Listed on the following pages are those members of the Brown University faculty who have expressed interest in sponsoring a PLME student to work under their supervision on a biomedical science research project during the summer of 2016. Please note that you may choose to identify OTHER Brown faculty members to serve as your sponsor (i.e. you are not limited to this list).

We urge you to begin your search for a faculty sponsor in the fall semester prior to the winter break period. Once you decide on a faculty sponsor and a research topic, please carefully follow the guidelines (http://www.brown.edu/academics/medical/plme/current-students/enrichment-activities/research-opportunities/summer-research-assistantship-biomedic) in proposing your project.

Your proposal should involve a relatively self-contained study that allows for independent work, i.e., the proposal should not represent a research technician’s position.

The application must be submitted ELECTRONICALLY to PLME@Brown.edu by FEBRUARY 1, 2016.
1. Reza F. Saidi, MD
Dept of Surgery
Rhode Island Hospital
Division of Organ Transplantation
401-444-4861
reza_saidi@Brown.edu

Project
Liver ischemia reperfusion injury

Requirements/Restrictions

Mentoring Plan
2. Barbara S. Stonestreet, MD
Dept of Pediatrics
Staff Neonatalogist
Women & Infants Hospital
401-274-1122 x47429
bstonestreet@wihri.org

Project
Neuroprotective strategies in the neonatal brain

Requirements/Restrictions
Biology, neuroscience, Biochemistry

Mentoring Plan
I will mentor student along with the 2 PhD’s in my lab
3. Yupeng Chen MD  
Dept of Orthopaedics  
1 Hoppin Street  
401-793-8387  
yupeng_chen@brown.edu

**Project**  
RNA therapeutics using Nanopiece for joint diseases

**Requirements/Restrictions**  
Major should be in biology, chemistry or engineering field. And he/she should have some lab experience (either in courses or in research labs).

**Mentoring Plan**  
I will firstly introduce the big picture of the whole project to the student, and let him/her know his/her work is an important piece of it. So the student can be motivated and can understand the background and the meaning of this research. We are multidisciplinary lab, so we will show the student many different lab techniques from different fields. Of course, given the limited time of the summer program, it is impossible to learn all of them, but I will let the student concentrate on one or two techniques and really master them. The student will also attend our group meeting once a week and he/she is always welcome to discuss any question in a 1-on-1 meeting with me.
4. Richard Liu, PhD
Dept of Psychiatry and Human Behavior
Bradley Hospital
401-432-1055
Richard.liu@brown.edu

**Project**
Psychosocial predictors of depression and suicidality in an adolescent psychiatric inpatient sample.

**Requirements/Restrictions**
Prior experience working in a research setting; undergraduate coursework in research methods is preferred

**Mentoring Plan**
I will hold weekly individual meetings with the SRA student, and the student will attend weekly lab meetings and research meetings, in the latter of which they will receive exposure to research faculty planning and discussing potential grant ideas. During weekly individual meetings with the student, I plan to monitor progress of the student's project relative to predetermined milestones, and will provide guidance throughout the progression of the summer project. I will also be available to meet informally between the weekly individual meetings to address any questions and provide guidance and feedback as needed. The student's project will draw from data collected in an ongoing NIMH-funded study examining prospective predictors of suicidality in an acute psychiatric inpatient sample of adolescents. The student will also have the opportunity to engage in many aspects of the roles of current post-bac RAs with regards to collection of data relevant to their project, including being trained to administer behavioral measures with direct patient contact under my supervision, and learning to do behavioral coding of recorded interactions between patients and their parents during a family assessment task.
5. Helen (Beth) Fuchs, PhD
   Assistant Professor
   Infectious Diseases Division
   Rhode Island Hospital
   401-444-7309
   Helen_Fuchs@Brown.edu

   **Project**
   Antimicrobial drug discovery

   **Requirements/Restrictions**
   No previous experience is needed, just self-motivation.

   **Mentoring Plan**
   I will personally meet with the student on a weekly basis (and as needed) and the student will closely interact with the senior members of the group on an ongoing basis. Also, the students will participate and present their work in lab meetings and division-wide research meetings.
6. Eleftherios Mylonakis, MD, PhD, FIDSA
Chief, Infectious Diseases Division
Rhode Island Hospital
401-444-7856
emylonakis@lifespan.org

Project
Using biostatistics to evaluate the impact of infectious diseases and the cost effectiveness of prevention and treatment measures.

Requirements/Restrictions
No previous experience is needed, just self-motivation.

Mentoring Plan
I will personally meet with the student on a weekly basis (and as needed) and the student will closely interact with the senior members of the group on an ongoing basis. Also, the students will participate and present their work in lab meetings and division-wide research meetings.
7. Barbara Stonestreet, MD  
Dept of Pediatrics  
Women & Infants Hospital  
401-274-1122 x47429  
bstonestreet@wihri.org

**Project**
Neuroprotection in the perinatal brain

**Requirements/Restrictions**
Biology, neuroscience, immunology background

**Mentoring Plan**
Meet with student and they will work with 2 PhDs in my lab
8. Wael Asaad, MD, PhD
Assistant Professor of Neurosurgery
Rhode Island Hospital
APC 633 and Brown SFH 470
617-905-7691
wael_asaad@brown.edu

Project
Human Cognitive Neurophysiology: Studies on neuromodulation and intra-operative electrophysiology

Requirements/Restrictions
Strong interest in neuroscience with relevant coursework. Experience with or desire to learn computer-based experimental design and data analysis. Good interpersonal skills for patient interaction and working with our lab team.

