

# School of Science Fall 2008 Faculty Assembly

Friday, November 07, Lilly Auditorium, University Library

**Faculty Present** — **Biology:** Martin Bard, Bonnie Blazer-Yost, N Douglas Lees, Kathleen Marrs, Steve Randall, Randall Roper, Xianzhong Wang, Kathryn Wilson; **Chemistry:** Brenda Blacklock, Eric Long, Robert Minto, Jay Siegel; **CIS:** Lingma Acheson, Arjan Durrezi, Shiao-fen Fang, Snehasis Mukhopadhyay, Andrew Olson, Rajeev Raje, Mihran Tuceryan, Jiang Zheng, Xukai Zou; **Earth Sc:** Andrew Barth, Jennifer Nelson, Lenore Tedesco; **Math Sc:** Benzion Boukai, Ray Chin, William Geller, Chris Mitchell, Bart Ng, Hanxiang Peng, Jyoti Sarkar, Vitaly Tarasov, Jeff Watt, Luoding Zhu; **Physics:** Ricardo Decca, Andrew Gavrin, Yogesh Joglekar, Horia Petrache; **Psychology:** Drew Appleby, Leslie Ashburn-Nardo, John Hazer, James Murphy, Kevin Rand, Soren Svanum, Jane Williams.

1. President Jane Williams called the meeting to order at 9:02 AM. She announced one change in the agenda, namely that Jeff Watt will speak later than originally scheduled.
2. The agenda was approved with the above change.
3. Brenda Bishop announced that IUPUI will host the Indiana Science Olympiad on Saturday March 28, 2009. There will be 26 middle and 26 high school teams participating. The topics covered will include biology, chemistry, physics, math, geology, ecology, entomology among others. The Olympiad will run the whole day, with each event being roughly one hour long. Bishop invited faculty members to volunteer as facilitators for the various events, and do so before the Fall semester ends so that there is enough time to get familiar with the basic information from the Olympiad organizers, and to prepare Olympiad questions based on the guidelines they will provide. Coordinators and students from IUB will help us.
4. President Williams introduced Kody Varahramyan, Vice Chancellor for Research at IUPUI and invited him to address the Assembly on his vision for research at IUPUI and its relationship with the SOS. Varahramyan mentioned that since assuming office on July 01, 2008, he has talked with a wide cross-section of people including faculty members, administrators and associate deans for research to revisit the vision and mission statements for the Office of the Vice Chancellor for Research and updated them based on inputs received. Latest information on this may be found at <http://research.iupui.edu/ovcr/>
  - a) Varahramyan highlighted the research goals his office is seeking: (1) Emphasis on interdisciplinary research to solve real world problems, where there is opportunity for innovation and availability of external funding. (2) Exposure of undergraduate students to research. (3) Alignment and optimization of graduate programs, especially distinctive doctoral programs.
  - b) Among recent and ongoing major initiatives overseen by the Office of VCR are Translating Research into Practice (TRIP) and Signature Centers Initiatives. Among the 18 Signature Centers funded in the first round in 2006-07, 4 are from the SOS. In the

second round in 2007-08, additionally 10 new Signature Centers were funded of which 2 are from the SOS. Varahramyan congratulated the SOS for such high accomplishment.

- c) Research Enterprise Support available at IUPUI — (1) Development: Programs and resources for faculty, students, centers, institutes, center for research and learning and internal funding. (2) Office of Research Administration: Contracts and grants services, compliance and other services. (3) Linkage to Community: Solution Center (read more at <http://www.iupui.edu/~solctr/>), community partnership through research internship and business assistance. (4) Technology Transfer: Office of Technology Transfer and IU Emerging Technology Center.
  - d) Internal Funding Support to the SOS — \$1.0M in RSFG during past 3 years, \$0.9M in Signature Centers (which also receives a matching amount from the SOS) during past 3 years, and \$0.1M in 2008 for undergraduate research.
  - e) External Research Awards — IU system-wide received \$525M. Of these, \$303M were awarded to IUPUI, of which IUSM received \$250M, other health units \$23M and Non-health units \$30M. Among the non-health units the SLA got the highest \$8.4M, while the SOS with \$8.3M was a close second. The awards to IUPUI came from federal (60%), commercial (16%) and state and other non-profit sources (24%). In 2006-07 the SOS research awards rose by 34% over the previous year.
  - f) VCR Varahramyan's response to previously submitted questions — (1) How to improve lines of communication? Take the initiative and don't wait to be invited. SOS ought to be at the center of most interdisciplinary research. As an example, Varahramyan cited the Integrated Nonosystems Development Institute (INDI) which involves a partnership of biology, chemistry, physics, biomedical engineering, electrical engineering, computer technology, mechanical engineering, orthopedic surgery, pathology and laboratory medicine. In response to Boukai's request for the OVCR to organize a research showcase for the University and the community, Varahramyan said that they are already thinking of holding a Research Day in spring. (2) What can be done to reduce the IRB paperwork, which is complicated and burdensome? This is handled by Research Administration Office. They say the paperwork must meet the accreditation requirement. They have hired additional staff to help with this and are moving to electronic processing which will simplify and streamline the task. (3) How can the SOS enhance research volume? Each partner in the process must do its part. The faculty must form research groups and submit more proposals; the administration must provide starting funds, new faculty support and release from teaching; and the campus must provide appropriate incentive in the Promotion and Tenure guidelines to encourage research. (4) Internal Grants? Over 80% of indirect cost is returned to the schools. With the remaining moneys OVCR meets its own expenses (\$125K\$), provides internal funding (\$75K) and funds RSFG (\$1.35M). (6) RSFG will continue and hopefully increase. (7) Graduate student funding is handled by the Graduate School.
5. Two proposed changes in the SOS Bylaws were discussed. (1) President Williams reminded everyone that there will be a paper ballot on the question of allowing electronic ballots in the

