

In this issue:

2

**Brendan Kelly, MD
Gold Foundation
Awardees**

3

**Featured Faculty:
Emmanuel Pothos, MD**

4

**Student Spotlight:
Jenny Steinkeler, M'12**

5

**Faculty Development
Workshop Dates**

6

Saltzman: ANS Award

7

Rideout: Macy Fellow

8

New Faces in the OEA

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o&a is published five times a year by the OEA. We welcome your feedback and ideas for future articles.

Please direct your comments to Ann Maderer, phone 617-636-2191, email ann.maderer@tufts.edu.

Welcome to the New TUSM Curriculum

August 24, 2009 marked the beginning of a new curriculum at the Tufts University School of Medicine. At 8:00 am that morning the 200 members of the Class of 2013 began their medical school careers listening to Dr. Geraldine Finlay talk about cystic fibrosis. Dr. Finlay emphasized not only the clinical aspects of the disease but how advances in basic science led to improved treatment. She then interviewed one of her patients with cystic fibrosis discussing how the disease was diagnosed, the presenting symptoms, the treatments administered and the impact of the disease on the patient's life and that of her family. In so doing, the patient also successfully conveyed the message of how essential it is for physicians to be attentive listeners and the importance of seeking the patient's perspective. Over the course of the next week, students heard five additional clinical presentations and patient interviews on HIV/AIDS (Dr. Teena Kohli), Breast Cancer (Dr. Joyce Sackey), Diabetes (Dr. Richard Siegel), Systemic Lupus (Dr. Robert Kalish), and Coronary Artery Disease (Dr. Munther Homoud). These patient presentations are important elements of the new integrated basic science unit, Scientific Foundations of Medicine I (MedFoundations I). The presentations highlight the importance of a patient-centered approach and underscore the interface between basic science and clinical medicine. As students experience the components of MedFoundations I (Biochemistry, Cell/Tissue/Organ/Biology, Genetics, Immunology, and Molecular Biology), they are encouraged to seek links between basic science concepts and these clinical entities. Similarly, as they read about these patients they are asked to consider the importance of what is known (and what is not known) about the scientific determinants of clinical manifestations, diagnosis, and treatment.



MedFoundations I Patient presentation, September 2, 2009, Sackler Auditorium



AOA Professionalism Fellowship Recipient: Brendan P. Kelly, MD

Brendan P. Kelly, MD, Assistant Professor of Medicine and Pediatrics and Associate Director of the Med-Peds residency program at Baystate Medical Center, is one of three recipients of a Professionalism Fellowship from the Board of Directors of the Alpha Omega Alpha Medical Honor Society. AOA created the Professionalism Fellowship in 2009 for the purpose of emphasizing the crucial role of professionalism in being a physician. Faculty who had demonstrated personal dedication to teaching and research in specific aspects of professionalism that could be transferred directly to medical students or resident physicians were encouraged to apply.

Dr. Kelly has been awarded \$12,500 to develop new combinations of programs for teaching professionalism to residents in all specialties. Semi-structured interviews around “critical incidents” regarding professionalism will be followed by analysis of transcripts and identification of the most important and common themes of professionalism. This “bottom up” approach should generate valid directions for thematic learning and teaching in professionalism that will be made available for residency programs across the country.

Gold Foundation's Humanism and Excellence in Teaching Award

The Student Clinician Ceremony took place during the Third-Year Student Orientation on Monday, July 6, 2009. This ceremony recognizes outstanding residents through the Gold Foundation's **Humanism and Excellence in Teaching Award**. Third-year students choose up to six residents who have exhibited particularly strong teaching skills and are role models for compassionate, relationship-centered care.

Dr. Amy Kuhlik, Dean of Student Affairs, presented the Gold Foundation's frameable Certificate, specially designed lapel pins, and checks for \$250 to each resident winner of the **Humanism and Excellence in Teaching Award** at the Student Clinician Ceremony. These resident winners are now members of the Gold Humanism Honor Society.

