Happy New Year from the College of Science!

Our thoughts are with those who have been touched by the recent disaster in South Asia. We urge everyone to give what they can to aid in the relief efforts.

Back here at Purdue, we’re looking forward to an exciting and productive year. Construction in Discovery Park is progressing quickly. Science researchers play a leading role in Discovery Park efforts, including the Bindley Bioscience Center and the Birck Nanotechnology Center, whose buildings will be online later this summer.

The Richard and Patricia Lawson Computer Science Building is taking shape, and the construction site is now marked by the official building sign. You can watch the building’s progress over the next 18 months via the online web cam.

Our top priority this year is the construction of a new home for our world-renowned Structural Biology group. The new 40,000 assignable square feet facility will have customized, environmentally-isolated space for specialized instrumentation and facilities. The building will enhance our ability to attract and retain the top scientists and students, and enable the Structural Biology group to continue to make bold new discoveries.

Our Departments and Coalescence multidisciplinary research groups are in the midst of another year of faculty searches, continuing the progress on our Strategic Plan goal of faculty growth. Our Undergraduate Task Force, headed by Associate Dean Chris Sahley and Assistant Dean Alan Welch, continues its work examining what Science education should be like in the 21st Century. We’ll keep you updated about progress on these initiatives and other activities in the College of Science in future issues of Science @ Purdue. For the latest information be sure to check our Web site (www.science.purdue.edu).
As always, I welcome your thoughts and comments. Please feel free to send them to me at dean@science.purdue.edu.

Best regards,

Jeff Vitter

**SPOTLIGHT ON NEW FACULTY**

In each issue of Science @ Purdue, we feature biographical sketches of some of the new faculty members joining us in 2004-05.

Yuli Lyanda-Geller, Associate Professor, Department of Physics.
Professor Lyanda-Geller is a condensed matter theorist with interests ranging from mesoscopic physics and interference phenomena to transport and optical phenomena in nanostructures to the physics of quantum information. Prof. Lyanda-Geller received his doctorate from the Ioffe Physico-Technical Institute, St. Petersburg, Russia. Most recently, he was Research Scientist at the Naval Research Laboratory, Washington, DC.

Yi-Jen Lee, Associate Professor, Department of Mathematics.
Professor Lee received her B.S. in physics from National Taiwan University in 1991, and the M.S. and Ph.D. in physics from Harvard University in 1993 and 1997, respectively. Before coming to Purdue in the Fall of 2004, she was an Instructor at Princeton University from 1997 to 2000, and joined the Princeton faculty as an assistant professor from 2000-2003. Dr. Lee’s research interests are in topology and geometry in general, mathematical physics, gauge theory, and symplectic geometry.

Zhao-Qing Luo, Assistant Professor, Department of Biological Sciences.
Professor Luo received his B.S. and M.S. degrees in plant pathology from Beijing Agricultural University in 1991 and 1994, respectively, and the Ph.D. in plant pathology and microbiology from the University of Illinois in 2001. He was a Howard Hughes Medical Institute Research Associate at the Tufts University School of Medicine from 2001
Tufts from 2002 to 2004. Prof. Luo’s research interests are in cellular microbiology a field of study that bridges microbiology and cell biology.

**SCIENCE PEOPLE**

**Purdue mourns the loss of Nobel Laureate, Herbert C. Brown**

Professor Emeritus Herbert C. Brown died on Sunday, December 19, 2004 at the age of 92. Professor Brown shared the 1979 Nobel Prize in Chemistry. Surviving with his wife Sarah Baylen Brown is his son Charles Brown. A memorial service is being planned for February 5, 2005 in Fowler Hall on the Purdue University campus. 

[Biography of Professor Brown.](#)

**Jeff Bolin named Associate Dean for Research**

Professor Jeffrey Bolin of the Department of Biological Sciences assumed the role of Associate Dean for Research in the College of Science on January 3. He replaces Prof. Jon Harbor, who is now Head of the Department of Earth and Atmospheric Sciences. As Associate Dean for Research, Jeff is primarily responsible for overseeing and managing the College’s efforts in the areas of promoting entrepreneurship, fostering and facilitating research initiatives, interfacing with Discovery Park and the Vice Provost for Research, and facilities planning.

**Laszlo Lempert named Distinguished Professor**

Professor Laszlo Lempert was appointed as a Distinguished Professor of Mathematics by the Board of Trustees at its meeting on December 18. Professor Lempert has been a member of the Mathematics Department faculty since 1988. He is an expert in complex geometry and complex analysis in infinite dimensional spaces. His research interests include complex analysis, partial differential equations and differential geometry. Prof. Lempert is a member of the Hungarian Mathematical Society, the American Mathematical
Science. Among his many honors are the Grunwald Prize from the Hungarian Mathematical Society, the Alexits Prize from the Hungarian Academy of Science, and the American Mathematical Society’s Bergman Prize.

