2019 Shapiro Summer Research Program:
How to Find a Mentor and Project

Vera Tsenkova, PhD
Director of Health Professional Student Research

Guests Today:

Pam Kling, MD – Faculty Director of Student Research
Claire Baniel – recipient of a 2018-2019 Medical Fellows Research Award from the Howard Hughes Medical Institute (HHMI)
Kithy Elliott – Office of Student Research Staff
Sarah Pavao – Program Specialist, Department of Surgery
Learning Objectives

1. Become familiar with the Shapiro Summer Research Program
2. Identify key resources for finding projects and mentors
3. Learn strategies for contacting and interviewing mentors
4. Know timeline and application process
Intro to Shapiro

• 8-10 weeks full-time summer research with a UW mentor
• $400 per week stipend
• Can combine with other summer opportunities- shorter term global health, clinical opportunities, vacations
• Prior research experience not required!
• Required participation in Student Research Forum in November
• Counts toward Path of Distinction in Research
• Can set you up for yearlong research experiences
• **Student responsible for finding a mentor and project**
Finding Projects and Mentors

There is no single “right way” to find a project!
Available Resources

Online Sources

Shapiro Project
Shapiro Portal

https://summerresearch.med.wisc.edu/
GENERAL INFORMATION
- Directories, Financial Aid, Forms, Photos, Policies etc. - New

OASIS Calendar -- The Movie - New

2018-2019 MD Program Entering Students - New

Student Research Programs
Student Research Email: studentresearch@med.wisc.edu

Year Long Research Fellowships Database and ICTR-Shapiro Year Long Research Fellowship

Shapiro Summer Research Program Information and Resources
- 2018 Shapiro Summer Research Program Information

Program and Project Information

Past Projects and Abstracts
- 2018 Shapiro Projects List - New
- 2018 Shapiro Abstracts - New
- 2017 Shapiro Projects
- 2017 Shapiro Project Abstracts
- 2016 Shapiro Projects
- 2016 Shapiro Project Abstracts
- 2015 Shapiro Projects
- 2015 Research Forum Abstracts
- Shapiro Projects 2009-14

