A sticky situation in Jordan Hall

Professor Yves Brun and Brown University biophysicist Jay Tang led a research team that discovered a natural adhesive with more than twice the holding power of super glue. It takes a stress of 5 tons per square inch before the glue loses its hold.

Caulobacter crescentus, a harmless bacterium found in rivers and tap water, produces this substance. Its “holdfast” stalk, tipped with sticky chains of sugar molecules, enables the bacterium to attach itself firmly to wet surfaces, even those dampened by salt water.

The adhesive has potential applications in engineering and marine technology, as well as the medical and dental fields — if manufacturing problems are solved. The glue’s tenacious holding power causes it to stick to everything, including any equipment used in its production.

While Caulobacter is harmless, its holdfast ability might provide clues as to how harmful bacteria adhere to surfaces. The ability of harmful bacteria to cling to surfaces enables them to foul submerged surfaces such as the hulls of ships and to infect living cells.

Initial funding for this research came from seed money provided by Indiana’s Metabolomics and Cytomics Initiative (METACyt) and IU’s Faculty Research Support Program. In January, the National Institutes of Health issued a four-year grant to the Brun and Tang research teams to enable additional studies of the mechanisms of bacterial adhesion to surfaces and the biosynthesis of the holdfast adhesive.

Yves Brun co-led a research team that discovered a natural super glue with tremendous holding power. NIH awarded the team a four-year grant to further their studies of this substance.

Serotonin, and bats, and mice! Oh, my!

Laura Hurley studies them all

Assistant Professor Laura Hurley does not wait for Halloween to surround herself with bats. They have been her research models for more than five years, and she has recently included mice in her studies.

Hurley’s research examines how brain circuitry interprets the sounds we hear. She does this by studying the effect of serotonin in the inferior colliculus, an auditory region on the neural pathway leading from the ear to the cerebral cortex. Serotonin, a neural-signaling molecule, helps us filter and understand complicated sensory environments.

Bats make excellent research models due to their highly developed auditory systems. Hurley says, “Many features of their auditory systems are also quite similar to those seen in other mammals, which facilitates comparisons with other species.” Adding mice to the repertoire allows her lab to collaborate with colleagues on new projects more easily and establishes the potential for using genetically manipulated strains of mice in the future.

In February, Hurley, with speech and hearing sciences faculty Robert Withnell and (continued on page 2)
Students earn Guidant awards

Congratulations to Alec Sexton, who earned a 2006 Guidant Life Science Scholarship. Sexton, a double major in biology and French, is in IU’s Science, Technology, and Research Scholars Program. He was an undergraduate teaching intern in Assistant Professor Wayne Forrester’s L311 Genetics class during the fall semester.

Jordan Raynor, a biology minor, also received a 2006 scholarship from Guidant. The company gives these $10,000 scholarships to academically gifted life-science students who plan on health-care careers.

Estelle receives Kumbo award

Professor and Miller Chair Mark Estelle earned a Kumho Science International Award in recognition of his contributions to plant molecular biology and biotechnology. This award is considered one of the most prestigious given in plant biology.

Ketterson promoted to Distinguished Professor

Ellen Ketterson was promoted to Distinguished Professor last year. An international expert in evolutionary biology, Ketterson is known for her long-term population study of the dark-eyed junco. This small songbird has been her research model for 20 years.

Bauer merits 10 years’ funding

Carl Bauer, the Department of Biology’s Clyde Culbertson Endowed Professor, earned the National Institutes of Health’s Method to Extend Research In Time (MERIT) Award. Few researchers receive this award designed to free scientists from the burden of constantly writing grant proposals. NIH guarantees Bauer 10 years of funding as long as he meets the requirements of a 2011 renewal. His research involves the growth of bacteria in the presence, or absence, of oxygen. Since the program’s inception in 1986, only nine IU professors, including Bauer, have received this award.

Serotonin

(continued from page 1)

William Shofner, received seed money from the Faculty Research Support Program. They are looking at tinnitus, a condition caused by auditory damage that results in the perception of ringing in the ears. The three want to understand the changes in the brain that cause this annoying condition.

FRSP, funded by IU’s Office of the Vice Provost for Research, enables faculty to conduct preliminary research, the results of which could lead to new external funding opportunities for larger projects. Microbiologist Yves Brun, a previous FRSP recipient, says that the funding he received from this program was certainly a factor in obtaining a large National Institutes of Health grant in January.

