
Developing an Academic Career

Reasons for pursuing academics!

- Desire to improve your field
 - Solve important problems
 - Develop better ways of treating patients
 - Understand why and how diseases develop and progress
 - Intellectually rewarding
 - Peer recognition
 - Career advancement
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Reasons for not pursuing academics!

- Highly competitive
 - Poorly remunerated
 - Publishing is hard work
 - Getting funded is even harder work
 - Few outside of academics appreciate the difficulties
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Reality

- The best way to make a difference
 - Discovering new information and
 - Passing it on to your colleagues

You will have the greatest impact on your field

Required Steps

- develop and idea
 - Test the idea in a controlled study
 - Present it to your peers
 - Modify your idea and test again, etc.
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Do I Need to get Funding?

- **Yes** = your first MAJOR SUCCESS,
particularly if funding is peer reviewed
 - confers legitimacy on you and your research
 - as prized as publications in best journals
 - best of all possible starts to your academic career
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Do I Need to get Funding?

- **Yes** – research ALWAYS costs
 - not “only” your time
 - the space that you sit in
 - your computer, office supplies
 - your team – high quality research requires at least good data management and statistics
 - equipment and supplies
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When Should I Apply for Funding?

- Initial grants are usually written in your fellowship year or first couple of years as faculty
 - Timing should be carefully planned – stronger grants have some carefully collected preliminary (pilot) data
 - Demonstrates commitment
 - Some experience should translate to a more practical proposal
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What Types of Funding are there?

- **Intramural-**
 - start up, seed funds, endowments
 - **Foundation/Society/Association**
 - AHA, TSFRE, Hughes
 - **Industrial**
 - **Government**
 - NIH, DoD, NSF
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Fellowships

- NIH – F32 National Research Service Award- Post-doctoral
 - NIH – Training Grants (T32)
 - AHA –
 - TSFRE
 - Howard Hughes
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Some Junior Research Grants

- NIH – K08 Mentored Clinical Scientist Development Award
 - Focuses on laboratory based research
 - NIH – K23 Mentored Patient-Oriented Research Career Development Award
 - Focuses on research conducted in human subjects (investigator actually interacts with the human subjects)
 - K25 – transition from quantitative sciences to biology
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What are the Keys to Success

- **YOUR MENTOR OR MENTORSHIP TEAM**
 - Having new or original ideas or approaches
 - A well prepared proposal, critically reviewed by as many “reviewer-like” people as possible
 - **STARTING AS EARLY AS POSSIBLE**
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What are the Keys to Success?

- Really knowing what is going on in your field
 - Talks, meetings
 - Go and visit key researchers – what they think about your ideas – scientifically rational?
 - Collecting some high quality pilot data
 - Will also inform you about logistics
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What are the Keys to Success?

- Paying exquisite attention to detail of your methods
 - Precisely describing the logistics of your study
 - Exactly how will each aspect of your study be done
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Step 1 – Familiarize Yourself with the Funder

- Review grants from other people who were successful in getting funded
 - Review the types of projects that have been funded previously – make sure that yours “fits”
 - Check the web site to find out who reviews their grants
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Step 2 – Get Organized

- Meet with your mentor
 - Map out grant sections
 - Find out what all the institutional deadlines are, e.g., budgets, sponsored programs, department chair sign off, resources and environment statements, etc.
 - Develop a timeline with deadlines you MUST keep
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Step 3 – Start with a Concept Sheet

- Usually 2-3 pages
 - Include the specific aim of your proposal and your actual research hypothesis
 - Provide key background points
 - Why your aim is important (e.g., public health)
 - Justify need and timeliness of your approach
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Step 3 – Start with a Concept Sheet

- Describe what **YOU** have already done to start to address this problem
 - Outline (e.g., with diagram) a possible study design, explaining key items such as
 - Intervention, control
 - Outcomes
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Step 4- Get Everyone to Review

- Review with **ALL** your mentors
 - Review with other potential reviewers, as directed by your mentors
 - When optimized, under your mentor's guidance consider discussing with contact people at Foundations, NIH
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Step 5 – Polish, Polish, Polish

- Develop full study protocol – keep reviewing instructions, make sure you are on track
 - Keep reviewing with ALL your mentors
 - Make sure that all your support documentation is ready
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Perseverance

Focus

Collaboration

Resilience
