As many of you may know, last spring the Pritzker School of Medicine announced it will be decreasing the number of matriculating students in 2009 from 100 to 88. The decision is rooted in the philosophies and fundamental principles of our curriculum: all teaching by University of Chicago faculty, a well-resourced curriculum, and a well-resourced student body. We believe these elements help to foster an educational environment that is best able to sustain excellence in a dynamically changing health care environment.

Our specific goals in decreasing the class size are aligned with the new Pritzker Initiative. This progressive plan for the curriculum is discussed in detail in this issue of the Pulse by those who serve on the Pritzker Initiative Steering Committee and will lead to the program. By reducing the class size, Pritzker will increase student-faculty interactions, be able to devote additional educational resources and financial support to students, renew our emphasis on scholarship and discovery, and restore some of the personal bonds in modern medical education that are often lost because of pressures on faculty time.

A smaller class size will give Pritzker students an opportunity for greater involvement in the learning experience. Students will participate in increased small group learning and more interactive forms of education such as journal clubs and case studies. Most importantly, students who matriculate in 2009 will have a new requirement for participation in scholarship and discovery throughout their education. This requirement, along with the greater emphasis on small group learning, will require a heavier commitment on the part of faculty. With a stronger faculty-to-student ratio, faculty members will have the opportunity to be even more active and engaged in each student’s learning experience.

We are committed to providing all of our students with a robust and dynamic medical education. The changes to our curriculum combined with the reduction in class size will offer positive benefits for all of our students. If you have questions about these new initiatives or others taking place at the medical school, I would be happy to hear from you at dean-for-meded@bsd.uchicago.edu.

With best wishes,

Holly J. Humphrey, MD '83
Dean for Medical Education
By Dr. Halina Brukner and Members of the Pritzker Initiative Steering Committee

As our mission statement notes, the Pritzker School of Medicine prides itself on its success in “…inspiring diverse students of exceptional promise to become leaders and innovators in science and medicine for the betterment of humanity.” The Pritzker curriculum has continued to serve our students well over many years and has been a vibrant entity, continually evolving to incorporate new teaching methods and technologies.

In order for medical school curricula to remain vibrant and responsive to changes in science and society, it is important periodically to take a broad look at the way we teach. It was in this spirit that we began the Pritzker Initiative in 2005, with the establishment of several key principles for the curriculum of the future. Those principles are:

- An emphasis on active learning
- Integration among disciplines when possible and appropriate
- A requirement for a scholarly project for all medical students

Over the ensuing years, faculty members and students have worked diligently to systematically examine our courses and clerkships, to identify strengths and weaknesses, and to evaluate new teaching modalities in light of our known strengths in biomedicine. The result of these ongoing efforts will be the rollout of the first year of the Pritzker Initiative in August 2009, with progressive implementation through 2012.

Curricular Map of the Pritzker Initiative

The Pritzker Initiative
The following summary provides an overview of the various aspects of the Pritzker Initiative as described by the leaders of each component; it is likely that some aspects of the current plans will evolve further as implementation progresses. However, we are confident that with continued careful evaluation and with thoughtful input from faculty and students, we will be successful in developing the Pritzker Initiative into a model curriculum for medical education in the 21st century.

**THE SCIENTIFIC FOUNDATIONS OF MEDICINE**

The Scientific Foundations of Medicine curriculum has focused on several principles: to temper the number of lectures with small group discussions and relevant clinical case presentations; to reduce redundancy in lectures among courses; and to promote student self-learning. In addition, courses on related themes and approaches will be integrated as far as possible: *Cells and Molecules; Tissue Biology; Response to Injury; and Neurobiology*, each to occur in one of four quarters. For example, Biochemistry Cell Biology and Basic Genetics will be mounted as a 9-week, integrated course in the Autumn Quarter. The *Response to Injury* course during the Spring Quarter will include Microbiology, Cell Pathology, and Immunology with as much integration as possible. Additionally *Neurobiology* will be taught with Behavioral Neuroscience and Pharmacology.

