

SUMMER 2004
VOL. 27 NO. 2



THE COLLEGE

INDIANA UNIVERSITY'S COMMITMENT TO ARTS & SCIENCES



The Many Faces of LAMP

Liberal Arts and Management Program

THE COLLEGE OF ARTS & SCIENCES OFFERS THESE AREAS OF STUDY:

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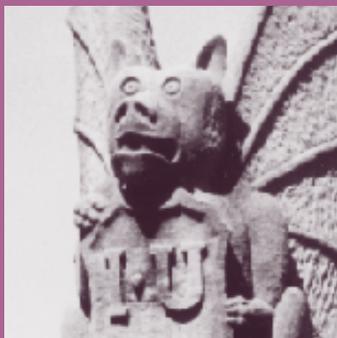
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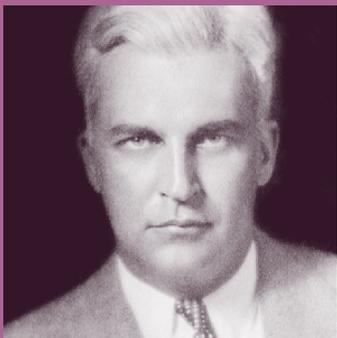
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With commencement behind us and the slower days of summer setting in, it is a good time to reflect on the accomplishments of our faculty during the last year. I'll begin with one example that indicates the regard that colleagues from other institutions have for the work of Indiana University professors.

When the National Academy of Sciences announced the recipients of its 16 prizes this year, three went to Indiana University, the most received by any institution. Those recipients were **Rudolf Raff**, Distinguished Professor of biology, **Elinor Ostrom**, Arthur F. Bentley Professor of Political Science, and **Robert Goldstone**, professor of psychology. Raff was awarded the Daniel Giraud Elliot Medal, which is given only once every four years to the most renowned zoologists in the country. Ostrom won the John J. Cary Award for her exceptional contributions to the study of social science. And Goldstone was awarded the Troland Award for developing "novel experimental analyses and elegant modeling" that have shown "how perceptual learning dynamically adjusts dimensions and boundaries of categories and concepts in human thought."

Here are just a few of many other notable faculty successes:

Kevin Young, Ruth Lilly Professor of Poetry, was a finalist for the National Book Award and was named a Guggenheim Fellow in October. His poetry and essays have appeared recently in *The New Yorker* and the *New York Times Book Review*

Senior scientist in physics **Edward Stephenson's** discovery of a rare fusion process that scientists had been trying to find since the 1950s made the top 100 science stories of 2003 in the January 2004 issue of *Discover* magazine. His results will help theorists understand the cause of charge symmetry violation, which makes possible the universe as we know it, including human life.

"I feel fortunate to be a part of this exciting interdisciplinary environment, where the mysteries of science are revealed in the shape of a petal, and the shape of the universe is explored in strokes of paint and flashes of light both digital and metaphorical."

Several professors from the College won universitywide Founders Day awards this year, including the President's Award for Distinguished Teaching, which went to **Daniel Maki**, professor of mathematics; the Wilbert Hites Mentoring Award, received by **Paul Jamison**, professor of anthropology; and the W. George Pinnell Award for Outstanding Service, awarded to **Alvin Rosenfeld**, professor of English and of Jewish studies. **David Thelen** (history) and **Loren Rieseberg** (biology) were named Distinguished Professors, the most prestigious academic appointment IU can offer a faculty member.

The most comprehensive database of *Drosophila* (fruit fly) information, FlyBase, a collaborative project of researchers at IU Bloomington, Harvard University, the University of California at Berkeley, and Cambridge University, was recently approved by the

National Institutes of Health for approximately \$20 million in continued funding. Some \$3 million of that money will come directly to IU Bloomington, which houses FlyBase. **Thomas Kaufman**, Distinguished Professor of biology, and **Kathy Matthews**, senior scientist in biology, oversee IU's extensive contributions to the project. **William Carroll Jr.**, adjunct professor of chemistry at IU and vice president of Occidental Chemical Corp. in Dallas, has been elected president of the American Chemical Society (see story on page 16). **Roger Hangarter**, associate professor of biology, was elected president of the American Society of Plant Biologists.



Dean Kumble R. Subbaswamy

Let me close with a little more detail about two of our faculty. Professor Rieseberg, whose pioneering research with sunflowers has made key advances in scientists' understanding of the origin of species and the role of chance in organisms' development, is the recipient of a MacArthur Fellowship, also known as the "genius award," a \$500,000 prize given to just 24 individuals nationwide. Professor Hangarter recently collaborated with artist Dennis DeHart in a multimedia art installation called *sLow Life* at the School of Fine Arts Gallery. The exhibit included video, live plants, photographs, and interactive environments to explore time and the relationships between plants and humans.

I feel fortunate to be a part of this exciting interdisciplinary environment, where the mysteries of science are revealed in the shape of a petal, and the shape of the universe is explored in strokes of paint and flashes of light both digital and metaphorical.

Adapted from an article in the "Dean's Report," spring 2004.

— KUMBLE R. SUBBASWAMY



Life is short

by Emily Williams

Charles O. McCormick III, BA'72, MD'75, cofounder of the Indiana Eye Clinic in Greenwood, Ind., is a third-generation physician, a philanthropist, and a man who gets right to the point.

"Life is short," he remarks before even asked about the \$100,000 endowment he gave to the College of Arts and Sciences in 1997, "and anything you can do *to day* to make things better should be done."

Many factors prompted McCormick to found the McCormick Science Grant, annually awarded to two graduate students in the basic sciences. As a doctor, he appreciated the importance of basic science research to the advancement of medical care and wondered at the lack of publicity that such investigations gain. At the same time, he noticed that "many people who go to professional schools donate to those schools and not to their undergraduate institution. Medical school helped me," he says, "but the arts and sciences helped me too." Finally, as a third-generation physician, he sought a way to honor the career paths in science of his grandfather, Charles O. McCormick Sr., BA'11, and his father, Charles O. McCormick Jr., BS'36, MD'38, who were both obstetricians.

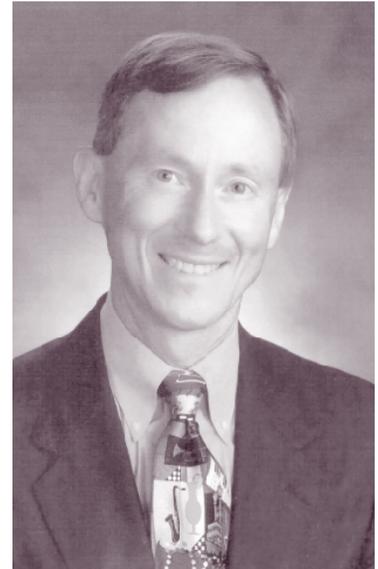
All of these elements came together when McCormick had lunch with Susan Green, who had been his undergraduate adviser in the biology department more than 20 years earlier. Green, then executive director of development for the College, worked with McCormick to design a scholarship around his goals. The interest from McCormick's initial donation of \$100,000 in fall of 1997 will support in perpetuity two annual grants of \$2,500 for projects judged to be the most creative, visionary, and innovative. These grants go to graduate students in the nine basic sciences in the College: astronomy, biochemistry, biology, botany, chemistry, geological sciences, microbiology, physics, and zoology.

Winners of the McCormick Science Grant have used the money for a variety of purposes. One recent winner went to New Zealand on a snail biology project and used her award to cover travel expenses. The first winner from the Department of Astronomy, Annie Mejia in 2002, (profiled in *The College* Summer 2003), used her winnings to purchase a new computer to aid her work modeling how galaxies form.

In 2001, McCormick was asked to contribute something else to the College — his time, as a member of the Dean's Advisory Board. "The Dean's Advisory Board functions very similarly to the way a board of directors does in advising a CEO of a corporation in how to operate," he explains. The board was formed in 1989 with the mission of providing counsel to the dean to enhance the quality, reputation, and financial strength of the College. Meeting twice a year, the Dean's Advisory Board today comprises 26 distinguished and nationally prominent individuals motivated by a deep commitment to the College. They represent diverse professional, geographic, and cultural backgrounds, and they offer advice on tough issues facing the dean of IU Bloomington's largest academic unit.

On the board, McCormick hopes he can be an advocate for the same sorts of issues that led him to establish the McCormick Science Grant.

The benefits that McCormick's gift can have on science, the College, and individual students are obvious and profound. And the nonsense, "life is short" attitude that prompted McCormick to give sooner, rather than later, also has advantages that are something more than purely practical. "Anything I get involved with I have to have a special, warm, emotional connection to," McCormick says. "The thing that's been most fun for me with this is that I'm going to have 35 more years to watch it work."