Elizabeth Baker, MD
PGY-2 resident in Ob/Gyn at Tufts Medical Center

Justin Lee, MD
PGY-2 resident in Surgery at Caritas St. Elizabeth's Medical Center

Philip Omotosho, MD
PGY-5 resident in Surgery at Baystate Medical Center

Amandeep Salhotra, MD
PGY-3 resident in Medicine at Caritas St. Elizabeth's Medical Center

Celeste Sharplin, MD
PGY-2 resident in Family Medicine with Tufts at Cambridge Health Alliance



From left: Drs. Sharplin, Lee, Baker, Salhotra.
Dr. Omotosho was not present for the photo.



Dr. Emmanuel Pothos,
Assistant Professor,
Department of
Pharmacology and
Experimental
Therapeutics;
Course Director,
Addiction Medicine

Featured Faculty: Emmanuel Pothos, PhD

How does training in addiction medicine differ at Tufts compared to other schools?

Addiction medicine is rarely part of the formal medical school curriculum. This is due to a variety of reasons including the “unpleasantness” of the subject, the lack of resources to deal with addiction, and bureaucratic difficulties for physicians and hospital administrations in obtaining insurance coverage for addiction-related problems for their patients. In addition, drug addicts are often stigmatized patients of limited means that many health care providers simply prefer to avoid. If the health care industry is not focusing on treating addiction, it is difficult to focus medical education on addiction. As a result, most new physicians are not trained to evaluate and treat addicted patients, and this creates a vicious circle between clinical practice and medical education. Finally, many medical schools consider training in addiction as more appropriate for the later stages of clinical education (clerkships, subinternships) where this may occur in a more opportunistic and fragmentary manner. The need for a more systematic foundation in addiction training during the medical school years is often not appreciated.

Tufts University School of Medicine (TUSM) has recognized that its graduates will frequently encounter problems in addiction medicine. Tufts is currently one of fifteen U.S. medical schools committed to providing properly organized and formalized training in addiction medicine during both the preclinical and clinical years. Tufts made that commitment very early on, in the early 1990s, through the establishment of the Addiction Medicine course.

Through this course, TUSM invites leading world experts in addiction medicine, whether at Tufts or other Boston institutions, to teach our students on issues ranging from the neurobiology of addiction to clinical practice as it applies to different drugs of abuse. The course is innovative in that it incorporates the issues of the chemically dependent physician, group recovery programs and adolescent substance abuse as main topics. In addition to lectures and discussion, the course includes presentations by current and former patients who share their experience with the students and engage them in live discussion.

TUSM actively participates in the Massachusetts Consortium on Physician Information in an effort to develop educational products on addiction medicine that can be incorporated into the medical school curriculum. Also, through an intramural educational award, TUSM has committed to integrate training in addiction medicine throughout the four years of medical school. According to this integration plan, students in Year 1 are trained in interviewing patients for their prescribed and illicit drug use history and each student visits 12-step recovery group meetings. In Year 1, each student participates in the Addiction Medicine module, encompassing current main themes of the field and principles of basic science and clinical practice in addiction medicine. Addiction medicine is incorporated as a core concept in PBL sessions. The integration plan calls for lectures and interactive teaching as part of the core clerkships across Tufts-affiliated hospitals. In year 4, students can rotate through Tufts and affiliated hospital laboratories that work on addiction research. An online database of patient interviews and addiction-related quizzes will be developed to complement the curriculum.

You are co-investigator on the Massachusetts Consortium National Institute of Drug Abuse Center of Excellence project. Please describe the overall project and the specific component taking place at Tufts.

