# School of Science Spring 2009 Faculty Assembly

### Friday, March 27, Lilly Auditorium, University Library

**Faculty Present — Biology:** Martin Bard, Bonnie Blazer-Yost, N Douglas Lees, Kathleen Marrs, Steve Randall, Randall Roper, Xianzhong Wang; **Chemistry:** Keith Anliker, Barry Muhoberac, Pratibha Varma-Nelson, Hongqiu Zhao, Lin Zhu; **CIS:** Lingma Acheson, Shiaofen Fang, Andy Harris, Yao Liang, J Morrison, Snehasis Mukhopadhyay, Andrew Olson, Rajeev Raje, Dale Roberts, Mihran Tuceryan, Jiang Zheng, Xukai Zou; **Earth Sc:** Kathy Licht; **Math Sc:** Benzion Boukai, Ray Chin, William Geller, Bart Ng, Leonid Rubchinsky, Jyoti Sarkar, Jeff Watt, Luoding Zhu; **Physics:** Andrew Rader; **Psychology:** Drew Appleby, James Murphy.

1. Acting President Sarkar called the meeting to order at 9:05 AM. He recognized Joe Thompson from Dean's Office who graciously volunteered to take minutes of the Assembly.

2. The agenda was approved. There were no amendments to the minutes of Fall 2008 Faculty Assembly. It was approved unanimously.

3. Election for Secretary: On behalf of the Steering Committee, Sarkar called for nominations for Secretary of Faculty Assembly. This is a three-year commitment, since the Secretary also serves as the President during the second year and as the Past-President during the third year. No nominations were received, though some suggestions were made. Marrs asked what duties are performed by this officer. Sarkar gave a brief summary: The Secretary shadows the President, together they sets the agenda for the monthly Steering Committee meetings in consultation with the Dean, the Secretary notifies SC members and takes minutes at the SC meetings, also notifies all faculty members and takes minutes at the fall and spring Faculty Assemblies. The President presides over the SC meetings and the Faculty Assemblies and is a voting member of the FA. The Past-President provides continuity of leadership. In case the President is absent either the Secretary of the Past-President fills. There were no volunteers. Sarkar proposed that the nomination and election of the Secretary be completed by email by the end of April.

4. UCASE Update: Kathy Marrs circulated a handout and drew attention to a four-year checklist on the web. She made several announcements.

a) The Midwest Noyce Conference will be held at IUPUI April 2-3 with guests Tom Bloch, Joan Prival and Kenneth Tobin and presenters Pratibha Varma-Nelson, Patrick Morton and Nancy Pelaez.

b) Woodrow Wilson Indiana Teacher Fellowship will be offered for the first time to 20 fellows who will start the program on June 01. Fellows with an earned Bachelor's degree will complete one year of study at IUPUI and then complete student teaching during the second year at a local school. At the end of second year they will receive a master's degree. Encourage your students to consider teaching as a career goal. There are many scholarships available for them.

c) In partnership with the Center for Teaching and Learning, join The Leadership Collaborative — Science and Mathematics Teacher Imperative of the National Association of State Universities and Land Grant Colleges.

5. Dean Ng's Updates on the State of the School.

a) Budget: Details for the FY 2009-10 remain uncertain. The likely timeline for budget information is as follows: State appropriation will be known at the end of April, University budget around mid-May, and Trustees' approval early July. There is a freeze on salary raises for administrators (chairs and up) who are earning over $100K. But there is no freeze on faculty salary increase.

b) Income & Expenditure: State support is likely to decrease (now at 10.3%, plus CTE at 3.2%). The budget will be mostly tuition-driven (now at 83.0%). We must adopt a "private school" model. Our major expenses are assessment (10.3%), instruction and administrative expenses (58.7%).

c) Positives: Enrollment pattern is shifting. Remedial courses have been turned over to Ivy Tech causing an initial drop in enrollment. But now we have completely recovered. Enrollment continues to be healthy and is likely to increase another 5% next year. Indeed enrollment is counter-cyclical for most urban universities. The quality of our incoming undergraduate students is increasing.

d) New RCM for departmental allocation: Some features are transparent cost drivers (allocation with justification), incentive to encourage efficiency, quality improvement and success and flexibility for creativity.

e) Faculty Recruitment: It is our highest priority. Faculty morale and attitude is improving with several new hires and some ongoing searches.

