

O&A newsletter of the office of educational affairs

august 2007
vol 1 issue 1

In this issue:

Educational Strategic Plan

2

Innovations in Education

3

Geriatrics Retreat

4

Faculty Development

5

Evaluation & Assessment

5

Calendar

5

Featured Faculty

6

Editors:

Scott K. Epstein, MD

Ann Maderer

O&A is published six 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.

Visit us at
<http://www.tufts.edu/med/about/offices/oea.html>

Welcome to Tufts University School of Medicine's Office of Educational Affairs and the premiere issue of our bi-monthly newsletter, **O&A**. The newsletter is designed to provide students, faculty and administration with a snapshot of the latest curricular developments at the school and our affiliates.

Each issue will report on the evolving academic program, discuss evaluation and research activity, profile a faculty member, and alert you to upcoming events such as grant deadlines and faculty development conferences.

Last summer saw the launching of the TUSM Educational Strategic Planning (ESP) initiative. Dr. Scott Epstein, who succeeded Mary Lee, M.D., as the Dean for Educational Affairs, discusses the ESP process on page two.

The OEA is excited to welcome several new staff members. Working closely with Dean Epstein on the ESP is the Curriculum Development and Activities Coordinator, Maria Blanco, Ed.D. And with changes in the curriculum come changes in the evaluation process. To support this effort, Keith White, PhD, Director of Assessment and Evaluation, has come on board and is working with Dean for Educational Development, Janet Hafler, Ed.D. (see page five more information about faculty development and evaluation at TUSM). Finally, Margaret Ivins joined the OEA team as Administrative Coordinator and will staff the Curriculum Committee, support Course Directors and coordinate the day-to-day preclinical curriculum including maintenance of the preclinical schedule, administering examinations, and preparing material for use on TUSK.



Maria Blanco, EdD
Curriculum Coordinator, ESP



Donna Merrick
Program Director



Scott Epstein, MD
Dean for Educational Affairs



Carolyn McVoy, MEd
Associate Dean for Educational Affairs



Molly Bergeron
Secretary



Kasia Zawadzka
Staff Assistant, PBL & Selectives



Ann Maderer
Administrative Director



Keith White, PhD
Director, Evaluation & Assessment



Janet Hafler, EdD
Dean for Educational Development



Sharon Freeman
Program Manager



Samantha Fleming
Administrative Coordinator, Evaluation



Margaret Ivins
Administrative Coordinator, Curriculum



School of Medicine

ESP: Seeing the Future with the Educational Strategic Plan

A commitment to excellence and continuous improvement is a defining characteristic of a profession and of a professional school. The Tufts University School of Medicine (TUSM) curriculum has a track record of success producing students who match to the most competitive and highly sought after residency programs. Residency program directors consistently evaluate Tufts students as superior house officers; Tufts students then go on to successful careers in academic medicine, teaching, research, and practice. Building on these successes it is essential that we continue to strive to attain the next level of excellence. Indeed, this philosophy imbued the work of the Educational Task Force. The resulting **Educational Strategic Plan (ESP)**, *Focused Excellence*, (<http://www.tufts.edu/med/docs/about/strategicplan/SPfinal3-2-06.pdf>) laid the ground work for the development of a new curriculum.

This document prominently noted that “advances in genetics and molecular and cellular biology, among others, are diminishing the traditional boundaries between disciplines and increasing the interface between basic and clinical science. This rapid evolution of medical science, along with the changing role of the physician in society, poses challenges for the traditional approach to medical education.” Physicians must now address a changing healthcare delivery system and new social and economic realities in order to effectively treat patients. Increasing emphasis must be placed on patient safety, quality of care, effective communication, teamwork, delivery of compassionate care, evidence-based practice and life-long learning.

Therefore, TUSM is now engaged in a revision of the curriculum with a focus on creating:

- a “translational education” that provides a foundation built on the integration of basic science and clinical education throughout all four years
- earlier clinical exposure without any diminution in the basic science rigor of a TUSM education
- opportunities for earlier career exploration
- enrichment opportunities that will expose students to broader areas in healthcare
- learning communities that will foster small group teaching and faculty-student interaction, and a robust advising system that starts on Day One.