**THE HUMAN BODY**

The Human Body is a redesigned human gross anatomy course in which the students learn clinically oriented human anatomy through dissection, lectures, and study of electronic radiology and embryology material. The course runs from early August through mid-October and includes daily lectures and labs. Faculty from the Organismal Biology & Anatomy department deliver the majority of the lecture material, however faculty from other departments provide supplementary lectures, as well. Members from the Department of Radiology give lectures and present lab material on medical imaging; faculty from the Department of Surgery provide surgeons’ perspectives on regional anatomy; faculty from Medicine, Surgery, and Anesthesia & Critical Care give lab talks in the dissection hall on clinical aspects of anatomy. Through such exposure, students not only learn human anatomy, but meet and interact with nearly 30 University of Chicago faculty members, including more than 25 clinical faculty members.

**THE TIME PROJECT: TECHNOLOGY IN MEDICAL EDUCATION**

TIME is an ambitious project designed to bring the latest digital media technology into the learning environment of Pritzker. TIME encompasses three distinct endeavors:

- **TIME – Space** will create a robust searchable indexed database that contains all of the educational content used in the curriculum at the Pritzker School of Medicine. Media of all types (handouts, PowerPoint presentations, lecture recordings, PDF files, etc.) will be stored in the database allowing all students the ability to explore material throughout the entire curriculum. This will be an exceptional resource for students in the preclinical years exploring the clinical relevance of their basic science instruction and for students in the clinical years revisiting the basic science underpinning of clinical issues. A working demonstration is anticipated in April, 2009 and the system plans to go live in the 2009-2010 academic year.

- **TIME – Teach** will compile information on a variety of learning tools available to faculty. Audience response systems, lecture recording, blogs, wikis, etc. are reviewed and explained to facilitate their use by faculty.
Pritzker Initiative

- **TIME – Sim** is the most ambitious arm of the TIME project. The goal is to create an almost limitless set of computer-based patient simulations to teach students clinical reasoning. The computer-based simulation will feature patient avatars that can be asked questions, and virtually examined. Lab results of all types will be available and students will generate a differential diagnosis as they evaluate the patient. Feedback will be integrated throughout the simulation. This interactive simulation will be state of the art and a significant improvement over existing simulations designed for medical students.

**Scholarship and Discovery**

The Scholarship and Discovery Thread builds on Pritzker’s already strong track record in producing research scholars through the NIH-funded Pritzker Summer Research Program. By fostering scholarship in medical education, quality improvement, community health, and global health through completion of a mentored scholarly project before graduation, we will be able to offer even more opportunities for scholarship and discovery. First-year students will acquire core skills through restructuring the existing biostatistics course and addition of new electives. Scholarly projects will primarily occur in the preclinical years, with a return to their scholarly area in the fourth year. This thread will culminate in students showcasing their work through the Senior Scientific Session.

**Patient-Physician-Society-Systems (P₂S₂)**

The Patient, Physician, Society, and Systems (P₂S₂) is a new course that will be implemented longitudinally across the entire four-year Pritzker curriculum. P₂S₂ brings under one umbrella the content of the current non-basic science courses of the pre-clerkship curriculum and oversees the continued development of these themes in the clerkship years. The successes of the Health Disparities, Clinical Skills, Patient-Physician-Society, and Social Context of Medicine courses are maintained, while new content and integrated learning units will be introduced. Seminars and small group learning will be utilized, as will expanded use of standardized patients and the Clinical Performance Center.

**Clinical Medicine**

The third and fourth years of medical school will continue to focus on clinical experiences and hands-on learning. The new August start date allows a shift of the entire schedule so that students may begin their clinical rotations at the end of the second year; it also may provide additional time for elective experiences. In addition to the core clinical clerkships in the third year, the Pritzker Initiative will include periodic inter-sessions that will bring basic science into focus through the prism of newly learned clinical material. The inter-sessions may also focus on overarching themes such as health policy, public health, and translational medicine. So-called “none-dominational strands”—areas relevant to clinical medicine in such a broad way that they transcend clerkship divisions—will be woven into the curricula of the clerkships throughout the third year. Such strands include palliative care, advanced clinical skills, informatics, safety and quality, and several others. Fourth-year requirements are being reviewed in the context of the overall curricular structure. Finally, plans are underway for establishing a longitudinal clinical experience for medical students during the first two years in order to give them the opportunity to engage with patients on a long-term basis.
The Pritzker School of Medicine recently announced it will offer financial support to selected students who choose to pursue a one-year research project, international experience, or community service work. The intent behind the Pritzker Fellowships runs parallel to the Pritzker Initiative: supporting the development of future leaders in medicine across the spectrum of research, scholarship, and service.