Charles O. McCormick III

Emily Williams is a frequent contributor to *The College*. She was raised in Bloomington and lives in Portland, Ore.

YOUR CALENDAR!

THE COLLEGE OF ARTS & SCIENCES ALUMNI ASSOCIATION

2004 ANNUAL RECOGNITION BANQUET

FRIDAY, OCTOBER 22, 2004

Join alumni, faculty, and friends of the College of Arts & Sciences as they celebrate the achievements of the College and present the Distinguished Alumni Award and the Distinguished Faculty Award for 2004.

For information, call (812) 855-7934 or e-mail asalumni@indiana.edu



Alumni board leadership changes hands

I was honored to be selected as the president of the College of Arts and Sciences Alumni Board for the 2003–05 term at the association’s annual meeting last October. The board consists of a wonderful group of graduates and friends of the College, committed to serving the College and to encouraging lifelong allegiance and support of its students, alumni, and faculty. We enjoy helping the College through board activities, and we make many lasting friendships along the way.



Board member Jefferson Shreve

One example of the board’s work is the College Connection Luncheon series. Through these luncheons, which provide a faculty presentation over lunch, we reach out to our alumni throughout the state and nation. One recent luncheon took us to Evansville, Ind., where geology Professor Michael Hamburger talked about the Princeton Earth Physics Project, a nationwide outreach program for middle- and high-school students in the physical and earth sciences. Hamburger directs the IU

branch of the project, which engages students throughout Indiana. Check our Web site for current College Connection programming at www.indiana.edu/~college/alumni/office/prgming.shtml.

In future issues of *The College* this column will be used to introduce you to the members of your board. While their names are always listed on the inside cover of the magazine, we feel it is time for you to get to know each of them a little better.

Our newest member is Jefferson Shreve, who joined the board in February. Jeff received a BA in political science in 1989 and lives in Bloomington, where he is owner and president of Storage Express. We welcome him to the board.

Enjoy the rest of the summer!



*Kathryn A. Krueger, M.D.
President, College of Arts
& Sciences Alumni Board*

If you have any questions for the board, contact us at asalumni@indiana.edu.

Please join us in celebrating the
IU Alumni Association’s 150th birthday!

IU ALUMNI DAY

Monday, Aug. 2, 2004

Reconnect to IU on this special day!

- Wear cream & crimson
- Look up an old friend or classmate on the IU alumni online directory
- Join or renew your membership
- Send us your class note

Visit www.alumni.indiana.edu for details!



ANNOUNCING

The easy Life

The IU Alumni Association is pleased to announce an **easy, affordable way to become a life member**: our no-interest **monthly payment plan!**

For **\$55 a month for 10 months** you can **pay off your life membership!**

Simply choose the monthly payment plan option on any membership or renewal form, submit it with your first payment of \$55, and we’ll bill you monthly for the remaining nine payments.

It’s that easy!

For details, visit www.alumni.indiana.edu, e-mail iuaamemb@indiana.edu, or call (800) 824-3044.

Maxwell Hall — new face, new mission, same name

by Elizabeth England



Maxwell Hall's famous gargoyle bears an IU shield.



Maxwell Hall, circa 1900

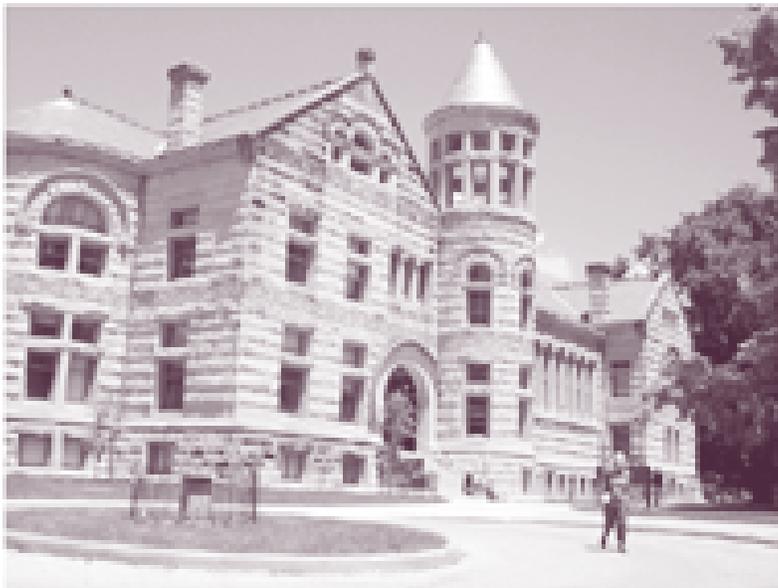
Maxwell Hall was built in 1890 to house the university's growing library collection. With a capacity for 60,000 books, it was thought that this would be the permanent site of the library. By 1904, the collection needed more room, and construction of a new library (now Franklin Hall) began. After the collection was moved, a three-story addition was added to Maxwell Hall on the north side of the original structure. The building then became the home of the School of Law.

By 1916, the university administration, which included the president, the dean of the College, the registrar, and the bursar, took up residence in the west wing. As the university grew, the administration moved to a new building, now named Bryan Hall, and the School of Law moved to its current location in 1956. Maxwell Hall then housed the dean of students, the dean of the Junior Division (now University Division) and the university museum. After a recent renovation, Maxwell Hall is now home to the University Division and the Office of Summer Sessions and Special Programs. **C**

Photographs courtesy of the Indiana University Archives



The law library reading room, circa 1905



Photographs by Vanessa Cloe

Maxwell Hall 2004

JOINT VENTURES

*Two new interdisciplinary degrees
that combine human biology with business and law open up
new avenues for students in the growing fields of biotechnology and biomedical sciences.*

by Laura Lane

REAL-LIFE BUSINESS BS/MBA

For College of Arts and Sciences Associate Dean Ted Widlanski, allowing top-rate students to combine a BS and MBA degree into one course of study in the field of biotechnology was nothing short of a great idea. So two-and-a-half years ago, with the encouragement of College Dean Kumble R. Subbaswamy, he set out with colleagues from the Kelley School of Business to make it happen.

The usual path a student in the College takes is to get an undergraduate degree, which often is seen as a stepping-stone to graduate school. But these students, Widlanski reasoned, would be graduating and going to work in industry. That got him thinking about what industries really want: students with a strong background in life sciences who can put their knowledge to work to further the interests of business.

“The norm is to train students so they are prepared to go to graduate school,” Widlanski says. “We typically don’t design programs to prepare students to step straight into technology jobs at Eli Lilly or Baxter or Cook or Roche. Given the availability of such jobs and the desire for students to fill them, we thought it was a good idea to design a program that would do that.”

As part of an initiative to develop a comprehensive program in human biolo-

gy, the College proposed the establishment of new undergraduate degrees in human biology and biotechnology, as well as a master’s in biotechnology and specialized professional degree paths combining biotechnology with the study of business or law. The initiative is funded by the Bloomington campus’s Commitment to Excellence project.

“Given the times and the emphasis in the state for economic development and the notion that the university is an engine for economic development, it would be irresponsible for us to not acknowledge that we must produce students who are optimally trained to fill these jobs,” says Widlanski, who teaches chemistry.

He says a philosophical question comes into play as scholars weigh the thirst for knowledge with requirements for success in the business world: “Is it our job to teach the fundamentals of the discipline and the industry’s job to train them on specifics, or is it up to us to determine what the businesses need and then give it to them?” Businesses have made it known what they are seeking in employees coming out of college, he says. They want students with



Ted Widlanski

strong technical skills, decision-making ability, and an understanding of business dynamics.

To attract the best and brightest students to the dual degree program, former Kelley School of Business Dean Dan Dalton suggested establishing a scholarship program that pays tuition for two years at the undergraduate level and two years of graduate school. Money for the scholarships also comes from IU’s Commitment to Excellence fund. “We want students with the commitment and ability to be the next CEOs of major corporations in this area,” Widlanski says.

Students in the program are admitted to the MBA program without the workplace experience usually required, says Idalene Kesner, chair of the business school’s MBA program. “What makes this unique historically for the Kelley School and relative to most top 20 MBA programs is that students are not normally admitted into the MBA program without work experience,” says Kesner, Frank P. Popoff Chair of Strategic Management. “The program will help the undergraduate Life Sciences Scholars in their search for summer internships after their junior and senior years as a way of providing some work experience prior to the start of the MBA program.”

Kesner agrees with Widlanski: This new degree program is a winner. “Businesses will get students who have an understanding of science and business, a nice combi-



Idalene Kesner

nation for medical device, pharmaceutical, and health-care companies of all types,” Kesner says. “Another benefit for future employers, and for the students, is that the students do not have to disrupt their careers later to get a graduate

degree in business. Their careers can proceed in an uninterrupted way. That lack of disruption is a benefit for both students and the businesses.”

