Email Maia and Andrea with your rotation lab
  - Include a confirmation email from the rotation PI

- Rotation Lab Decision Dates
  - Fall Quarter: Wednesday, Sept 26, 2017
  - Winter Quarter: Tuesday, Jan 3, 2018
  - Spring Quarter: Friday, March 23, 2018

Rotation Talks and Poster Session

- You will present a rotation talk in fall and winter and a poster in spring.

- Rotation Presentation Dates
  - Fall Quarter: Tuesday, December 12, 2017
  - Winter Quarter: Tuesday, March 13, 2018
  - Spring Quarter: Tuesday, June 12, 2018

Your first-year faculty advisor

- We are your initial advisors
- You can talk to both of us, or choose one of us, it is up to you
- Use the Areas of Interest Directors too
- Feel free to find an MCB faculty member

Areas of Interest Directors

- Biophysical and Structural Biology: Roland Strong (Fred Hutch)
- Cancer Biology: Valera Vasioukhin (Fred Hutch) and Barry Gumbiner (UW)
- Cell Signaling & Cell/Environment Interactions: Sandy Bajjalieh (UW)
- Computational Biology: Jesse Bloom (Fred Hutch)
- Developmental Biology, Stem Cells & Aging: Matt Kaeberlein (UW) and Cecilia Moens (Fred Hutch)
- Gene Expression & Chromosome Biology: Linda Wordeman (UW) and Toshi Tsukiyama (Fred Hutch)
- Genetics, Genomics & Evolution: Celeste Berg (UW) and Roger Bumgarner (UW)
- Microbiology, Infection & Immunity: Michael Lagunoff (UW) and Andrew Oberst (UW)
- Neuroscience: Olivia Bermingham-McDonogh (UW) and Jihong Bai (Fred Hutch)

Areas of Interest Directors will also provide advice on classes and rotations

Student Areas of Interest Directors

- Biophysical and Structural Biology : Derrick Hicks
- Cancer Biology: Andrea Lim and Alex Salter
- Cell Signaling & Cell/Environment Interactions: Amanda Bradley
- Computational Biology: Sidney Bell
- Developmental Biology, Stem Cells & Aging: Lauren Loh and Lauren Saunders
- Gene Expression & Chromosome Biology: Lori Koch and Amy Lanctot
- Genetics, Genomics & Evolution: Sidney Bell, Ashley Hall, and Michelle Hays
- Microbiology, Infection & Immunity: Kristin Middlesteadt, Nick Maurice, and Alex Salter
- Neuroscience: Laura Taylor

Your 1st-year faculty advisor(s)

- Advice about potential rotation labs
- Advice about classes
- Make sure that you are on track
  - MCB directors get copies of your rotation reports
  - If there is a problem, let us know before it becomes a crisis!
- MCB directors give final approval for anything you want to do that is not on the usual lists

Classes: requirements

- First Year MCB class: Career Development, Lit Review, and Grant Writing
  - Attendance REQUIRED, and you MUST BE ON TIME!
  - Wednesdays 4-5:20 PM (UW in the Fall, Fred Hutch in the Winter and Spring)
  - Only for MCB students: get add code from MCB office

- You need 18 graded course credits
  - Must be a 500-level course
    - Rarely, we grant an exception to this and let you substitute a 400-level course. Ask the MCB directors for permission.
  - Must be graded (no exceptions)

Classes: definitions

- Conjoint: Typically a 5 week, 1.5 credit course. Usually 2 x 1.5 hours per week
- Other Courses: Typically a 10 week, 3 credit (but sometimes 2-4 credit) course
- Foundational Courses: These are courses we think are crucial for a particular Area of Interest. We highly encourage you to take these courses if it falls in your Area of Interest.
- Model Curriculum: List of courses suggested for students in each Area of Interest.

Classes: Model Curriculum

- Each Area of Interest has a Model Curriculum
- These are meant to guide you in choosing classes
- They are not requirements!!
- We highly encourage you to take the Foundational Courses in an Area of Interest
- Electives are more specialized or cross between Areas of Interest

Classes: Model Curriculum, exceptions

- We realize that you may switch Areas of Interest or will work in a subject that straddles between different Areas of Interest.
- The Areas of Interest Directors can help you design an individualized curriculum.
- Some courses are still under development.
- Some courses are every other year.

Classes: Model Curriculum, classes you should take

- Foundational Courses: ~9 credits
- Biostatistics:
  - UCONJ510 this summer or next (2.5 credits)
  - Alternatives: STAT502 if you have a strong math back-ground or BIOSTAT517 if you are intersted in Epidemiology
- Electives: This is more specialized and depends on your particular research interest. Methods courses are more generally applicable to everyone.
- Career Development Courses: Generally, take only in Year 2 (or later)
- You are welcome to take more than 18 credits, and it is likely you will do so.

Classes: suggestions to consider

- Some classes have limited enrollments. Sign up early to avoid getting shut out. Some courses require an "add code" to register. Email for the add code.
- Some classes are only offered every other year. If it is a Foundational course in your Area of Interest, take it now rather than when you are a 3rd year.
- Use the current 2nd and 3rd year students for suggestions on courses.

Classes: suggestions to consider

- Pace yourself!
- Make sure that you do an excellent job on your rotations. WE CANNOT EMPHASIZE THIS MORE!
- You do not need to finish all of your class requirements in your 1st year!
- Take a good look at schedules. Make time for your rotation!!
  - for example, if your first rotation is at the UW consider taking classes at the UW, if it is at the Fred Hutch, look for classes at the Fred Hutch
  - try to avoid having a class in the morning, and then one in the afternoon on the same day

Grades and the graduate student

- Your ultimate success in graduate school is determined by your research and not by your grades!
- Although some fellowships do consider grades
- You must get at least a 2.7 for a class to count for your graduate credit
- You must stay above a 3.0 average to stay in graduate school (you get one quarter to bring it up)

September 2017 To Do List

- Register for classes

- Choose a lab for fall rotation
  - You don't have to do this until just before the quarter starts
  - Keep an open mind for winter and spring rotations

The 1st year in review

- Three rotations
- Mandatory: MCB 1st year class (514/15/16)
- Take elective classes. Aim for 9-12 credits by the end of spring quarter in your 1st year.
- Join a thesis lab (typical start is the summer quarter)
- Attend summer bioethics seminar series
- Take Conj510 (or another appropriate Biostatistics class) in the summer quarter
- Establish Residency with the University of Washington by the Fall quarter of year 2
  - Review information in packet, THE PROCESS Begins Now!

And beyond ….

- **Year 2**
  - TA (teaching assistantships, we will provide more info later)
  - Take classes as necessary for your 18 graded credits
  - Work in lab full time
  - Form your thesis committee by end of Winter quarter (very important)
  - Have 1st committee meeting by the end of Spring quarter
  - Graduate school is over 12 months – there is no summer break
- **Year 3**
  - Work in lab full time
  - Take general exam (by the end of Fall quarter)
  - Take any additional classes necessary
- **Year 4**
  - Publish paper(s), extend initial findings
- **Year 5+**
  - Publish paper(s), write and defend thesis

We expect you to graduate with a PhD within 5-7 years

Common first year problems

- The "Imposter Syndrome"
- Finding the right balance of spending your time between classes and rotations
- Classes are different from undergrad
- Homesickness
- Life balance

Questions?