f) Funding: We are the most under-funded school at IUPUI, based on Delaware normal. Compared to national standards, we are short by about 6.9M. However, as our budget is primarily tuition driven, as long as campus administration controls costs (taxes), state appropriations are not so important. Over the last two years at the Budgetary Affairs Committee, Ben Boukai worked towards a more reasonable representation on the University Resource Planning Committee. Henceforth, in addition to the Dean of SOM, the Deans of SLA and SOS will be permanent members on this Committee. Deans of other schools will have rotating membership.

g) Challenges: Not all costs are under the control of the SOS. Nonetheless, for the next 4-5 years money is not our chief worry. The much bigger problem is shortage of space. Absence of quality space impacts students by impeding their progress, and little or no student support service can be provided. It impacts the faculty by undercutting their competitiveness for external funding, by limiting involvement in directing undergraduate research, and by making it difficult to make quality improvement in academic programs. Availability of

quality space will remove all these impediments and is likely to generate additional tuition money to pay for the new building.

h) Initiatives: The school's development effort is being restructured. The Dean's Leadership Council has been reconstituted in preparation for the 2010 Campaign for IUPUI. A public relations firm will be hired to reshape the school's image as a "destination school" for serious science students. Several pod cast clips for the school's website are being developed to explain who we are, what we can offer and why we are of value. Student recruitment effort will target high-ability students, their parents and school counselors. This is very important as state funding formula is now based on number of degrees granted instead of just enrollment. Currently with little to no effort our yield rate (# enrolled as a percentage of # admitted) is about 40%. With some planned effort the yield rate can be increased. Drew Appleby suggested reaching out to high school teachers as well. Dean Ng acknowledged that it is a good idea and he encouraged anyone with other ideas to contact Ms. Pohlman in the Dean's Office. Student advising within the departments should improve further. Although we are not a professional school, students will feel well taken care of if better counseling about graduate school, about teaching options and about alternatives to medical/dental schools are given. Integrate development, alumni relation and student recruitment. Develop new interdisciplinary undergraduate degrees, such as in neuroscience.

i) Multidisciplinary Laboratory and Classroom (MLC) Building: Chancellor Bantz submitted the MLC building proposal to President McRobbie on 02/14/2009. No decision is made yet as the source of funding is unclear. There is a possibility of applying for partial funding (max $15M of the total $40M) from NIH's National Center for Research Resources under the Extramural Research Facilities program. The back-up plans for interim space lease from the SOM in BRTC building has run into some complication since the SOM has already submitted 4-5 proposals under the above program and needs the BRTC space to house their own people displaced for remodeling.

6. ICR Funding distribution: Dean Murphy explained that the SOS gets back 80% of ICR from the central administration. As part of the transparency policy, ICR is distributed to the investigator (10%), the department (20%) and the school (70%) for paying tax, space and other overhead costs. Blazer-Yost asked allocation of ICR is handled for a co-investigation who has a PI in another school. Dean Murphy explained that the VCR's policy is to allocate ICR in the same proportion as in the grant. This policy is a written agreement from the VCR's Office and is implemented at the campus accounting level, but is not part of the external grant proposal. Please talk to Dean Murphy or Debbie Allard to find out IGR allocation and to Crystal to check the money flow. Dean Ng also mentioned that ICR allocation is separate from the departmental allocation formula. Another clarification was made that the 10% ICR given back to the investigator may be used for summer salary (salary usually is a direct cost).

7. Committee Reports: Reports submitted by various committee chairs are appended to the end of this document. Here we summarize the oral presentations.

Drew Appleby, Chair of Assessment Committee, highlighted item 2b of his report regarding 2012 North Central Accreditation. He emphasized that the principles of undergraduate learning will be taken very seriously. Boukai asked about graduate PUL and about e-Portfolios. Appleby was unaware of graduate PULs and said e-Portfolios are not used in science, though talks are ongoing about how best to use it. In the absence of any member of the Nominations and Awards Committee, Sarkar read the names of various awardees. Dean Murphy, Chair of Research Committee, mentioned that travel grants for 2008-2009 must be used up before June 30, 2009. Decisions on travel grants for the next FY will be made in about two weeks. Boukai asked how many undergraduates won these grants and why some students have faced problems with reimbursements. Dean Murphy responded that he will look into the matter. Boukai also mentioned that RSFG now grants $35K together with another $20K for graduate student. The Technology Committee has been very busy this year. The attached report is a short synopsis of their activities. The full report of the Technology Committee will be posted on the web. Dean Ng talked about the recent decision by higher administration to move the entire technology fees to UITS. Watt asked if school based projects will continue to be supported. Dean Ng responded that his first priority is to protect the staff. He will reason with the administration to lower the technology fee so that a new course/laboratory fee can be assessed. Boukai mentioned the Budgetary Affairs Committee has invited G Elmore to its April meeting to discuss these issues. Kathy Marrs, Chair of Undergraduate Education Committee, drew attention to a new course Internship in Psychology. She mentioned that the Associate degrees in Biotechnology and Chemistry have been discontinued. The RISE initiative proposals for summer funds to develop/redesign courses are due April 01.