Kesner says the number of students in the program each year will vary. She estimates that in future years, the program will grad-

“Businesses will get students who have an understanding of science and business, a nice combination for medical device, pharmaceutical, and health-care companies of all types.”

uate at least 12 students per year. “Because the program is new this year and because we didn’t start recruiting interested students until early in 2004, the numbers may be limited for the first few classes,” Kesner notes. Life Science Scholar undergraduate students will have to have a high grade-point average and strong scores on the SAT. Similarly, when applying to the MBA program, which occurs in the spring semester of their senior year, they must have solid grades and a good score on the GMAT standardized test.

While admissions will begin this fall for the MBA program, admissions for the undergraduate portion of the program will start later. “The BS in biotechnology program will be ready for implementation in fall 2005, which is when we expect to give our first undergraduate Life Science Scholarship,” Widlanski says. “As soon as we get the word out, students will be very interested, and it will be competitive. There will be

very high standards for students getting these scholarships.”

Students who make the cut and complete the dual degree program will find themselves in demand in the business world, Kesner says. “The ability to converse in life sciences would benefit both the students and the companies they join,” she says.

As undergraduates, students will be encouraged to join IU’s Liberal Arts and Management Program (LAMP). This program allows them to take six business classes to better prepare for the MBA program. A seventh business course will be added to the usual LAMP curriculum for sophomores interested in applying to the Life Sciences Scholarship Program.

Widlanski says the degree program falls into the existing framework of the College. “In a sense, nothing is new in this program,” he says. “All of the courses already are in place.” And, while some other universities combine science and business courses for dual degrees, the financial component makes this program unusual. “Quite frankly, there’s no place I have seen that has done a life science scholarship program with a business school,” Widlanski says. “It’s unique.”

LEGAL TECHNICALITIES BS/JD

When the Indiana Higher Education Commission approved a bachelor’s degree in biotechnology last fall, it opened the door to both the BS/MBA program and to a joint degree in biotechnology and law. There’s a demand for lawyers with specialized education, and IU hopes to help fill that gap. There’s also a perk for students who meet the program’s high standards — they will finish both degrees in six years instead of seven. That puts them out in the work force 12 months earlier than they would have been by going through the traditional undergraduate and law school track. And they arrive on the job with a strong understanding of how science and the law meld.

All that’s left is approval from the law school faculty. “The two schools’ administrations are enthusiastic about the program, and it awaits formal Law School faculty action,” says IU law Professor John Applegate. “We’re still working out the details, but I see no serious

Human biology in depth

The BS/MBA and BS/JD programs are part of a College initiative to establish a comprehensive program in human biology, which, according to the proposal submitted by College Dean Kumble R. Subbaswamy, “will permanently and positively change the face of life sciences research and education on the Bloomington Campus.”

The program is being funded by the IU Bloomington campus’s Commitment to Excellence project, which is raising more than \$28 million during a five-year period through a one-time, \$1,000 tuition assessment for incoming students. The human biology program will receive an initial \$2.2 million in base funds and a one-time allocation of \$15 million. It is expected that the program ultimately will lead to an increase in external grants and contracts by at least \$10 million a year. The College will collaborate with the School of Law, the Kelley School of Business, and the School of Optometry on the project.

Here are the highlights:

- 21 new faculty with expertise in vertebrate systems, pathogen microbiology and biochemistry, brain imaging, molecular neuroscience, vision science, and biotechnology law.
- Undergraduate degree tracks and/or certificates in human biology, brain science, and vision science.
- Specialized five- and six-year professional degree paths (BS/MS, BS/JD, and BS/MBA) spanning biomedical and biotechnology sectors.
- Aggressive scholarship program for cohorts of outstanding undergraduates who wish to pursue a combined BS/MBA program in biotechnology and business.

obstacles to it.” He said a second degree, an MS/JD, which is purely a graduate joint degree, is on a slower track. “We are still working out the details,” he said.

Applegate says the proposed program will offer the same benefits as an existing Law School joint degree program with the Kelley School of Business that allows students to work toward an MBA and a JD at the same time. The Law School also has joint graduate degree programs with the School of Public and Environmental Affairs and with the School of Library and Information Science that allow a master’s degree and a JD

to be sought at the same time.

“It is extremely helpful for lawyers in a technical area to have a systematic, authoritative understanding of the technical issues in which they operate,” he says. “Likewise, scientists can easily develop all kinds of misunderstandings of legal rules without training in law. Our hope is that the graduates of the joint program will offer to future employers a valuable combination of skills.”



John Applegate

Biotechnology students study molecular life sciences. A degree in that area prepares students for laboratory jobs in biotechnology companies. It's also helpful in the patent area. In fact, attorneys who specialize in patent law are greatly assisted by an undergraduate degree in some kind of science.

Applegate says that, so far, students attracted to joint degrees see the value of combining expertise in several disciplines. Bringing together business and law, for instance, yields great results.

“Law and accounting are an extremely natural fit for people interested in tax law, since it is based on both legal and accounting principles,” he says. “On the business side, it is for lawyers whose practice focuses on business decisions and business people who want to have a deeper understanding of the legal environment in which they operate.” He says students need to approach each discipline in a different way. “Law and business emphasize different analytical styles, both of which are extremely useful in all kinds of problem solving. Combining them gives one a broader perspective on the issues that all enterprises face,” he says.

He's excited about the biotechnology and law combination. “The biotech joint degree programs will appeal to students who are interested in the law of biotechnology or in promoting biotechnology in an environment of intense legal regulation,” he says, using intellectual property law as an example. The same is true for students studying life sciences. Having an understanding of the law and how it applies to their discipline makes their work easier to carry out.

The Philadelphia-based law firm Morgan Lewis and Bockius is one of the leaders

in the life sciences industry field. Its Web site says the firm has more than 175 lawyers, scientists, and technical specialists who focus on the industry. More than 90 on staff have degrees in life sciences, and half of those have advanced degrees in that area.

The firm represents pharmaceutical firms, medical device manufacturers, health-care providers, and other professionals in a growing industry. Legal and science specialists within the firm focus on regulatory approval and compliance, patent litigation, and antitrust issues. Applegate says an increasing number of

law firms like Morgan Lewis and Bockius are seeking technical and scientific expertise in the attorneys they hire. IU is providing the place and programs to qualify students for such lucrative jobs.

Details of the joint degree program probably will not be available for some time. The program is two to three years away from implementation. 

Laura Lane is a freelance writer and a reporter at The Herald-Times in Bloomington.

IU Bloomington's Commitment to Excellence

Six other proposals were funded through the Commitment to Excellence project at the same time as the human biology program that incorporates the BS/MBA and BS/JD degrees. A second round of proposals is under review, including several from the College on subjects ranging from graduate support to studies of democracy and America.

Development of 21st Century Interdisciplinary Science at IU

Funding: \$2 million base; \$14.7 million one-time

New faculty: 16 in proteomics, materials science, quantitative biology, physical biochemistry, and biophysics

Degrees: Undergraduate and master's degrees in applied science; joint K-12 science education initiative with the School of Education

Collaboration: College of Arts and Sciences, IU Cyclotron, School of Education

Understanding the “Two-Thirds” World: At Home and Abroad

Funding: \$3 million base; \$634,000 one-time

New faculty: 25, focusing on the Middle East, Indian subcontinent, and Latin America, as well as research related to those cultures in the United States

Degrees: Undergraduate degree in international studies; residential program for 400 students

Collaboration: College of Arts and Sciences, International Programs, IU Libraries

Cognitive Science: New Frontiers in the Interdisciplinary Study of Mind, Learning, and Intelligence

Funding: \$2.6 million base; \$1.6 million one-time

New faculty: 14 in biomorphic robotics, as well as in core research areas applying cognitive science to real-world needs, most notably the learning sciences, computational linguistics, and human-computer interaction design

Degrees: PhD in learning science, cognitive science

Collaboration: College of Arts and Sciences, School of Education, School of Informatics

The Second Era in the School of Music

Funding: \$1.3 million base; \$322,000 one-time

New faculty: Four master teachers in performance

Other: Guest experts, additional performances in opera and ballet

Patient-Based Research in Ocular Disease and Systemic Diseases Affecting the Eye

Funding: \$369,000 base; \$300,000 one-time

New faculty: Two, to build patient-based disease research program

Degrees: BS in optometry renamed BS in vision science; will become a minor in the comprehensive program in human biology

Collaboration: School of Optometry, Office of Research and the University Graduate School

Interdisciplinary Environmental Sciences

Funding: \$360,000 base; \$1.5 million one-time

New faculty: Four, two each in the College and the School of Public and Environmental Affairs to conduct joint investigations of the movement of natural and man-made compounds through the ecosystem

Degrees: PhD in learning science, cognitive science

Collaboration: School of Public and Environmental Affairs, College of Arts and Sciences

Add a business certificate to any College major and the result is a successful mix of critical thinking, passion for one's subject, and résumé-building business skills.

