

## Cooper: Teaching permeates all

Dr. Christopher Cooper has no doubt teaching is the first among equals in terms of the UI Carver College of Medicine's multiple missions. It's an attitude that befits his new role as associate dean for student affairs and curriculum.

Cooper, an associate professor of urology, took the position July 1. He succeeds Dr. Kimberly Ephgrave, who had served as associate dean since 2002. Ephgrave now returns full time to teaching, clinical service and research as professor of surgery.

"Teaching permeates all our missions," Cooper noted recently. "A critical component of clinical care is teaching and physicians are, by and large, teachers." And research, he said, "has little value if not transmitted." Moreover, teaching is one of the particular rewards of academic medicine. "Teaching's one of the things that keep a lot of good people in academics," he said. "If you look at what they find interesting and fun, it's teaching."

But pressures within academic medicine today undermine teaching, Cooper explained. Increased pressure to generate clinical revenue and to win grants and publish research often is of more immediate concern to faculty members.

"The College's major mission is to teach, but when push comes to shove it's teaching that gets shunted to the back," Cooper said. Unfortunately, he continued, "As this happens you take the fun out of the job."

Ensuring the continuing vitality of the teaching mission within this high-pressure environment requires that faculty engaged in teaching receive tangible benefits, Cooper said. "The act of teaching itself is rewarding, but we do have to back up our words with actions," he said. Establishing financial incentives and factoring educational activities into promotion decisions are among the steps that could help tip the balance back toward teaching as a core College mission, he suggested.



"Beyond that, we should encourage faculty to think of innovative ways to teach and to demonstrate that our methods are effective," he added.

Most of Cooper's own teaching experience has taken place in clinical settings. He served as clerkship director in urology from 2003 until recently, and has taught resident physicians and medical students in both the UI's pediatric urology clinic and in the operating room since joining the faculty in 1999. In addition, he has served as research advisor and mentor to numerous medical students and has classroom experience working with small groups in case-based learning modules.

Cooper's clinical orientation influences his perception of the challenges facing medical education, a perception he shares with many medical educators and curriculum specialists. In an age of exponentially proliferating knowledge, he explained, the curriculum can't possibly cover the breadth and depth of information known to medical science. Citing his own example, Cooper noted he is challenged to

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stay abreast of the literature in his field, pediatric urology, let alone that of general urology, surgery or pediatrics.

"Students can't learn it all and we can't teach it all, so the question is, what should be taught?"

One approach to that question, Cooper believes, is to bolster students' critical thinking skills to help them sort through the mass of readily available information. The volume of new studies published in the established medical literature and the amount of information on the Web both contribute to today's information overload. "Some of that is good information and some is not such good information," Cooper said. "Students have to recognize the difference and be able to evaluate new studies critically."

Even as Cooper looks forward to such challenges, he is learning about OSAC's efforts to address more everyday issues. Initiatives to enhance clinical education and to develop simulations for use in

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# Gordon sees clinical curriculum challenges

Dr. Joel Gordon sees a significant challenge in his new role as director of curriculum



Joel Gordon

for the M3 and M4 years: to help adapt the clinical education UI medical students receive to meet 21st century needs.

"The challenge is to look at what we do to best prepare students for the practice of medicine in 2010

and beyond," Gordon said.

Gordon, professor of internal medicine, Sahai Family Professor of Medical Education and faculty director of the Boulware learning community, began his new duties July 1. He succeeds Dr. Jerold Woodhead, associate professor of pediatrics, who had served in the position since 1995.

New emphasis on clinical education has its roots in the curriculum revision implemented in 1995, which focused primarily on the preclinical M1 and M2 years. Now the College looks to address issues in clinical education that have come to the fore as the revised curriculum has matured and evolved.

One of the new curriculum's major innovations was the Foundations of Clinical Practice series of courses. These introduce first- and second-year medical students to content previously reserved for M3 and M4 students. One of Gordon's goals is to complete the process by reintroducing M1 and M2 content into the clinical years.

As students encounter actual patients with real clinical problems, he explained, renewed acquaintance with the principles of physiology and pathophysiology could help them integrate the information they learned previously and put it to practical use. Likewise, he said, with principles of pharmacology that pertain directly to treatment of patients. Finally, Gordon noted that clinical rotations are an opportunity for students to apply critical reasoning skills taught earlier to determine whether articles they've found in their searches of the medical literature are relevant to the diagnosis or treatment of a specific patient.