8. There was no old business.

9. New business: Jacqueline Blackwell, Chair of IUPUI Faculty Council Nominating Committee is soliciting one more representative from the SOS to serve on the University Faculty Council. Boukai encouraged participation in faculty councils. Ng seconded and nominated Randall, who declined. Nomination remains open and will be conducted by email.

10. A motion to adjourn was made and seconded. The meeting was adjourned at 10:40 AM.


**Committee Reports are attached next.**

# Committee Reports

**SOS Assessment Committee Report** — Drew Appleby

The 2008-2009 School of Science Assessment Committee was composed of the following members: Pat Clark (Biology), John Goodpaster (Chemistry and Chemical Biology), Xukai Zou (Computer and Information Science), Jennifer Nelson (Earth Science), Kristi Shea (Forensic Science), Jeff Watt (Mathematical Sciences), Brian Woodahl (Physics), Drew Appleby (Psychology), Andrew Gavrin (SOS), and Joseph Thompson (SOS).

1. The committee created a systematic, six-stage strategy that all seven departments will use to assess the extent to which their majors are acquiring the knowledge and skills that are the desired outcomes of their programs. The five stages of this strategy are as follows.
   a) The <u>first</u> stage in assessment for an academic program is to determine what it wants its students to know (i.e., knowledge) and to be able to do (i.e., skills) as a result of successfully completing its program. This knowledge and these skills will be referred to as the department's student learning outcomes (SLOs).
   b) The <u>second</u> stage is to identify specific assignments in the department's curriculum where the degree of accomplishment of the SLOs can be measured.
   c) The <u>third</u> stage is to identify existing methods or create new methods to determine if students are accomplishing the SLOs.
   d) The <u>fourth</u> stage is to collect data with these methods and from other sources (e.g., alumni surveys, student satisfaction surveys, etc.) that can be used to determine if the SLOs are being achieved.
   e) The <u>fifth</u> stage is to use the information collected during the fourth step to make data-informed changes to the curriculum where these changes are deemed necessary.
   f) The <u>sixth</u> stage is to return to the fourth stage and collect data again (after a reasonable amount of time has elapsed for the effects of the changes to become apparent) to see if these changes have produced their desired impact.

2. As the Chair of the School of Science Assessment Committee, my aspiration for the 2008-2009 school year was to accomplish the following four goals.
   a) The <u>first</u> was to have the representatives of the seven departments determine where their departments currently exist in the six-stage assessment process presented above. Progress will be indicated as (1) Accomplished, (2) In-the-Process of Being Accomplished, or (3) Not-Yet-Accomplished.
   b) The <u>second</u> was to have each department complete at least the next stage in the assessment process during the 2008-2009 school year.
   c) The <u>third</u> was to have each department write its 2008-2009 Annual Assessment Report by describing (a) how it has carried out each of the stages it has accomplished during the 2008-2009 school year and (b) how it plans to accomplish at least the next stage during the 2009-2010 school year.
   d) The <u>fourth</u> was to begin preparing the committee for the 2012 North Central Accreditation visit by introducing them to the university's strategy to measure our Principles of Undergraduate Learning.

**SOS Educational Policy Committee Report** — Kathy Marrs

The Committee members are: Kathy Marrs (Chair, Biology), Barry Muhoberac (Chemistry and Chemical Biology), Mihran Tuceryan (Computer and Information Science), Jeff Swope (Earth Sciences), Carl Cowen (Mathematical Sciences), A.J. Rader (Physics), Drew Appleby (Psychology), Andy Gavrin (Dean's Office)

Several new courses were approved in the 2008-2009 academic year: MATH 373 Financial Mathematic will replace MATH 375, MATH 518 Discrete Mathematics will replace Math 417 Discrete Modeling and Game Theory, FIS 406/506 Forensic Microscopy, GEOL G335 Evolution of the Earth and Life, PSY B421 Internship in Psychology. One course changed its name: STAT 513 Statistics in Industry changed to STAT 513 Statistical Quality Control. The Associate Degrees in Biotechnology and Chemistry have been discontinued. Also approved were 4-year checklists for Biology, Chemistry, Physics, and Earth Sciences degrees with teacher certification, available on SOS and UCASE websites  (SOS → Math & Science Education link) (http://www.science.iupui.edu/programs/teaching.php)
Science majors now have new electives: Informatics I-399 Practical Bioinformatics, BUS X-300 Career Planning for Non-business majors.