The many faces of LAMP

by Michael Koryta and Megan Heidelberger



Jeremy Hogan

One student in the program describes the experience as “being a chameleon.” The program’s academic adviser views it as “taking a large educational experience and making it very personal.” Both report outstanding results.

Liberal Arts and Management Program students are able to blend liberal academic interests and practical, résumé-building business skills into a specialized curriculum, and those involved say the program is extremely successful.

“LAMP is exciting because it exists for students who are interdisciplinary in their thought processes and in their needs,” says Amy Elson, the program’s academic adviser. “It is all about the idea that one thought process is never enough.”

The honors-level program, now in its 15th year, is an innovative hybrid. Offered in cooperation with the Kelley School of Business, it allows students to integrate any major in the College with training in management. While LAMP is not a business minor, it encompasses many of the same courses. The result is a specialized certificate that, according to Elson, tells prospective employers that a LAMP student has both the diversity of a College of Arts and Sciences degree and the business skills training necessary to succeed in a competitive workplace.

At the core of the program are integrative seminars taught by outstanding faculty from the College and the business school.

The seminars combine the critical elements of a liberal arts education with a grounding in business practice. The business component includes the study of management, business law, accounting, computer applications, and economics. It adds practical expertise

“It is all about the idea that one thought process is never enough.”

while still allowing students to focus academically on the subjects for which they have the most passion. According to James H. Madison, the program director and Thomas and Kathryn Miller Professor of History, this has been the goal since the early days of LAMP.

“The initial vision is still the primary vision,” Madison says. “That is, to allow outstanding students in the College — majors in biology, political science, or English — an opportunity to learn basic management skills and perspectives.” The program also provides curricular and cocurricular opportunities that, Madison says, create a strong community among students and help make a large university

Academic adviser Amy Elson, program director James H. Madison, and assistant director Jane Rogan

seem much smaller. To Elson, that is exactly what makes the program successful. “IU is a very big school,” she says. “It’s easy for students to come here and get lost, but with LAMP they are able to shrink that world down a little.”

For Kevin May, who graduated from the program this spring with a major in Germanic studies, LAMP offered a chance to gain business skills while still pursuing his liberal arts interests. “I’d been trying to decide whether I should go the business school route, and I met with an exploratory adviser who told me about LAMP,” May says. “It allowed me to have a liberal arts major in the College and still get a management certificate. It seemed like the best of both worlds.”

May believes LAMP can benefit any arts and sciences major because basic business management skills are germane to all professions. “It goes well with any College major,” he says. “Arts majors can open up their own art galleries (with LAMP business skills).”

May admits that he would have little business knowledge without his LAMP experience. “The management certificate will allow me to understand how a business



Members of the LAMP student advisory board meet with LAMP faculty James Madison and Terry Dworkin to discuss the program.

functions,” he says. “I learned how finance functions in business. I would have never known what a financial statement looks like. I would have had no idea how that would work.”

For fellow graduate Dayna Yonkoski, the program opened doors to more employers. “Not only could I research jobs that were looking for graduates with a liberal arts education, but I also had the option of applying to management positions,” says Yonkoski, who majored in psychology with a Turkish minor. “The LAMP program is also beneficial from an employer’s point of

view because LAMPers have the ability to adapt and change frames of thinking quickly. For instance, a problem in the workplace can be addressed by a liberal arts perspective: Identify the problem, what’s causing it, possible experiments, draw a conclusion, or from a business perspective: What is this doing to the bottom line, how will this decision affect our customers, etc.”

Elson says students who come to LAMP generally are looking for more diversity in their education. “Our students are always so happy that they’ve found LAMP

because they tend to be drawn to the chance to explore the world in different contexts,” she says. “They find that opportunity in the program. Here they can pull business and management fundamentals in with the other disciplines, and that’s an exciting thing for them.”

LAMP accepts about 100 sophomores each year. For admission to the program, students must have a cumulative grade point average of 3.0 or better, and once enrolled in LAMP, they must maintain better than a 3.3 cumulative average. There are roughly 15 professors affiliated



“LAMP gives me the leadership abilities and management tools that enhance my majors in economics and Spanish and my pre-med courses, and I know that this combination will prepare me for any challenge that a career in health care may present.”

Carter Gerard

LAMP senior Carter Gerard in the Dominican Republic on a spring-break medical mission with the Timmy Foundation

with LAMP during an academic year, and none is devoted exclusively to the program. "All faculty teaching in LAMP have their primary appointment in another department, in the College or the Kelley School of Business," Madison says. "That is important to the flexibility and the interdisciplinary quality of LAMP. It also allows LAMP to recruit some of the very best faculty on the campus to teach the courses we think students need."

Carolyn Wiethoff, professor of business management in the Kelley School of Business, teaches a specialized management training class called Managing Business Functions, as well as a junior-level management-consulting seminar. She says she can certainly see the benefits of the program. "Students get a perspective of business outside of the traditional 'focus on profitability' that permeates the regular business school curriculum," she says. "They look at how corporations can and should be socially responsive. I think it is a very well-rounded business perspective that encourages students to think 'outside the box' about business problems."

Madison has been the program director for only a year, but he previously taught one of the LAMP seminars, an experience that made him want a more integral role within the program. "It was primarily getting to know LAMP students in that seminar that convinced me to accept the offer to become director," he says. "They're great students, a joy to teach — really to learn with in the classroom."

That perspective is not unique to Madison, according to Elson. "Our faculty members are very excited about participating in the program," she says. "Because of that, we get wonderful, innovative course proposals. The professors routinely say that LAMP students are among the best they have because of their depth of thought, participation, and desire to consider other perspectives."

Those involved with the program suggest that LAMP students have great appeal not just for faculty members, but also for employers. "LAMP students do exceptionally well in seeking jobs and creating careers," Madison says. "Often in a job interview, the recruiter is very eager to ask about LAMP. The program sets students apart from many others competing for a particular position because of the special combination of skills and abilities they gain through LAMP."

Elson agrees. "We have excellent ties with area employers both for full-time jobs and

"You might be in a seminar with someone who is planning to be a rabbi and will need to manage a synagogue, someone who is going to law school, and someone who is going into pharmaceutical sales. No matter what career path you choose, though, it's clear that management is essential."

Caitlin Tegart



LAMP senior Caitlin Tegart majors in English and art history with a minor in French.

for internships, and I've seen many cases where, once employers become familiar with the program, they contact us with interest in recruiting more LAMP students," she says. "Many LAMP graduates later become employers, and they, especially, have interest in hiring LAMP students."

Madison says the appeal is based on a successful program curriculum. "LAMP students are attractive to employers because they have a range of knowledge and skills," he says. "Because they are very good, honors-level students in the College, they have had opportunities to read critically, write persuasively, and think analytically; that's what they do as students in liberal arts and sciences classes. They can solve problems, whether statistical or qualitative, because all, including the English or fine arts majors, have taken economics, statistics, and accounting. And all, including the chemistry and biology majors, have taken LAMP seminars in which they read and write at sophisticated levels."

Both Yonkoski and May say they believe their LAMP experience will help them in the job market. "I actually found a

job right after graduation," says Yonkoski, who graduated in May and begins work this fall as a project manager for Epic Systems, a software design firm for medical providers, based in Madison, Wis. Yonkoski's job, which involves on-site consulting and problem solving, relies heavily on the leadership and management skills that she has acquired with LAMP.

May says he likes the idea of being able to affiliate himself with the respected Kelley School of Business on his résumé while still offering a different major to show his diversity.

A key element of Elson's job is helping to place students in internships and overseas study programs, as well as helping with job placement. "We are really trying to provide career development counseling, helping to identify the paths and interests of each student and to learn to combine LAMP skills with the other knowledge they've collected at Indiana University to build their best career path," she says.

While one of the frequently referenced program attributes is the ability to make a big school feel a little smaller, the LAMP faculty and administration certainly do not attempt to discourage a larger worldview

What makes LAMP unique?

The integrative seminars, the array of extracurricular activities, and the established internship program are some of the program's strongest features.

Seminars

LAMP's interdisciplinary course of study is best exemplified by its core component: the program's integrative seminars taught by outstanding faculty from the College of Arts and Sciences and the Kelley School of Business. These seminars seek to combine the fundamentals of a liberal arts education — critical reading, persuasive writing, and analytic thinking — with a thorough examination of business functions. Students integrate their course work in management, economics, and liberal arts to solve real-world problems and to analyze relationships between business and society.

New topics for LAMP seminars are continuously developed. For example, seminars added for the fall semester will include one on gender and business, another on crisis management, and another on leaders and leadership.

