



BIOrhythms

Washington University Biology Department Newsletter

November 2016

Do You Have...

An announcement you'd like to make?

An interesting story or fun fact you'd like to share?

A professor or course you'd like to suggest for a spotlight?

We want your input! Send ideas and information to:

gerrity@biology2.wustl.edu

Helpful Links

[Biology Home Page](#)
[Biology Course Listings](#)
[Faculty Listings](#)

BIOrhythms is a publication of the Washington University Biology Department for Undergraduate Majors

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Featured in this issue:

Faculty Spotlight: Dr. Fahd Ahmad

Course Spotlight: Bio 2652: PEMRAP

Career Center: Upcoming Events

Student Groups: Synapse

Calendar: Biology Events and links to event listings



Faculty Spotlight Q&A: Dr. Fahd Ahmad



Dr. Fahd Ahmad is a physician at St. Louis Children's Hospital and the new instructor for Bio 2652: PEMRAP.

EG: Where did you grow up?

FA: I actually grew up in St. Louis so am quite familiar with the area. I left town for undergraduate and medical school and for my pediatric residency, but came back to STL for my fellowship and chose to stay for a faculty position.

EG: Was there an early experience that influenced you or fostered your interest in becoming a doctor?

FA: I have a lot of physicians in my family, so have been exposed to medicine for a long time. However when I went to college I had no desire to enter medicine, and instead planned on a career in business. Partway through my degree I realized that I enjoyed learning the information but wasn't enjoying the business environment, so took another look at medicine. I did some more shadowing and talked with more people and realized it was a better fit for me than I realized. I still went on to complete my degree in business (Bachelor of Science in Business Administration with an emphasis in Business Management), but also took my required pre-med courses and the MCAT.

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WASHINGTON UNIVERSITY CAREER CENTER

Locations:

Danforth University Center,
Suite 110 with satellite of-
fices in Lopata Hall, Brauer
Hall and Steinberg Hall

Main Office Hours in the
Danforth University Center:
Monday-Friday: 8:30-5:00

Contact Us:

Phone: 314.935.5930

Fax: 314.935.5905

E-mail: careers@wustl.edu

Website: careercenter.wustl.edu

Have a Quick Question?

You can always stop by the
Career Center's Quick
Question hours in the main
office Monday-Friday, 11am-
5pm for assistance with
CAREERlink, writing your
resume and cover letters, or
for quick guidance.

UPCOMING CAREER CENTER EVENTS

FRESHstart- Nov. 3, 6 pm in
College Hall, South 40
Welcome Class of 2020 and
First Year students! This pro-
gram will help you in your
next steps towards a mean-
ingful summer experience.
We will provide a 5 minute
overview of resources before
breaking out into small
groups.

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Dr. Fahd Ahmad cont'd—EG: Describe your educational background.

FA: I received my undergraduate degree and medical degree from The University of MO-Columbia. I completed my pediatric residency at Baylor College of Medicine & Texas Children's Hospital in Houston, TX. I then came to WashU in 2009 and completed a fellowship in pediatric emergency medicine. During my fellowship I obtained a Masters of Science in Clinical Investigation from WashU and also completed a mentored postdoctoral training program.

EG: Describe the work you do here as a physician and researcher.

FA: I spend part of my time working in the St. Louis Children's Hospital emergency department, where I have a variety of responsibilities. As a peds EM physician we oversee the overall flow of the ED, take care of patients ranging from critically ill or injured to relatively well, supervise trainees (medical students, residents, fellows), provide advice to colleagues (general pediatricians and nurse practitioners next to us in the ED or by phone to physicians in the community). Every shift is a little different, and what you do changes depending on time of day (we have day shifts, evening shifts, and overnight shifts) as well as the time of year.

My research interests are clinical and not focused on a single disease. Rather, I am interested in clinical informatics and dissemination and implementation science. I spend time looking at how information and information technology can be used to improve bedside care for patients in the ED, but I also look at ways to take existing, evidenced-based methods of providing care that are being under-utilized and help us utilize them better. Projects I'm working on (either leading or collaborating on) range from better addressing adolescent reproductive health in the ED to decreasing the use of head CT in children with head trauma to improving adherence to existing guidelines for infants with bronchiolitis, with many more in the background.