Students chosen to receive one of the fellowships will receive $20,000, beginning in July 2009 and continuing throughout the 2009-2010 academic year. Eligible students must have completed at least two years at the Pritzker School of Medicine. All applicants must have a faculty sponsor who will provide mentorship and support during this year and ensure the completion of the proposed project. Participating students will ultimately present their work in at least one forum, be it Medical Education Day, Senior Scientific Session, or a regional or national conference.

We are committed to providing our students with ample opportunities to explore scholarly work and understand the breadth of discovery that is possible. Applications are due to dean-for-meded@bsd.uchicago.edu no later than January 30, 2009.

For more information, visit http://pritzker.bsd.uchicago.edu/current/students/PritzkerFellowships.shtml.
Prominent NIH Chair Joins Pritzker Professors to Discuss Health Care Reform

By Colleen Denny, MS1

Throughout this exciting and electric election season, the problems of the struggling US health care system have become a topic of national discussion, both for candidates and voters. And who better to plunge into these discussions than the medical students who will make their careers in the future health care system?

On Friday, August 29th, the new Pritzker Class of 2012 was treated to a panel presentation involving some of the most prominent voices calling for health care reform in the United States. As part of the first-year Health Care Disparities in America experience, students spent the prior week discussing the economic aspects of the American health care system as well as its repercussions for patient health. The four-way panel discussion marked the culmination of the week’s coursework and included Assistant Professor of Hospital Medicine Dr. Elmer Abbo, who has worked with Pritzker and the University law school in his efforts to enable health care reform, and Dr. Matthew Wynia, Director of the Institute for Ethics at the American Medical Association. They were joined by Dr. Christopher Masi, Assistant Professor of Medicine, an outspoken supporter of a single-payer system of healthcare. Also on the panel was Dr. Ezekiel Emanuel, the Chair of the Department of Bioethics at the National Institutes of Health. Dr. Emanuel, an oncologist, is known nationally as the primary creator and proponent of a health care voucher plan for the US, which he laid out in his recent book, Healthcare, Guaranteed: A Simple, Secure Solution for America. His time over the past few months has been split between working directly with policy makers in Washington, DC and traveling the country building support for the voucher plan among various groups. The four panelists spent two hours discussing their preferred visions of a reformed health care system in the US, taking questions from students and one another.

The MS1 students took full advantage of the panel, asking about everything from gritty details of individual reform plans to the political feasibility of any kind of health care reform in the current political system. “I loved it. It was very interesting seeing such different points of view,” said Matt Elliot, a first-year student from Alabama. Kyle Karches, a classmate, seconded his appreciation for the panel’s diverse politics: “I liked that the panelists didn’t agree on the solutions – their discussion was more interesting than it could otherwise have been.” Dr. Monica Vela, Director of the Health Care Disparities Initiative, was pleased with both the students’ engagement and the caliber of the discussion. Even Dr. Emanuel, writing in an email after the panel, was impressed with the enthusiasm the class showed about issues of health care reform even early in their medical careers. “I hope they keep up their inquisitiveness and commitment,” he wrote. “It was a great deal of fun.”

At the University of Chicago, in an atmosphere of interdisciplinary scholarship and discovery, the Pritzker School of Medicine is dedicated to inspiring diverse students of exceptional promise to become leaders and innovators in science and medicine for the betterment of humanity.
The 2008 Medical Education Day Showcases Excellence in Research at Pritzker

The Academy of Distinguished Medical Educators at the University of Chicago Pritzker School of Medicine inducted its 2008 Fellows during Medical Education Day activities, held on October 24, 2008. The day’s events began with a keynote address by Frederic Hafferty, PhD, Professor of Behavioral Sciences at the University of Minnesota-Duluth School of Medicine. More than 30 posters featuring cutting-edge medical education research were presented, three of which included work done by Pritzker students. Following the poster presentations, there was a plenary session featuring four exceptional projects, including one from our recent teaching affiliate, NorthShore University HealthSystem. Finally the five new fellows of the Academy were recognized for their outstanding contributions to medical education:

- Vineet Arora, MD, MA, Assistant Professor of Medicine
- Javad Hekmatpanah, MD, Professor of Neurological Surgery, Professor of Neurology and Cancer Research
- Kevin Roggin, MD, Assistant Professor of Surgery
- Callum Ross, PhD, Associate Professor of Organismal Biology and Anatomy
- Sandra Valaitis, MD, Associate Professor of Obstetrics and Gynecology
Faculty Accolades

Pritzker Represented at National Internal Medicine Meeting

Pritzker faculty members had an outstanding presence at the Academic Internal Medicine Week held in Florida, which included Clerkship Directors, Program Directors, and Chairs of Medicine. Drs. Krista Johnson and Barrett Fromme presented an oral abstract in the plenary session for programmatic innovation. Their work, entitled “Creation of an Inter-Departmental, Longitudinal, Experiential Resident-as-Teacher Curriculum,” was awarded “Best Programmatic Innovation Finalist.” They also presented in a joint multi-institutional workshop “Developing Faculty on the Fly: Enhancing Teaching at Your Institution.”

Dr. Adam Cifu presented at the Clerkship Directors in Internal Medicine (CDIM) Precourse for New Clerkship Directors and moderated the plenary session, “Simulation: Friend or Foe.” Dr. Will Harper served on the planning committee for the CDIM Meeting, while Dr. Shalini Reddy served as Chair of the CDIM Planning Committee.

Dr. Krista Johnson from the Department of Medicine presented “Creation of an Inter-Departmental, Longitudinal, Experiential Residents-As-Teachers Curriculum” at the Alliance for Academic Internal Medicine National Meeting in October. Drs. Barrett Fromme, Jeanne Farnan, Vineet Arora, and Shalini Reddy also contributed to the research.

Dr. Vinay Kumar, Chairman of the Department of Pathology and Executive Vice Dean of the Biological Sciences Division and the Pritzker School of Medicine, was named the inaugural winner of the American Society for Investigative Pathology (ASIP) Robbins Distinguished Educator Award. Dr. Kumar will receive the award in New Orleans this coming April.

Michael Mendoza, AB’96, MD’01, was recently named the 2008 Family Medicine Teacher of the Year – Part Time Faculty by the Illinois Academy of Family Physicians and its Family Medicine Educators Interest Group. The Family Medicine Teacher of the Year award recognizes a family physician for outstanding service to students and colleagues as a teacher who best personifies excellence in teaching the specialty of Family Medicine. Dr. Mendoza received his award at the IAFP Annual Meeting Awards Banquet on December 6.

Dr. Shalini Reddy, Associate Professor of Medicine and Assistant Dean for Student Programs, was an author on “Factors Associated with Medical Students’ Career Choices Regarding Internal Medicine.” The piece, which appeared in the September 10 issue of Journal of the American Medical Association, aims to describe medical students’ career decision making process regarding Internal Medicine and to identify modifiable factors related to this decision making.
**Student Achievements**

**Third-Year Student Wins AAMC Scholarship**

Nereida Esparza, a third-year student, was chosen as one of just five medical students in the country to receive the prestigious Herbert W. Nickens Medical Student Scholarship, given by the Association of American Medical Colleges (AAMC). This scholarship seeks to recognize “outstanding students entering their third year of medical school who have shown leadership in efforts to eliminate inequities in medical education and health care and demonstrated leadership efforts in addressing educational, societal, and health care needs of minorities in the United States.” Nereida was honored at the AAMC Annual Meeting on November 3, 2008 in San Antonio, Texas.

**Illinois American College of Physicians Meeting**

Several students participated in the Illinois American College of Physicians Meeting held this October in Chicago. Shashank Sinha, MS4, won first place for his oral clinical vignette “Not All Chest Pain is Angina,” while Megan Prochaska, MS2 won first place in the poster competition for her poster “Inpatient-Ambulatory Care Transitions: The Patient Perspective.”