Mentoring Plan
I will directly mentor the student on his/her project, meeting with them at least once per week. I will direct the overall design and direction of the project, with increasing student input as s/he becomes skilled and knowledgeable. In addition, the human lab has 2 post-docs, a graduate student, 2 current undergraduates and several medical students who can assist this student in getting his/her project off the ground on a more continuous basis. We hold bi-weekly human lab meetings and ~monthly overall lab meetings, which this student will attend. S/he will also be given the opportunity to present their ongoing work at a lab meeting.
9. W. Curt LaFrance, Jr., MD, MPH
Associate Professor of Psychiatry & Neurology
Rhode Island Hospital
Potter 3
401-444-3534
William_LaFrance_Jr@Brown.edu

Project
-Neuropsychiatric research in seizures
-Neuropsychiatric research in traumatic brain injury

Requirements/Restrictions
Freshman through Senior with interest in brain-behavior disorders, mechanisms and treatments.

Mentoring Plan
Students will participate in weekly RIH neuropsychiatry research meetings where projects and progress are discussed. Students will be mentored in and involved with all aspects of research projects, from working with data to presenting the project.
10. Sohini Ramachandran, PhD
Dept of Ecology & Evolutionary Biology, and
Center for Computational Molecular Biology
Watson CIT 247A
401-863-9701
sramachandran@brown.edu

Project
Visualization of mutation signatures in cancer genomes

Requirements/Restrictions
Formal training in computer science is required. In Python at a minimum, but experience with Javascript is ideal, as the paper will release methods implementing visualization using Data-Driven Documents (D3.js).

Mentoring Plan
Summer researchers in the Ramachandran Lab are fully integrated into the lab community with graduate students and postdocs. Lab members all work together in our computational lab spaces in either CIT 247 or in BioMed Center 505. I meet with each lab member individually once per week, and we hold two lab meetings per week (one journal club, and one “sync-up” meeting where each member presents on last week’s progress). Making sure our work schedules overlap allows us to troubleshoot code together and draw on each other’s expertise. This student would work with another undergraduate researcher I am recruiting through an NSF REU supplement.
11. Mary Flynn, PhD, RD, LDN
Dept of Medicine
The Miriam Hospital
401-793-4707
Mary_Flynn@Brown.edu

**Project**
Food is Medicine

**Requirements/Restrictions**
Desired previous experience: some work with low-income populations would be preferred; work experience that involved working with people; basic cooking skills

Academic qualifications: completion of a at least one college level nutrition course preferred; completion of CITI training or willingness to do so for anyone taking this assistantship

**Mentoring Plan**
The student(s) would be involved in the *Food is Medicine* program I have started at Lifespan Community Health Institute. The program involves delivering a 6-week cooking program of plant-based, olive oil recipes to low-income patients. There will be at least 2 cooking programs underway the summer of 2016.

1. One involves patients from clinics at RIH and TMH who have type 2 diabetes. The student would be involved with recruitment of patients from the clinics, including phone calls and appointments to explain the program, delivering the cooking program, which includes weekly nutrition lessons designed to teach the participants how food can be used as medicine; monitoring the patients fasting blood glucose, blood pressure, and body weight on a monthly basis. The student would also be involved in educating the patients as to how the foods used in the program improve their measured risk factors. All of these activities will be done with the mentor, so there are multiple times in the week for contact. Patients who complete the 6-week program will receive groceries from a specialized food pantry at Lifespan Community Health Services to make the recipes at home. The student will be involved with taking the measures and entering the data into the patient’s EPIC chart. As part of the program, the student will learn how food can be used to improve the risk factors for type 2 diabetes. The student(s) will work with medical students from the Albert Medical School in providing this program.

2. The other cooking program will involve overweight/obese 10-15 year olds that are referred from the Pediatric Endocrinology clinics at Hasbro. The student will be involved with recruiting, including explaining the program to both potential participants and their guardian(s); consenting the participants; and delivering the program. The mentor will also be involved in all the activities in this program and work with the student on all the activities.

The student(s) will be involved in data entry and basic statistical analysis for both programs, under my guidance (mentor).

I am currently (October 2015) developing a website for the *Food is Medicine* program. The website will have basic nutrition information so any student who takes this assistantship who has not had college level nutrition will be asked to use the website to learn basic nutrition information. The student will be encouraged to develop appropriate materials for the website that are based on using food as medicine to improve risk factors for chronic diseases.