Another hallmark of the new curriculum is integration of course content across basic science subject areas. Gordon said the College wants to achieve similar integration across clerkships. He suggested that closer coordination between certain clerkships could enhance students' clinical learning. For example, internal medicine and surgery could collaborate to give students experience in the emerging discipline of hospital medicine; pediatrics and obstetrics-gynecology could work to create an experience in maternal-fetal medicine; and neurology and psychiatry could work to create a neuroscience experience.

"Thematically, we're looking for an experience that better reflects patient-centered care and represents a systems-based approach," Gordon said.

Other priorities on Gordon's list include working closely with leaders of the Des Moines Area Medical Education Consor-

tium, which conducts a broad array of undergraduate clerkships at its five member hospitals, hosting as many as 25 M3s and 10-15 M4s at any given time. "We want to make sure there's a seamless integration of the Des Moines experiences and on-campus rotations," Gordon said.

He'll also oversee preparation for the clinical portion of the Liaison Committee on Medical Education's upcoming review of the UI Carver College of Medicine; the LCME site team is expected to visit the UI in 2009. New accreditation requirements call for each clerkship to have written goals and objectives and for documentation of each student's experience in each clerkship.

Given his interest in simulation—he is a co-developer of the ClinicSoft computer program UI medical students use to practice their case management skills—Gordon will look for opportunities to identify gaps in students learning that simulated patients could address. Students could work in simulated environments to fulfill some clinical requirements, he suggested.

Even further ahead, Gordon thinks the College might explore providing medical students the opportunity to tailor their clinical curriculum to their own interests and career goals. "Maybe one size doesn't fit all in medical education," Gordon said. "We could allow students to have more flexibility in what they take so they're better prepared for the residency they want."

Gordon admitted his agenda was "kind of daunting." But, he said, "one day at a time, we'll get it done."

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teaching are examples of current directions in the UI medical curriculum, Cooper said.

As a former clerkship director, Cooper knows there's "room for improvement" in communication between the different departments concerning clinical education. He also sees a need to address what he called the "chasm" between the pre-clinical and the clinical curriculum. "I think with some increased communication and effort we can address that gap," he said. Cooper noted that Dr. Joel Gordon, professor of internal

medicine and newly appointed director of curriculum for the M3 and M4 years, is working specifically to facilitate communication among clerkships and coordination between clinical and pre-clinical education [see article above].

Cooper also is excited that a task force led by Dr. George Bergus, professor of family medicine and director of performance based assessment, is examining the potential for enhanced use of simulations in medical education. The power of simulations to emulate a wide

variety of diseases not always available to students during their clinical rotations is an area "ripe for research," Cooper said.

It was his service as chair of the College's admissions committee that stimulated Cooper's interest in administration. He chaired the committee from 2003 until this year, and also has served on OSAC's advisory group on diversity and a number of other committees, task forces and working groups. Calling himself a "professional physician and amateur administrator," Cooper thinks his experience of

the day-to-day challenges facing individual faculty members will serve him well in his new post.

"We're surrounded by good people who are oriented toward the mission," he said. "Part of my job is to remind them of that and help remove administrative distractions for them."

The vitality of OSAC programs and professionalism of the unit's staff have impressed Cooper. Staff members, he said, "are committed and easy to work with—they give me some confidence I'll survive as associate dean."

# New pre-med requirements reflect values

Practicing physicians must have a functional knowledge of statistics, good communication skills and the ability to interact with patients and colleagues whose cultural values might differ from their own. And now, so must UI medical students.

New pre-medical requirements have gained approval from the UI Carver College of Medicine and the UI provost and now are being used to evaluate applicants for admission to the College in 2007.

The actual changes to the pre-med requirements are modest—indeed, most applicants will have fulfilled them as requirements for their undergraduate degrees. Their significance, said Catherine Solow, assistant dean of student affairs and curriculum and director of admissions for the College, is in the message they send to prospective students. “These changes reflect our collegiate values,” Solow said.

These values include good written communication skills, prompting new requirements in English composition and literature. The standards now call for two undergraduate courses in this area. The College adopted the requirement “because the Admissions Committee values communication skills, including writing, and because our students need to read for depth and comprehension,” Solow said.