Hurley, a member of the Department of Biology’s faculty, is affiliated also with the Neuroscience Program and the Center for the Integrative Study of Animal Behavior. She came to IU in 2002 from the University of Texas at Austin and was promoted to assistant professor in 2005. Last year, Hurley received a Ralph E. Powe Jr. Junior Faculty Enhancement Award from the ORAU University Consortium. The program provides seed money to foster the professional growth of junior faculty whose institutions belong to the Oak Ridge Associated Universities.

Hurley earned a BA from the University of Virginia, followed by a PhD, in 1997, from the University of Washington. She did postdoctoral work at the University of Texas at Austin.

Botanical Society honors faculty, alumni

Professors Gerald J. Gaston, Charles B. Heiser Jr., and Jeffrey D. Palmer received the Botanical Society of America’s Centennial Award at the Botany 2006 Conference. They were among more than 100 prominent scientists presented with commemorative medals for their significant contributions to the field of plant sciences and to the botanical society. Former faculty member David L. Dilcher also earned one of these awards, as did former IU postdoctoral fellow Peter R. Crane, director emeritus of the Royal Botanic Gardens, Kew.

Centennial Awards also went to eight of our alumni. They are Gregory J. Anderson, PhD’71; Charles P. Daghiian, BA’73; W. Hardy Eshbaugh III, MA’61, PhD’64; Christopher H. Hauffer, MA’74, PhD’77; Patricia Kern Holmgren, BA’62; Raymond C. Jackson, BA’52, MA’53; David W. Kramer, MA’63, PhD’69; and Douglas E. Soltis, MA’77, PhD’80. Another recipient with ties to our department is Florida International University Professor Jennifer H. Richards, who did one year of graduate work in our department.

Laura Hurley studies how brain circuitry interprets sounds.

Professors, from left, Jeff Palmer, Jerry Gastony, and Charlie Heiser received the Botanical Society of America’s Centennial Award at the Botany 2006 Conference.
Office of Vice Provost for Research provides faculty grants

The Faculty Research Support Program enables faculty to conduct preliminary research, which could lead to new external funding opportunities for larger projects.

2004–05
- James Bever and Miriam Zolan, “Developing genetic markers for the study of genomic structure of arbuscular mycorrhizal fungi”
- Yves Brun, “Synthesis and localization of a strong bacterial adhesive”
- Patricia Foster, “DNA repair and mutagenesis in a thermophilic archaeon”
- Richard Hardy, “A genome-wide investigation of host-response to viral infection”
- Ellen Ketterson, “Bridge funds for National Science Foundation proposal”

2005–06
- Gregory Demas, “Seasonal changes in aggression”
- Justin Kumar, “Identification of transcriptional targets of the eye specification gene sine oculis”
- Emilia Martins, “Zebrafish behavioral genomics”
- Rudolph Raff and Elizabeth Raff, with John Colbourne, Center for Genomics and Bioinformatics, “Microarray analysis of gene expression changes associated with a radical evolutionary change in development between two closely related species”

2006–07
- Lynda Delph, “Developing genomic tools for the study of sex-chromosome evolution”
- Laura Hurley, with Robert Withnell and William Shofner, Speech and Hearing Sciences, “A role for serotonin in tinnitus”
- Justin Kumar, “Fine tuning of eye development by miRNA genes”
- Scott Michaels, “Development of tools to study the nuclear pore”
- Rudolph Raff and Elizabeth Raff, with John Colbourne, Center for Genomics and Bioinformatics, “Microarray and genomic analysis of changes in gene expression and genome organization in two closely related species associated with a radical evolutionary change in embryonic development”

Study compares humans, chimps

A statistical comparison of the human and chimpanzee genomes led by computational biologist Matthew Hahn indicates a difference of about 6 percent in the number and identity of genes between the two species.

The study, reported in the first issue of Public Library of Science ONE, found differences in 1.418 out of 22,000 genes compared. The 6 percent figure varies from the 1.5 percent nucleotide-by-nucleotide difference commonly reported.

Hahn says that both figures are correct, depending upon what is being asked, adding, “There isn’t a single, standard estimate of variation that incorporates all the ways humans and chimps can be genetically different.”

Researchers determined that humans have gained 689 genes since diverging from their common ancestor with chimps. Many of these were gained from the duplication of genes influencing brain functions.

Postdoctoral research associate Jeffrey Demuth, PhD’04, is lead author of the study. Researchers from the University of California at Berkeley, the University of Southampton, and the University of Bristol also contributed to the study.

Fern expert Jerry Gastony retires from IU

Professor Gerald Gastony retired in his 36th year with the university. An expert in plant systematics and evolution, Gastony (see photo on page 2) joined the department in 1970, immediately after earning his PhD at Harvard.