A Steering Committee oversees the efforts of 16 Working Groups comprising approximately 120 faculty (representing 11 Basic Science and 8 Clinical Departments) and nearly 50 students. These groups meet on a monthly basis to develop objectives, teaching and learning approaches, and strategies for evaluation and assessment. The new curriculum will be launched in the fall of 2009.

The **MedExplorations** Working Groups are creating a learning community structure that will foster close interaction between faculty and student. The communities will also offer a four-year advising program and increased small-group learning. These working groups are building on the successful Selective Program to create enrichment experiences in community service, global health, public health and healthcare policy.

The **MedFoundations** Working Groups are creating courses to enhance integration between basic, clinical, and social sciences. For each course, co-directors will lead a committee that ensures each contributing department maintains its identity as an integral part of the course. In **Foundations of Medical Sciences I and II** students will learn the core principles of Biochemistry, Cell Biology, Molecular Biology, Immunology, Genetics, Anatomy, Physiology, Pharmacology, and Pathology. The course **From Health to Disease** will extensively integrate systems-based Physiology, Pathophysiology, Pharmacology and Pathology. **Foundations of Behavioral and Social Science** will focus on key aspects of the life cycle and population medicine. Building on the Epidemiology and Biostatistics Course, students will experience a longitudinal experience that promotes evidence-based practice, problem-based learning, and integrated case based learning.

MedCore Working Groups are designing the early clinical experience, clinical clerkships, fourth-year rotations and integrating key themes across the curriculum. In **Foundations of Patient Care** students will learn clinical skills, including interviewing and physical diagnosis, and participate in a year-long longitudinal clinical experience working directly with a practicing faculty member. Pre-Clerkship course work will be completed by March of the 2nd year allowing the Clerkship experience to begin in early May. This will create three to four blocks of elective clinical time during 3rd year for students to more fully explore career options. The 4th year will build on its existing structure to include a teaching requirement and a basic science/translational medicine experience. The former will help students develop teaching skills that will benefit them during residency training and beyond. The latter will allow students to select from a large array of offerings designed to enhance their understanding of clinically relevant basic and translational science in areas related to their future career choice. Principles of basic science and a set of key themes (compassionate care, professionalism, ethics, quality and safety, communication, cultural competency, geriatrics) will be integrated throughout the 3rd and 4th year curriculum.

(continued on page three)

ESP (continued from page two)

A number of ideas emerging from the ESP and Working Groups have led to changes to the curriculum that are being implemented immediately to benefit current students. For example, the opportunities for Global Health rotations were immediately increased and the number of students participating has risen significantly. Basic science course directors are developing strategies to further highlight the clinical importance of their core content. Courses such as Microbiology and Infectious Diseases,

and Pathophysiology, Pharmacology and Pathology will showcase a highly integrated approach to teaching.

By building on a strong and successful educational program the new curriculum will take TUSM to the next level of educational excellence. Students and faculty are encouraged to contribute to this exciting and important endeavor. For more information and to join a Working Group, students and faculty should contact Maria Blanco, Ed.D., Office of Educational Affairs, Maria.Blanco@tufts.

Innovations in Education Intramural Grant Program

The Innovations in Education Grant Selection Committee chose six proposals from an outstanding pool of applicants. The awardees address areas of curricular need noted in the Educational Strategic Plan, including innovative approaches to simulation-based training, strategies for enhancing multicultural competency, and the integration of basic science and clinical teaching programs. The awards support efforts to enhance educational programs not only for students at the Medical School but also for students at the Sackler School and those enrolled in the Masters of Public Health Program.



Asclepius, The god of medicine and healing.
<http://www.pantheon.org/areas/gallery/mythology/europe/greek/asclepius.html>

2007-2008 Awardees:

Carrie Bell, MD, Julie Feinland and Sarah Perez-McAdoo, MD
Baystate Medical Center

Community health curriculum in reproductive health disparities and cross-cultural care in Obstetrics and Gynecology clerkship

This curriculum addresses community reproductive health disparities and cross-cultural care in the obstetrics and gynecology clerkship at Baystate Medical Center (BMC) and is a collaboration with the department of OBGYN at BMC, the Division of Midwifery and Community Health as well as community organizations. The primary goal is to prepare Tufts medical students in the OBGYN clerkship to become leaders in the understanding of reproductive health and health care disparities as well as advocates for the elimination of health disparities. The curriculum incorporates four seminar sessions within the six-week OBGYN clerkship rotation and will be evaluated by the medical students and community members after each seminar and at the end of the clerkship.

