

## 2011 Highlights of Major Accomplishments

Office of the Vice Chancellor for Research  
July 1, 2010 - June 30, 2011  
<http://research.iupui.edu/>

The Office of the Vice Chancellor for Research (OVCR) is dedicated to the advancement of the research enterprise at IUPUI. The primary sections and units associated with OVCR consist of Research Development (<http://research.iupui.edu/development/>), the Center for Research and Learning (<http://crl.iupui.edu/>), and the Solution Center (<http://www.iupui.edu/~solctr/>). These sections and units support the campus in the achievement of its research mission. Central to this mission are the development and expansion of innovative research programs that align well with institutional mission and strategic plan, address important national and global needs, and through technology transfer and commercialization noticeably support the economic development of Indiana and the nation.

### Research Development

#### Major Initiatives

- Oversaw all the centers funded under the [IUPUI Signature Centers Initiative \(SCI\)](#), including the third year review of the Round 2 centers, three of which have qualified to receive IUPUI Signature Center designation. Moreover, oversaw the review of applications received for new centers to be funded under the SCI program, resulting in the selection of three new centers. The Signature Centers Initiative has been resulting in the in the development of nationally and internationally known research centers of excellence at IUPUI.
- Identified key areas of strategic research interest/expertise at IUPUI, including Imaging, and Science, Technology, Engineering and Mathematics (STEM) Programs. Representatives from these areas were invited to attend summit meetings chaired by the Vice Chancellor for Research. These summits and subsequent follow-up efforts have led to, 1) the formation of the IUPUI Imaging Research Council, which has initiated to identify and coordinate major campus-wide imaging projects and their support through external funding, and 2) the development of a campus-wide institute to coordinate and expand STEM research and education initiatives at IUPUI. Both efforts are meant to make IUPUI a national leader in the areas of imaging and STEM.
- Promoted proposal submissions from IUPUI to increase the research funding through the National Science Foundation. These efforts included invitations to NSF directors to visit IUPUI to interact with faculty members. Dr. John McGrath, the NSF Division Director for the Chemical, Bioengineering, Environmental, and Transport Systems (CBET) visited IUPUI, and in both small and large group sessions, met with over fifty faculty members from the Schools of Science, Engineering and Technology, SPEA, Medicine, Dentistry, and Liberal Arts. These discussions were followed by personal contacts with specific disciplinary directors at NSF.
- Established two Writing Circles to encourage and support submissions to NSF programs: the Faculty Early Career Development (CAREER) program, due in July 2011, and the Research Experiences for Undergraduates (REU) program, due in August 2011. Twenty-four faculty participated in monthly workshops for CAREER designed to improve their writing skills, organization of the proposal, ability to target the appropriate Directorate, and other key elements. Proposal editors have reviewed drafts throughout the process, and final drafts are being reviewed by subject matter experts to ensure intellectual competitiveness. Those who have attended all sessions and successfully submit the final proposal will be eligible to compete for seed funding to jumpstart their efforts, while the NSF review process proceeds. REU workshops underway and are aimed at teams

of faculty members and departments interested in NSF support for summer undergraduate research programs.

- Provided significant assistance to faculty members applying to the NSF Science and Technology Centers Integrative Partnerships program. The process required a university-wide limited submission competition. Subsequently, one IUPUI pre-proposal was prepared and submitted from the Stark Neurosciences Research Institute and is currently under review by NSF.
- Developed and launched the Proposal Development Services (PDS) website to provide extensive support to faculty preparing proposals <http://research.iupui.edu/proposalservices/>. Moreover, a formal process for requesting assistance to develop large proposals was established.
- Led efforts to increase research activities with the Crane Naval Warfare Center. Guided eleven faculty members whose research expertise related to the Crane areas of interest to prepare white papers for consideration by Crane. In addition, eight faculty members participated in May in a daylong on-site visit with Crane researchers to establish potential collaborative working groups. A follow-up visit is scheduled for Fall 2011.
- Developed a new training program to assist faculty in becoming successful researchers. The program, which is called the “Nine Golden Rules to Succeed in Research and Scholarship,” was successfully piloted in Spring 2011, and is planned to be offered on a regular basis starting in Fall 2011.
- Provided support to the Greater Indianapolis Chamber of Commerce in their successful effort to secure funding from the Pulliam Trust to support local high schools providing mentoring to underrepresented students.