Chair Beth Raff says of him, “Jerry is the person responsible for essentially everything that we know about fern systematics. He was a pioneer in coupling [isozyme and restriction site] molecular data and DNA sequences with other kinds of data to analyze relationships among species and to establish phylogenies for ferns. [His research] resulted in the first comprehensive phylogeny for ferns. Most recently, his lab generated the first genetic linkage map for ferns.”

The Botanical Society of America recognized Gastony’s work with the Edgar Wherry Award in 1993 and a Centennial Award given last year. He served a two-year stint as president of the American Fern Society, directed our herbarium for 14 years, is in his 34th year as associate editor of the American Fern Journal, served as editor in chief of Systematic Botany for three years, and was the department’s Evolution, Ecology, and Behavior Program director for 11 years.

Considering Gastony’s passion for ferns, it is fitting that two fern species bear his name. They are Phanerophlebia gastonyi Yatskievych and Pellaea gastonyi Windham. There is also a moss, Macrocoma gastonyi Norris & Vitt, named in his honor.

His B300 Vascular Plants course was one of the department’s best. A highly respected teacher, he was a recipient of the Senior Class Award for Teaching Excellence in Biology and Dedication to Undergraduates. “Jerry has been a wonderful colleague,” Raff says, “and he also made very deep and important contributions in teaching.”
The Department of Biology’s Roger Hangarter is working with scientists from Miami University of Ohio and the University of Florida to examine the effects of microgravity on plant growth.

Last year, their experiment, dubbed Tropi, flew to the International Space Station via the Discovery space shuttle. Seeds from Arabidopsis thaliana, a plant in the mustard family, were germinated inside the European Modular Cultivation System; an automated system waters and stimulates the resulting plants with various light treatments and gravity forces at select times.

Hardy Arabidopsis is perfect for this space project because it is very small, it has a short life cycle, and its genetic structure is fully mapped. Long-term space flights will require sustainable food crops for the crews and plants to act as supplemental air filtration systems as well as additional oxygen sources.

The new information Tropi provides on molecular aspects of plant growth could help solve long-term space flight problems and lead to agricultural advancements on Earth.

Beetles rock in Armin Moczek’s laboratory

2006 was quite a year for student Richie Madewell, who conducts research in Armin Moczek’s laboratory. In August, Madewell attended the annual Animal Behavior Society meeting with help from a Turner Award. His poster on the mobility costs of beetle horns earned him an ABS Genesis Award for the best undergraduate poster presentation.

Madewell’s research was published in the Journal of Insect Science, with lead authorship going to Madewell. He capped off the year with an independent study project in Tanzania, where he surveyed nocturnal wildlife diversity at a small preserve.

Armin Moczek discovered that elate beetle horns have a use in addition to combat or mate selection. Moczek and his research team discovered that beetles in the pupal stage use their horns much like a can opener to pry their way out of thick, larval shells. If the horn tissue is destroyed, the larva cannot break out of their shells. Many more beetle species use their horns for this purpose rather than combat, suggesting that horns’ function in development preceded their function as weapons in male combat.

Moczek’s findings appear in the American Naturalist (December 2006). Another paper on the subject, co-authored by Moczek, graduate student Tami Cruickshank, and undergraduate Andrew Shelby, appeared in the November 2006 issue of Evolution.

Meet the challenge …

DeLaCroixes to match gifts to fellowship

Fern Hays DeLaCroix, BA’70, MA’73, and her husband, Cliff, BS’69, JD’72, MBA’73, created the George Hudock Fellowship to honor her former professor and mentor, George A. Hudock. Ten awards, ranging from $500 to $1,500, have been granted since 1997, when the fund was established. The fellowship is open to qualified students earning a graduate degree from our department, with first preference going to master’s candidates.

In an effort to generate more Hudock Fellowship funds for deserving students, the DeLaCroixes have offered to match a portion of any donations received over the next six months. Those interested in supporting their efforts are invited to contact Kathy Wyss for further details at (812) 855-6195 or kwyss@indiana.edu.

Microbiology major earns Beckman award

Microbiology major Charles Haitjema earned a Beckman Scholarship to fund his research on the plant pathogen Agrobacterium tumefaciens. Haitjema, a member of IU’s Science, Technology, and Research Scholars Program, works with Associate Professor Clay Fuqua. Previous Beckman Scholars include Department of Biology alumni Jeremy Brown, BS’02; Aaron Hinz, BS’02; Sarah Brown, BS/BA’04; and Emily Powell, BS’05.
Alumni Notebook

Before 1970

Meredith N. Runner, BA’37, PhD’42, appears in the International Biographical Centre’s Outstanding Scientists of the 21st Century. He retired in 1984 from the University of Colorado in Boulder.

