

# Where to Apply? Finding PhD Programs that will Work for You

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# Learning Objectives:

*At the end of this workshop, scholars should be able to:*

- Compare and contrast the US and European models for biomedical PhD programs
- Describe the major components of biomedical PhD programs in the US, explain the types of variation that exists in these components across different programs, and name advantages/disadvantages of different program structures
- Identify non-programmatic factors that may warrant consideration in the process of choosing where to apply to graduate school
- Reflect on their own motivations and goals for graduate study, and how their unique motivations/goals may align with particular program attributes
- Articulate a plan for how to start to explore and learn more about different PhD programs

# Let's Reflect



*Draw out a table like that given below and spend a few minutes writing out specific goals and priorities that you have for yourself for grad school. Some examples are provided to assist with this, though note that your classification system might differ.*

## Goals

*“Some specific outcomes I would like to achieve during graduate school are...”*

## Priorities

*“The most important things to me as I approach my graduate training are...”*

### Professional

(Examples)

- Improve my writing
- Apply to fellowships
- Present a poster at a national conference
- Learn how to do \_\_\_\_\_
- Learn more about \_\_\_\_\_ topic

(Examples)

- Finding mentors who will advocate for me
- Being prepared for a career in \_\_\_\_\_ upon graduation (bearing in mind your career goals may change)
- Doing an internship, teaching, etc...
- Getting published in a top-tier journal

### Personal

(Examples)

- Become a better communicator
- Become more comfortable receiving feedback
- Become more confident in myself
- Fostering a support system with peers

(Examples)

- Being able to regularly visit my family
- Protecting time to do science outreach
- Being active in my peer communities (e.g. Women in Neuroscience, Underrepresented Scholars in Neuroscience, LGBTQ@GSAS, etc)
- Balancing work with mental and physical health

# PhD Programs in the US vs. Europe

United States	Europe
<ul style="list-style-type: none"><li>• Master's degree not required; (MS "built-in" to PhD program)</li><li>• Average time to degree: ~5-6 years</li><li>• Includes coursework</li><li>• Generally apply to programs (not individual labs) and do lab rotations before selecting a thesis lab</li></ul>	<ul style="list-style-type: none"><li>• Master's degree generally required before PhD program</li><li>• Average time to degree: ~3-4 years</li><li>• Generally no coursework</li><li>• Generally apply individual labs (not programs) and do not do lab rotations</li></ul>

More information [here](#)

# Let's Discuss



Drawing on your current understanding, what are the different components of PhD training programs?

Coursework

Teaching

Mentorship  
Structures

Full-Time  
Dissertation  
Research

Qualifying  
Examination

Thesis &  
Defense

Social & Professional  
Development  
Programming

Laboratory Rotations

# Let's Discuss



What are some ways that programs can differ in some of these dimensions?

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# Variations in Coursework

No (or very few)  
course requirements



Extensive course  
requirements

## Variation in:

- Timing of courses (~1-2 years; throughout)
- Requirements vs. electives (and content of required curriculum)
- Full-time coursework vs. integration with lab rotations

## *Advantages/Disadvantages?*

### Fewer Course Requirements / More Flexibility Means:

- More time for research; more flexibility in education
- But...It may be harder to identify and seek out training in areas you need to develop; fewer opportunities for cohort-building with classmates

### More Course Requirements / Less Flexibility Means:

- Opportunities for cohort-building; development of common foundation of knowledge/skills among students
- But...slower start to dissertation research; common curriculum might not suit all students' needs

# Variations in Laboratory Rotations

No rotation  
requirement



Many lab rotations  
required

## Variation in:

- Timing & flexibility of rotations (E.g., start/end dates, length, full-time vs. part-time)
- Mentorship/guidance in selecting rotations (and choosing a thesis lab)
- Rotation requirements (e.g., presentations, reflections, summaries)

## Advantages/Disadvantages?

### Fewer Lab Rotations / Less Structure Means:

- More individualization; can get started in thesis lab sooner; less of a workload burden (e.g., no presentations)
- But...Less “forced exploration” may not encourage students to discover new areas of interest; less guidance/structure may not allow all students to get the most of the rotations and/or make well-informed decisions about thesis lab

### More Lab Rotations / More Structure Means:

- Opportunities to explore new areas; guidance/structure can maximize learning opportunities & help trainees find a great lab “fit”
- But...more time on rotations delays time to start dissertation research; extra requirements (e.g., presentations) may be stressful



# Variations in Mentorship Structures

Minimal mentorship  
beyond PI / lab



Many Programmatic  
Mentorship Structures  
(e.g., Peer mentors,  
additional faculty  
advisors)

## Variation in:

- Types of mentorship available (e.g., peer mentorship, faculty mentorship)
- Training & expertise of mentors
- Diversity of mentors (e.g., backgrounds, experiences, expertise, etc.)