EG: What courses are you teaching at Wash U and what do you think undergrads would be most interested in knowing about the courses?

FA: I currently oversee the PEMRAP course – The Pediatric Emergency Medicine Research Associates Program. This course provides undergraduate students exposure to research in the pediatric setting. Students receive weekly lectures from experts in the field on various active research studies and learn how the research process works. They also spend time in the SLCH ED working as a Research Associate and actually help enroll patients in ongoing studies. It's a great opportunity to see how research works in the real world while also getting some clinical exposure. For anyone interested in pediatrics, in research, or even healthcare in general, it's a great chance to do something most undergrads don't ever see.

EG: Are there other things you are involved in that you would like students to know about, for example, boards or committees you are a part of or memberships to scientific organizations?

FA: Perhaps it's because of my business background, but I have an interest in teaching personal finance. In collaboration with colleagues in my department and Internal Medicine, I've created a new lecture series/curriculum for trainees in

—cont'd on p. 3

Dr. Fahd Ahmad cont'd—pediatrics and internal medicine to improve their personal financial knowledge and business of medicine knowledge. I deliver some of these lectures myself and guest speakers provide others. I've also spoken to medical students and surgery residents on the same topic, and hopefully will continue to expand the reach of this educational initiative, as most medical students and young physicians are woefully unprepared in these regards. While I am not a certified expert in this area, just learning the basics about personal finance puts the average physician way ahead of most of his or her peers.

EG: Do you have any personal hobbies or interests?

FA: I'm married with 3 children (ages 7 ½ years, 3 years, and 6 weeks) so at the moment my home life consumes most of my non-work time. However I am a baseball nut. I have a 6x4 ft poster of the Cardinals celebrating after Game 7 of the 2011 World Series on my office wall. I was at the game in person with my wife and then 2-year old son (sitting in Big Mac land). We still attend Cardinals regular season and playoff games when we can.

When not with my family (doing whatever activities one can do with those differing ages) I'm watching sports, exercising, reading books (I'm a science fiction nerd – Isaac Asimov and Douglas Adams are my 2 favorite authors of all-time), and in the few minutes remaining, watch some occasional TV shows (The Walking Dead just had its season premiere!). Of course, many days I'm happy if I even have time to fit in one of those things!



Student Review of Bio 2652: PEMRAP

"I'm currently the co-chief of PEMRAP, and last semester in the spring was my first semester as a student in the course. I think it was a great experience being in the Children's ED, since I got to get familiar with a hospital setting and interacting with physicians, residents, and nurses. The responsibility to enroll patients in clinical trials can seem daunting, but it gave me an understanding of the research projects that were going on and confidence in navigating patient communication during a stressful time. I continued during the summer, as I wanted to keep doing shifts to gain a better grasp of the hospital lifestyle and interactions with patients.

The weekly class meetings where the lead researcher conducting the study comes to explain about his/her specific study and how to enroll was very useful to see how research is conducted as a physician. Now, as a co-chief, I get to see a different perspective and help new students learn about the ED. It is very rewarding, and I enjoy seeing how students transition into their rolls and begin enrolling patients. I recommend doing Pemrap, as it is a great opportunity and gives you an insight into a field of medicine in which you may pursue."—Amber Michaeli

In your small groups, you'll get start on where you are in your process:

- Work on your resume and LinkedIn profile
- Develop your list for networking and informational interviews
- Create an action plan for summer 2017
- Explore pre-health, pre-law, and pre-grad resources and what you should do over the next 4 years to be set

We will also provide pizza, so come hungry!
RSVP here!

In addition to FRESHstart, stop by the Career Center, DUC 110, for a 15 minute visit with a career advisor. Feel free to bring a friend or come without a question in mind. We're happy to get to know you or help you in the next step of your career journey.

*Transfer students are also encouraged to attend this program.

For more upcoming events, go to careers.wustl.edu/events.



