From the Dean

I wish everyone a Happy New Year and, more importantly, success in keeping resolutions made for 2006! Here are the New Year’s resolutions that we'll be working on in the College of Science:

First and foremost is to continue building on the positive momentum of the last few years.

- We’ll finish our campaign to fund the construction of the new Wayne and Mary Hockmeyer Structural Biology Building.
- We’ll increase the number of faculty collaborations in Discovery Park’s multidisciplinary research centers.
- The faculty will review a proposal for an updated Science undergraduate curriculum.
- The Science Diversity Office will launch the College of Science Summer Institute (CoSSI) for middle school and high school students.

Several key projects will enhance our impact on our community, state, and nation.

- Our industry partners program will launch this spring and build mutually rewarding relationships with key corporations.
- With two new vehicles for Science Express and Physics on the Road, our Science K-12 Outreach team will log more miles and reach more Indiana schools than ever before.
- Our new Center for Research and Engagement in Science and Mathematics Education (CRESME), along with the K-12 Outreach group, will contribute to Gov. Daniels’ important new initiatives to improve the quality of education in Indiana.
- We’ll communicate more effectively by making our Web site welcoming, transparent, and dynamic.

We’ll continue to invest in the best.

In this Issue:

Spotlight on New Faculty

Science People
- NPR’s “Morning Edition” talks to Spaf
- Business Office honors Tammy Emilson

Science News and Research
- 2006 will bring supercomputer grid to Northwest Indiana
- File compression can expand mammography’s power
- Biologists solve another cellular mystery
- Ancient glaciers still affect the shape of North America

Purdue News
- Purdue celebrates Martin Luther King Jr. with service, speakers
- Purdue study abroad growth surpasses national trends

Science Events and Calendar

Profiles of Success

Science Alumni News

Research Funding Report

Contact us
We’ll work aggressively to attract and retain the best very best faculty scholars.

- We’ll make the most of every opportunity to recruit outstanding students to Science.
- We’ll build scholarship support for our undergraduate and graduate students.

As you can tell, we’ll be working hard in the College of Science to bring these resolutions into reality. We expect a productive and exciting year; we’ll keep you up to date each month. Feel free to send us your input along the way. And best of luck with your own New Year’s resolutions!

Best regards,

Jeff Vitter

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**SPOTLIGHT ON NEW FACULTY**

**Jeff Beckley**, Continuing Lecturer, Statistics and Mathematics. Jeff joined the College of Science as an “Actuarial Fellow in Residence.” He has spent 25 years working as a practicing actuary and continues to work as a consulting actuary in the life and health insurance fields. He is a Fellow of the Society of Actuaries and a member of the American Academy of Actuaries. He’s also involved with the education committee of the Society of Actuaries.

**Dabao Zhang**, Assistant Professor, Statistics. Dabao is assistant director of the Statistical Consulting Service. His research interests include statistical analysis of genomic and proteomic data. Dabao received the Ph.D in statistics from Cornell University, and he comes to Purdue from the Department of Biostatistics and Computational Biology at the University of Rochester.

**Min Zhang**, Assistant Professor, Statistics. Min’s research interests bridge the gap between the biomedical and quantitative worlds. She works on proteomics, QTL mapping, and physician profiling in health care. Min received the M.D. from Hebei Medical University and the Ph.D in neuroscience from Beijing Medical University. She also earned her Ph.D in computational biology and biological statistics from Cornell University.

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Atmospheric Sciences. Qianlai says he is fascinated by the interactions among atmosphere, biosphere, and human dimension in climate changes, chemical element cycles, and policy-making. Those interests led to his research in ecosystem dynamics and global biogeochemical cycles. Qianlai came to Purdue from the Ecosystems Center of the Marine Biological Laboratory in Woods Hole, Massachusetts. He received his Ph.D in biological sciences from the University of Alaska Fairbanks.

SCIENCE PEOPLE

NPR’s “Morning Edition” talks to Spaf

The Pentagon’s 5 million computers make a tempting target for computer hackers. Officials reported 80,000 attempts to disrupt the system last year. What is being done to improve security? NPR’s Morning Edition talked to Eugene Spafford and other computer security experts about the problem. Hear the report.

Business Office honors Tammy Emilson

Tammy Emilson, Director of Financial Affairs for the College of Science, received the University’s 2005 Eleanor O. Kaplan Award for Exceptional Customer Service. The awards go to members of the Business Office staff in recognition of excellence and leadership in providing customer service. More on the Eleanor Kaplan Award.

SCIENCE NEWS AND RESEARCH

2006 will bring supercomputer grid to Northwest Indiana

Purdue and the University of Notre Dame are partnering to create a sophisticated, high-performance computer grid, to be operational this month, that is expected to put northwest Indiana on the supercomputing map. Computer Science Professor Chris Hoffmann said the NWICG will raise the bar of computational capability in Indiana. Full story.

File compression can expand mammography’s power

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Mathematics and computer science professor Brad Lucier is part of a team of researchers who have found that digitized mammograms are interpreted more accurately when they have been “compressed,” a finding that could bring mammography to many outlying communities via mobile equipment and dial-up Internet connections. Full story.

**Biologists solve another cellular mystery**

A research team led by biological sciences professor Jue Chen has found a way to get a glimpse into the workings of the “motor” that opens membrane transport proteins—the tiny hatchways that allow nutrients to pass into our cells—and how they use a cell’s energy to permit or deny materials into the interior of the cell from the outside world. Full story.

**Ancient glaciers still affect the shape of North America**

Long after the glaciers that once covered much of North America disappeared, the land they rested on is still recovering from their weight, according to a research team led by earth and atmospheric sciences professor Eric Calais. Full story.

**Purdue News**

**Purdue celebrates Martin Luther King Jr. with service, speakers**

Purdue will honor the memory of the late civil rights leader Dr. Martin Luther King Jr. with a series of events to include a keynote speech by actress Nancy Giles and a lecture by film director Spike Lee. The events are held in recognition of Martin Luther King Jr. Day, which is Jan. 16. The theme of the university's 2006 Martin Luther King Jr. celebration is Affirming the Dream XI: Courage, Resilience, and Hope. Full story.

**Purdue study abroad growth surpasses national trends**

According to a recently released report on international
trends in study abroad growth rates. The "Open Doors" report, compiled by the Institute of International Education, shows that national participation in study abroad increased by 9.6 percent, while Purdue's participation increased by 27 percent during the same period. Full story.

SCIENCE EVENTS AND CALENDAR

Science Women of Purdue hits the road!

An enthusiastic, action-oriented group of Science women gathered on campus last November for the first-ever Science Women of Purdue event. After a positive, productive meeting, the group is organizing Science Women of Purdue meetings at locations around the country, beginning in Los Angeles on Feb. 25 and San Francisco on Feb. 27. Check the Web site for more information.

Spring semester begins, January 9

"A Prairie Home Companion" with Garrison Keillor, 5:45 p.m., Elliott Hall of Music, January 28

EAS Alumni Reception, AMS Meeting, Atlanta, GA Jan. 29-Feb. 2.

Discovery Lecture Series: Transforming Society through Emerging Technologies, Feb. 6

Purdue on the Road, Miami Feb. 9

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

Purdue on the Road, San Jose, Feb. 26

Science Events

Science Seminars

Purdue Events

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 Anne
science 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.

**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.

**RESEARCH FUNDING REPORT**

Science researchers received funding totaling more than $3 million in November 2005. Complete list of funded proposals.