## Advantages/Disadvantages?

### Less Formal Mentorship Beyond the Lab:

- In theory, could offer trainees' more flexibility to seek out their own mentors and could decrease the burden of regular, imposed meetings...
- But...Really, this isn't great. Having formal structures in place doesn't rule out finding additional mentors, so lack of structure is somewhat of a "red flag" that is unlikely to promote the success of all trainees

### More Formal Mentorship Beyond the Lab:

- More opportunities to set yourself up for success by building a "mentor network"; promotes relationships with other members of the community
- Might require more time (and feel stressful), but really, this is a time investment worth making. Build those relationships, and let the program help you!

# Variations in Social / Professional Development

Minimal events  
organized by PhD  
program / school



Many social & professional  
development events  
organized by PhD program /  
school

## Variation in:

- Types of activities (required vs. optional; within PhD program or across school)
- Timing of activities (e.g., aligned with key milestones in your training?)
- Participating personnel (e.g., current students, faculty, administrators, etc.)

## Advantages/Disadvantages?

### Fewer Events / More Flexibility

- More flexibility (e.g., optional programming) allows greater individualization of training; less stressful in terms of time management with lab & other activities
- But...Students may be less likely to explore new areas and therefore might miss out on opportunities or discovering something that changes their entire trajectory; fewer opportunities for cohort-building

### More Events / Less Flexibility

- More opportunities for career development & cohort-building; promotes equitable training for all students
- But...requires greater time management to balance with other responsibilities; might be stressful

# Variations in Teaching Requirement / Opportunities

No teaching requirement



Teaching requirement

## Variation in:

- Degree to which students are encouraged to teach if interested (even without a formal requirement)
- Number of opportunities to teach (regardless of requirement)
- Support graduate trainees receive in being trained to teach

## Advantages/Disadvantages?

### No Teaching Requirement

- More flexibility and individualization for trainees (if you're not interested in teaching you don't have to); If trainees *choose* to teach, get paid extra
- But...Students may receive more pushback from PIs to teach if it isn't required; might be more logistically challenging to integrate into graduate training

### Teaching Requirement

- Guaranteed opportunity to gain teaching experience, which is important for academic (and many other) careers; logistically easier if integrated into graduate program
- But...May not be as relevant or desirable for all students (depending on professional goals); takes time from research & no extra pay for fulfilling requirement)

# Variations in Qualifying Examination, Dissertation Research, & Final Thesis & Defense

## Qualifying Exam

- Variations in exam timing, format (e.g., comprehensive content exam and/or research proposal), and program support in student preparation (e.g., proposal writing course, workshops)

## Dissertation Research

- Variations in structured check-ins (e.g., Dissertation Advisory Committee meetings), program expectations for graduation (e.g., required publication?), depth/breadth of research areas

## Thesis & Defense

- Variations in requirements (e.g., length, format, threshold for “passing”); program’s average “time to degree”

### Less Stringent Requirements and/or Greater Flexibility:

- Offer greater individualization of training and are good for students who prefer less oversight and/or more flexibility; flexible policies can promote equity (e.g., getting a second chance to pass a qualifying exam)
- But...too much flexibility or lack of requirements can have the consequence of some students getting left behind or unable to obtain the same quality of training (e.g., relies more on prior knowledge of how to navigate the system).

### More Stringent Requirements and/or Less Flexibility:

- Can promote equity through structure (e.g., everyone is guided through the process)
- But...too much rigidity (e.g., a requirement for a publication to graduate) can backfire for trainees with different career goals/needs

# Let's Discuss



Beyond the training program itself, what are some considerations for where to apply/attend school?

- Program size / diversity (both students and faculty)
- Program location (both within the University and city/state location)
- Stipend/financial aid & cost-of-living
  - *In the US, most biomedical PhD programs are fully funded! Your tuition is covered and you receive a stipend to attend school! Different programs may offer other financial perks.*
- Proximity to family
- Anything that you identify as important for your happiness warrants consideration in this decision

# Let's Reflect



Take a few minutes to revisit your earlier reflection. Within that context, start to identify specific features/preferences you might have for different dimensions of graduate school programs.

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# Mapping a Plan to Learn More

What strategies can you implement to begin to explore different graduate programs?

- Visit program websites
- Start with the science: identify faculty/fields of interest and see where those people are located
- Leverage resources from organizations/conferences like NESS, SACNAS, ABRCMS, SfN
- Talk with peers/mentors who have gone through the process!

*What questions do you have for me?*



# For More Information:

- [How to choose a grad school \(and decide when to start\), SfN NeurOnline](#)
- [How to find a graduate program that matches your research interests, SfN NeurOnline](#)
- [Applying to Grad School, Científico Latino](#)
- [Project Short \(includes mentor program and a podcast episode on applying to grad school\)](#)
- (Book) *A Field Guide to Grad School: Uncovering the Hidden Curriculum* by Jessica Calarco
- (Book) *So you Want to be a Neuroscientist?* by Ashley Juavinett