Sample Resume/CV - New
<table>
<thead>
<tr>
<th>Student</th>
<th>Mentor</th>
<th>Mentor Department</th>
<th>Title of Proposed Research Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldred, Breanna, N</td>
<td>Groose, Molly, MD, MS</td>
<td>Anesthesiology</td>
<td>Variables Associated with Intracardiac Thrombus during Orthotopic Liver Transplant: A Retrospective Single-Center Study</td>
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<tr>
<td>Loeberman, Michael, D</td>
<td>Abd-ElSayed, Alaa, MD, MPH</td>
<td>Anesthesiology</td>
<td>One Versus Two Diagnostic Blocks in Radiofrequency Ablation for Pain Management</td>
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<td>Maerz, Bradley, J</td>
<td>Cios, Hubert, MD</td>
<td>Anesthesiology</td>
<td>Pain Assessment Following Adductor Canal Block in Total Knee Arthroplasty with Liposomal Bupivacaine or Standard Bupivacaine</td>
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<tr>
<td>Miller, Samantha, A</td>
<td>Sanders, Robert, PhD</td>
<td>Anesthesiology</td>
<td>Impact of Intraoperative Hemodynamics and Blood Loss on Risk of Postoperative Delirium</td>
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<tr>
<td>Nguyen, Sean, H</td>
<td>Abd-ElSayed, Alaa, MD, MPH</td>
<td>Anesthesiology</td>
<td>Radiofrequency Ablation for Treating Headache Related Pencranial Neuralgia</td>
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<tr>
<td>Probst, Haley, A</td>
<td>Cios, Hubert, MD</td>
<td>Anesthesiology</td>
<td>Postoperative Pain and Opioid Use in Total Knee Arthroplasty Using Liposomal Bupivacaine Versus Bupivacaine for Adductor Canal Block</td>
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<tr>
<td>Varghese, Priya, B</td>
<td>Cios, Hubert, MD</td>
<td>Anesthesiology</td>
<td>Impact of Liposomal Bupivacaine Injected for Adductor Canal Block on Recovery Profile and Block Characteristics Following Total Knee Arthroplasty</td>
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<tr>
<td>Zimmerman, Haley, R</td>
<td>McCormick, Timothy, DO</td>
<td>Anesthesiology</td>
<td>Pain Management for Burn Patients Undergoing Skin Grafting</td>
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<tr>
<td>Belongia, Daniel, J</td>
<td>Ge, Ying, PhD</td>
<td>Cell and Regenerative Biology</td>
<td>Enhancing Top-Down Proteomics Data Analysis Tools for Precision Medicine through Machine Learning</td>
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<tr>
<td>Wrobbel, Max, G</td>
<td>Ge, Ying, PhD</td>
<td>Cell and Regenerative Biology</td>
<td>Top-Down Proteomics of Hypertrophic Cardiomyopathy for Precision Medicine: Exploring Sarcomeric Protein Changes in a 3D Engineered Cardiac Tissue Model</td>
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<tr>
<td>Welsh, Katie M</td>
<td>Arkin, Lisa M</td>
<td>Dermatology</td>
<td>A Multivariant Analysis of No-Show Rates and Factors Contributing to Non-Attendance at an Academic Pediatric Dermatology Center in the United States.</td>
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<tr>
<td>Beck, Aaron</td>
<td>Shah, Manish, MD, MPH</td>
<td>Emergency Medicine</td>
<td>Identifying Gaps in Primary Care that Influence Emergency Care Use by Community-Dwelling Patients with Dementia</td>
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<tr>
<td>Genthe, Nicholas, A</td>
<td>Mancera, Michael, MD</td>
<td>Emergency Medicine</td>
<td>Community Paramedic Pilot Program Operational Metrics and Impact on Patient Emergency Medical Services Utilization</td>
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<tr>
<td>Hatab, Jenna, M</td>
<td>Kuehnel, Nicholas, MD</td>
<td>Emergency Medicine</td>
<td>Sedation State Scale</td>
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<tr>
<td>Hesse, Steven, P</td>
<td>Pulia, Michael S, MD, MS</td>
<td>Emergency Medicine</td>
<td>Developing Antibiotic Stewardship Interventions for Skin and Soft Tissue Infections in the Emergency Department: A Mixed Methods Analysis</td>
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<tr>
<td>Kim, Brandon, R</td>
<td>Schmidt, Jessica, MD MPH</td>
<td>Emergency Medicine</td>
<td>Identification of Predictors of Mortality and Early Interventions for Pediatric Patients in the Acute Care Setting At Mbale Regional Referral Hospital, Uganda</td>
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<tr>
<td>Saenz, Sarah, N</td>
<td>Svenson, James, MD</td>
<td>Emergency Medicine</td>
<td>Use of BNP in the Emergency Department</td>
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<tr>
<td>Wilson, Julia L</td>
<td>Schmidt, Jessica, MD, MPH</td>
<td>Emergency Medicine</td>
<td>Assessing the Feasibility and Barriers of a Diabetic Diet in a Rural Guatemalan Community</td>
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<tr>
<td>Craigova, Lenka</td>
<td>Martonfoly, Ildi</td>
<td>Family Medicine</td>
<td>Factors Which Affect the Decision of Family Physicians That Enter Practice in Underserved Communities</td>
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<tr>
<td>Gobiirsch, Matthew J</td>
<td>Hamrick, Irene M, MD</td>
<td>Family Medicine</td>
<td>Changing Patients with Type 2 Diabetes Mellitus From Insulin To DPP-4 Inhibitors</td>
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<tr>
<td>Ai, Angela C</td>
<td>Shirley, Daniel MD</td>
<td>Medicine</td>
<td>Variation in Ultrasound Probe Use in the Ambulatory Setting: Disinfection Status and Supplies During Use</td>
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<tr>
<td>Albrecht, Calvin, M</td>
<td>Murray, David, MD, FACC</td>
<td>Medicine</td>
<td>Factors Impacting the Development of Post-Heart Transplantation Malignancy in the Veteran Population</td>
</tr>
<tr>
<td>Colevas, Sophia M</td>
<td>Ravel, Amish, MD</td>
<td>Medicine</td>
<td>Biomimetic Cardiac Organoid for in Vitro Investigation of Cardiac Cell-To-Cell Interactions</td>
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<tr>
<td>Di Bartolomeo, Sarah E</td>
<td>Parajuli, Sandesh MBBS</td>
<td>Medicine</td>
<td>Outcomes of Pre-Transplant, Recurrent and Post-Transplant Malignant Melanoma in Kidney Transplant Recipients</td>
</tr>
</tbody>
</table>
Available Resources

Social Network

Shapiro Project
Available Resources

- Faculty, interest group advisors, course instructors, and past mentors.
- Global Health: Dr. Jim Conway
- Public Health: Dr. Parvathy Pillai
## Identifying Your Research Interests

<table>
<thead>
<tr>
<th>Student-generated Idea</th>
<th>Mentor-generated Idea</th>
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<tbody>
<tr>
<td>- might take more time, work, and coordination between now and start of project due to IRBs and other protocols</td>
<td>- easier to start and you can still carve out your own piece of the project</td>
</tr>
</tbody>
</table>
Contacting Potential Mentors

- Tailor your initial email
  - Introduce yourself
  - Emphasize relevant experience
  - Show familiarity with mentor’s work
  - Attach an updated resume/CV

- Be persistent

- Pursue 2 or 3 opportunities at the same time
Interviewing Potential Mentors
Be on time and prepared with thoughtful questions

The Project:
- Is it ongoing or new?
- Does it have a clear hypothesis or is it explorative?
- Is the scope appropriate for a summer project?
- Is IRB needed? Will it be approved by summer?
- What are the expected outcomes?
- What is the potential for continuation past summer?