The Massachusetts Consortium for Physician Information received funding from the National Institute of Drug Abuse (NIDA) to survey the educational needs of the biomedical community in addiction training. *(continued on page eight)*

Student Spotlight: Jenny Steinkeler, M'12

OEA: *You served last year on the Curriculum Committee and as the co-chair for the MERC meetings. What were the highlights from your perspective? How can students have an effect on the development of the educational program?*

JS: Last year, I was elected by my classmates to serve as an M'12 Curriculum Representative. In my role as Curriculum Representative, I co-chaired monthly MERC meetings (along with Robert Bonow) and served on the Curriculum Committee. From my perspective, one highlight was being able to participate in the process of establishing a new curriculum. It felt very rewarding to be a voting member on this committee in light of the positive effects that this new curriculum will have on future classes at Tufts, beginning with the Class of 2013. A second highlight was appreciating how the Curriculum Committee valued student input and seeing how student opinions can truly make a positive impact. I witnessed first hand how the opinions and suggestions that students shared in MERC meetings and through course evaluations translated into changes facilitated by the curriculum committee. I was gratified to see the way in which the TUSM faculty valued students' opinions. Since I was re-elected as co-Curriculum Representative for the upcoming school year, I look forward to continuing my work with the Tufts Curriculum.

I think that an easy and effective way for students to get involved in the development of the educational program at Tufts is to share their ideas, suggestions, and opinions about the curriculum. Good constructive feedback via course evaluations, MERC meetings, or stopping by the Office of Educational Affairs is necessary to continue the future evaluation and development for the educational program here at TUSM.

OEA: *You worked in the Office of Educational Affairs this summer. What did you do and what were the challenges?*

JS: This summer I, along with my fellow classmate Claire Lawlor, worked in the Office of Educational Affairs to develop syllabus entries and virtual patient cases imbedded with interactive media based on six diseases: Diabetes, Breast Cancer, Coronary Heart Disease, Systemic Lupus Erythematosus, HIV/AIDS, and Cystic Fibrosis. This work will be part of the new Scientific Foundations of Medical Science course for the incoming first-year students. I believe that presenting these diseases in an interactive format will not only provide students with a familiarity for case presentations but will also provide a realistic grasp of the clinical manifestations of each disease. After in depth research on these diseases, I was able to create a valuable educational tool for the first-year students.

I found it challenging, yet extremely rewarding, to create case presentations, because I had never done so before. Taking the syllabus entries and using them to create these case presentations helped me to think like a physician. I am sure it will help the first-year student to do so as well. I feel tremendous satisfaction having been a part of this process.



OEA: *Tell us about your background and pathway to Tufts.*

JS: I grew up in Falmouth, Maine, a small suburb just north of Portland. My father is an ER physician and directs an Emergency Department in Lewiston, Maine. My mother (J'74) teaches Spanish and French in the Portland Public Schools. I have always been interested in medicine, not only because of my father but also because I have many other relatives who are physicians. My older sister Jill Steinkeler (J'01, M'05), her husband Jared Silverstein (M'04), my uncle Josh Careskey (M'77), as well as two other uncles and an aunt are all physicians. My brother Andrew (A'04), who recently graduated from dental school, started an oral maxillofacial surgery residency and will also earn an MD degree as part of his program. Two of my cousins Holly Careskey and Matthew Careskey are currently students at TUSM. As you can see, the medical profession is part of my family culture. While in high school, I did volunteer work at Mercy Hospital in Portland Maine. As an undergrad at Brown University, where I majored in Neuroscience, I volunteered in a childhood obesity clinic at Hasbro Children's Hospital and also
(continued on page five)

(JS; continued from page four) performed clinical research with a pulmonologist at Maine Medical Center. These experiences along with many conversations with the physicians in my family confirmed my desire to become a physician.

Tufts has always been an important part of my family. Both of my older siblings and my mother attended Tufts as undergraduates. I have had many conversations with my sister Jill and brother-in-law Jared about the educational opportunities that they received while studying medicine at Tufts. They have told me that the quality of the education that they received contributed to their current success in their residencies and fellowships. It was easy to see that Tufts was the perfect choice

for me when I applied to medical school.

OEA: What are your long term plans?