**Herman Cain receives Purdue honorary doctorate**

Purdue presented an honorary doctorate of science at the commencement ceremony on December 19 to Herman Cain, who earned his master’s degree in computer science from Purdue in 1971. Mr. Cain, shown here with Dean Jeff Vitter, is chief executive officer of T.H.E. Inc., a leadership and solutions company specializing in keynote speaking and publications on the topics of leadership, business and motivation. Mr. Cain is a director of numerous global corporations and serves on several philanthropic boards. He is also the host of a new nationally-syndicated radio talk show. [More information about Herman Cain.](#)

**Service milestones of Science staff recognized**

Twenty-five members of the College of Science’s administrative and professional staff are among those who will be honored for their service at the annual Provost’s recognition luncheon on January 19. [List of Science honorees.](#)

**Nancy Eberle receives University service award**

Nancy Eberle, graduate office coordinator for the Department of Mathematics, received the Eudoxia Girard Martin Memorial Staff Recognition Award on December 9. Nancy has served the Math Department for more than 36 years. [Full story.](#)

**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 Allison Lambeth Parlee, who earned her B.S. in 2002 with a double major in physics and aeronautical & astronautical engineering, and her M.S. in aeronautical & astronautical engineering in December 2004. [Full story.](#)
Study suggests Antarctic iced over when greenhouse gases—not ocean currents—shifted

A longstanding theory that provides much of the basis for our understanding of climate change—that the mile-thick ice sheet covering Antarctica developed because of a shift in ocean currents millions of years ago—has been challenged by scientists in Earth and Atmospheric Sciences led by Prof. Matthew Huber. Though climate scientists have theorized for decades that the circulation of warm ocean currents was responsible for keeping Antarctica largely ice-free during the Eocene epoch prior to 35 million years ago, a series of deep-sea core samples taken recently from the ocean floor south of Australia indicates that this theory needs reworking. “In light of all the data, a change in carbon dioxide levels in the atmosphere is a more reasonable explanation for the rapid icing of the Antarctic continent,” says Huber. “It should give us pause that today humans are effecting changes in the amount of carbon dioxide in the planet’s atmosphere.” Full story.

Endocyte secures close to $23 million in Series C-2 round of financing

Endocyte Inc., a biotechnology company developing receptor-targeted therapeutics for the treatment of cancer and autoimmune diseases, has completed a $22.6 million Series C-2 financing. Endocyte, founded on folate targeting research conducted by Chemistry Professor Phil Low, is developing a new generation of receptor-targeted therapeutics or “smart drugs” that reduce side effects by targeting drugs to receptors present on diseased cells. Full story.

Griffin secures $2.5 million to detect chemicals; expands R&D effort

Griffin Analytical Technologies Inc. has received $2.5 million in funding from the U.S. Department of Defense that will allow the company to expand operations at the Purdue Research Park, where it is developing a suite of next-generation chemical detectors. Griffin Analytical Technologies was founded on technologies resulting from work by researchers in the Department of Chemistry’s Analytical Chemistry group. Full story.
With the recent launch of the new Department of Mathematics web site, the College of Science Administration and Department sites now share a common design while maintaining their own uniqueness and tailored look. With this coordinated effort across the College, Science now provides a consistent experience for online visitors with similar navigations and easy to access College-wide resources. Full story.

**Science Alumni News**

Science alumni: We want to hear from you! Share your professional news and your personal and family milestones with the community by sending email to news@science.purdue.edu. Click here for this month’s Alumni News.

**PURDUE NEWS**

**Purdue graduates more than 3,000 at winter commencement**

Purdue President Martin C. Jischke on Sunday, December 19 told new graduates to take a lesson from history in their quest to forge ahead in their careers and in their life, citing the Lewis and Clark expedition as an inspiration. Jischke spoke to approximately 3,055 candidates and their family and friends at two commencement ceremonies in Elliott Hall of Music. This was the university’s 194th commencement. Full story.

**Purdue announces lecture series for Remnant Trust display**

A series of six talks will give the public an opportunity to learn more about original and early edition historic documents that will be on display at Purdue University as part of the Remnant Trust exhibit.

Starting on January 10, three dozen artifacts from the Remnant Trust, such as the “Emancipation Proclamation” and Machiavelli’s “The Prince,” will be on display in Purdue’s Stewart Center Gallery. The talks, which are free and open to the public, are scheduled for 4:30-5:30 p.m. every Tuesday in the Purdue Memorial Union’s East and West Faculty Lounges during the exhibit’s six-week run. The exhibit, Individuals & Society: Many Voices, Many Views, will run through Feb. 20 and also is free and open to the public. More information.
Purdue licenses paralysis prevention technology to Medtronic Sofamor Danek

The Purdue Research Foundation has partnered with Memphis, Tenn.-based Medtronic Sofamor Danek to commercialize technology discovered at Purdue University that may someday prevent paralysis in humans with spinal cord injuries. A license agreement between the foundation’s Office of Technology Commercialization and Medtronic Sofamor Danek, the spinal business of Medtronic Inc. (NYSE: MDT), grants the company exclusive commercial rights to patented technology from Purdue University that utilizes polyethylene glycol (PEG) to treat acute spinal cord injuries. Full story.

RESEARCH FUNDING REPORT

Science researchers received funding totaling nearly $800,000 in November 2004. Complete list of funded proposals.

CALENDAR

Purdue on the Road, Seattle, January 21
Purdue on the Road, Atlanta, February 24
Purdue on the Road, Dallas, February 25
Purdue on the Road, Cincinnati, March 4
Purdue on the Road, Detroit, March 5

Science Events

Science Seminars

Purdue Events