

I N V E S T I G A T O R I N S I G H T



In this section, we highlight the human side of biomedical investigation, putting a few questions to a researcher at DMS-DHMC.

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*Conradt studies apoptosis, or programmed cell death. She is particularly interested in how apoptosis is regulated and how mitochondria contribute to the process. She uses the roundworm *Caenorhabditis elegans* as a model system in her research.*

How did you decide to become a scientist?

I grew up in the countryside and have always been curious about nature, especially animals. After high school, I worked on farms in the UK and Germany for a year, and I actually started to study agriculture. After a couple of years at college, I discovered the basic biological sciences and decided to switch over to molecular and cellular biology. But I had many other interests as well, such as art and sports.



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What are the greatest frustration and the greatest joy in your work?

In science, those often go hand in hand. What can give me a lot of frustration is when we get data that just don't make sense according to our expectations. Through discussions and additional experiments, puzzling data suddenly can make sense. And quite often, they actually reveal new, undiscovered aspects of the processes we are studying. That can give me great joy.

Would you change anything about your career?

My career path could have been straighter, but I don't think I would want to miss the detours because, after all, they have made me into the person and scientist I am now.

If you weren't a scientist, what would you want to be?

Now that I know what it means to be a scientist,

I don't think there's anything I'd rather be. However, if for whatever reason I can no longer be a scientist, I'll open a café with a gallery or bookstore.

What advice would you offer to someone new in your field?

Bring with you a lot of motivation, energy, time, and patience and don't stop having fun.

Who were your scientific mentors?

I was very lucky and had wonderful mentors in college and graduate school and while I was a postdoc. But I also want to add my parents to the list because they taught me very early on how to see and observe.

What's your favorite nonwork activity?

Going for walks and playing the cello. I play classical music: Bach, Breval, and Romberg. And because I am still learning, I have mainly been playing solos or duets with my teacher. Eventually it would be fun to play with a group.

What about you would surprise most people?

I am a certified ski instructor, I started to surf a couple of years ago, and I am expecting my first child in March.

If you invented a time machine, where would you go?

I wouldn't really want to go back in time because women have probably never enjoyed as much freedom and independence as they do nowadays. But I would want to go forward in time, maybe 30 or 40 years. I would want to see what life will look like and how the work of biomedical scientists will have changed the world.

What do you eat for breakfast?

I have been eating oatmeal with fresh fruit for years, and I still enjoy it every morning!

What three people would you like to have over for dinner?

The scientist Barbara McClintock, the painter Georgia O'Keeffe, and the writer Christa Wolf.

Who are your heroes in real life?

My heroes are my brother, who is a two-time cancer survivor, and my mother.

Putting students' clinical learning to the test nationally

The Class of 2006 has posted the best-ever mean score for a DMS class on a national test of clinical knowledge. According to a report from the National Board of Medical Examiners, it is also the highest DMS has been above the national mean since results have been tracked.

The test is part of Step II of the national boards, which each class takes during its fourth year. A total of about 17,000 students took the test last year, and the 56 DMS '06s had a mean score of 229—well above the national mean of 221.

Score: Yet it's not the score but the learning behind it that pleases Dr. David Nierenberg, senior associate dean for medical education. "I don't want to oversell this," he says. "It's only one of three parts of the boards, only one of 15 things we look at. But with all of that, this is really impressive."

Every way this exam could be looked at was impressive for DMS. In terms of the test's core clinical areas—psychiatry, obstetrics, medicine, surgery, and pediatrics, plus the 12 organ system areas—many results were "dramatically above the national average," says Nierenberg.

Step II is an important way station for students, but not the only one, on their journey to becoming licensed physicians. The national boards begin with Step I after they complete their second year. Step II is composed of



TOP TALENT: Dr. James Bernat, a DMS neurologist, was one of 16 speakers from around the world invited by the Vatican's Pontifical Academy of Sciences to give a paper at a meeting called "The Signs of Death."

two parts—clinical knowledge (CK) and clinical skills (CS). Step II CK is an all-day, multiple-choice test taken on a computer in a locked room. Step II CS requires students to diagnose 12 patients played by actors. They have 15 minutes to complete each case. This test has been required for only two years, and DMS students have been doing very well in it.

Licenses: Finally, the Step III board exam comes at the end of their internships, before they apply for medical licenses to practice independently.

But recent changes across much of the country are speeding up the testing timetable. Step II formerly could be taken any time during fourth year, but it was recently moved to the fall at DMS so students have their scores in hand when they apply for residencies. Earlier testing also helps students obtain a training medical license before beginning internship—a fairly

new requirement in 41 states, including New Hampshire.

DMS does everything it can to help students prepare for the boards. One new aid is a computer program called Exam Master so they can review thousands of practice questions of the type that appear on these exams.

"I suggest to students they may want to take a few days off to review material," says Nierenberg. "You do want to pass it on your first attempt."

Prepare: "I'm very proud of how our medical students are doing," he adds. He explains that DMS hasn't broken into the "top 10" tier of medical schools because such rankings are based heavily on research funding and DMS is not as big as many research universities. But, Nierenberg concludes, "I honestly believe that if you measure medical schools by how well they prepare students... we're a 'top 10' medical school."

ROSEMARY LUNARDINI

A MATCH MADE AT DHMC

Many couples promise to care for each other in sickness and in health. But Peter Pardoe wanted to do more than just care for his sick wife, Jody—he wanted to donate one of his kidneys to bring her back to good health.

Devotion alone does not ensure a good match, however: the Pardoes' blood types were incompatible. Fortunately, another couple in the same straits were compatible with the Pardoes and willing to participate in a complex and rare four-way surgical swap, or paired exchange. On September 12, 2006, DHMC's first-ever paired kidney exchange took place, with each husband donating a kidney to the other's wife. For all involved, the surgery was a success.

Transplants from living donors do better than organs from someone who has died, according to Dr. David Axelrod, who led the surgical team. Over 89,000 U.S. patients are currently waiting for an organ transplant and nearly 4,000 new patients are added to the waiting list each month. A.P.



"DOING SOMETHING RIGHT"

A national award for pediatricians-in-training has been bestowed on a DMS graduate for the second time in four years. The 2006 recipient of the American Academy of Pediatrics' Anne E. Dyson Child Advocacy Award is Dr. Gary Maslow '04. He was picked for establishing a group called The Adolescent Leadership Council (TALC) at Hasbro Children's Hospital in Providence, R.I., where he is a third-year resident. TALC gives teens with chronic illness a social support network and a voice to improve the care of other children with chronic illness. "It was modeled on DHMC's STAR [Steps Toward Adult Responsibility] program," says Maslow, who worked with STAR at DMS.

TALC brings together 10 teenage patients and 10 Brown University student mentors—all of whom live with a chronic illness. The group meets monthly and makes presentations at area high schools and hospitals. Dr. John Modlin, chair of pediatrics at Dartmouth, was "very pleased, but not surprised, that Gary has been given this award."

The Dyson Award was presented in 2003 to Dr. Tommy Clark, a 2001 DMS graduate. Modlin says such honors are "a nice reminder that we are doing something right at DMS when we are able to attract students of [this] caliber and watch them begin careers armed with the right values." A.P.



FLYING SQUIRREL GRAPHICS



These members of the DMS Class of 2006 are pictured on the day of their White Coat Ceremony in 2002. The '06s recently passed another milestone, getting the results of a national exam testing their clinical knowledge; the class did very well.