“Through LAMP seminars, I've come to have a broader, more balanced perspective,” says Caitlin Tegart, a LAMP junior majoring in English and history with a minor in French. “You might be in a seminar with someone who is planning to be a rabbi and will need to manage a synagogue, someone who is going to law school, and someone who is going into pharmaceutical sales. No matter what career path you choose, though, it's clear that management is essential.”

Extracurricular activities

While academics are at the heart of LAMP, the program also seeks to develop a rich life for its students outside of the classroom. One way students are able to build the LAMP community is to participate in the program's student advisory board, which meets monthly with the director, James Madison, and the assistant director, Jane Rogan. Rogan believes the board “is the essential link between the student body and the program's administration. The board advises the program's administrators on issues from academics to cocurricular activities, and its opinion serves as a gauge of student interest.”

Each academic year, LAMP students are invited to participate in a multitude of activities and events. These include an all-day sophomore leadership retreat, a graduation ceremony for seniors and their families, workshops designed to build résumé-writing and interviewing skills, and panel discussions and a speaker series examining issues of race and gender in business and society. Students have the opportunity to meet formally with business leaders over lunch to discuss real-life experience in their fields and informally with their fellow students over pizza to discuss internship experiences and overseas study.



Political science Professor Tim Tilton teaches a LAMP senior seminar, *Capitalism and Its Critics*.

Internships

Internships are a key piece of the job-search strategy, and potential employers look for both overseas study and internship opportunities as part of a student's resume. LAMP students often have had experience of both. The program has developed strong ties with several local businesses, including Cook Group Inc., a Bloomington-based medical instruments manufacturer with a worldwide market.

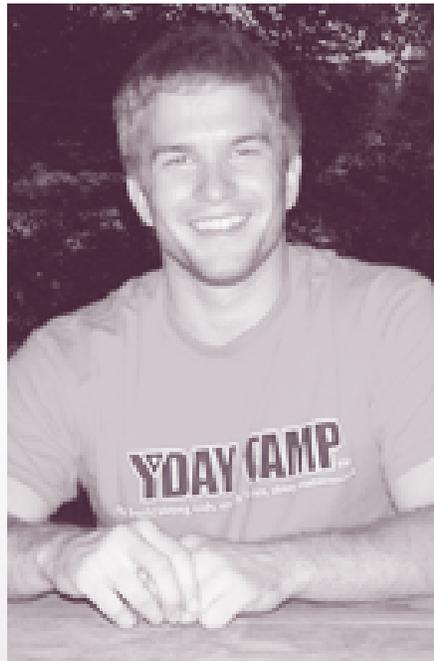
Two LAMP juniors are conducting intensive 16-week summer internships with Cook, and senior Joe Hennessee recently accepted a full-time sales position with Cook Medical's critical-care division. Hennessee credits his placement with Cook to LAMP's efforts to connect with local businesses. His first contact with the company came through a luncheon organized by LAMP to introduce a small group of interested students to Cook executives. These students were then invited to visit the Cook headquarters.

Hennessee believes Cook was attracted to his academic diversity and global education. “The unique combination of majors in economics and Spanish, my period of study in Seville, Spain, and my LAMP course work made me an attractive candidate for Cook, a company that takes pride in its role as a local company that is a global leader,” he says.

Rogan says the connections in local markets “have strengthened with time and will most certainly grow stronger as LAMP alumni become LAMP recruiters.”

“The unique combination of majors in economics and Spanish, my period of study in Seville, Spain, and my LAMP course work made me an attractive candidate for Cook, a company that takes pride in its role as a local company that is a global leader.”

Joe Hennessee



Recent LAMP graduate Joe Hennessee

While the course options might change and the opportunities may expand, the number of students is unlikely to grow. In a decade when IU's enrollment has swelled, LAMP's has remained steady. "We are extremely happy with the current status of LAMP, and we also would like to maintain the individual attention we can provide," Elson says. She meets with each LAMP student during the year, some more than others. "The needs vary from student to student," she says. "There are some students I see almost weekly, while others may just come in once a semester."

After the three-year LAMP program has been completed, participants get the chance to have a separate graduation ceremony, something May appreciated. "The senior ceremony is an alternative to the graduation ceremony," he says. "It's held the Friday night before graduation, and it's closure for the program. You get personally recognized."

As he neared the end of his academic journey at IU, May says he was pleased that he'd had the opportunity to be a part of the unique hybrid program. "I got a lot out of LAMP," he says. **C**

Megan Heidelberger graduated from Indiana University in May with degrees in psychology and English. She plans to attend graduate school. Michael Koryta is a student in the College and a freelance writer. His first novel, Tonight I Said Goodbye, will be published by St. Martin's Press in September. For more information about Koryta and his writing, visit www.michaelkoryta.com.

for their students. "Most LAMP students study overseas; we strongly encourage that and support it with scholarships," Madison says. "We're fortunate to have the Robbins-Hutton Scholarship dedicated to overseas study for LAMP students."

Elson estimates that roughly half of the program's students will study overseas at some point in their academic careers. "We don't require it, but we will do everything we can to send students overseas if they have interest, and many of them do that," she says. "It just adds another dimension to the program. To be able to combine their College of Arts and Sciences major with the LAMP program and then to add an overseas experience is just a wonderful blend of academic diversity."

Although the program has been met with outstanding reviews from those at other academic institutions, the concept has not often been imitated. "I suspect LAMP is not unique, but it is very unusual," Madison says. "It's such a great idea that I suspect other universities are now moving in this direction. But the Indiana faculty who created this program really pioneered."

LAMP is strictly an undergraduate program, and there are no plans to offer any sort of companion graduate school curriculum. But Madison would like to see it continue to evolve. "We continue to add new courses, especially new topics for LAMP seminars," he says. "We are also

working to expand internship opportunities for LAMP students." Ties between the program and the community have always been important, and Madison is trying to expand upon that. "We have begun Tudor Room lunches (in the Indiana Memorial Union) in which a small group of LAMP students meets informally with 'real-world' folks in marketing, human relations, law, and other fields," he says.



Dayna Yonkoski

“Not only could I research jobs that were looking for graduates with a liberal arts education, but I also had the option of applying to management positions.”

Dayna Yonkoski



Jeremy Logan

Paul Musgrave takes a seat next to a sculpture of his mentor, Herman B Wells.

Indiana University senior and Wells Scholar Paul Musgrave jokes about the awards he received recently, including one of 12 George J. Mitchell Scholarships in the United States. But beneath the self-deprecating humor are a whip-smart intellect and a modesty that echoes the example of the mentor he met only once — Herman B Wells.

Seriously Now ...

by Emily Williams

If there's a parallel universe out there, Paul Musgrave's alter ego must be doing a pretty good job. Two remarkable honors, both awarded in the spring, have Musgrave's name on them, but the IU senior still can't quite seem to accept the fact that they really could be his. "Often I think that there's some other person with my name who's applying for these awards, and that he's actually winning them, and that they're only given to me by mistake," he says. "I don't take it too seriously, although it is awfully nice to be able to study interesting subjects and meet fascinating people."

What Musgrave isn't taking too seriously are the nationally renowned George J. Mitchell Scholarship for post-undergraduate study in Ireland and IU Bloomington's Herman B Wells Senior Recognition Award for excellence in academics and campus leadership. But then Musgrave, an erudite and puckish pundit of anything that piques his interest, can't be accused of taking much too seriously. In the voluminous works he's written for

the *Indiana Daily Student* and posted on his personal Web site and Web log (or "blog" as it's called by the Internet savvy) at www.paulmusgrave.com, the Ellettsville, Ind., native finds a way to sharpen his wit on the whetstone of topics ranging from Bloomington's quixotic weather to Chinese sociopolitical history to the career of Herman B Wells to one Texan's crude tirade against Hoosier culture (the last in a piece titled "An Open Letter to a Twit").

