Welcome!!!

Molecular & Cellular Biology
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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 and searchable by keywords
- Big question: Is the lab taking students?
  - Yes = greater than 50% chance
  - Maybe = 10 to 50% chance
  - No = No
- Contact the 'Yes' now, contact the 'Maybe' in Winter or Spring
How to find rotations

• Meet faculty at the mandatory faculty talks
  – Sept 14: Fred Hutch, Thomas Building, B1-072/74/76, 10 AM - 12:30 PM
  – Sept 14: UW main campus, T-639 Health Sciences Building, 2 PM - 4:30 PM
  – Sept 16: UW South Lake Union, Room 130A E building, 10 AM - 12:30 PM
  – Oct 24: Poster session, UW Waterfront Activities Center, 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!
  – access the list of who rotated where from the MCB website
  – come to the MCB BBQ Saturday (Sept 10) 12:30PM at Gas Works Park, shelter 1
  – come to the MCB Grad student meeting: Sept 26 5:30PM, UW Health Sciences Building, TBD
  – 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!
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
• Cancer Biology: Valera Vasioukhin (Fred Hutch) and Barry Gumbiner (UW)
• Cell Signaling & Cell/Environment Interactions: Sandy Bajjalieh (UW)
• 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)
• Molecular Structure & Computational Biology: Roland Strong (Fred Hutch) and Jesse Bloom (Fred Hutch)
• Neuroscience: Olivia Bermingham-McDonogh (UW) and Jihong Bai (Fred Hutch)

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

Areas of Interest Directors

Valera Vasioukhin
Fred Hutch Human Biology
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Barry Gumbiner
Seattle Children's Research Institute
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Areas of Interest Directors

Cell Signaling

Sandy Bajjalieh
UW Pharmacology
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Areas of Interest Directors

Development, Stem Cells & Aging

Matt Kaeberlein
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Cecilia Moens
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Areas of Interest Directors

Gene Expression, Cell Cycle & Chromosomes

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Linda Wordeman
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Areas of Interest Directors

Genetics, Genomics & Evolution

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Molecular Structure & Computational Biology

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Jesse Bloom
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Areas of Interest Directors

Neurosciences

Olivia Bermingham-McDonogh
UW Biological Structure
oliviab@u.washington.edu

Jihong Bai
Fred Hutch Basic Sciences
jbai@fredhutch.org
• **Cancer Biology**: Andrea Lim and Alex Salter
• **Cell Signaling & Cell/Environment Interactions**: Amanda Bradley
• **Developmental Biology, Stem Cells & Aging**: Lauren Rajchel-Loh and Lauren Saunders
• **Gene Expression & Chromosome Biology**: Lori Koch and Amy Lanctot
• **Genetics, Genomics & Evolution**: Sidney Bell and Michelle Hays
• **Microbiology, Infection & Immunity**: Kristin Middlesteadt, Ashley Roarty, and Nick Maurice
• **Molecular Structure & Computational Biology**: Derrick Hicks
• **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 Tutorial and Lit Review
  - 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 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)
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

Keystone 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.
http://depts.washington.edu/mcb/current/courses
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 Keystone Courses in an Area of Interest
- Electives are more specialized or cross between Areas of Interest
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

- **Keystone Courses:** ~9 credits
- **Biostatistics:**
  - UCONJ510 this summer or next (2.5 credits)
  - **Alternatives:** STAT502 if you have a strong math background or BIOSTAT517 if you are interested 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.
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 Keystone 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)
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 tutorial and Lit Review (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 on this in April)*
  - Take classes as necessary for your 18 graded credits
  - Work in lab full time
  - **Form your thesis committee** *(very important)*
  - 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?