future. (2) Gavrin presented a recommendation on behalf of the Technology Committee that the bylaws be amended to include one graduate student representative on the Technology Committee. A friendly amendment was proposed by Boukai on item 5 of the proposal and it passed unanimously in a voice vote. Another amendment on reducing undergraduate representation from 2 to 1 was defeated in a show of hands. The revised proposal will be voted on by the entire faculty.

6. Jeff Watt announced that the K-12/STEM initiative is being planned for two weeks in June to bring in middle school students to IUPUI to expose them to math and science. The objective is to inspire students at an early stage, to impact them positively and eventually to recruit them to study at IUPUI. Fifth, sixth and seventh graders, who are good students with no behavioral problems, will attend this program for two weeks during two successive summers. Faculty members are invited to develop half-day or one-day activities on any math or science topic, including developing a list of essential questions that students can discuss with their parents. Supervision will be provided and the faculty will be paid a stipend. Similar scientist's apprenticeship programs are being planned for high school students to take place in future years.
7. Before giving his report, Dean Ng made two announcements: First, he reminded everyone that IUPUI will celebrate its 40<sup>th</sup> anniversary in January 2009. He asked everyone to think about inviting a distinguished scientist and good public speaker who can spark the general public's interest in science to give a public lecture. Dean Ng also announced that in order to improve the visibility of the School, the Office of External Affairs has assigned interns to develop video streams on life in the SOS.
  - a) Several departments are engaged in recruitment. If successful, we may add between 10 and 12 faculty members to our present roster of 102.
  - b) Budget of the School is healthy — income is steady, and expenditure is under control.
  - c) Restructuring of departmental allocation will help us make a case for additional support from administration. The goal is to make the allocation process transparent and to create incentive. For example, lab fees will allow carry-overs to cover planned replacement of equipments. Of the total ICR 80% comes back to school. It is incentive based, but is taxed at the school level to partially offset certain research infrastructure cost. Tuition is redistributed roughly in proportion to credit hours generated. Each department should enhance its academic program in order to add value to the School and improve its image.
  - d) Graduate tuition remission is being managed at the school level, so that departments need not distinguish between resident and non-resident students. The PIs supporting graduate students are being billed at the resident rate, which will save the PTs an estimated \$150K, the cost being absorbed by the School. PIs and departments should recruit aggressively nationwide for the best graduate students.
  - e) Each department's budget will create lines to pay stipends to a fixed number of graduate student teaching assistants. The budgetary adjustments needed to accomplish this will be

phased in over a period of at most 3 years. Management at the school level to account for income generated from University fellowship, research investment fund (RIF) etc. The goal is to achieve funding stability for graduate TAs as soon as practicable to facilitate aggressive recruitment. Chairs may have to think hard to possibly shrink a program before growing it again. They may have to use masters program as an income generation tool in order to build up the PhD program.

- f) Faculty recruitment ought to be a constant state of mind for the SOS. Find the best people to hire. A budget line of approximately \$1.4M per year will be created over the next 3 years to fund start-up costs in perpetuity. An aggressive program of faculty recruitment will continue in the coming years to reach the level of 1997, when we were 125 strong. EVC Sukhatme has extended full support to this recruitment effort.
8. Dean Ng reported on the latest development on plans for the new IUPUI Lab Building to meet the needs of the SET and the SOS. A high rise between ET and SL along Michigan Street is being proposed. Preliminary budget is estimated between \$20M and \$40M, with the University's contribution remaining uncertain. It is likely that the project will be self funded through bonds. Debt servicing at 5.5% over 25 years will cost about \$1.5M per year. A very preliminary estimate of space need is 80K-100K assignable sq. ft. (ASF) for the SOS and about 40K ASF for the SET. Using previous data on recent university buildings the debt servicing cost is estimated to be \$523 per ASF. This means we can afford only about 40K ASF with a \$20M budget. Therefore, we should really plan for a multi-phase building program. The first priority is to get included in IU's bi-annum capital request starting in 2011-13.

The New Lab Building proposal is due in 3 months to President McRobbie. Departments should articulate their needs promptly. Space will be organized according to functionality rather than along departmental lines. For example, biomedical engineering can share labs with biology and chemistry, and electrical engineering and mechanical engineering can share teaching labs with physics. There can be a distributed education space right next to a classroom for video recording. A joint science and engineering faculty group will help with design of (a) teaching lab, (b) general classroom, (c) research lab space and (d) core research facilities. Please volunteer to serve on this planning group.

- 9. There were no old business and no new business.
- 10. Then meeting was adjourned at 11:22 AM.