Richard E. Lahr, BA’46, MD’49, and his wife, Marilyn (Urech), GN’51, live in West Lafayette, Ind., and have three children.

James E. Dill, BS’47, is a retired U.S. Army colonel. He lives in Westminster, Calif.

James P. Comer, BA’56, ScD’91, is the Maurice Falk Professor of Child Psychiatry and the Child Study Center associate dean for student affairs at Yale University’s School of Medicine in New Haven, Conn. He received the 2007 University of Louisville (Ky.) Grawemeyer Award for Education, which includes a $200,000 prize.

Jorge A. Soria, PhD’58, received an honorary doctorate from the Tropical Agricultural Research and Higher Education Center on Sept. 1, 2005.

Robert R. Wylie, BA’61, MD’65, retired from private medical practice in 2004. Now living in Bloomington, Ind., with his wife, Nancy, he enjoys IU sports. He has two daughters and one grandson.

Sharol Kelly Buchler, MA’64, an honorary research professor in the Division of Community Health & Humanities at Memorial University of Newfoundland in Canada, received a 2006 Distinguished Service Citation from the Illinois College Alumni Association.

The Linnean Society of London hosted a summer symposium to honor retiring plant geneticist Barbara Pickersgill, PhD’66. Specialists in plant domestication, cytogenetics, and taxonomy gathered to present their research and celebrate her 30-plus years of teaching and research at Reading University. Pickersgill is an expert on Capucium.

Michael B. Weeks, BA’66, MD’70, did volunteer teaching at the IU School of Medicine. He left private practice to join IU Medical Group-Primary Care. He has been working exclusively in Wishard Memorial Hospital. Weeks lives in Indianapolis with his wife, Mary, BA’82, MS’97. They have two children: Christopher M. Weeks, BS’96, and Kara K. Weeks Boggs, BA’97, MS’02, MD’05.

Bloomington optometrist Edwin C. Marshall, BA’68, BS’70, OD’71, MS’79, was named 2006 Optometrist of the Year by the Indiana Optometric Association for his work in public health. A professor at the IU School of Optometry in Bloomington, he is also associate dean for academic affairs and student administration.

Nolan W. Allen, BA’69, DDS’73, president-elect of the Florida Dental Association, works in Clearwater, Fla., and lives in Largo.

1970s

Judith McClain Daviero, BS’70, and her husband, Henry W., BS’72, celebrated their 35th wedding anniversary in New York City.

In September, Gregory J. Anderson, PhD’71, was appointed to a two-year term as vice provost for research and graduate education and dean of the graduate school at the University of Connecticut.

Thomas A. Cicarella, BA’71, JD’74, a partner in the law firm of Calfee Halter & Grissom in Cleveland, was included in The Best Lawyers in America 2006. His firm was distinguished in the 2006 Chambers USA Guide, and he was ranked a leader in banking and finance.

Philip J. Eversman, BA’71, DDS’75, was inducted into the International College of Dentists. He owns a practice in Avon, Ind., where his wife, Cynthia (Slowik), BS’73, is a dentist hygienist.

Living in Quincy, Ill., David W. Lockhart, BA’72, MD’76, is a board-certified hospice and palliative-care doctor. He writes, “I somehow feel like end-of-life care is what I have spent my life preparing for, and I’m happy to be able to do it well.”

On July 1, Thomas J. DeCaro, BA’73, chief of dental services for the Gila River Health Care Corp. in Sacaton, Ariz., retired. He and his wife, Jackie, plan to remain in Phoenix. They also plan to visit Bloomington, Ind., at least once a year to enjoy an IU basketball or football game.

Keven C. Reed, BA’73, OD’77, writes, “After practicing almost 30 years in the [U.S.] Naval service, including working on three islands a cumulative 14 years and being a hospital doctor of 160 employees, I am devoting [my] energy to writing a book about the coral reefs of the Ryukyu Islands [in Japan]. I study coral taxonomy, diseases, and tropical coral ecology.” He and his wife, Kiyoko, live in Orange Park, Fla.

Duke University Professor of Biology and Vice Provost for Research James N. Siedow, PhD’73, was named to the U.S. Department of Commerce’s Deemed Export Advisory Committee. Siedow lives (continued on page 6)

In memoriam: Frank W. Putnam

Frank W. Putnam, a member of our faculty for 23 years, died on Nov. 29, 2006, at the age of 89. He came to IU in 1965 after stints at Duke University, the University of Chicago, and the University of Florida Medical College. Putnam was promoted to Distinguished Professor in 1974, a title he held until his retirement in 1988.