Musgrave's flare for writing combined with an entrepreneurial spirit and political bent when he and friend Josh Claybourn ("the world's second-best Christian blogger" according to documents at paulmusgrave.com) secured a grant from the Leadership Institute in 2002 to found the alternative online news source *Hoosier Review*. The service is so popular that it has already spawned a liberal sister site, *The Ivory Tower*. These publications combine news, commentary, and humor in a manner and a medium both indicative of and promoting a culture of opin-

ionated youth actively participating in their community. Founding *Hoosier Review* is just the sort of community-minded extracurricular activity that led the student, faculty, and alumni panel awarding the Herman B Wells Senior Recognition Award to single out Musgrave as his class's most exceptional graduate. "My profoundest learning experiences have been extracurricular," Musgrave wrote in an e-mail interview from Shanghai, China, "in my time with the IU Student Association, the *Indiana Daily Student*, and the CUE [CommUNITY Education] Program." Honoring this sort of commitment to service, in addition to academics, is precisely the aim of the Wells Award. It was established in 1961, nearly 30 years before the celebrated Wells Scholarships were first handed out in 1990 — an honor Musgrave also earned as an incoming freshman. Receiving these awards named in honor of IU's influential former president and chancellor is especially appropriate for Musgrave, who worked on the Wells Biography Project and wrote his

senior honors thesis for the history major (he wrote another for his second major in political science) on Wells's role in state banking regulation during the Great Depression. The pair crossed paths in person only once, for a brief handshake and group snapshot at the Wells Scholarship interview weekend in December 1999, just three months before Wells died. "My intuition is that Paul discovered a mentor in Herman B Wells, an exemplary figure that stands for the best in public service," says Musgrave's adviser James Capshaw, a professor of history and philosophy of science and the director of the Wells Biography Project. "The Wells Award is not just another fillip for Paul, but a deeply appreciated link to the man that led Indiana University to the 21st century."

While he enjoyed the research for the Wells Biography Project and his theses, Musgrave admits the work could be a bit overwhelming at times. "After each two- or three-hour session in the University Archives or the Lilly Library doing historical research on Herman Wells's and Paul McNutt's careers," he confesses, "I do sometimes forget what year it is, who's president (both of IU and of the United States), when I was born, etc." Fortunately for his sanity, Musgrave spent the spring of 2004 far away from the dusty stacks of the IU Archives, in Shanghai, China, studying Chinese history and international relations. The process of getting there, however, was just as disconcerting as emerging from a tough day buried in the archives. "I'm in China because of a comedy of errors," Musgrave jokes. Originally slated to spend the summer of 2003 in Beijing, he instead ended up in Rome when the SARS crisis froze all travel to China. Still determined to study in the Far East, he arranged to spend this spring in Japan — only to have paperwork problems at the host program thwart his enrollment at the last minute. Undaunted, and endlessly flexible, Musgrave worked with the IU Overseas Study Program to find an opportunity to study in Shanghai. "I didn't speak a word of the language when I came here," he says gamely, "but I'm slowly gaining some skills in Mandarin."

Musgrave will add to his growing list of overseas study locales when he travels to Ireland next fall on the George J. Mitchell Scholarship. This award was established in 1998 by an endowment from the government of Ireland and was named in tribute to former

Sen. Mitchell's extensive contributions to the Northern Ireland peace process. It honors Americans between the ages of 18 and 30 who exhibit excellence in academics, leadership, and community service. Musgrave was selected from a pool of 245 applicants from 166 colleges across the nation and is only the third IU student ever to receive the prestigious scholarship.

Much like the older and better known Rhodes or Marshall scholarships, the Mitchell offers students the opportunity to attend foreign universities with all expenses paid. The Mitchell funds tuition, housing, living, and even

On the whole, Musgrave is smart enough to be truly funny, and funny enough to make you forget how smart he is — and, in fact, that you were attempting to compliment him on it. So, unsurprisingly, he pretends not to take his future any more seriously than he takes his awards, or himself. "I have no plans for my time after Ireland," he muses. "I intend to devise them while in Dublin. I may go to law school; I may go to grad school; I may try to get a position somewhere with my MA. I'm not sure. This century is very confusing to me, and I think I would have been more at home in 19th-century Nebraska

"The Wells Award is not just another fillip for Paul, but a deeply appreciated link to the man that led Indiana University to the 21st century"

vacation travel expenses for one calendar year of study in Ireland or Northern Ireland. With this support, Musgrave aims to earn his MA in politics from the University College in Dublin, Ireland's largest university. "The Mitchell Award is great," he gushes. "I can't even tell you the full greatness of it. ... This is a fabulous program that has done great things for building relations between the United States and Ireland."

Despite his excitement now, Musgrave's first reaction when learned he had won the award was not what you might expect. "Receiving the Mitchell was a tremendous relief. I was excited, I was happy ... but mainly I was relieved, because receiving the award meant I hadn't disappointed the professors who had supported me and encouraged me to apply. As late as August, I was unsure that I would apply for the Rhodes, Marshall, or Mitchell. It was only Wells assistant director Charlene Brown's encouragement that really convinced me that I should apply." Though under intense questioning he will confess to long hours of hard work, Musgrave is quick to acknowledge the support he received from his advisers, including Brown, Capshaw, English Professor and former Wells Scholars Program director Scott Sanders, political science Professor Dina Spechler, and history Professor James H. Madison.

or some other slower, less sophisticated society." This attitude could be nothing more than another good-humored self-deprecation. But words from one of Musgrave's own essays, "The Forgotten Virtue of Herman B Wells," suggest something more fundamental and highlight parallels between these two Hoosiers who traveled the world but remained deeply linked to their home state. He writes: "Herman Wells called his memoirs *Being Lucky* and from reading it we might suppose that Wells rose from his childhood in Lebanon, Ind., to the university presidency only because he was luckier than the rest of us. ... Why did Wells pretend that his success was due to chance? Because along with his ambition came an equal dose of modesty. He was less concerned with his public image than accomplishing his goals. ... And so he pretended to be a simple, unassuming man in a complex world."

It would be hard for any young man to find a more worthy role model than Herman Wells. After winning two monumental awards dedicated to Wells and spending four years studying his life and works, it is equally hard to imagine an apprentice better equipped to honor his legacy than Paul Musgrave.

(Seriously.)

Chemical Literacy

by William Orem

As president-elect of the 161,000-member American Chemical Society, Bill Carroll holds what is probably the most recognizable position in chemistry. He's passionate about his field, and he wants to use the position to turn more young minds on to the science that helps bring us clean water, safe housing, and a host of other modern miracles we take for granted.



Bill Carroll

It is a truth worth repeating that one excellent teacher can change the future. Bill Carroll, an Indiana University alumnus who has been elected president of the American Chemical Society, was lucky enough to have at least two.

One was Bob Conard, his chemistry teacher at Crown Point High School in Crown Point, Ind., whom Carroll credits as the very reason he is a chemist today. The other was IU's own Dennis Peters, with whom Carroll did graduate work in the '70s.

Both men, Carroll recalls, shared certain qualities in the classroom that make for outstanding instruction. They were sympathetic, approachable, and, rather than regarding science as an intimidating citadel whose purpose is exclusion, found ways to draw students into their own love of discovery. In an educational world where all too often the young regard science as a chore, these were the kind of mentors, Carroll says, "who left you actually wanting to go home and do more experiments."

The presence of both men in his life

helped determine his path. From the early days of his education, when he was still feeding punch cards into computers, through his career as an industrial chemist and up to his current position as a vice president of the Dallas-based Occidental Chemical Corp., Bill Carroll has been motivated by a love of chemistry and its promise. Now, as president of the ACS in 2005, he hopes to use his newfound visibility to encourage just such love in the next generation. It's a task that's going to take a little more effort this time around.

"Pointedly, 60 percent of high school students enroll in chemistry classes," Carroll notes on www.chemistry.org, the ACS Web site, "and we don't have enough teachers to accommodate them." Which isn't to say that these curious minds aren't getting any chemistry instruction, just that they aren't getting it from a degreed chemist. Or, as he puts it in more casual terms, "There are perfectly wonderful teachers teaching chemistry, but they are wonderful *biology* teachers. Chemistry is not their first love."

It makes a difference from whom you learn to balance equations. Biologists or physicists can certainly handle chemistry, but their hearts are in different disciplines. However good a job these people do, their students inevitably lose the opportunity of being exposed to role model teachers who have chosen a career as chemists. They may miss the excitement of discovery that belongs to that specific discipline, the vision of individual and societal relevance, the sense of participating in an ancient and venerable quest. They might also miss the fun.

"Science is hard work," Carroll admits, "but there are ways of teaching it that draw you in."

Changing the situation so that more are drawn in will also be hard work, but Carroll believes it can be done. "The next generation can be more chemically literate," was how he phrased it in a statement to the ACS, "if we invest."

A person who is *chemically literate* is one who has a general appreciation for the molecular sciences, most likely because he or she was exposed to them at an early

age and in a good way. It has greater meaning than this, though. On a societal level, chemical literacy means a populace that recognizes the myriad ways in which chemistry goes into creating and supporting our modern existence. On a governmental level, it means administrations that value these contributions and determine that they should continue. And, on an individual level, it means something a bit less tangible, closer to an aesthetic appreciation.

"If I could fix any one thing as ACS president," Carroll says musingly, "it would be that when I introduce myself at a party and say I'm a chemist, people won't recoil and say 'Oooh, that's hard,' or 'That's uninteresting,' or 'That's obscure.' You don't have to be a chemist yourself, but I'd like you to appreciate the beauty of what goes on underneath it all."