**Student Success at NAPCRG Meeting**

Three Pritzker students who worked with faculty in the Department of Family Medicine during the summer of 2007 were accepted for poster and oral presentations at this year’s annual North American Primary Care Research Group (NAPCRG) Meeting. The meeting was held in Rio Grande, Puerto Rico November 15-19.

Chelsea Dorsey, a third-year student, was the first author on “Availability of Specialists for Referral from Primary Care in an Urban Underserved Population,” which was accepted for oral presentation. Lexie Haughey, also a third-year student, researched “Why Do Physicians Work in Underserved Areas?” which was accepted for poster presentation. Chelsea and Lexie, along with fellow third-year student Nereida Esparza, also collaborated on “Point-of-Care Information Technology Use by Community Health Center Physicians,” which was accepted for poster presentation. Chelsea, Lexie, and Nereida contributed to all three accepted projects.

Third-year student Shailesh Agarwal served as first author on the publication “The Use of Resorbable Implants for Mandibular Fixation: A Systematic Review,” which was accepted in the *Journal of Craniofacial Surgery*. Shailesh was second author on the publication “Refining the Intrinsic Chimera Flap: A Review,” which was acceptance by the *Journal of Craniofacial Surgery*.

Jacky Kehler and John Paro, both MS3s, presented at the forum, along with third-year Internal Medicine resident Dr. Harshal Sheth, who won second place for his oral clinical vignette “Steal Your Heart Away” in which he described a case of coronary microfistulae.
accepted in the *Annals of Plastic Surgery*. Dr. Russell Reid and Dr. Lawrence Gottlieb served as his mentors, respectively. Shailesh was also an author on the abstract entitled “Designing Chimera Flaps In Multiple Vascular Systems,” which was presented at the 7th International Conference on Head & Neck Cancer in San Francisco this past summer. Dr. Gottlieb mentored Shailesh on this project as well.

Finally, Shailesh first-authored “An Analysis of Reconstructive Frequency and Post-Reconstructive Survival Using the Surveillance, Epidemiology, and End Results (SEER) Program,” which he presented orally at the American Society of Plastic Surgeons Annual Conference. Dr. Jayant Agarwal served as Shailesh’s mentor on this project.

Ravi Bamba, a third-year student, had a poster accepted for presentation at the Triological Society Section Meeting to be held in January in Florida. His project “Clinical Presentation of Patients Undergoing a Minor Salivary Gland Biopsy for Sjogren’s Syndrome,” was a retrospective review examining clinical presentation of patients who underwent a lip biopsy for the diagnosis of Sjogren’s Syndrome. Dr. Elizabeth Blair was his mentor.

First-year student Colleen Denny was first author on an article published in the November 5th issue of *JAMA*. Colleen’s publication, entitled “US Health Aid Beyond PEPFAR: A Mother and Child Campaign,” was written during Colleen’s three-year fellowship at the NIH Department of Bioethics. The article suggests that newly pledged international health funding may be best directed at a new proposal program call the Mother & Child Campaign, which supports the treatment of simple but deadly diseases.

Sam Fuller, a fourth-year student, served as co-author on “Simplifying the SIEA Flap,” which was presented at both the American Society of Plastic Surgeons Conference in Chicago and the Society of Korean Plastic Surgeons Conference in South Korea. The video described the ongoing research of the SIEA Flap at the University of Chicago, including relatively new anatomical descriptions, utilization criteria, and patient pre-op, intra-op, and post-op findings. Sam was mentored by Dr. David Song and Dr. Eric Odessey.

Elaine Lin, a third-year student, was the first author and presenter of a scientific poster at the 62nd Annual Meeting of the American Academy of Cerebral Palsy and Developmental Medicine (AACPDM). Elaine’s work, entitled “Communicative and Adaptive Functioning of Preschool Children with Developmental Delays or Autistic Spectrum Disorders: Family Priorities, Distress and Well-being,” was done with Dr. Michael Msall, Section Chief of Developmental and Behavioral Pediatrics.