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*Catherine Solow*

*Assistant dean of student affairs and curriculum and  
director of admissions*

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New social science and humanities requirements also are in effect and are meant in part to enhance students’ cultural competence, Solow explained. “The College wants students who are well-rounded and can communicate with a variety of people,” she said. Incoming students will have to have completed four courses in such subjects as behavioral psychology, a foreign language “and other courses that encourage a greater appreciation for diversity and cultural competency,” the requirements state. The standards recommend that courses taken to fulfill this requirement include a writing component.

In science, the College requires that applicants take an advanced course in biological sciences. The new standards recommend courses such as biochemistry, molecular and cell biology, human physiology, genetics or microbiology in order to help students prepare for these difficult subjects in medical school. Finally, the College now permits applicants to substitute a statistics course for advanced college mathematics. There are

no changes to the chemistry or physics requirements.

The College’s interest in applicants’ communication and cross-cultural skills is not new, Solow explained. “Seeking cultural competency and communication skills among potential students has been a longstanding goal,” she said, “but until now it’s been assumed rather than explicit.” (In fact, the College established its Writing Program in 2002 both to help medical students improve their everyday writing skills and to encourage them to express themselves creatively through writing.)

The statistics recommendation, Solow said, aims to prepare students for medical practice, where the need to interpret scientific data is commonplace.

Dr. Hans House served on the committee that formulated the new requirements; he is a clinical assistant professor of emergency medicine and director of the UI’s emergency medicine residency program. The committee’s first task was to compare other medical schools’ entrance requirements

with the UI’s, House said, with an eye toward keeping the UI requirements roughly aligned with other institutions. The new recommendation concerning statistics coursework results from that process, he noted.

House said his main goal in considering the revisions was to include coursework in the humanities among the requirements. “That was something I felt strongly about,” he said. “Students with a humanities background will be more humanistic physicians.”

House’s responsibilities include advising fourth-year medical students on emergency medicine residencies and recruiting resident physicians for the UI’s program. “As a program director I look for well-rounded, talented individuals,” he said.

The new entrance requirements are available to prospective students through the College’s admissions Web site and in printed recruitment materials, Solow said. The College also informed undergraduate academic advisors at colleges and universities throughout Iowa, as well as at selected institutions around the country, about the revisions. Solow said she expects few prospective students to encounter difficulties due to the changes, but noted that the College’s Admissions Committee is prepared to be flexible for a year or two.

**Coming November 30, 2006—**

## **A Celebration of Medical Education at Iowa**

Day-long symposium for The University of Iowa medical education community

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**Plus posters, presentations, entertainment • Plan to take part**



September 2006

# Student government changes take effect

A bulletin board isn't all that's new about the UI Carver College of Medicine's Medical Student Government. The representative body adopted a new constitution earlier this year that's now taken effect.

Both first-year and returning medical students will have noticed the new bulletin board located in the hallway adjoining the learning community spaces. The display represents student government's commitment to be more visible and accessible, said M4 Justin Weis, medical student body president. Changes in the structure of Medical Student Government are meant to broaden participation and increase the effectiveness of student initiatives, Weis explained.

"The idea is to get more students involved in an organized fashion to get more things done," he said.

Weis said Medical Student Government had been in transi-

tion for several years before students approved the new constitution in March. While there have been ample opportunities for students to participate in student government, student activities and the College's education-related faculty and administrative committees, there was little coordination of all the activity, Weis said.

The advent of learning communities, with their elected leadership, added to the complexity. "There were all these pieces, and nobody was looking at the whole picture," Weis said.

The new constitution addresses that fragmentation by consolidating the myriad student activities and participation in College committees under Medical Student Government's three committees—Advocacy, Activities and Education. The committee chairs, together with the elected mayors of the four learning communities

and elected Medical Student Government executives, then make up student government's Executive Committee.

This change creates a direct channel between Medical Student Government and the College's admissions, promotions, medical education, curriculum and clerkship committees, Weis explained. Student representatives to those committees can both express student concerns to their faculty and staff counterparts and report committee discussion and action back to student government.

Weis said the four learning communities, with their elected leadership and active outreach and mentoring programs, form the foundation for student government. Not only do the community mayors sit on the Medical Student Government Executive Committee, elected delegates from each community compose

student government's advocacy and activities committees.

Another change in the new constitution aims to increase continuity in student government. Medical students now elect a student body president-elect to serve as a Medical Student Government executive for a year before succeeding to the student body presidency. "This way, when someone steps into the position of president they'll have a longer-term perspective," Weis said. This year's president-elect is M3 Christopher Hogrefe.