His work focused on proteins found in human blood. He was among the first to uncover the importance of the Bence Jones protein in the human immune system. High levels of Bence Jones proteins could mean that certain white blood cells are producing too many antibodies. During a 1952 sabbatical to Cambridge University, he worked with Fred Sanger, who went on to earn two Nobel Prizes. While chair of the biochemistry department at the University of Florida College of Medicine, Putnam developed new techniques for analyzing the amino acid sequences of proteins. In 1965, he founded one of the first programs in molecular biology at Indiana University. During his tenure at IU, Putnam and his lab published many important scientific articles, including “Complete Amino Acid Sequence of the Mu Heavy Chain of a Human IgM Immunoglobulin.”

Putnam’s honors included a Guggenheim Fellowship in 1969 and election to the American Academy of Arts and Sciences and the National Academy of Sciences. He was a fellow of Churchill College in Cambridge, England, and a Markel fellow. Putnam did a four-year stint as chair of the National Research Council’s Assembly of Life Sciences and served on the board of directors for the National Science Foundation’s Atomic Bomb Casualty Commission.

— Rachel Resler
Alumni notebook
(continued from page 5)
and works in Durham, N.C.
After 36 years with Indiana University, sculptor Georgia K.
Strange, BA’73, MS’77, MFA’79, left her position as director of the
Henry Radford Hope School of Art to become the director of the Uni-
versity of Georgia’s Lamar Dodd School of Art in Athens.
Larry M. Jones, BA’74, MD’77, was lead physician for Pittsburgh
Steelers quarterback Ben Roethlis-
berger following his motorcycle ac-
cident. Jones is chief of the Division
of Multisystem Trauma and director of the Birmingham Trauma and
Burn Center at Mercy Hospital of
Pittsburgh. He and his wife, Donna, live in Canonsburg, Pa.
Mary Barwe Rexing, BA’74, of
Evansville, Ind., is now part-owner
of Tri-State Bearing Co. Inc.
David J. Palmer, BA’76, is a
board-certified ophthalmologist
and a clinical assistant professor at
Northwestern University’s Feinberg
School of Medicine in Chicago.
Palmer is in private practice in
Chicago and Glenview, Ill.
Ricardo R. Salvat, BA’76,
a lieutenant colonel in the U.S.
Air Reserve Base, is the officer in
charge of optometry at the 434th
Aerospace Medicine Squadron at
Grissom Air Force Base in Indiana.
Staff optometrist at the Veterans
Affairs outpatient clinic in Evans-
ville, Salvat lives in Newburgh.
Thomas A. Kenyon, BA’77, prin-
cipal deputy coordinator and
chief medical officer in the Office of
the U.S. Global AIDS Coordinator,
assists with managing the day-to-day
implementation of President Bush’s
emergency plan for AIDS relief.

Walter D. Bourke, BS’78,
MS’84, EdD’93, is superintendent of Franklin Township (Ind.) Com-
munity School Corp. He is active
with the Indiana Principal Leader-
ship Academy. He and his wife,
Shawn L. (Evers), BSN’78, have
two children.

Richard, Ind., gastroenter-
ologist Eileen E. Cravens, BA’78,
MD’82, shows horses on the nation-
al quarter-horse circuit. Her hus-
bond, Dana H. Reiman, BA’76,
MD’79, is a physician in Richmond.

1980s
Thomas W. Moffo, BA’80,
MD’84, Res’87, is on the medical
advisory board for Dermcare Laser & Skin Clinics. Moffo, who has 15
years of emergency-room experi-
ence and is board-certified in inter-
nal medicine, lives in Phoenix.

Michael G. Chez, BS’81,
MD’85, is the director of pediatric
neurology at the Child Neurology
Program at Sutter Medical Center in
Sacramento, Calif.

Mary Bishop Hilgart, BS’83,
is an associate director of global
projects and alliance management at
Enzon Pharmaceuticals in Piscata-
tawny, N.J. She is married, has two
sons, and lives in Newton.

David J. Seay, BS’83, OD’87,
an associate optometrist with Dr.
Tavel’s Family Eye Care in India-
napolis, was formerly with Dixie
Vision Center in Louisville, Ky.

In February 2006, Thomas
A. Vogel, BS’83, opened his solo
practice, Hamilton Foot and Ankle
Care, in Fishers, Ind. Vogel, his
wife, Lesley, and their two daugh-
ters live in Fishers.

