From the Dean

It’s a dog-eat-dog world! Businesses need to be right in the heart of the latest research and technology to maintain their edge in very competitive environments. Scientists need more funding opportunities for the research that will change the world. In the Purdue College of Science, those needs come together to form great opportunities!

Here are just a few examples of ways we’re matching scientific expertise to business needs and resources:

- Innovations from our Geo-Mathematical Imaging Group will provide oil exploration companies with better tools and lower costs. Group leader Maarten de Hoop is setting up an international consortium involving Purdue researchers and leading energy-production companies.
- Our Atmospheric Measurement Predictability (AMP) group specializes in delivering finely resolved weather information, and the partnership of AMP and Navteq will revolutionize the navigation systems enterprise and change the way people view weather.
- Mathematics Professor Greg Buzzard’s expertise in producing algorithms for cardiac modeling could strengthen Rehabilitation Hospital of Indianapolis’ progress on clinical monitoring devices and software projects.
- Researchers in the Purdue Rare Isotope Measurement Laboratory (PRIME Lab) use the tools of nuclear physics to investigate the use of soy compounds as an alternative to estrogen replacement therapy to combat osteoporosis.

The possible interactions with partner companies are practically unlimited, and the benefits are compelling.

We’re now mapping out the formal structure of our College business partners program and have set a launch date in May. The only thing we haven’t done yet is name it! I welcome your ideas for a name that conveys the excitement and potential
comments, or get more information by contacting us at ScienceNews@purdue.edu.

Best regards,

Jeff Vitter

**SPOTLIGHT ON NEW FACULTY**

**Gabriel J. Bowen**, Assistant Professor, Earth and Atmospheric Sciences

Gabe’s research looks to the distant past to study climate change. Geologic episodes of climate change provide good climate models that represent a broad spectrum of possibilities for how climate change works. Gabe received his Ph.D. in Earth Sciences from the University of California, Santa Cruz in 2003.

**Tong Ren**, Professor, Chemistry.

Tong’s research interests are rooted in synthetic and physical inorganic chemistry. He studies such things as detoxification and decontamination protocols for chemical warfare agents and effective removal of the environmental contaminants from fossil fuels. Tong received his Ph.D. from Texas A&M University in 1990.

**Dongbin Xiu**, Assistant Professor, Mathematics and Earth & Atmospheric Sciences.

Dongbin is interested in mathematical modeling tools to study complex fluid flows—from weather and climate to moving ships and aircraft. Dongbin earned his Ph.D. in applied mathematics from Brown University in 2003.

**Dinesh Yernool**, Assistant Professor, Biological Sciences.

Dinesh studies membrane proteins, which accomplish crucial cell processes and are the focus of many drug development programs. Dinesh received his Ph.D. from Rutgers University in 1999.

**SCIENCE PEOPLE**

**Science mourns loss of Miriam Hasson**
Biological Sciences, passed away on January 16. Prof. Hasson had been a member of the Biological Sciences department since 1995. [Prof. Hasson’s obituary.]

**Chemistry alum receives India’s highest science award**

Eminent scientist and Chemistry alumnus Prof. C N R Rao is the first recipient of the India Science Award, the country’s highest honor in the field of science. Prof. Rao was honored for his for his work in solid state and materials chemistry. [Full story.]

**....and the Dukie goes to Jan Vitek**

Computer Science Professor Jan Vitek’s research group and others earned a DUKE’S Choice Java Award (or a Dukie Award) for the software technology they developed for an unmanned air vehicle. [Full story.]

**SCIENCE NEWS AND RESEARCH**

**Endocyte licenses cancer-fighting technology**

Endocyte Inc. will partner with a major pharmaceutical company to produce new tumor-targeting drugs designed to spare healthy cells from the toxic effects of chemotherapy. Endocyte is founded on folate targeting research conducted by Chemistry Professor Phil Low. [Full story.]

**Cooks group discovers new method to thwart terrorist attacks**

Thanks to work done by Chemistry Professor Graham Cooks and his research group, an explosive that has been the weapon of choice in suicide bombings and other terrorist attacks can now be detected quickly. [Full story.]

Related Searches: Mathematical Statistics | Science A

http://c89.science.purdue.edu/sites/enewsletter/february2006/
Don't like Indiana weather? It'll change!