I would plan to meet at several times each week to monitor the students work in the program and to answer any questions, besides being involved in all the activities the student will be doing. The student would also work with me in the clinics in the recruitment process and providing feedback to physicians on their patients.
12. Jun Feng, MD, PhD  
Dept of Surgery  
Director of Cardiothoracic Surgery Research Lab  
Rhode Island Hospital  
401-793-8065  
jfeng@lifespan.org

Project  
Mitochondrial SK channels and Cardioprotection

Requirements/Restrictions  
Summer undergraduate students with or without Lab experiences will be qualified

Mentoring Plan  
The student will be participating in a pilot study entitled “Mitochondrial SK channels and Cardioprotection”. After training in lab procedures, He/she will work with assistance and mentorship from lab personnel. He/she will be provided with the space, time, lab materials and tissue samples necessary to complete the study. I will have weekly meetings with the student to discuss progress as well as provide further direction and assistance. Additionally, student will have the opportunity to read scientific articles and discuss them with myself and my colleagues.
Project
Effect of Dietary Medium Chain Triglyceride Intake on Colonization of Preterm Infants with Candida

Requirements/Restrictions
Prior experience with human subject research and/or clinical trials is a plus, but not required

Mentoring Plan
The project is currently being coordinated by a senior fellow in Neonatology under my mentorship. The student would work closely with the fellow on a daily basis and regular meetings with me would occur as well.
Project
Pediatric Asthma Disparities: Multilevel Factors Related to Outcomes

Requirements/Restrictions
Concentration in psychology, biological sciences, or public health. Completion of research methods and introductory statistics course preferred. Strong organizational and time management skills, excellent attention to detail, a thorough working knowledge of MS Office applications, comfort and experience interacting with children and parents from a variety of cultural backgrounds.

Mentoring Plan
SRA interns will have exposure to data from observational and intervention studies related pediatric asthma behavioral health studies:

1. Project NAPS (Nocturnal Asthma and Performance in School), examining asthma, sleep and school outcomes in 7-9 year old urban minority children,
2. NAPS-PA, a study of cultural and contextual factors related to physical activity in urban minority children with asthma.
3. ASMAS (Peer-Lead Asthma Self-Management Intervention for urban Middle Schoolers), a study that is designing and testing a culturally-tailored, group-based intervention that involves peer-facilitated asthma self-management specific to the school setting for middle school-aged, urban and Latino children with asthma.

The Childhood Asthma Research Program is located at Rhode Island Hospital, in the Bradley-Hasbro Research Center. Our lab has several offices for research support staff, with dedicated desktop or laptop computers, full internet and phone access, and all the requisite office supplies and facilities. Interns will attend weekly lab meetings covering a variety of topics related to pediatric allergy. The intern will meet with the primary faculty mentor, Dr. Koinis Mitchell regularly to develop an individual research project and to review progress with relevant literature review and data processing, and to synthesize this information within the context of the larger study. Ms. Sheryl Kopel (research associate, Department of Psychiatry and Human Behavior) will serve as a secondary mentor, providing day-to-day oversight of activities as well as training and supervision related to the processing and analysis of data. Working within the Childhood Asthma Research lab, the research intern will meet and interact with a large interdisciplinary team of pediatric asthma researchers, including clinical psychologists, asthma specialists, obesity researchers, child development and education experts, as well as other trainees in these areas. Interns will have the opportunity to assist with research participant recruitment and scheduling, orienting families to research protocols and conducting research visits, data entry, lab organization, and other tasks integral to research. Interns will also have opportunities to shadow asthma clinicians in the Hasbro Children’s Hospital Asthma & Allergy clinic. This internship has the potential to grow into a longer-term relationship with the possibility of being involved in preparing presentations for scientific conferences, and/or generating manuscripts for publication.
15. Neil Sarkar, PhD
Center for Biomedical Informatics
Box G-R
401-863-2428
Neil_Sarkar@Brown.edu

Project
Identifying Medicinal Plant Knowledge from Biomedical Literature

Requirements/Restrictions
Some experience with programming in contemporary scripting language (e.g., Ruby, Python, Julia) desired, but not required.

Mentoring Plan
• If no programming background, will teach programming
• Initial meeting to define project expectations and planned deliverables
• Daily check-in meetings to address immediate challenges with project
• Weekly meetings to discuss literature and background research related to project
• Will provide workspace near mentor for ad hoc meetings
• Prepare scientific presentation and that would be presented at research team meeting (including with collaborators from the New York Botanical Garden)
• Summarize work at end of project in a structured abstract
16. Elizabeth S. Chen, PhD
Center for Biomedical Ethics
Box G-R
401-863-2395
Liz_Chen@Brown.edu

Project
Analyzing Biomedical Data for Social, Behavioral, and Familial Factors

Requirements/Restrictions
No prerequisites; computational skills (e.g., databases and programming) a plus, but not required

Mentoring Plan

- Schedule weekly in-person meetings at mentor’s office (also available by email any time)
- Provide working space to facilitate more frequent interactions (e.g., daily)
- Provide background readings and teach requisite analytic skills (e.g., programming) [Weeks 1-2]
- Provide guidance for analyzing data and results for project [Weeks 3-8]
- Work with student to write a 1-page abstract that summarizes the project and potentially prepare an oral/poster presentation for a local event (e.g., Scialogue or Summer Research Symposium) [Weeks 9-10]