Timothy C. Heffernan, BS’84,
MS’88, wrote Of Blood and Black-
water. Published last year by Autho-
R House, it won the 2007 Allbooks
Review Editor’s Choice Award in
the mystery genre. His sister, Kellee
Heffernan Heisel, BSN’81, provided
the cover art, and her daughter
helped illustrate the book.

Environmental, health, and safe-
ty manager for International Truck
and Engine in Springfield, Ohio,
Tim W. McDaniel, MA/MS’85,
began to run four years ago. He
was recognized by the Ohio River
Road Runners Club as the most
improved male athlete of 2006.
McDaniel lives in New Carlisle.

A podiatrist in Chicago, David
A. Gerst, BS’86, reports that he
has completed 10 Ironman Triat-
lons. He lives in Orland Park, Ill.

E. Morrey Atkinson, BS’87, is
director of bioprocess research and
development at Eli Lilly and Co. in
Indianapolis. He appears in the Sep-
tember 2006 issue of Indianapolis
Monthly in “Seeking Shelter,” which
featured people who wanted to relo-
cate near family after Sept. 11.

Robert E. Bancroft, BS’87, is
senior vice president of sales and
marketing for Healthpoint’s tissue
management division, based in Fort
Worth, Texas.

Lawyer Kathy L. Osborn, BA/
BS’87, JD’99, designed a program-
able musical mobile, compatible
with digital music devices, that
allows parents to choose the music
their child hears. The design earned a $5,000 second-place prize in
the nationwide 2006 Whirlpool
brand Mother of Invention grant
competition. An associate at the
Indianapolis law firm of Baker &
Daniels, she practices in commercial
and appellate litigation.

In January, Tracy Lawhon,
MS’88, JD’94, joined Tragara Phar-
maceuticals in San Diego as an of-
ficer and vice president of regulatory
affairs and development operations.
She was previously with Cabrellis.

Kristine M. Endler, BS’89,
is a managing editor for a book-
publishing company in Washing-
ton, D.C. Her brother, David M.
Endler, BA’98, is branch manager at
Patterson Dental Supply Co. Inc.
in Little Rock, Ark.

1990s
Orthodontist Timothy J. Bus-
sick, BA’90, DDS’94, specializes in
dentofacial orthopedics and his
practice, Busick Orthodontics, in
Fort Wayne, Ind. He also teaches
dental education at IPFW.

Laura A. Enfield, BS’91,
received a doctorate of naturopathic
medicine and an MS in Oriental
medicine. She is doing a residency in
Portland, Ore. She writes, “It is re-
warding to see how effective natural
medicine is in helping people with
chronic disease.” Her e-mail address
is dlanfield@gmail.com.

Richard J. Berger, BS’92, is
a physician in Florence, Ky. He lives
in Cincinnati.

Lisa J. Jerrells, BS’92, MD’97,
has been a doctor at Landmark Fam-
ily Practice in Bloomington, Ind.,
for six years. She ran her first mini-
marathon in Indianapolis in 2006.
She and her husband, Joly D.,
BA’94, MPH’94, JD’98, have two
daughters and live in Bloomington.

Physician-assistant Jeremy T.
Heinrich, BS’93, has worked in oncol-
y for five years. He lives in New
York City and works at New
York Presbyterian Hospital.

Rick Schmidt, ’93, is a project
manager at Harmon Inc. in South
Bend, Ind. His projects include a
renovation for Wabash (Ind.) Mid-
dle School; a new parking garage
for Blue Chip Casino in Michigan
City, Ind.; and Stryker Corp.’s new
office complex in Kalama, Mich.

Alis D. Dowling, BS’94, an
assistant professor of biology at
Longwood University in Farmville,
Va., since 2001, received the Junior
Faculty Award last year.

Avis Ewry Jolly, BS’95, works
part time at Sierra Vista Vineyards
&Winery in Placerville, Calif. She,
her husband, Andy, and their two
children live in Rescue.

Rebecca C. Rastetter, BS’95,

MacArthur ‘Genius Award’ for
biology alumna Nicole King
Congratulations to biology alumna Nicole King, BS’92, who
earned a MacArthur Fellowship. King, an assistant professor of
genetics and development at the University of California at Berkeley,
receives five years of unrestricted funding. She studies choanoflagel-
lates and says her research “concerns the evolution of multicellular
animals from their single-celled, protozoan ancestors.”

King earned her biology degree here at IU with honors. She
writes that the program provided her with “an exceptional ed-
cational experience,” adding that it “allowed a small cadre of stu-
dents to take all of their biology lectures and labs together under
the instruction of top-notch researchers. It was an intense and
personalized program that provided the strengths of a small liberal
arts college within the resources of a research university.”