JS: I just began my second year of medical school and am currently undecided as to what field of medicine I will eventually pursue. I am learning so much that I am keeping an open mind until I have the opportunity to rotate in the hospital during my third and fourth years. Since serving on the Curriculum Committee has been such a positive experience for me, I hope to continue to be involved in medical education throughout my career as a physician.

Faculty Development Workshops

We are pleased to announce a series of faculty development workshops that will be offered this academic year. This series was planned based on responses to the faculty development needs assessment survey conducted in the early summer (see page six). Additional workshops will be offered and scheduled at the clinical sites.

Please save these dates. We will send a detailed description of the workshops as the date approaches. If you have questions, please contact Maria Blanco, EdD (maria.blanco@tufts.edu) or Sharon Freeman (sharon.freeman@tufts.edu) at 617-636-0891.

Fall 2009 Workshops:

Advising/Mentoring Learners in Difficulty: How Can You Best Advise Learners and Help Those in Difficulty?

Friday, October 23, 2009, 9-11:00 am, TUSM, Boston campus

Approaches to Program Evaluation: How Can You Make the Most of Your Academic Program?

Friday, November 20, 2009, 9-11:00 am, TUSM, Boston campus

University-Wide Conference on Teaching: Beyond Student Evaluation of Teaching: Peer to Peer Exchanges

Friday, December 11, 2009, 8:30 am-3:00 pm, TUSM & TUSDM, Boston campus

See: <http://www.tufts.edu/med/about/offices/oea/facultydevelopment/facultydevelopmentcalendar.html> for a full listing of dates.

OEA Faculty Medical Education Journal Club

The OEA Faculty Medical Education Journal Club is intended to provide faculty with key articles in medical education. This edition features:

Effective Teaching and Learning on the Wards: Easier Said than Done?

Young, L., Orlandi, A., Galicher, B., and H. Heussler. *Medical Education* 43: 808-817, 2009.

Please see:

<http://www.tufts.edu/med/about/offices/oea/facultydevelopment/journalclub.html> for

more articles and summaries. Full articles and summaries of articles are available from Ann Maderer, ann.maderer@tufts.edu.

AAMC 2009 Annual Meeting

This year the Association of American Medical Colleges (AAMC) Annual Meeting will take place in Boston, from November 6-11, 2009 at the Hynes Convention Center.

Registration information may be found at: <http://aamc.org/meetings/annual/2009/registration/start.htm>

Highlights of the TUSM 2009 Faculty Development Needs Assessment Survey

Dear TUSM Faculty,

Thank you for responding to our faculty development needs assessment survey. We received 206 responses! This survey data helped us finalize the design of the faculty development program we will offer this year (please see page five for a list of centralized workshops; other workshops will be offered at our clinical sites).

From your responses to the survey we learned that:

- Individual consultation was the faculty development initiative offered last year that got the highest ratings.
- Most faculty are not aware of our Faculty Development course TUSK website despite our advertising efforts. Please visit the website at <http://tusk.tufts.edu/view/course/Medical/1891> (TUSK log-in is required). We need your feedback to keep moving this educational resource forward!
- Only a few faculty signed up to receive the Medical Education Literature Alerts. This educational effort is led by our wonderful group of librarians. Please sign up with Elizabeth Richardson at elizabeth.richardson@tufts.edu to receive monthly medical education literature updates on a topic/s of your interest from our library.
- Main faculty development areas of interest are:
 - advising and mentoring
 - giving constructive feedback
 - program evaluation
 - competency-based education
 - use of TUSK and IT resources
 - curriculum development and instructional design
 - fostering critical thinking skills

Resident-As-Teachers Programs

- 37% stated that they have a resident-as-teachers program in place.
- 81% found the support received from the OEA to develop resident's teaching skills useful (rating average 4.1, rating scale 1-5, with 5 as high).
- 44% confirmed that their chief residents attended the May 2009 TUSM Chief Residents Conference.
- 75% found the conference useful (rating average 4, rating scale 1-5, with 5 as high). This year's Chief Residents Conference is on April 12, 2010, 1–5:00 pm, at TUSM, Boston campus (please contact sharon.freeman@tufts.edu for more information).
- Main areas of resident's teaching needs are: giving constructive feedback; lifelong learning and self-assessment; teamwork and managerial skills; creating a resident's portfolio; evaluating student's clinical performance; teaching "on the fly" at the clinical setting.



