

April 9 is IUPUI's second annual Research Day.

This is an **Open House**, so we are inviting everyone—faculty, staff, and students; academic, industrial, and governmental partners; recipients of this monthly letter; and the broader community—to come to campus and find out more about the kinds of research we are doing. **All sessions are FREE and open to the public.**

Events take place in the IUPUI Campus Center Room 450.

9:00 – 11:00 a.m.	Undergraduate, Graduate, and Professional Student Posters
1:00 – 1:05 p.m.	Welcome and Opening Remarks
1:05 – 2:00 p.m.	Research Frontiers Distinguished Lecture Dr. Steven Beering, Chair of the National Science Board, President Emeritus of Purdue University, Former Dean and Professor Emeritus of the IU School of Medicine, will present "Global Competition in Education and Discovery"
2:00 – 2:15 p.m.	Research Frontiers Trailblazer Award Recognitions
2:15 – 4:30 p.m.	Community Research Showcase & Networking Event, sponsored by the IUPUI Solution Center & Translating Research into Practice (TRIP) initiative

For directions, parking, and other information, go to this site:

<http://research.iupui.edu/events/researchday2010/index.html>

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In 1999, a provocative book called *Pasteur's Quadrant* by the late Donald Stokes caught the attention of the academic research community.

Pasteur's Quadrant set aside the notion that there is a linear continuum from basic to applied research in favor of a model that recognizes blending and cross-over between the two. The result is three distinct classes of research:

- basic research (e.g., physicist Niels Bohr, who studied the structure of atoms)
- applied research (e.g., inventor Thomas Edison)
- use-inspired basic research (described as "Pasteur's Quadrant")

Known as the "father of microbiology," Louis Pasteur sought both to understand scientific problems and find solutions to benefit society. Having lost two children to typhoid, his early work focused on germs and bacteria.

Much research at IUPUI falls into "Pasteur's Quadrant"— because of our emphasis on health and life sciences and translating research into practice.

Because April is Parkinson's Disease Awareness month, a good example is the work of Professor **Leonid Rubchinsky** in our Department of Mathematical

At the University of California, Davis, Rubchinsky's postdoctoral fellowship focused on neurophysiology in a lab where there was extensive collaboration between clinicians and mathematicians. IUPUI's collaborative environment was one of the reasons the Russian native chose to join us. He also works with our Stark Neurosciences Research Institute.

As he says, "When you research very fundamental science, it's important to answer philosophical questions, but it's also even better to see where you can make a more practical difference, such as improving the quality of life for people with diseases like Parkinson's."

This NSF grant is part of federal economic stimulus legislation. It will fund the work of **Keith Dunker**, T. K. Li Professor of Medical Research, **Vladimir Uversky**, senior research professor of biochemistry and molecular biology, and **Yuni Xia**, assistant professor of computer and information science to expand a database of protein information used by scientists around the world. They have identified unusual proteins that perform crucial tasks. Understanding their structure and activity will open new avenues to treat such diseases as cancer, heart disease, diabetes, Parkinson's, Alzheimer's, and others.

Because some 1.5 million Americans suffer from Parkinson's, such use-inspired basic research can truly have an impact not only on this one disease but also on understanding other progressive degenerative brain disorders.

CHANCELLOR CHARLES R. BANTZ