### Programs and Services

- Organized and hosted the 2011 IUPUI Research Day. This is the largest event of its kind held at IUPUI. It provides an opportunity for the entire campus and their academic, industrial, governmental partners, and the broader community, to come together and find out more about the research enterprise at IUPUI, explore new collaborations, and lay the foundation for new partnerships. The Research Day also includes programs for K-12 students, teachers, and administrators from Indianapolis and the region. Dr. S. James Gates, Jr., John S. Toll Professor of Physics at the University of Maryland, College Park and Member of President Obama’s Council of Advisors on Science and Technology gave the keynote address to an audience of over 400 campus and outside participants.
- Offered approximately 25 OVCR sponsored/co-sponsored workshops and presentations to close to 400 participants. The topics covered have ranged from how to write top quality grant proposals, to how to find funding sources and develop successful research programs.
- Offered a variety of new seminars and workshops. In collaboration with the Office of Academic Affairs, participants in the “Support for Recruiting Underrepresented Faculty (SRUF)” attended two workshops designed to improve their funding opportunities for external grants. With the Indiana Center for Intercultural Communication, a full-day workshop was presented for “Non-Native Speakers of English to Improve Proposal Writing Skills.” In addition, two workshops focused on non-governmental funding were co-presented with staff of the Indiana University Foundation. Each of these programs was well received.
- Offered 28 proposal development and/or funding search workshops in over 12 schools/departments on campus.

- Administered 6 [OVCR internal grant programs](#), providing seed funding in support of research projects which have good prospects to grow and succeed, including through external funding support. A total of 124 proposals were submitted and 66 received funding. The total funding was \$2,046,152.
- Organized 10 individual research teams representing faculty from multiple schools to develop large funding opportunities.
- Prepared and submitted 41 multimillion dollar federal proposals, representing 35 faculty investigators in 9 schools.
- Generated 15 proposals to promote interdisciplinary collaborations between departments and schools, to support research, and to utilize shared resources.
- Provided advice and/or assisted in writing and submission of 52 proposals to external agencies with 43 faculty totaling requests of \$46,218,447.
- Provided approximately 66 individual and small group consultations on proposal development and project management.
- Conducted 14 consultations with faculty, department chairs and school deans on funding opportunities for their individual research projects and department funding.

### **Center for Research and Learning (CRL)**

The mission of the [Center for Research and Learning](#) is to promote, create, and coordinate, through partnerships within and outside IUPUI, implementation of innovative inquiry-based learning programs that integrate research and education to provide students effective pathways for lifelong active learning and professional development. CRL serves students through three primary program areas, identified as *Undergraduate Research Programs*, *Diversity Research Programs*, and *Summer Research Programs*. During FY 2010-2011, through the multitude of its programs and services, CRL has served close to 500 students. The following are highlights of CRL accomplishments:

- In partnership with the Solution Center and multiple IUPUI Schools, piloted an initiative to expose students to research innovations and their transformation into commercial enterprises. This effort represents the first multidisciplinary, campus-wide program at IUPUI that involves students in hands-on work with faculty mentors and other participants to learn about research commercialization, and develop entrepreneurial and business skills. The highly successful outcome of this piloted effort has led to plans for the formal launching of this initiative in Fall 2011 under the title of *Innovation-to-Enterprise Central (ITEC)*.
- In partnership with the [IU Simon Cancer Center Summer Research Program](#):
  - Recruited, in a competitive selection process with 240 applicants, 18 high school and college scholars, who are underrepresented in cancer research, to conduct clinical and population-based biomedical cancer research with mentors.
  - Assisted in the implementation of the new *Future Scientists High School Summer Science Program* (American Cancer Society and the IU Simon Cancer Center) by recruiting five Indianapolis Public Schools high school students to participate in research opportunities under the mentorship of an IU Simon Cancer Center researcher.
- Collaborated in a successful grant proposal (\$943,000) awarded to the IUPUI School of Science through the Undergraduate Research and Mentoring in the Biological Sciences (URM) mechanism (National Science Foundation). CRL partnered with URM Principal Investigators to help recruit the first cohort of students and integrate them into CRL summer research programming activities.