Other items on Weis's agenda include working to strengthen medical students' voice in UI Student Government and building relationships with students in health and other professional UI colleges. But his No. 1 goal this year, he said, "is to make sure Medical Student Government works effectively."

To follow its progress, check the bulletin board.

# Liaison committees help improve courses

Liaison committees are an effective way for UI medical students to give constructive feedback about the courses they take, say students and faculty involved with the committees.

The liaison committees are made up of volunteers from among the students enrolled in each basic science course and operate for the entire semester that the course meets; there also are liaison committees for required clerkships. The committees are overseen by Caduceus, the organization that represents all UI medical students in matters concerning medical education.

Typically a liaison committee will meet several times with the faculty director or directors of the course. Meetings take place prior to exams to clarify how the tests will be administered and what content they will cover. They also provide an opportunity to address any issues students may have raised about the course or its instructors.

Committee members facilitate communication between faculty and students, gather-

ing input from those enrolled in a course and distributing information from the instructor. The committees serve as well to improve a course over the long term by presenting reports of their activities to the UI Carver College of Medicine's Curriculum Committee.

The effectiveness of liaison committees is a function of student and faculty commitment to their success, said Matthew Dickson, a fifth-year Medical Scientist Training Program student and co-president of Caduceus. Whether changes result from liaison committee feedback depends mainly on two factors, he said: "First, do the students give constructive criticism, and second, are the professors receptive?"

The time commitment to serve on a liaison committee is modest, said M3 Chip Wandling, also co-president of Caduceus. In addition to meeting with course directors, after the course is over committee members spend a few hours reviewing their activities and preparing a report for the Curriculum Committee.

For his part, one faculty course co-director values liaison committee participation. "I'm convinced that good communication between the liaison committee and the course director is essential for the course to function effectively," said Dr. Thomas Schmidt, professor of physiology and biophysics and Harold A. Myers Professor in the Basic Sciences. Schmidt is co-director of the Human Organ Systems course.

Meeting prior to each of five to six exams, Schmidt said, "We get to know the members of the liaison committee very well." After discussing the upcoming test, he noted, "we move on to other subjects and use it as an opportunity to get feedback on every aspect of the course."

Liaison committees are an opportunity for students to "participate, contribute and make a difference," Schmidt said. Dickson commented, "When complaints don't result in action they're just destructive comments. I like to channel those in a positive direction."

### Pardini to lead Flocks

Dr. Benet Pardini is a lot of things—physician assistant, physiology instructor, family man, beekeeper, photographer, outdoorsman. Now, he's also faculty director of the Flocks learning community. Pardini accepted the appointment in June, succeeding Dr. Christopher Arpey in that role.

Pardini came to the UI in 1983 as a post-doctoral fellow, investigating neural control of circulation and central autonomic regulation of the cardiovascular system. He took the opportunity to teach cardiovascular physiology to first-year medical students and over the years earned several Teacher of the Year nominations. But a growing interest in clinical service changed the course of Pardini's career.

"I wanted to do something more clinically related and to work more with people," Pardini said. He chose to pursue training as a physician assistant and completed the UI Physician Assistant Program in 1998. He now practices as a PA in the De-

partment of Pediatrics, Cardiology Division, caring for infants and children with congenital heart disease. Pardini holds the rank of clinical assistant professor of pediatrics with a secondary appointment in physiology and biophysics.

In addition to teaching physiology to M1s, he also enjoys working with third- and fourth-year medical students during their clinical rotations in pediatrics. With his unusual background Pardini hopes he can help foster the kind of collegiality that physicians and physician assistants need to work effectively together. "Physicians and PAs work closely throughout their careers," he said. "It's great to be able to begin that relationship while they're all still in training."

Pardini was pleased to learn the Flocks community's secondary focus is recreation and wellness. "To me, that means balance," he said—a quality that Pardini, with his many interests both in and outside the workplace, exemplifies. Pardini and his wife Margaret, a staff nurse

in oral surgery at UI Hospitals and Clinics, have two daughters, aged 14 and 12.

**Book sale goes online** Used book sales are nothing new to college or medical school students. But there are a few new twists to this year's UI Carver College of Medicine Annual Used Book Sale.