As an undergraduate, King worked in IU Distinguished Profes-
 sor Thom Kaufman’s Drosophila lab, finding him a warm and
supportive adviser. Kaufman’s former student visited the Bloom-
ington campus on April 4 to give the 25th presentation of the Joan
Wood Lecture Series. During her talk, “Finding My Way: Fossils,
Choanoflagellates, and Motherhood,” King discussed her career
path and the joys and challenges of juggling career and family (her
son, Nate, born last spring, accompanied her to Bloomington). The
Wood Lecture Series is designed to encourage undergraduate wom-
en to pursue advanced science degrees, and it showcases the many
career opportunities available to science majors.
is a pediatrician in Milford, Ohio. She, her husband, Jonathan Pu- 
chalski, and their two young chil-
dren live in Cincinnati. She can be
reached at rastetter@hotmail.com.

Thomas R. Clouse, BS’96,
MD’04, is finishing his internal
medicine residency at St. Vincent
Indianapolis Hospital. He and his
wife, Claire (Newbury), BSN’04,
live in Indianapolis.

Brian Dimitri, BA’97, teaches bi-
ology and chemistry at Edward Little
High School in Auburn, Maine. He,
his wife, Liza (Marzak), BS’96, and
their two sons live in Auburn.
After several years in the genetic-
research field, Mary C. Hardy,
BS’97, enrolled in law school in San
Diego to become a patent attorney.
She had a daughter, Madeline, in
2005. Hardy can be reached at
maryhardy@hotmail.com.

Optometrist John D. McKenna
II, BS’97, OD’01, writes, “[I’m] 
living the dream of owning and
operating my own private practice
in Indianapolis. I bought the prac-
tice two years ago from Norman D.
Young, BS’60, MS’61.”

Scott C. Pike, BS’97, MD’01,
joined Urology of Indiana’s Carmel
branch. His address is scottciike@
yahoo.com.

I-Man Christopher W. Plumb,
BS’97, is the head coach of swim-
ning and diving at Carmel (Ind.) 
High School. He oversees the Car-
mel Swim Club. He lives in Carmel
with his wife, I-Woman Emily S.
(Dunn), BS’97, and two sons.

Monica M. Price, BS’97,
OD’02, of Greenfield, Ind., prac-
tices optometry in New Castle and
is vice president of the IU School of
Optometry Alumni Board. Her ad-
dress is iu_idoc@hotmail.com.

Tara L. Wright, BS’97, a
licensed funeral director and em-
balmer at Kuiper Funeral Home in
Highland, Ind., teaches at Ivy Tech
Community College Northwest’s
mortuary-science program and re-
storative art and embalming practi-
cum. Wright lives in Schererville.

Christopher J. Browning,
BS’98, OD’02, is an optometrist at
VisionQuest Eyecare in Indianapo-
is. He has two children.

Jodi Troeddle Silcox, BS’98,
is an attorney at Cline Farrell Christie
Lee & Caress in Indianapolis, spe-
cializing in medical negligence cas-
es. Her husband, Jeffery, BA’98,
is a sergeant with the Indianapolis
Metropolitan Police Department.
They have two children.

Michael F. Carter, BA’99, a for-
ter U.S. Army signal communica-
tions officer, did four tours of duty
in Afghanistan. He now works for
a small-bone orthopedic company,
OsteoMed, in Columbia, S.C.

2000s

Hilary A. Feister, PhD’00, is
a medical writer in clinical develop-
ment for a pharmaceutical com-
pany. She has two sons and lives in
Brighton, Mich.

Samuel Horton, Cert/BA’00,
MD’04, is an IU neurology resi-
dent. He and his wife, Holly (Tay-
lor), BS’02, live in Indianapolis.

Joshua B. Lee, BA’00, JD’05,
director of planned giving at the IU
School of Medicine’s Office of Gift
development, lives in Indianapolis.

Tiffany E. Owens, BS’00,
OD’04, started the not-for-profit
Low Vision Center of Northeast
Florida in Jacksonville. She is also
pursuing an MBA degree.

Kathleen Kaczmarski Bradley,
BS’02, DDS’06, is a dentist in Den-
ver. Her husband, Scott, BS’02,
MPA’06, is an auditor at BKD, a
CPA and advisory firm. They can be
reached at kbradleydds@gmail.com.

Matthew R. Cramer, BA’02,
is a production assistant at television
station KEYE in Austin, Texas. He
and his wife, Allison (Mehring),
MBA’02, live in Austin.