Gladys Fernandez, MD; Mihaela Stefan, MD; Susan Albright, Director TUSK, David Page, MD; Michael Picchioni, MD; Neal Seymour, MD; Kevin Hinchey, MD; Richard Wait, MD, PhD

Baystate Medical Center

From the Web to the Simulated Patient Room: Self Directed Web-Based Virtual Patients to Support and Enhance

Simulation-based Training and to Assess Learning: An Adjunct to Curricular Innovation

The investigators plan to develop and implement a case-oriented web-based training curriculum, which will complement the simulation-based training of third-year clerkship students in Surgery and Internal Medicine. This web-based tool will be added to the current educational efforts of the Baystate Simulation Center, incorporate the currently utilized site provided by TUSK, and provide an adjunct to evaluation. This will not only serve to promote independent study, but will also serve as a medium for preparation, research and self-evaluation. In conjunction with their simulation curriculum, the students will complete case-specific assessment exercises that will allow evaluation of general comprehension and individual learner understanding.

Stanley Jacobson, PhD
Tufts University School of Medicine
The Tufts University Digital Human Anatomy Project

This project is an interdisciplinary collaboration between basic scientists and clinicians that has the potential to modernize the way anatomy is taught to medical, dental, and non-medical students. Anatomical models constructed from CT data will be produced, resulting in new CT imaging protocols optimized for data processing and generating a large virtual library of full body CT scans from a diverse population of diseases.
(continued on page 4)

(continued from page three)

In a pilot study, images were placed in laptops adjacent to the bodies and were found to be an important learning tool. The library of images will be a national resource for clinical and bioinformatics research, fostering important collaborations between clinicians and basic scientists, and between the university and industry.

Laura Liscum, PhD
Tufts University School of Medicine
Pathways to Science

This project is an undergraduate course to be team-taught by TUSM 4th year medical students and Sackler and Friedman School graduate students, and offered to senior and junior Biology majors at Pine Manor College. Pine Manor is a small liberal arts college for women with a student body rich in ethnic and racial diversity. The course will cover diseases that disproportionately affect African-American and Hispanic women, as well as techniques commonly used in biomedical laboratories. Each disease topic will be covered in three 75-minute sessions led by a Tufts student team. The Pine Manor course director and a Tufts

course facilitator will attend every session. There will be 2.5 contact hours per week.

Ruth Palombo, PhD
Tufts University School of Medicine
Preparing Tufts MPH Graduates for the Changing Nature of Public Health Practice

A competency driven, practice-based curriculum will be designed while promoting faculty development and innovations in teaching to enhance the Masters of Public Health (MPH) program. The two components of this project are: 1) faculty development to use cases and concept mapping and 2) design and integration of new teaching methods to promote active, experiential learning, enhance professional knowledge acquisition and critical thinking and expand opportunities for problem solving. Five cases will be developed, one case for each core course: biostatistics, epidemiology, health communications, health services policy and management and environmental health. Tufts Academic Technology Services and TUSKs case studies framework will assist faculty in using cases and concept

mapping. Cases and concept maps will be available on TUSK.

Henry Wortis, MD
Tufts University School of Medicine

Distance Workshop: Genetic analysis of host resistance to infectious pathogens
 This project will enhance the teaching of mammalian genetics and genetic analysis at Tufts by forming a working partnership with scientists at The Jackson Laboratory (TJL) in Bar Harbor, Maine. A monthly videoconference research workshop will be created. Sessions will be held from October to April in each of two academic years. In May of each year, participants will travel to a mid-way site for an overnight joint research conference. Participating faculty will be drawn from the laboratories from the entire University with an interest in genetics, immunology and microbiology and the genetics project at TJL. While specific laboratories would present their work for discussion and criticism and the presentations would be addressed to graduate students, participation would be open to all members of the Tufts University research community.