Carroll's easy metaphor has significant depth. The American perception of chemistry is not always a positive one, and not what it might be, if the facts were more widely understood. Only three generations back, Carroll points out, one couldn't turn on the tap and simply expect water that was clean and safe to drink. Indeed, in a vast number of places in the world, this isn't the expectation today. But because of chemistry, modern Americans have the luxury of forgetting what an impressive achievement this is — we fill a glass from our tap, gulp it down, and go on with our day.

"When people donate blood," Carroll continues, "and it is typed, screened, and delivered in a plastic bag with a shelf life twice what it would be in glass bottle ... when they live in any modern shelter, with special adhesives holding together the particle board, with airtight windows and vinyl siding ... when they use any of the pharmaceuticals that make life more livable ... much of that takes place as a result of chemistry."

Carroll's admiration for the transforming power of his discipline is both palpable and catching. It's clear in listening to him even for a little while that he is in the right job — one that allows him to advocate for the not-fully-appreciated value of what chemists do.

"When you work in a field that makes miracles commonplace," he says, "it's easy for people to forget they are actually miracles."

But in another sense, of course, *miracles* are exactly what chemical innovations are not. They are the result of painstaking research, girded by solid financial commit-

ment, driven from within by a desire for understanding and improvement. As tap water has gone from dangerous to commonplace in three generations, the miracles can dry up in one — if it's a generation that doesn't recreate the conditions that invited Carroll and others like him into the field. Or, at least, we can expect the greater benefits promised by future research to shift to countries that continue to hold chemistry as a priority.

With that political reality in mind, Carroll is also planning to act as an advocate to the federal and state governments. The connection is direct: Federal grants are a necessary component of research institutions, and, when government does not value chemistry sufficiently, the result can be a general chilling on the field. "Government at all levels has a huge influence on chemical business and education," Carroll says, which is why he plans to be "the most influential advocate for the chemical enterprise," and "a forceful spokesperson both inside and outside of Washington, D.C."

Carroll received a PhD in organic chemistry from IU in 1978 and retains connections with his alma mater despite multiple obligations. At the invitation of Peters, associate chair and Herman T. Briscoe Professor of Chemistry, he applied for and was offered an adjunct professorship, a position that gives him the opportunity to return to campus once a semester and lecture on industrial chemistry to the new crop of scientific minds. While he holds the office of the presidency, however, he is also making the rounds to visit even younger chemists in the making — at local high schools.

In regular visits, Carroll is already talking to high-school kids about challenges that remain for their generation. While students at that age may not have detailed chemical literacy yet, he has found they are already aware of what the major problems facing their world will be. When he asks them what issues the future chemists among them will need to fix, they list viral diseases, pollution, and a number of concerns that come down to energy consumption.

Carroll uses these opportunities to engage them in the pursuit of answers — an approach he characterizes as "this is left for you."

"When you work in a field that makes miracles commonplace, it's easy for people to forget they are actually miracles."

From early education up through graduate programs and on into government, the process needed to create and maintain chemical literacy is a chain of links, each with its own challenges. Carroll is aware of the difficulties faced by universities such as IU, which are striving to do their best in the midst of our nation's current financial struggle. Industry, often a helping hand to universities in need, is being understandably cautious with its resources in uncertain times. And, though the National Science Foundation does its part, as Carroll notes, such positive influences can be offset or even counterbalanced by shrinking state budgets all around. "Today there is danger of losing that funding as state governments in crisis cut appropriations for higher education," he says. The links are stressed at multiple points; the chain trembles.

And yet, Carroll points out, the payoff for any effort made now, precisely when budgets are tight and resources thin, can be vast. He's hoping to galvanize that effort himself.

"The ACS president is arguably the most recognizable position in chemistry," Carroll says. "Few people know who their state governor is, but everyone wants to meet the governor, because it is the office that's important, not the individual."

Now, as the chemist everyone wants to meet, he has a chance to change some minds about chemistry's value, its necessity, even its inherent beauty. And just possibly to invite some other minds in.

It is a truth worth repeating that one excellent teacher can change the future. Bill Carroll, president-elect of ACS, is working to make sure there are more than just one or two out there. ■

William Orem is a freelance writer and author of numerous segments of Moment of Science, produced by WFU radio

Four get Guggenheim

In April, the Guggenheim Foundation awarded four IUB professors one of its prestigious Guggenheim Fellowships. Professor of Central Eurasian Studies Christopher Beckwith, Professor Emeritus of Folklore and Ethnomusicology Mary Ellen Brown, Professor of Biology Ellen Ketterson, and Distinguished Professor of Biology Loren Rieseberg are among the 2004 fellowship winners.

Beckwith, a world-renowned expert on Tibet, Nepal, and other political entities in central Asia, will use his Guggenheim award to write a comprehensive history of central Eurasia.

Folklorist Brown plans to revisit and recast the beloved English and Scottish ballads edited by 19th-century polymath Francis James Child.

An expert on birds' sexual behavior, Ketterson will examine whether human sex and gender concepts apply in songbirds. Ketterson is a member of IU's Center for the Integrative Study of Animal Behavior, president of the Kinsey Institute's board of governors, and a part-time affiliate of IUB's Department of Gender Studies.

Rieseberg plans to use his Guggenheim grant to write *The Origin and Evolution of Plant Species*, comprehensive, 11-chapter monograph that he says will provide a much-needed update to plant biology texts currently available to botanical students and researchers.

According to the foundation, the 80-year-old Guggenheim fellowships are given "on the basis of distinguished achievement in the past and exceptional promise for future accomplishment," to "men and women devoted to science and liberal studies, great teachers, creators of beauty, and generally to those devoted to pursuits that dignify, ennoble, and delight mankind." Since 1925, the Guggenheim Foundation has granted about \$228 million in fellowships to more than 15,000 Americans and U.S. resident aliens. IU has had at least one fellow each year since 1998, and a total of 113.



Kirkwood Observatory open house

On Wednesday evenings this summer and fall, the 12-inch refracting telescope of the historic Kirkwood Observatory on IU's Bloomington campus will open its doors to the public. Although these days city lights hamper its use for science, the 100-year-old telescope still provides stunning views of southern Indiana's night skies. No reservations are required to visit the open house, and admission is free. The observatory is located just east of the intersection of Fourth Street and Indiana Avenue on the edge of Dunn Woods. The open house is not held during holiday breaks or if the sky is mostly or completely cloudy.

Kirkwood Observatory was constructed in 1900 and dedicated on May 15, 1901. The observatory is named for Daniel Kirkwood (1814–1895), for whom Kirkwood Hall, Kirkwood Avenue, and the lesser-known Kirkwood gaps in the solar system's asteroid belt also were named. Kirkwood's research on comets, meteors, and asteroids established a strong tradition of astronomical research at Indiana University.

The hours available for viewing are as follows:

Aug. 4–Sept. 15, 9–11 p.m. • Sept. 22–Oct. 27, 8–10 p.m. • Nov. 3–17, 7–9 p.m.

IU guru

IU Bloomington Professor of Creative Writing Samrat Upadhyay was a finalist for the Kiriya-Pacific Rim Book Prize for his first novel, *The Guru of Love*. The Kiriya-Pacific Rim Prize was established in 1996 to honor books that promote a greater awareness and understanding of the nations of the Pacific Rim and South Asia.

Set in Kathmandu, Nepal, in the 1990s, Upadhyay's

The Guru of Love recounts the love affair between an unhappy, married schoolteacher and his poor but ambitious young student. "The problems I write about in this book are universal, even though they are specific," says the Nepalese-born Upadhyay. "People want love. They want to marry." *The Guru of Love* recently released in paperback, was also named a *New York Times* Notable Book of the Year in 2003 and received starred reviews in *Publishers Weekly* and the *Library Journal*. Upadhyay's first book, the short story collection *Arresting God in Kathmandu* garnered him the 2001 Whiting Writers' Award for emerging poets and fiction writers who display "exceptional talent and promise." Upadhyay's short stories have been read on National Public Radio and published in *Scribner's Best of the Writing Workshop*, edited by Sherman Alexie, and *Best American Short Stories 1999*, edited by Amy Tan.

Science students named Goldwater Scholars

Indiana University Bloomington juniors Stephen Helms and Keith Turpin have been named two of the nation's 310 Goldwater Scholars for the upcoming academic year. The merit-based scholarship can be used to cover the cost of tuition, fees, books, and room and board, up to a maximum of \$7,500 per year. The Barry M. Goldwater Scholarship and Excellence in Education Foundation was founded in 1986 to encourage outstanding students to pursue careers in the fields of mathematics, the natural sciences, and engineering.