Nutrition Award for Dr. Saltzman

Edward Saltzman, MD, received the 2009 Physician Nutrition Specialist Award from the American Society of Nutrition to support development of online teaching modules for third- and fourth-year TUSM students. The modules will focus on nutrition problems commonly encountered in medicine. In addition to addressing clinical issues, basic science correlates drawn from earlier TUSM coursework will be incorporated. The modules will be developed in collaboration with OEA staff and with faculty from basic science and clinical departments.

Dr. Saltzman is Associate Professor of Medicine and Associate Professor of Nutrition and Chair, Department of Nutrition Sciences in the Friedman School of Nutrition Science and Policy. He also directs the TUSM Nutrition Course for first- and second-year students.

2009 Zucker and Aisner Teaching Awardees

The Zucker and Aisner Teaching awards were presented to their recipients at the General Faculty Meeting on June 1, 2009. The Zucker Clinical Teaching Award recipients are nominated by their peers and then selected by the Tufts University School of Medicine Curriculum Committee. The Aisner award recognizes excellence in teaching Physical Diagnosis.

The winners of the 2009 Milton O. M'30 and Natalie V. Zucker Clinical Teaching Prizes were Michael Worthington, MD (in the Accomplishment category) and Kevin Hinchey, MD (in the Innovation category). Dr. Worthington is Chief of Infectious Diseases at Caritas St. Elizabeth's Medical Center, and Dr. Hinchey is the Internal Medicine Residency Program Director at Baystate Medical Center.



Dr. Fararooy (left) and Dean Rosenblatt (right)



Dr. Worthington (left) and Dr. Hinchey (right)

This year, and for the first time, the Mark Aisner, MD Award for Excellence in Teaching Physical Diagnosis was presented to a team of medical educators located at the Lemuel Shattuck Hospital. Led by Farshid Fararooy, MD, the Shattuck team was recognized for their outstanding teaching of Physical Diagnosis to second-year TUSM students.

SAVE THE DATE!

Mary Y. Lee, MD, Medical Education Research Day

The second bi-annual Mary Y. Lee, MD, Medical Education Research Day will be held on **Wednesday, March 31, 2010**, from 8:00 am - 4:00 pm, in the Sackler building on the Boston Campus.

More information will be available soon on the OEA website.

Jesse Rideout, MD, Macy Fellow

The goal of the Harvard Macy Institute Program for Educators in the Health Professions is to enhance the professional development of educators in the health professions. The program provides a select group of 55 healthcare professionals with the knowledge base and skills to enhance their expertise in both conducting an educational project of their own design and taking a leadership role in the educational activities at their home institutions. The program consists of two sessions in residence at Harvard: an 11-day winter session and a six-day spring session.



Dr. Rideout at the Clinical Skills and Simulation Center

The OEA sponsors one faculty member to attend the program on a yearly basis. Last year's TUSM Macy fellow was Dr. Jesse Rideout, our Director for Simulation Education. During the program, Dr. Rideout worked on his project *High-Fidelity Simulation Within a Traditional Autonomic Pharmacology Course for Preclinical Medical Students*, which was awarded with a 2009 Innovations in Education Intramural Grant.

The goals of the project are to:

1. Integrate basic science pharmacology concepts with clinical presentations and management by using high-fidelity mannequins.
2. Provide early exposure to simulated critical care patients.
3. Enhance understanding and increase short-term knowledge acquisition of autonomic pharmacology.
4. Improve retention of knowledge beyond preclinical years – into clerkships.

