Constructing your research statement

- Goals of a research statement
- What is your unique story?
- Research experience
- Proposed research program
- Checklist for your statement
- Revise and repeat

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Goals of a Research Statement

- Introduce <u>you</u>...and your research program
 - You should convince us that you have unique accomplishments that ideally suit you to do the proposed research
- Explain the importance of your research interests to scientists outside your field
 - What would success in your field facilitate?
- Spell out what is novel & exciting about your past & future research
 - What are your accomplishments, how do they propel you towards new goals?
- Summarize your research goals
 - Five year plan, leading to a career trajectory

Put yourself in the shoes of a supportive advocate

- The document should help someone explain your research and make a case for you
 - Put words in the mouth of your champion
 - What would you like this person to say about your in a meeting?
 - Make sure these statements appear clearly in your document
 - Otherwise, your champion may inadvertently misrepresent you
- Can I scan the page and find a sentence that states your:
 - General research area
 - Important research contributions
 - Areas of expertise
 - Long and short-term research goals
 - Importance and implications of your research: past, current, and future

Rules of thumb

- Use the first person
- Avoid using jargon
- State clearly important questions in the field you have and will address
- Use succinct paragraphs and boldface important points:
 - Research question
 - Important finding
 - Implications
- Cite your own publications
- Provide specific statements about the importance of your research
 - This provides ammunition for a supportive committee member
- Stick to 2 pages

What is your unique story? Broad brushstrokes...

• What is the general motivation behind your research interests?

- A basic science question? A particular application? Developing technologies?
- Why should we care about it?

• What training and experience do you have to support your question?

- Do not focus only on your most current research; try to present a unifying story or trajectory driving your training?
- Breadth can be a strength if explained well: diversity enables discovery

• What specific research questions do you want to study and how?

How will this help achieve your long-term goals?

Write one or two sentences for each point, then use them to construct an introductory paragraph

Describe your research accomplishments *Goals*

Help others assess your talent and experience

 Prior work in a field not directly related to your research program can provide useful information about your abilities

Accurately describe your own research contributions

- Either overstating or understating the importance of your work can be a problem
- This isn't about being boastful or modest, just an honest assessment
- If you have difficulty with this, pretend you are writing about a respected friend or colleague
- Can you frame your work in a broader context?
- Can you explain the importance of your work to non-experts?

Describe your research accomplishments

In a sentence or two, provide an overview of each research area

- What are the general questions and methods?
- Why should we care?
- Succintly explain your research in a few paragraphs:
 - In a sentence, what is the "big deal" for each of your publications or projects?
 - Major hypothesis supported?
 - Novelty--first evidence of...?
 - These should be independent of the particular methods used
 - In a couple sentences, explain your specific contribution or insight
 - Report specific methods and results only generally if it helps explain the findings
 - Explain broader implications of your findings

Summarize your proposed research program *Goals*

- Demonstrate that you have honed your ideas into tractable and fundable chunks.
 - Have you identified a critical question and a methodology for answering it?
 - What specific short-term goals do you have that would open up a new research area?
 - Think about the first few papers you would like your lab to publish
- Explain how the proposed work facilitates novel long-term research directions
- Demonstrate that you are ideally suited to perform the research
 - The research should arise naturally from your prior accomplishments
 - You must have a good idea AND be the right person to perform the work

Summarize your proposed research program

- In a sentence or two, provide an overview of each proposed research area
 - What are the general questions and methods?
 - Why should we care?
 - How does it combine your prior expertise?
- Succintly explain your research goals in a few paragraphs:
 - In a sentence, what is the "big deal" for each proposed projects?
 - Major hypothesis?
 - Novelty--first evidence of...?
 - Specific aims?
 - Generally, what methods will you use?
 - What results would be exciting?
 - What would be the broader implications?

Checklist for your statement

- The document should help someone explain your research and make a case for you
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- Can I scan the page and find a sentence that states your:
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 - Areas of expertise
 - Long and short-term research goals
 - Importance and implications of your research: past, current, and future

Evaluate, revise, and repeat

- Start early
- Be prepared to make many drafts
- Get feedback often and early from friends and colleagues
 - Have them do the checklist
 - Give it to them before you've spent hours going in the wrong direction
 - Don't spend time refining something that you may need to completely overhaul
- Don't be too attached to what you've written
 - Starting over once you've honed your messages can provide the most succint and clean document
 - Identify the key ideas for each paragraph and put them in the first sentence
 - Often research statements start out too specific and then broaden over a number of drafts, or vice-versa

Evaluate, revise, and repeat

• Make sure you're excited

- Let your passion and positive attitude come through in the writing
- Negative thoughts and doubts will also come through

• Give yourself time to process between evaluating and rewriting

 Studies show that simply waiting after receiving information enhances the salience of information presented, and the choices we make with that information

• Read other people's statements

- Identify *specifically* what you like or dislike
- Can you read it and quickly present a 5minute summary?
- Choose a format that works for you

Good Luck!

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