Course Spotlight: Bio 2652: PEMRAP (Pediatric Emergency Medicine Research Associates' Program)

Students talk about what happens at Children's Hospital during a PEMRAP shift. Each student has two 4-hour shifts per week, up to 20 shifts total per semester. The schedule is flexible with lots of options, which is great for students that have busy class schedules and other jobs.

Students don their PEMRAP scrubs and head to the Children's Hospital ER, where they have their own desk. They look at the chart, checking for complaints that apply to whatever study they are working on. Currently they are enrolling participants in a women's health study. Since the data that is being collected is strictly verbal, students are properly trained in how to enroll a participant on their own. Some studies require a doctor's or nurse's involvement depending on the type of data that is being collected. Studies are conducted up to the maximum number of participants and vary greatly in length. Some studies are not necessarily local to Wash U. They can be on a national level, just using Wash U as data collection point.



Student Research Associates Rachel Berger and Madison Kasoff consult with Dr. Fahd Ahmad during a shift.

PEMRAP is not as well known by the student body as MedPrep II, which has a semester-long prerequisite lecture course introducing the subject matter. PEMRAP is more specialized and more research-related, while MedPrep II focuses on learning through shadowing a doctor. PEMRAP students learn about research methods, how to conduct studies, and work directly with patients. It's a more independent experience. Students must ask the doctors and research coordinators on duty for permission to shadow during their shifts.

This course is valuable for exposing students to a real life experience of what research entails and realistic expectations about the completion of tasks. It is an opportunity to see if clinical research, especially in pediatrics, is right for them as opposed to being a medical doctor. Students can discover the balance between the roles of physician and scientist and think about which aspects they are most interested in pursuing, i.e. working with people vs. working with data collection and information synthesis.

Students state that what they enjoy specifically about working at Children's Hospital is the positive attitude of the nurses working with children and observing the doctors' bedside manners, which can be lighthearted and fun. The doctors have to determine how to treat the children like adults when necessary and how to make that feel as safe and reassuring as possible at the same time. On top of this, they have to be able to handle passing information to the parents as well, which can be a difficult balance.

This course is offered every spring and fall and sometimes summer! To learn more about this amazing opportunity for students, visit <https://pages.wustl.edu/pemrap>.



Synapse will be hosting a panel of WUSTL med school physicians on Monday, November 7th from 7-8pm in Seigle 301. The attendees will be: Dr. Nupur Ghoshal, MD/PhD (neurology), Dr. Mwiza Ushe, MD (neurology), Dr. David Limbrick, MD/PhD (pediatric neurosurgery), and Dr. Anne Glowinski, MD (child psychiatry). It is an opportunity for Wash U students to have a Q&A session with these accomplished physicians and learn more about their education, careers, and experiences.

Biology Department Calendar



Links to General Calendars and Regular Events:

Washington University Record Calendar: <http://news.wustl.edu/Pages/Calendar.aspx>

Biology Department Seminars, Mondays, 4:00pm, Rebstock 322, check the website for topics/schedule: <http://wubio.wustl.edu/events>

Evolution, Ecology, & Population Biology Seminars, Thursdays, 4:00pm, Rebstock 322, check the website for topics/schedule: http://wubio.wustl.edu/events?field_event_tags_tid=18

History & Philosophy of Science Seminar Series: <http://pages.wustl.edu/hpbm/events>

PMB Super Group: most Tuesdays 9:00-10:00 in McDonnell 362:
<http://wubio.wustl.edu/events/pmb-supergroup-seminar-series>

Donald Danforth Plant Science Center (DDPSC), Weekly Seminar Series—check the website for event details and topics: <http://www.danforthcenter.org/events/scientific-seminars>

Division of Biology & Biomedical Sciences (DBBS), all lectures and seminars: <http://dbbs.wustl.edu/Pages/Events.aspx>



October 2016

31st Major Advising begins (October 31-November 11)

November 2016

8th VOTE VOTE VOTE VOTE VOTE VOTE!!!! Don't forget, it's important!

11th Registration Begins (November 11-16)

23rd Thanksgiving Break

December 2016

9th Last day of classes

15th Final exams begin