Fifth Annual Geriatrics Education Retreat

With the generous support of the Ross Initiative on Aging (<http://www.tufts.edu/programs/ross/>), the OEA hosted the Fifth Annual Geriatrics Education Retreat at TUSM on July 25, 2007. Eighteen faculty from the Tufts community were present including representatives from Lahey Clinic, St. Elizabeth's Medical Center, Newton Wellesley Hospital, Shattuck, Baystate along with T-NEMC, Tufts MPH program and Boston School of Occupational Therapy.

Dr. Sandra Bellantonio of Baystate, the TUSM Geriatrics Curricular Theme Leader, presented a summary of a three-day AAMC Geriatrics Consensus workshop she attended in July. She reported that TUSM faces the same challenges as other U.S. medical schools in defining the content and objectives for a geriatrics curriculum. Dr. Scott Espstein, who is overseeing the TUSM curricular revision, has charged the Geriatrics Task Force with developing measurable objectives to be brought to the Educational Strategic Planning working groups.

Initial steps were taken to form a student Geriatrics Interest Group. If you are interested in either the student interest group or being added to the Geriatrics Task Force e-list, please email ann.maderer@tufts.edu.

Interclerkship Name Change

The Interclerkship Planning Committee has decided to change the name of the third-year Interclerkship to the **Clinical Skills Interclerkship** (or CSI). Including "clinical skills" in the name more accurately reflects the curricular content of this one-day exercise.

CSIs are scheduled for October 10 at Baystate - for third-year students and faculty at Baystate - and October 17 at TUSM. These dates are listed on the 07-08 academic calendar under the old name, Interclerkship.

Faculty Development

Janet P. Hafler, Ed.D., Dean for Educational Development

The importance of our faculty members as educators is key to our institution. Faculty development functions include career development related to educational work and the promotions process, educational research, and skills training related to educational responsibilities and our educational strategic plan. At TUSM, the opportunity for physicians to develop as teaching faculty begins when they are students, continues into the residency and fellowship years and is continuously supported when they have achieved faculty status, whether they are clinical instructors or full professors. The TUSM longitudinal faculty development program moves from the first exposure students have to medical education in an elective course; to teaching and learning opportunities for faculty who teach in the pre-clinical years; to teaching residents how to teach in the clerkships; to the programs geared to the skills and pedagogical development at the faculty level. Listed below are some upcoming opportunities. In the next issue of *o&a*, we will provide a full description of each opportunity. To schedule an appointment with Dr. Hafler, contact Sharon Freeman in the OEA, 617-636-0891 (sharon.freeman@tufts.edu).

- ◇ **Student Medical Education Course**
- ◇ **Resident as Teacher Initiative**
- ◇ **New Tutor Training**
- ◇ **Experienced Tutor Training (Fall)**
- ◇ **Giving Effective Feedback**
- ◇ **Effective Use of IT in Teaching, Learning, and Research (Fall and Spring)**
- ◇ **Clinical Skills Interclerkship (Fall and Spring)**
- ◇ **Case Writing Workshop**
- ◇ **Practical Approaches to Precepting (May)**
- ◇ **University Conference on Teaching and Learning (Fall)**
- ◇ **Summer Institute for Teaching and Learning with Technology (May)**
- ◇ **Health Sciences Mini Symposium (March)**
- ◇ **Effective Lecturing — A Presentation and Exercise**
- ◇ **Faculty Development Outreach**

the O&A calendar

October 10, 2007

Clinical Skills Interclerkship at Baystate

October 17, 2007

Clinical Skills Interclerkship at TUSM

December 12, 2007

University Conference on Teaching and Faculty Development (on the Medford campus)

December 15, 2007

Deadline for submission of Innovations in Education grant program Letter of Intent

January 30, 2008

Deadline for submission of Innovations in Education Full proposal

March 5, 2008

Medical Education Research Day

March 14, 2008

Academic Technology Health Sciences Mini-Symposium

April 9, 2008

Clinical Skills Interclerkship at Baystate

April 16, 2008

Clinical Skills Interclerkship at TUSM

Please contact Ann Maderer, ann.maderer@tufts.edu, with any questions or additions to this events list.

Assessment and Evaluation

Keith White, Ph.D., Director of Evaluation and Assessment

The OEA provides data-centered support aimed at guiding TUSM's decision-making, strategic planning, accreditation, assessment, and course-level data management activities. Currently faculty members receive feedback on their teaching and courses from students. Course evaluations and related activities are essential for the school's growth. As we move forward we are exploring designing a peer review of teaching and educational contributions in addition to student feedback. The OEA will facilitate a feedback loop in which student, faculty, and the Curriculum Committee's responses to assessment and evaluation efforts are incorporated and integrated into regular, strategic planning and curriculum improvement activities.