For more information about the Macy Program, please contact Maria Blanco at maria.blanco@tufts.edu, 617-636-6588.

(Pothos, continued from page three) The intent is to develop and disseminate educational products related to addiction medicine with a special focus on prescription drug abuse. Other members of the Consortium include Boston University, the Cambridge Health Alliance and the University of Massachusetts. The educational products produced are intended to serve as prototypes for any medical school in the country. Other institutions can either readily adopt the developed products into their curriculum or develop new ones based on the prototypes. A key component of this effort is product dissemination. Through continuous partnership with NIDA and the AMA, we strive to publicize and spread the use of our educational products through professional meetings (e.g., AAMC conferences) and on-site visits to medical schools that have not yet included addiction training in their curriculum.

At Tufts we have leveraged our Problem-Based Learning course (PBL). In collaboration with Dr. Ralph Aarons, the PBL director, the OEA, and several of the teaching faculty in Addiction Medicine, we work to develop and expand PBL-related products that facilitate student learning in areas related to prescription drug abuse. Patient interviewing, diagnosis and treatment of patients addicted to pain-relieving drugs involve many medical specialties and constitute a daily routine in hospital wards. By encouraging self-directed learning in these areas and by starting during the preclinical years, the goal is to instill a professional attitude and create a solid background in addiction medicine that will help our students throughout their career.

The products of the consortium will be presented this coming Fall at the AAMC annual conference in Boston, November 6-11, 2009:
(<http://www.aamc.org/meetings/annual/2009/start.htm>).

Tell us about your research.

I am a neuroscientist and neuropharmacologist and have focused on the study of synaptic plasticity of central dopamine systems. These pathways originate in the midbrain and are closely linked to addictive disorders. My research has dealt extensively with issues related to drug addiction, such as the neurochemical basis of opiate withdrawal and the relation between caloric restriction and the intake of psychostimulants. Recently, we opened up another field of experimental work to consider whether common dietary obesity is actually an addictive disorder that involves the same pathways in the brain as those involved with drugs of abuse. Astonishingly similar deficits in dopaminergic neurotransmission characterize animal models of drug addiction and obesity, as well as in both drug addicts and obese human patients. It seems that such deficits may drive addictive behavior and we are in the midst of testing this hypothesis through different tools, including monitoring of changes in real-time neurotransmission and associated behavioral changes in animals.

How did you end up at Tufts?

Following completion of the graduate program in Neuroscience at Princeton University and a successful funding record through a NIDA B/START award and private foundations while being a postdoctoral fellow and junior faculty at Columbia University, I decided to become an independent investigator focusing on the basic science of addiction and hedonic behavior. I chose to come to Tufts and the Department of Pharmacology and Experimental Therapeutics in late 2000 to capitalize on the opportunity to develop this area for the department, to take advantage of the excellent space and core facilities offered by the institution and to benefit from collaboration opportunities in the wider Boston area. My commitment to Tufts was only strengthened by my involvement in the medical school curriculum through the Addiction Medicine course and the recent expansion of the Neuroscience program that will allow additional opportunities for collaboration and innovative research.

OEA's New Faces



Nicole Love

Sitting at the front desk, Nicole Love is the first point of contact in the OEA, assisting students, faculty and staff, and answering all of your OEA questions by phone, in person or email. She will be the person to contact for iClicker issues, exam returns, and scheduling appointments with OEA staff. Outside of the OEA, you will see Nicole staffing a variety of programs, such as the Physical Diagnosis exams, OSCEs and Clinical Skills Interclerkships.



Chris McNeal

A recent transplant from the great city of Chicago, Chris serves as the **Clinical Skills and Simulation Center (CSSC) Medical Simulation Specialist** providing technical support for all simulation operations. In addition to a wealth of knowledge regarding simulation, Chris also brings to the position valuable experience in pre-hospital and in-hospital clinical settings as a medic. He embraces an open door policy and is committed to helping students develop and hone their clinical skills.