Bone-chilling December temperatures in Indiana were followed by a January thaw—which didn’t surprise Dev Niyogi, assistant professor of earth and atmospheric sciences and agronomy and Indiana State Climatologist. In fact, he says, it’s normal. What will the rest of the winter bring? Full story.

Summer science camps get a little help from their friends

More middle school kids will get to experience summer camps in Computer Science thanks to a grant made possible by corporate friends. Full story.

President Bush calls for dramatic increases in science funding

In last night's State of the Union address, President Bush pledged to double the U.S. investment in fundamental physical and information science research. Dean Jeff Vitter, who serves as co-chair of the Computing Research Association's Government Affairs Committee, sees this pledge as instrumental to keeping America at the forefront of scientific innovation, at a time when other countries are stepping up their capabilities. "Such funding is crucial to enable ground-breaking research, like we do in the College of Science. The technological advances that result will drive the U.S. economy for years to come." Also planned are financial incentives for students to major in the sciences and engineering and to enter teaching fields so as to meet the growing demand in the scientific and technological fields. Full text of the address.

Research Funding Report

Science researchers received funding totaling nearly $2.5 million in December 2005. Complete list of funded proposals.
innovation—that is the promise nanotechnology holds. And that’s the focus of a national conference at Purdue University in early February. Full story.

**Purdue president urges action to combat technology deficit**

Purdue President Martin C. Jischke told local leaders that the United States is facing a growing technology deficit that must be battled with an increasing commitment to education in the sciences and math. “We are at a crossroads in our nation as we enter a century that we know will be dominated by science, engineering, technology and education,” Jischke said to the Lafayette Rotary Club. Full story.

**Graduate School offers ombudsman service for problem-solving**

Graduate students: Do you have a concern about your graduate education that you would like to share and perhaps make better? The Graduate School offers an ombudsman to help graduate students, faculty, and staff resolve problems and conflicts. More information.

**PROFILES OF SUCCESS**

Each month we spotlight the personal accomplishments and career successes, whether mainstream or unique, of Science alumni. This month’s spotlight is on Donald Clayton, who received his B.S. in biological sciences in 1972. Full story.

**SCIENCE ALUMNI NEWS**

Science alumni: We want to hear from you! Update your information and share your professional news as well as your personal and family milestones with your classmates and the Science community. Click here.

Click here for this month’s Alumni News.

**Science Kids Club blasts off**

The Science Kids Club is off and running! Since we launched the club in October, nearly 100 kids have joined! Enroll the special kids in your life in the Science Kids Club for Science
Stay connected!

Join the Purdue Web Community and stay connected to your alma mater. This interactive site will help you keep in touch with your Purdue family—your friends, faculty and staff, and fellow alumni. Click here to sign up and get started.

Join the President's Council and contribute to Purdue's future!

The President's Council is a unique group of alumni and friends who contribute generously to the future of Purdue University. Working closely with the president, these leaders volunteer to support the University in ways that are very personal and meaningful to them. Through special events and programs, members build strong and lasting relationships with each other — relationships that enhance their experiences and change their lives. Click here to join online!

SCIENCE EVENTS AND CALENDAR

The Tecumseh Project Seminar Series: “Recruiting and Retaining Native American Students” by Lee Cook, Executive Director, American Indian Resource Center, Bemidji State University, Minnesota. Rawls Hall room 3082, 10:30a.m. (Sponsored by the Department of Earth and Atmospheric Sciences), Feb. 2

Discovery Lecture Series: Transforming Society through Emerging Technologies. Loeb Playhouse, Stewart Center, 3:00 p.m., Feb. 6

Department of Chemistry Kelly Lecture: “New Chemical Approaches to Tracing Cell Signaling Cascades” by Kevan M. Shokat. Stewart Center 322, 3:00 p.m., Feb. 7

Samuel D. Conte Distinguished Lecture Series: “How to Hurt Scientific Productivity” by Prof. David Patterson, President, Association for Computing Machinery, Krannert Auditorium room 140, 3:30 p.m., Feb. 9

Purdue on the Road, Miami, Feb. 9

President's Council Annual Weekend event featuring Back-to-Class and President's Council dinner, Naples, FL, Feb. 11
Native American Institute, Michigan State University. Rawls Hall room 3082, 10:30a.m. (Sponsored by the Center for the Environment), Feb. 16

**Purdue on the Road**, Los Angeles, CA, Feb. 24-25

**Purdue on the Road**, San Jose, CA, Feb. 26

Science Events

Science Seminars

Purdue Events