Most notably the sale, now in its 12th year, has gone online. Students interested in finding a required text or a useful review book visit a Web site where they can download a list of books on offer. They can contact the seller directly to negotiate a purchase. M3 Christopher Hogrefe has assisted OSAC staff in organizing and carrying out the past two book sales. He explained that previously, students with books to sell set a price and hoped a buyer would find it reasonable. Now, he wrote, "participants are able to negotiate transactions." He believes "more books will be sold as both the buyers and sellers begin to understand what the textbook market will bear."

The new format also allows book sales to take place over a period of time rather than as a one-time event, as in previous years. Indeed, the sale has proved successful enough that organizers have extended its original three-week term, and the Web page will remain posted throughout the fall semester.

Jean Lantz, the College's registrar and director of student programs and records, has organized the used book sale for a number of years with assistance from Annette Griffin and Marcia Hopp of the OSAC staff. They decided to try the online format this year because the M1 orientation schedule didn't permit the traditional one-day event. The resulting success, according to Hogrefe, "epitomizes the ingenuity of the Carver College of Medicine."

**College announces Service Distinction Track** The UI Carver College of Medicine has launched the Service Distinction Track to support and recognize medical students who engage in service to medically underserved, marginalized and rural populations. The program builds on the Medically Underserved Service Track (M.U.S.T.) initiated by the Department of Family Medicine in 2003 and establishes a Service Council to oversee its activities and bring together representatives of students, staff, College administration and community organizations.

UI medical students interested in serving marginalized communities have many opportunities to do so, from participating in MECO (Medical Education Community Orientation) between the M1 and M2 years, to choosing elective clinical rotations at underserved sites, to volunteering at the Free Medical Clinic or the Mobile Clinic; Global Programs offer clinical experiences in the United States and many other countries as well. The Service Distinction Track exists to help students focus these experiences in a meaningful way, program materials state. Students learn to apply academic theory and scholarly methods to practical situations and to collaborate with communities to address health care issues.

In addition to their clinical and volunteer activities, students work with a faculty mentor and design, implement and present a scholarly project to fulfill the service track's requirements. Upon approval by the Service Council, students receive recognition by having their service activities noted in their transcripts and at graduation.

## College welcomes class of 2010



Members of the UI Carver College of Medicine class of 2010 arrived on campus Aug. 16 to participate in orientation programs and welcoming events. Above, new UI medical students attend the Student Organizations, Activities and Services Fair to learn about opportunities to get involved in various service, advocacy and professional development activities. This edition of **Med Ed Update** includes a profile of the entering class; see back page.

# Med Ed Update

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## End notes

## Women make up majority of new medical student class

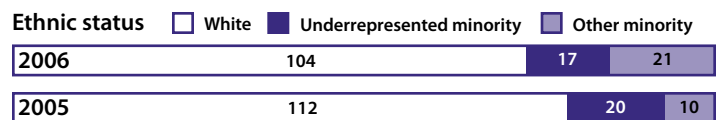
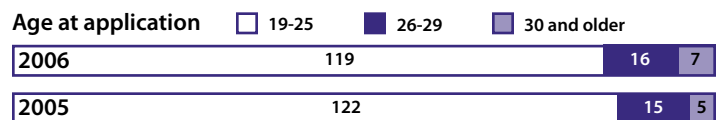
Women make up a majority of the UI Carver College of Medicine's entering class—83 of the 142 first-year students, or 58.5 percent, are female. Last year, just 61 of 142 entering students, or 43 percent, were women.

Thirty-eight, or 27 percent, of this year's entering class members represent ethnic minorities. That is more than last year, when 30 new students, 21 percent, were members of minority groups. Of these students, 17 are members of underrepresented minority groups—that is, African American, Hispanic or Native American. The figure last year was 20.

New students range in age from 19 to 37 (as noted at the time they applied); 23 are aged 26 or older, with seven being 30 or older.

In accordance with College policy, 97, or 70 percent, of admitted students are Iowa residents. Total applications for this year's class numbered 2,575. Ten of the new students are entering dual-degree programs: Eight are entering the Medical Scientist Training Program and will earn MD and PhD degrees; two plan to earn MD and master of public health degrees; and one will earn MD and juris doctorate degrees.

## UI Carver College of Medicine entering class Comparative snapshots, 2006 and 2005



Source: Office of Admissions

Almost one in five—18 percent—of new students majored in a nonscience subject in college before entering medi-

cal school. But the majority, 58 percent, majored in biological sciences while eight percent majored in the physical sciences.