BIOSCIENCES GRADUATE SCHOOL APPLICATIONS
September 19, 2017

AGENDA

Introductions
Daniel Catanese, Scott Egan, Kathy Matthews, Dereth Phillips, Mary Purugganan

Tips
• Be sure to schedule enough time to think about your application
• Educate yourself about each school you are considering to be sure it is a “fit”
• Align your personal statement with the target department and its focus
• Know the faculty before you visit — what are their interests, do they align with your own interests? If you are targeting a specific person, know their work!

How to prepare your personal statement for graduate school applications
Mary Purugganan

Resources for applications from the Center for Career Development
Link: http://ccd.rice.edu/guides/
• Guide to Graduate School
• Applying to Graduate School — From a Student’s Perspective
• Guide to Resume Writing
• CVs and Resumes for Graduate Students
• Guide to Interviewing

Thinking about the interview — how to prepare and be ahead of the “game”
• Be prepared — learn about the program and its faculty and prepare your questions
• Be positive and relaxed in your interactions
• Identify your target faculty and find ways to talk with their mentees and ask your questions
• Understand that interactions with current graduate students are part of the interview (and imbibe alcohol cautiously), but these interactions also afford an opportunity for you to discover information
• Be aware that these interviews are exhausting — pace yourself to be able to stay engaged and show consistent interest in the department and its faculty/students
THINKING ABOUT GRADUATE SCHOOL?

Thinking about the future — freshman and sophomore years — is research right for you?
• Talk to undergraduates doing research, graduate students, faculty members
• Talk to your professors and academic advisors
• Get involved in undergraduate research to “test” your own experience

Thinking about graduate school — junior year is the time to start!
• Consider what research areas are your highest interest
• Identify institutions that pursue those areas
• Think about what impact location has for you
• Explore websites for information on the faculty and the research
• Ask Rice faculty what they know about the institution

Tips when applying — summer before senior year and fall senior year is when it happens!
• Be sure to schedule enough time to think about your application before its due date
• Educate yourself about each school you are considering to be sure it is a "fit"
• Align your personal statement with the target department and its focus
• Know the faculty before you visit — what are their interests, do they align with your own interests? If you are targeting a specific person (sometimes a "must" in ecology/evolution areas), know their work!

Links with helpful advice:
Rice Center for Career Development: http://ccd.rice.edu/guides/
https://www.washingtonpost.com/express/wp/2015/02/09/outshining-other-grad-school-applicants-is-as-easy-as-1-2-3-and-4-5-6/
http://psychology.unl.edu/psichi/Graduate_School_Application_Kisses_of_Death.pdf
http://theleadershipalliance.org/Portals/0/Uploads/Documents/Public/01381_Tips(3).pdf

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Writing Successful Personal Statements for Graduate School

Mary Purugganan, Ph.D.
maryp@rice.edu

What does the Admissions Committee want to see?

1. Why you want to go to graduate school
   - What sparked your interest
   - Your research experience

2. How you have prepared to be a successful researcher
   - Academic preparation
   - Research experience/skills
   - Communication skills (written, oral, visual)
   - Time/stress management skills
   - Maturity, leadership, emotional IQ

3. Why you chose your targeted program
   - Why you have interest in their discipline/sub-discipline
   - What aspects of their program attract you: research focus, particular P.I., access to fieldwork, core facilities, etc.

Do’s and Don’ts

- Make it personal
- Summarize your argument at the beginning
- Demonstrate what you say
- Emphasize research experience!
- Use active voice
- Eliminate wordiness

- Use too much humor/drama
- Use a “cute” beginning
- Make claims without evidence (telling without showing)
- Overuse cliché words like “passion,” “problem solver,” “team player”

On a weekday night in the seventh grade, I was at my desk, stuck on a math problem. It was a particularly sticky one, and because I had a slightly older, perhaps wiser, brother, I knocked on his door to see if he could help me. He opened it, and after I explained my dilemma, replied without sympathy, “Stare at it some more.”

The advice was so bald-faced in its design to be rid of me, I was wary of it at first. But I carried my pride and my homework back to my room to try it. I adhered to the scientific method even then, believing that empirical knowledge could contradict intuition. And the results surprised me. I stared at the problem, brainstorming how to attack it, which angle I hadn’t yet tried, and, after a time, came a surprise: the thinking paid off.

The joy I discovered in that first hard-won success has pervaded my thoughts since; I love to tackle difficult questions because the rewards of elucidating an answer are unmatched. At Rice, I chose to pursue Biochemistry and Cell Biology because...

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Feels very personal but takes too long to describe the main point; argument is not at the beginning.
Revised claim of leadership skills

My leadership experience extends into areas other than just computer science. I have been co-president of the CSTers since freshman year and president of the Rice Computer Science Club for two years. As the president of the CS Club, I coordinated ___ program/project which increased visibility and membership to ___ %. I have also served as the freshman representative of Hanszen Residential College government and coordinated/presented/provided ___. In addition, I have been a campus tour guide, the campus-wide coordinator for a campus parade, an advisor for freshman orientation, and the lead violinist in a string quartet. Through this variety of interests and leadership experiences, I developed ____ skills, which will provide me with a unique perspective for my work in computer science.

Describing previous research

• Demonstrate
  – What you did (your unique role; your accomplishments)
  – Why you did it
  – So what?
• Incorporate presentations & publications
• Balance quantity and quality if you have multiple experiences

In the summer of 2007, I devoted my time to studying the transmembrane adhesion receptor protein Beta integrin and its binding interactions with specific domains of three proteins: focal adhesion kinase (FAK), Kindlin-2, and Numb, with Dr. Iain Campbell at Oxford. While I successfully cloned the kindlin-2 gene into E. coli, I cloned, expressed, and purified both FAK and Numb constructs. Analysis of the 2D NMR HSQC peak shifts upon Beta integrin binding to FAK and Numb allowed me to see which Beta integrin residues, particularly which NPxY/F motifs, are involved in the interaction. The ongoing research is significant because we know little about these interactions at the molecular level, and how they moderate integrin’s ability to adhere to the extracellular matrix that gives structural support to our cells.

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More do’s and don’ts

<table>
<thead>
<tr>
<th>Do</th>
<th>Don’t</th>
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<tr>
<td>✓ Be clear and explicit</td>
<td>✓ Be long-winded</td>
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<tr>
<td>✓ Organize paragraphs with logic; topic sentences</td>
<td>✓ Include too much “fluff” (universal experiences/attitudes)</td>
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<tr>
<td>✓ Give credit to lab (be specific with P.I. identification)</td>
<td>✓ Sound arrogant</td>
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<tr>
<td>✓ Include well-prepared graphics and bibliography, if appropriate</td>
<td>✓ Be critical of past professors or other grad programs</td>
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<td>✓ Mention political, intolerant religious, or sexist views</td>
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Final thoughts

• Begin early
• Get feedback & revise
  – Meet with a communication consultant at the Center: cwowc.rice.edu

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