How to Get Started: Your First Study

Maria Oliva-Hemker, M.D.
Sterner Family Professor of Pediatric Inflammatory Bowel Disease
Director, Division of Pediatric Gastroenterology & Nutrition
Johns Hopkins University School of Medicine
Baltimore, MD

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• Abbott Immunology—research funding
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Learning Objectives

• Learn what questions to ask yourself before starting your first study
• Understand the importance of surrounding yourself with the people that you need to perform research
• Be aware the resources needed to be able to complete your study
### Job Positions of 3rd Year Pediatric GI Fellows (2007)

- 75% academic medicine
- 13% private practice
- 2% pharmaceutical industry

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### Pediatric GI Fellows Self-Assessed Confidence in Research and Teaching

- Felt more prepared for clinical work than for a career in research
- Felt more confident in their teaching skills than their research skills ($P<0.0001$)
- Felt they were at the “beginner” stage for writing grants, designing research protocols and conducting research projects

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### Questions to Ask About Your Study Before You Start

1. Am I studying an area that I am passionate about?
2. Is my question important and do I have a hypothesis?
3. Is my study able to be completed in a (relatively) short time period?
4. Will the results be publishable (in a good journal)?
5. Will this study help me achieve funding for future research?
Questions to Ask About You and Your Environment Before Starting Your Study

1. Do I have the necessary knowledge?
2. Do I have the right team surrounding me?
3. Do I have the necessary resources?

Do I have the necessary knowledge?

- Read, read, read!
  - Focus on high quality journals
  - Schedule a specific time
- Consider writing a review or case series
- Agree to be a peer reviewer for articles
- Attend meetings/conferences
- Consider taking writing skills classes
- Follow patients with diagnoses aligned to your research interests

9 Types of “Research Mentors”

http://dentcartoons.blogspot.com
**Identify a Team of Mentors**

- Mentorship is critical in academic medicine
  - Increases career success and happiness
  - Increases likelihood of greater research productivity, publishing
  - Provides access to a wider network
  - Helps with academic advancement

**Other Team Members Besides Your Mentors**

- Technicians
- Research coordinators
- Colleagues
- Biostatisticians/epidemiologists/informatics specialists
- Investigators at other institutions

**Other Resources**
**Active vs Anticipated Research Activity of GI Fellows**

<table>
<thead>
<tr>
<th>Percent of Fellows</th>
<th>Basic Research</th>
<th>Clinical Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fellows</td>
<td>68%</td>
<td>44%</td>
</tr>
<tr>
<td>Attending</td>
<td>64%</td>
<td>74%</td>
</tr>
</tbody>
</table>

Qualls CM et al., J Pediatr Gastroenterol Nutr 2008

**Protected Time**

- Research will not be successful without protected time
- 75-80% protected time for laboratory based individuals
- 50% for clinical investigators if research involves patients they see in their clinical practice

**Research Costs Money**

- Supporting effort of individuals involved in the study
- Laboratory space
  - Supplies
  - Equipment
- Databases
- Processing of biospecimens
- Indirect costs
Regulatory Environment

- Human research protections
  - Institutional Review Board (IRB)
  - Privacy laws (HIPAA)
- Animal care and use programs
- FDA, NIH
- Institutional oversight

Do Not Be Discouraged with “Failures”

- Experiments that do not work
- Clinical studies that do not have the expected “positive” results
- Failed grant applications
- Rejected papers
- “Scooped” research
Take Home Tips for Getting Started with Your First Study

- Choose a topic that is interesting to you
- Enhance your content knowledge and acquire additional training
- Identify the people, time and resources needed for your study