Jina Youn, a second-year student, was one of 10 medical students in the country to receive a Korean-American Medical Association (KAMA) Scholarship. Jina was also invited to give a talk at the 26th Annual KAMA Scientific Convention held in August on the Royal Caribbean Cruise Line from Bayonne, New Jersey to Bermuda. Jina’s talk, entitled “Temporally Limited Role of Substantia Nigra-central Amygdala Connections in Surprise Induced Enhancement of Learning,” was a continuation of her master’s thesis from Johns Hopkins University, which was published in the *European Journal of Neuroscience* in June. The research explores the role of a specific brain circuit (Substantia Nigra & central nucleus of the Amygdala) in attention and associative learning.
Society News

The Phemister Society has been off to a terrific Fall Quarter flurry of activities. Our annual Regents Dinner was well-attended and Phemisterities enjoyed dining on Italian cuisine while viewing the gorgeous Chicago skyline. This event was soon followed by an autumn feast at the Ronald McDonald House. Main chef, Carla Bossano, orchestrated the preparation of a yummy meal for a full house of families. Phemister's blood drive was taken to new heights, with a month-long drive chaired by Phemister leaders Andy Pendley, Priyanka Kumar, Matt Cable, and Sarah Sobotka. We had a full blood drive on November 5, bringing in about 60 units of blood. Thank you to the generous participants in all societies who donated their time, energy, and blood products to this important cause!

Most recently, an intimate crew gathered at Phemister faculty leader Elizabeth Kieff’s home for our quarterly book club. Book Club Chair Amish Dave led a tantalizing discussion on Atonement. Stay tuned for our winter book club! – Sarah Sobotka, MS4

The Huggins Society had an entertaining evening of Whirleyball and pizza on November 5th. While it is difficult to be skilled at this game, we had some very impressive players on the court. There were some great match-ups throughout the night, some impressive bumper car crashes, and one of the last games resulted in a win by a team composed entirely of Huggins 4th years. Huggins also put together a team to run in the Comer Kids' Classic and raised several hundred dollars.
– Alexandra Briggs, MS4

The DeLee Society ended the summer quarter with free tickets to a Chicago White Sox game. Despite having to give up our Field Day trophy, our society came out in strong numbers and fought well at this year’s Field Day event. On January 16th we plan on hosting Social Rounds. In addition, next quarter we hope to combine a mentorship event with International cuisine night and allow DeLee upperclassman to talk with MS1 and MS2s to answer any burning questions about the upcoming quarters. We also hope to hit the ice again for another Broomball tournament. Lastly, on Saturday, January 31st all societies will participate in a Day of Service to kick off the Society Community Partnership. DeLee and Phemister will be visiting the South Chicago community and will conduct a community tour and service project alongside high school students from the New Millennium School of Health. – Marissa DeFreitas, MS4

Following in the footsteps of Lowell T. Coggeshall, the inventor of Whirleyball, members of the Pritzker Field Day Champion Coggeshall Society recently ventured to Chicago’s Northside to try their hands at this age old sport. Given the exemplary nature of those who comprise this Society of Societies, it was no surprise that Coggeshall members were Whirleyball naturals. Needless to say, a good time was had by all as evidenced by the adjacent photos of students rousing rabble and cracking wise on the courts. This holiday season, Coggeshall will be holding a blanket and toy drive in order to gather supplies for families in need. Additionally, Coggeshall members will be avoiding the splits at Diversey Rock n’ Bowl as they receive lessons from the only society advisor to bowl a 300 ambidextrously, Dr. Arora. – Vance Broach, MS4
Calendar of Events

Upcoming Events

January
- Winter Quarter Begins
- Introduction to the Summer Research Program
- MS4 Class Meeting
- Pritzker Society – Community Day of Service

February
- AOA Banquet
- MS1 Winter Symposium

March
- Gold Humanism Honor Society Induction
  - MS4 Class Meeting
  - Match Day!

May
- Coggeshall Lecture

Tell Us What You’re Doing!
If you would like your recent achievement to be highlighted in the next issue of the Pritzker Pulse, please visit the Pritzker website at pritzker.uchicago.edu and click “Submit your Pulse update!”

Huggins Society members at Chicago Cares 2008

Save the date for Match Day 2009

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