Among ongoing discussion topics are: Purdue University course renumbering, Honors College, Policy on double majors/double degree students, Studio/clinical hour guidelines for students pursuing minors, Procedures for undergraduate admissions criteria to reflect SAT, Core 40, GPA, honors diploma, Core Transfer Library , review of science and mathematics course agreements, Fall Break at IUPUI, Fast Track Advising, RISE initiative — Summer funds to develop/redesign courses ( proposals due April 1). For more details see
http://www.iupui.edu/administration/acad_affairs/rise/


**SOS Library Committee Report** — Philippe Vidon

In November 2008, the library committee was made aware that an additional $40,000 had been made available for the SOS library budget. Of those $40,000, $21,000 had already been allocated ($3,000 per department). The library committee was asked to decide how to allocate the remaining $19,000. After consultation with each department, the SOS library committee decided to use the formula used to divide the library budget between departments in the previous years. This formula takes into account the number of faculty and the number of 300, 400 and 500 credit hours taught. The exact dollars amounts allocated to the departments are available upon request.


**SOS Nominations and Awards Committee Report** — Gary Rosenberg

1. The Committee is pleased to announce its annual awards list (see end of this document).
2. The Committee worked with Brenda Bishop who in turn worked with the Frank G. and Ernestine M. Lambertus Family to modify the terms of the Lambertus Family Gift so that

continuing seniors are now eligible for the Lambertus Scholarship. This Scholarship is awarded annually to a student or students who have shown improvement in their course work, who are working students or who otherwise demonstrate financial need, and who are preferably from Central Indiana. (The N&A Cte discovered in the process of revision that the Committee is free to determine number of awardees within the terms of the Lambertus Gift and the generous, annual funds available. This year, the Committee elected to bestow two awards of $2500.)

3. The Committee has secured David Stocum's agreement to similarly modify the terms of the John D. Barnwell Award. David Stocum is the generous benefactor of this award and we report that Brenda Bishop is working with David to modify the terms of the Gift for next year's consideration. The Barnwell is awarded to a student who integrates the arts and humanities in his or her science curriculum and who has shown evidence of integrity and community spirit.

4. The Committee revised procedures for nominating and voting for the Partners in Education Full-Time Staff Award. The revisions make the SOS Staff Council a permanent and full partner in the nomination and voting process. The Staff Council is now allocated a number of nominations and votes based on Staff's proportional numbers within the School. In addition representatives of the Staff Council are invited to participate in the Awards Cte meeting when this award is considered. (Note that the staff of the SOS Dean's office is also allowed to nominate and vote on awardees.)

5. The Chair of the Committee intends to lobby, with the help of the SOS Dean's office, cognizant higher administration officials for more timely announcements of the availability of awards originating in central administration (Chancellor's Scholar, Chancellor's Research Scholar, and Bowling-Jones-Russo Awards). Solicitations for these awards are typically announced so close to the deadline for receipt of nominations that it makes it difficult to prepare dossiers.

6. The Committee notes that, although we are delighted with the quality of this year's awardees, two departments failed to nominate a single candidate for any award. The Committee urges all departments to recognize the importance of these awards to the morale of their faculty and staff and to field their best candidates in every category.

**SOS Research Committee Report** — James M. Murphy

The committee has completed one task this academic year; the review of applications for Purdue Research Foundation International Grants that were not used since the last annual round of funding. The foundation allowed a rollover of these funds, and two grants were awarded to School of Science faculty for international travel that will be completed before June 30, 2009. During the month of April, the committee will be reviewing new applications for the next round of Purdue Research Foundation funding for faculty, student research, and travel grants. The committee will also meet before the end of the spring semester to review new school guidelines and policies on research.