Our best-practices-based approach is founded on a cadre of contemporary education, medical, and evaluation research that emphasizes the importance of reflective practice and evaluation in teaching, learning, cognitive, and professional development processes. As we look forward to collaborating on a regular basis we want to hear from you so that we can continually improve our programs. Subsequent issues of the *o&a* will include research-based tips to assist in approaching feedback and evaluation opportunities. For more information, contact Keith White, Ph.D., Director of Evaluation and Assessment at 617-636-3660 (keith.white@tufts.edu).

An Interview with Dr. Ralph Aarons: Problem-Based Learning Course Director and Horse Whisperer

What can students gain from PBL?

Problem-Based Learning is a wonderful vehicle that medical students can use to initiate the transformation from “passive” learning to “active” learning. We are fortunate at Tufts that each year we consistently attract such wonderfully talented individuals to the School of Medicine. Each new class of medical students arrives with credentials affirming individual and collective past distinctions navigating a diverse range of pre-medical educational pathways. However, despite diversity in the content of their education, these students are very much alike in having spent most of their time in

environments of “passive” lecture-based learning. In contrast, the educational process integral to success in medical school is that of “active” learning, where the student becomes actively engaged in determining what needs to be learned, why the content is important, where the knowledge can be found, and how the skills can be acquired. The body of medical knowledge will continue to expand long after the brief years of medical school have been completed, thus each student will require skills of life-long learning to continually manage, refine, and update the current body of knowledge essential to their unique practices of medicine.

clinical cases. Faculty members and 4th year students are passionate about their practice of medicine and are eager to share their knowledge with others. PBL, however, is the venue for 1st and 2nd year students to explore and experiment with the tools that direct the process of their own learning. It is an exciting and rewarding adventure that can easily be overrun by the teaching passion of a tutor who is too eager to direct the learning of process of others. The effective PBL facilitator is a tutor who encourages and empowers students to command the direction of their group. By this means the students become the content experts as they determine how to acquire and integrate new knowledge by their own efforts.



Ralph Aarons, MD, tames Cutter

Why/how does the process work? The process of PBL is a microcosm of the real world of clinical medicine. Each student is a member of a small team of students (5–7) who work together to explore clinical cases. The students determine the issues that are important, the questions to be asked, and the resources to be utilized to bring information back to the team which will elucidate the processes of disease and health. Exactly like a medical team in a clinic or on the ward, the PBL group contains the strengths and weaknesses of its individuals and depends upon each member developing their personal skills of communication, cooperation, participation, and initiative. In addition, the success of the PBL group depends upon each member giving and receiving feedback in ways that encourage each individual to improve and the effectiveness of the group to increase. There is a faculty “tutor” assigned to facilitate each group but it is the students, not the tutor, who direct the group. The tutor may be a faculty member or a 4th year medical student.

What is the biggest challenge of training PBL facilitators? The number one challenge of training PBL facilitators is to convey permission for the facilitator to abstain from functioning as an “expert” in areas of content that are revealed in the

What was the last movie/book you read and would recommend? The last movie I saw was *Ratatouille*. This is another fabulous masterpiece of art, inspiration, humor, music, and ideas from Pixar. The story is about how one’s passion can not only drive and inspire the creation of something of value but also can inspire others around us to accomplish more and, more importantly, to become more than they might ever have imagined possible. It is a joyful story, with good & evil, hate & love, fear & courage, action & romance, and a brilliant integration of ideas, art, and music.

Please tell us about your summer vacation. I returned to Colorado to spend two wonderful weeks exploring the mountains, breathing dry air, visiting with old friends and older relatives, and maximizing face-time with my wife and children. We stayed several days in Estes Park, which lies at the entrance to Rocky Mountain National Park. We drove from there, over Trailridge Road (the highest continuous highway in the U.S. with elevations reaching 12,200 feet), then on through the mountains to Aspen, where my wife attended a Pediatric Infectious Diseases Conference sponsored by my alma mater, the University of Colorado Health Sciences Center.