Your Role:
- What is expected of you?
- Independent or team effort?
- Time commitment?
- What are your skills and training needs?
- Likelihood of publication or presentation?

The Mentor:
- Availability and communication style
- Experience mentoring students
After your interview

• Send a thank-you email

• Follow up on mentor’s suggestions:
  • If they give you papers, read them
  • If they tell you to see others in the organization, see them

• If you decide to pursue a topic of greater interest, tell them promptly!
The Application is Due March 10
Submit via https://medwisc.fluidreview.com

1. Facesheet
2. Research proposal outline (3 pages):
   1. Background and Significance
   2. Research Questions
   3. Research Design and Methods
   4. Student Role and Responsibilities
   5. Statement of Motivation
   6. Learning Objectives
   7. Mentoring Plan
   8. IRB Approvals, if applicable

3. Student Resume or CV
4. Mentor Statement of Support
5. Mentor biosketch or CV
6. Copies of IRB Approvals
Surgery Research Training Programs
Overview of Surgery Programs

- Surgery historically accepts 20-30 UW Medical Students for summer research to the following:
  - Shapiro Program
  - Surgery Summer Research Experience Medical Students – T35
  - University of Wisconsin Voice Research Training Program

- All programs offer mentored research, targeted curriculum, and lab meetings specific to area of study
- Students encouraged to submit abstracts and present their work
- Opportunities for professional development
Summer Research T35

• Summer research experience for medical students
• Funded by NIH NIDDK
• Projects should be in the following Research areas:
  • Diabetes
  • Obesity
  • Endocrine disorders
  • Nutritional disorders
  • Digestive disease
  • Liver disease
  • Kidney disease and/or urologic disease

Eligibility: Must be a medical student at an accredited institution and a US Citizen/permanent Resident. Project must fit NIDDK research areas
Voice Research T32

- Funded by NIDCD
- Research focuses on the field of Voice Research

**Eligibility:**
- Students should show initiative and the ability to follow through in order to complete short-term project
- Must be a medical student at an accredited institution (i.e. UW Madison)
- Must be US Citizen or Permanent Resident
To Apply to Surgery

Please apply through the Shapiro program as normal.

Surgery opportunities posted on Medical School Portal

All surgery applications are automatically considered for the T35 or T32

Website: https://www.surgery.wisc.edu/education-training/

Or contact: Sarah Pavao 608-262-0744 or pavao@surgery.wisc.edu
### Timeline

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>December 2018 – January 2019</td>
<td>Faculty submit projects</td>
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<tr>
<td>December 2018 - February 2019</td>
<td>Students choose a project and mentor</td>
</tr>
<tr>
<td>January 29 and January 30</td>
<td>How to Write a Proposal Workshop (Noon, HSLC 1335 on 1/29 and HSLC 1345 on 1/30)</td>
</tr>
<tr>
<td>February and March</td>
<td>Drop in sessions on proposal writing</td>
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<tr>
<td>March 10, 2019</td>
<td><strong>Deadline for students to submit Shapiro applications</strong></td>
</tr>
<tr>
<td>April 15, 2019</td>
<td>Completion of application reviews and notification of awards</td>
</tr>
<tr>
<td>May 15- August 15, 2019</td>
<td>Shapiro Summer Research Program</td>
</tr>
</tbody>
</table>
Why Do Research?

1. Research is the lifeline of medical advancement.
2. Research is an integral part of evidence-based medicine
   1. Helps you navigate the ever expanding lanes of the information highway.
   2. Informs and improves your clinical practice.
3. Research provides an opportunity to do something innovative.
Shapiro graduates say:

• “Go for it! Research is a great experience, and you will become a stronger student and better learner by undertaking a research project, exploring the literature, and testing a hypothesis.”
• “Take advantage of all the opportunities provided, and don't be afraid to try research in an area that you aren't sure you want to do a residency in.”
• “Definitely do it, don't be afraid to take on your own project, and make sure you sit down and talk with your mentor about realistic expectations and goals.”
• “Make sure potential projects really sound interesting to you before contacting potential mentors.”
• “Find mentors who are great and research that you are actually interested in, otherwise it could be a long summer.”
• “Plan ahead. Tell your mentors during the initial interview what kind of experience you want AND what you want out of it, then see how they respond and if they have a proven track record of producing success with past Shapiro students.”
• “Don't focus too much on what type of research it is - having an accessible and enthusiastic teaching mentor is invaluable.”
• “Pursue a project in something you haven’t done before. It will give you the opportunity to learn about a different field of medicine and rule in/out career opportunities.”
Last Thoughts

1. Please fill out the evaluation forms
2. Don’t wait until last moment to ask for help
3. Check the portal frequently

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