**SOS Technology Committee Report** — Andrew Gavrin

Purpose: To make recommendations to the Dean for the use of student technology fee money, and to discuss and recommend technology strategies for the School of Science. The technology committee has met four times so far this academic year (9/26/08, 10/24/08, 12/5/08, 2/18/09). During these meetings, the committee has made several key decisions:

1. In recognition of the campus decision to charge graduate students a technology fee, the committee proposed an amendment to the SOS Faculty bylaws adding graduate student representation to the committee.
2. That amendment was presented to the faculty during the Fall assembly (11/7/08). During discussion, an additional amendment was proposed to the description of the committee's mission. (Note: both amendments were subsequently carried by a mail ballot of the faculty. The amended text is attached as appendix I*.)
3. The committee considered and passed a budget for the use of student technology funds (STF) for the 2008-09 fiscal year. The approximate budget is $715K, but the final figure is determined by enrollment through Summer I 2009. A summary of the budget is attached as appendix II*.
4. The committee made a recommendation to Dean Ng regarding the creation of a new accounting mechanism intended to ensure that technology funds are not intermingled unnecessarily with funds generated by lab fees. This recommendation was sent to Dean Ng on 2/18/09, and is attached as appendix III*.
5. During an "emergency meeting" on 2/18/09 the committee discussed what was, at the time, a proposal put forth by IU VP for IT Brad Wheeler. The proposal called for all student technology funds at IUPUI to be administered by UITS rather than having a portion administered by the schools. The committee composed a letter to Dean Ng describing the committee's response to the proposal. This letter is attached as Appendix IV*. (Note: subsequently, Chancellor Bantz has communicated his intention to adopt the UITS plan in a memo to the Dean's Council).

*The full report of the Technology Committee, including the Appendices, is available at
http://sos.science.iupui.edu/facultycouncil/FAminutes.htm
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**SOS Unit Committee Report** — Gary Bond

The Unit Committee met on 10/21/08 and deliberated and voted on promotion for 4 candidates to Full Professor, on promotion for 3 candidates to Associate Professor, on tenure for these 3 candidates, and on promotion for 1 candidate to Senior Lecturer. Following the meeting, the Unit Committee prepared statements for these candidate and their dossiers were forwarded to the Dean.

<center>**2008-2009 Award Recipients**</center>

**Teaching Award**, in recognition of outstanding contributions in the area of teaching by a full-time faculty member. John F. Kremer, Ph.D. (Psychology)

**Research Award**, in recognition of outstanding contributions in the area of research by a full-time faculty member: Ricardo S. Decca, Ph.D. (Physics)

**Service Award**, in recognition of outstanding contributions in the area of service by a full-time faculty member: Jane R. Williams, Ph.D. (Psychology)

**Academic Advising Award**, in recognition of outstanding contributions in the area of academic advising by a full-time faculty or professional staff member: Andrea M. Brian, M.S. (Mathematical Sciences)

**Full-Time Lecturer Teaching Award**, in recognition of outstanding contributions in the area of teaching by a full-time lecturer: John B. Ross, Ph.D. (Physics)

**Associate Faculty Awards**, in recognition of outstanding contributions in the area of teaching by an associate faculty member: D. Lani Pascual (Earth Sciences), and Patricia A. Slipher (Mathematical Sciences)

**Partners in Education Full-Time Staff Award**: Brenda S. Meredith (Psychology)
Established in 1999-2000, the Partners in Education Full-time Staff Award recognizes staff that make significant contributions in support of their departments and the mission of our School. This award acknowledges an individual or individuals whose performance is most notable among his or her peers and who demonstrates exemplary service.

**The Trustees Teaching Award** honors individuals who have a positive impact on learning through the direct teaching of students, especially undergraduates. Award recipients must have demonstrated a sustained level of teaching excellence and must have completed at least three years of service at IUPUI or IUPUC to be eligible.

*Trustees Teaching Award for Tenured/Tenure-Track Faculty*: Yogesh N. Joglekar, Ph.D. (Physics), John H. McGrew, Ph.D. (Psychology), Evgeny Mukhin, Ph.D. (Mathematical Sciences), Gary D. Rosenberg, Ph.D. (Earth Sciences), and Yuni Xia, Ph.D. (Computer and Information Science),

*Trustees Teaching Award for Full-time Lecturers*: John C. Guare, Ph.D. (Psychology), and Joan P. Rainey, M.A. (Mathematical Sciences)

**Chancellor's Scholar Award**: Igor V. Minevich (Major: Mathematics, Minors: Computer Science and Physics)

**Chancellor's Undergraduate Research Award Nomination** (One nomination per academic unit/school sent to campus competition): Igor V. Minevich (Major: Mathematics, Minors: Computer Science and Physics)

**Teaching Assistant Award**: Stephen J. Chamblee (Mathematical Sciences)

**John D. Barnwell Award**: Tyler J. Foxworthy (Major: Mathematics, Minor: German and an interest in music)

**Frank G. and Ernestine M. Lambertus Awards**: Brett R. McFall (Major: Mathematics Education), Joshua P. Townsend (Major: Geology)