Aaron J. Sauer, BS’02,
DDS’06, is an associate at Arnold
Family Dentistry in Indianapolis.
His wife, Ambrosia A. (King),
BS’02, is an eighth-grade English
teacher at Creston Middle School.

Allison Stoel Wiesman, BS’02,
MD’04, is completing a residency in
pediatrics through the IU School of
Medicine in Indianapolis. She and
her husband live in Indianapolis.

In March 2006, Christiane
Hassel, BS’03, became a certified
Jazzercise instructor. She is an as-
sistant staff scientist at the Center
for Genomics and Bioinformatics at
IU Bloomington.

Catie Zboch Kopala, BA’03,
is a physician-assistant at General
& Vascular Surgery in Elgin, Ill.
She received a master’s degree from
Midwestern University in Down-
ers Grove. She and her husband,
Robert, live in Carpentersville.

Kristina Higdon Yoder, BS’03,
is a third-year medical student at
Ohio University’s College of Os-
teopathic Medicine in Athens.

Michelle L. Garcia, BA’04,
is a third-year optometry student at
IU Bloomington. She is a research
assistant with Dr. Carolyn Begley,
concentrating on dry eyes.

Zachary T. Jones, BS’04, is a
second-year optometry student at
IU Bloomington.

Jeffrey P. Mower, MS’04,
PhD’05, was awarded a two-year
postdoctoral fellowship from the
Irish Research Council for Sci-
ence, Engineering, and Technol-
ogy. He will work with Professor
Ken Wolfe at the University of
Dublin’s Trinity College.

Christen G. Prather, BA’04,
of Kokomo, Ind., is pursuing a
doctorate of physical therapy at
the University of Indianapolis.

Sarah E. Good, BS’05, is a
pharmacy intern pursuing her
pharmacy degree at the University
of Cincinnati. She lives in Center-
ville, Ohio.

Jacqueline F. Schwarz, BS’05,
of Indianapolis, is attending the
West Virginia School of Osteopath-
ic Medicine in Lewisburg.

Tammy E. Tinijer, PhD’05, of
Conway, Ark., is a visiting assistant
professor of biology at Hendrix
College. She is a former IU associ-
ate instructor in biology.
Summertime lovin’: Light affects libido

A neuropeptide in the brain of rodents appears to control their reproductive activity by cuing in to seasonal light changes, according to a report by Indiana University and University of California at Berkeley researchers. Siberian hamsters exposed to short, winter-like days had fewer kisspeptin-expressing brain cells and reduced libido in comparison to hamsters living in summer lighting conditions.

Timothy Greives, Cert/BA’03, an IU graduate student in Assistant Professor Greg Demas’s lab, is lead author of this study published in the March issue of Endocrinology. “What is really striking is the disappearance of kisspeptin in animals experiencing winter-like days, yet if we give them kisspeptin, they increase the level of luteinizing hormone, a hormone important for turning on reproduction,” Greives says, adding, “These data show that the disappearance of kisspeptin in the brain is likely critical in turning off reproduction during the winter.”

Other IU personnel involved with the study are Demas; Distinguished Professor Ellen Ketterson, BA’66, MA’68, PhD’74; and graduate student Melissa Scotti.

Kehoe receives two-year NSF grant

David Kehoe and Baylor College of Medicine faculty member George Weinstock received a two-year grant from the National Science Foundation to sequence the genome of *Fremyella diplosiphon*. This cyanobacterium senses different light colors and can alter its gene expression patterns to adjust to the changing light conditions. A portion of the grant funds an outreach program that enables Kehoe to teach genome structures to local high-school science classes.

Life Sciences Initiative in full swing at IU

Wondering what’s going on with the Indiana Life Sciences Initiative? Check out http://lifesciences.iu.edu. The Web site contains news and events, information on IU’s commitment to the project, its partnership with other Indiana universities, and the initiative’s benefit to Hoosier citizens.

In February, public radio station WFIU ran a four-part series, “Life Sciences: Reshaping Your World.” The broadcasts are online at www.indiana.edu/~wfiu/life_science.htm. Topics included a life-sciences primer, the structure of the industry, and the future of life-sciences research. Biology faculty member Jeff Palmer, who chairs IU’s Life Sciences Task Force, was part of the first broadcast. Alumnus Dan Peterson, BS’84, MBA’89, vice president for industry and government relations at Cook Pharmica, participated in the segment on accomplishments in the life-sciences field.

David Kehoe is seen at the farmers’ market with his children, Ivy and Jasper, in 2003.