Helms, who is from Washington, Ind., is pursuing a bachelor of arts degree in biochemistry and a bachelor of science degree in biology with a minor in mathematics. He plans to attend graduate school and study either biochemistry or structural biology.

Turpin is a physics and mathematics double major from Gary, Ind. He is a member of IU's Science, Technology, and Research Scholars Program, which gives a select group of science majors an opportunity to conduct research in a faculty laboratory setting. Turpin plans to attend graduate school and study experimental high-energy particle physics.

McRobbie makes 'top 100' list

Michael McRobbie knows information technology (IT). In fact, on the IU Bloomington campus, he practically *is* IT — holding positions as vice president for information technology; chief information officer; vice president in research; professor of computer science, informatics and philosophy; and adjunct professor of cognitive science and information science.

In this gamut of positions, McRobbie has applied his knowledge of the field toward making IU one of the nation's leaders in academic computing. This accomplishment has been recognized by *Computerworld* magazine, which named him one of America's 100 "Premier IT Leaders" in 2004. From a pool of 598 candidates, *Computerworld* editors and former winners select 100 individuals who "use their wit and fortitude to keep their staffs and companies headed in the right direction."



Michael McRobbie

McRobbie was one of six leaders chosen from the academic sector. Other nominees included vice presidents and CIOs from financial corporations such as Bank One, American Express, Merrill Lynch, and Goldman Sachs and from technology organizations that include Sun Microsystems, Novell, Cisco Systems, Nortel Networks, and Palm.



Before your very eyes — Simon science building on Webcam

If you're wondering about progress on the new multidisciplinary science building on the Bloomington campus, wonder no more. Instead, go to www.indiana.edu/~college/msb/webcam.php and check out progress on the construction, which started June 3.

The \$55 million structure is taking shape behind Myers Hall. With 140,000 square feet, it will provide much-needed laboratory space to the campus and serve as a science hub for chemistry, biology, physics, and other science buildings.

The building is to be named Simon Hall, after the Simons, a prominent Indiana philanthropic family. The Simons contributed \$9 million to the project, which is expected to attract top-notch scientists in the emerging fields of genomics, proteomics, and bioinformatics and to train a new generation of students for careers in industry and academia. The science building will house the Linda and Jack Gill Center for Biomolecular Measurement, as well as the Johnson Center for Science and Entrepreneurship.

For more information, including floor plans and updates, see www.indiana.edu/~college/msb.php.



Opening doors for graduate students

If it hadn't been for a fellowship offered her first year in graduate school, Laura Fingerson might never have attended IU — nor gone on to become an assistant professor of sociology at the University of Wisconsin at Milwaukee.

"This fellowship was the most influential one of my career because it gave me confidence in my abilities as a new student and researcher," Fingerson recalled recently. Subsequent fellowships and research grants enabled Fingerson to complete master's and doctoral degrees in sociology in five years. The funding, she says, "allowed me to do everything sooner: get my research published, get a job, and start to contribute to the field as a whole."

"If, with this gift, she sparks that curiosity in graduate students and in some way brings them closer to their goals, she would have been very happy."

Thanks to Louise McNutt, many more graduate students soon will be able to benefit from fellowships similar to Laura's. McNutt was the daughter of former Indiana governor and IU graduate Paul McNutt and had a successful career with the U.S. Department of State. She died in June 2000. Through her estate, McNutt gave the College the largest graduate fellowship endowment it has ever received.

The income on the Louise McNutt Graduate Fellowship Endowment, which has \$2.12 million in initial funding, will be matched by the IU Bloomington chancellor's office. It will provide full tuition for 10 to 15 humanities graduate students each year.

Although not a graduate of IU, Louise did attend her father's — and her grandfather's — alma mater for a short time. And the family's ties with the university ran deep, even after Paul McNutt left his position as dean of the IU School of Law to become governor. A close friend of Herman B Wells, Paul McNutt involved Wells in several state commissions. McNutt went on to become high commissioner and then the first U.S. ambassador to the Philippines.

Louise followed her father's lead in the international arena. Both her bachelor's and master's degrees, from George Washington University, were in international affairs. She began her career as a translator for the state department and ended it as the U.N. adviser in the Bureau of Far Eastern Affairs. During her years with the Department of State, she often served as a mentor to young foreign-service officers. She was passionate about learning, history, and the world stage.

Her cousin, John L. Krauss, says Louise loved to watch young minds grow. "Fellowships are a very creative way for that legacy to continue," he says. "If, with this gift, she sparks that curiosity in graduate students and in some way brings them closer to their goals, she would have been very happy. She would also have been very happy to know that the university is using her gift as a challenge to build for the future."

This gift, and the resulting match, will dramatically change the landscape for graduate funding in the humanities. The College will be able to attract better and more graduate students than it ever could have done before. It's a fitting way to honor the legacy of Paul and Louise McNutt, their ties to IU, and Louise's lifelong passion for learning.



Louise McNutt, the daughter of former Indiana governor and IU graduate Paul McNutt, below

Courtesy of the Indiana University Archives



— TOM HERBERT

Central Eurasian Studies

Tenured and tenure-track faculty:	15
Emeritus faculty, including teaching emeritus:	9
Visitors in continuing full-time positions:	4
Visitors in continuing part-time positions:	4
Visitors in temporary full-time positions:	2
Visitors in temporary part-time positions:	5
Associate instructors:	4
Graduate students:	57

Study options:

Undergraduate certificate in central Eurasian studies, **master of arts** in central Eurasian studies, subdivided into fields based on regions and languages of specialization, including Baltic-Finnish region (primarily Estonian or Finnish), central Asian region (primarily Uzbek), Hungarian region (Hungarian), Iranian region (Persian), Mongolian region (primarily Mongolian), Tibetan region (Tibetan), Turkish region (Turkish), and post-Communism and nationalism (Russian)

Dual master of arts in Central Eurasian studies and **master of public affairs (MA/MPA)** in School of Public and Environmental Affairs

Doctor of philosophy in Central Eurasian studies, including some regions and languages available only as individualized specializations at the PhD level

International enhancement:

Central Eurasia, the home of some of the world's greatest art, epic literature, and empires, is the vast heartland of Europe and Asia extending from central Europe to East Asia and from Siberia to the Himalayas. The Department of Central Eurasian Studies at Indiana University took its present name in 1993. It was founded as an Army Specialized Training Program for Central Eurasian languages in 1943, then formally organized as the Program in Uralic and Altaic Studies (from 1956 to 1965), and later the Department of Uralic and Altaic Studies (from 1965 to 1993). The department upholds Herman B Wells's vision for area studies programs that enhance Indiana University's scholarly offerings in ways that foster informed international contacts.

Many department languages are considered critical to national security. The number of applications to the graduate program is at a record level. Grants to the campus following 9/11 enabled the department to offer interactive video instruction in Uzbek language to Ohio State University in 2003–04 and to expand in 2004–05 to include Kazakh language and outreach to other institutions. The department offers nine languages through advanced level on an annual basis and many more on an occasional basis.

Striving for excellence:

The department has long been one of the world's leading centers of academic expertise on central Eurasia. It is the only institution to cover all the major peoples of Eastern Inner Asia (Tibet, Mongolia, and Xinjiang). The faculty of the department enjoys an international reputation for the high quality of its research and publications and represents a wide range of disciplines, including linguistics, history, anthropology, religion, political science, comparative literature, and musicology. In the last two years, department professors Devin DeWeese and Christopher Beckwith received Guggenheim Fellowships, and Mihály Szegegy-Maszák had the singular honor of a Szechenyi Award from the Hungarian government. The Dalai Lama has visited IU on a number of occasions, in part because of the strength of the Tibetan program established under the aegis of his elder brother, Thubten Norbu, who is professor emeritus in this department. To ensure the variety and quality of language offerings, the department uses primarily native speakers of the languages and so has a continuous cycle of full- and part-time visiting faculty in a closely supervised language program.

The department has holdings in the Indiana University Main Library, the Research Institute for Inner Asian Studies and its Central Asian Archives, the Eurasian Language Archive, the Antoinette K. Gordon Collection of Tibetan Art, the Hungarian Chair Collection, the Finnish Studies Program, and the departmental library. These holdings constitute the major research collection for central Eurasian area studies in the United States.

Explore your world: Central Eurasian Studies

The Department of Central Eurasian Studies offers a unique area studies program, emphasizing language proficiency and a thorough grounding in indigenous cultures with wide-ranging opportunities for careers in academia, government, and international business. It offers a variety of lectures, symposia, conferences, cultural programs and receptions, film series, and language coffee hours, and annually hosts a number of visiting scholars. The department works closely with other campus units, including the Inner Asian and Uralic National Resource Center, the Research Institute for Inner Asian Studies, the Center for Languages of the Central Asian Region, the Russian & East European Institute, and also the Mongolia Society, which is housed on our campus.