- Recruited two students from the 2010 IUPUI-Ivy Tech Community College [Bridges to the Baccalaureate Program](#) cohort (14 full-time students), who successfully transferred into IUPUI as full-time students and continue to participate in undergraduate research.
- Recruited in partnership with the [Office of Diversity, Equity, & Inclusion](#) six undergraduate students from Historically Black Colleges and Universities (Tuskegee, Morehouse College, Virginia State University) to participate in the IUPUI [Ronald E. McNair Postbaccalaureate Achievement Program](#).
- Received a multicultural planning grant (\$1,500) from the [Office of Diversity, Equity, & Inclusion](#) to complete public relations short video/web site clips highlighting the research and scholarly activities of CRL scholars.
- Received two grants from the [Indiana Space Grant Consortium](#) (INSGC):
  - The Nanotechnology Space Consortium Summer Teacher Fellows Program (\$6,000) to add a high school teacher professional development program to the [IUPUI Nanotechnology Discovery Academy](#).
  - INSGC teams (\$15,000) as part of the [Multidisciplinary Undergraduate Research Institute](#).
- Co-presented two posters on IUPUI Center for Research and Learning programs at the [Council on Undergraduate Research](#) (CUR) Gateways to Best Practices for Undergraduate Research Program Directors conference at Washington University, St. Louis, MO:
  - *Incentivizing Mentored Undergraduate Research, Scholarship and Creative Activity” A “Collage” Approach*
  - *A Strategic Infrastructure to Realize Student Potential through Undergraduate Research Program Collaborations*
- Honors for individual students affiliated with CRL programs including:
  1. Nineteen students affiliated with multiple CRL programs recognized as [IUPUI “Top 100”](#) students by the IUPUI Alumni Council and the Student Organization for Alumni Relations, including the Top Male student ([Undergraduate Research Opportunities Program](#));
  2. Two students chosen to deliver IUPUI commencement addresses;
  3. Multiple students presenting at national professional conferences, including poster awards for students in Bridges/[Diversity Scholars Research Program](#) and the [Louis Stokes Alliances for Minority Participation](#).

## **Solution Center**

The mission of the [Solution Center](#) is to serve Indiana and IUPUI as a “front door” to the community by connecting the university’s intellectual capital to the pressing needs of business, government, and the nonprofit sector. Drawing on the talent of IUPUI’s faculty and students, the Solution Center facilitates partnerships with Indiana’s business, industry, nonprofit and government sectors that will build human capital, aid in economic growth, and transfer information, technologies, and methods that enhance innovation and practice. In FY 2010-2011, the Solution Center:

- Completed year two and began year three of the Lilly Endowment grant.
- Responded to 8,774 contacts and referral requests, and facilitated a total of 500 formal engagements between IUPUI students and faculty with community partners:
  - 252 students, 95 faculty, and 153 community organizations and businesses involved in internships, class projects, and community-based research efforts.
  - Awarded \$258,078 to 62 community partners through the IUPUI Venture Fund, resulting in \$516,371 in match funding in support of engagements.

- Coordinated 1,199 internships (up 20%), 2,803 full-time positions (up 62%), and 4,272 part-time positions (up 63%) through campus-wide postings, an overall 65% increase from the number of openings posted in the previous year.
- Awarded Venture Fund grants to faculty from the Schools of Liberal Arts, Informatics, Medicine, and Public and Environmental Affairs as match funding in support of federal and foundation proposals totaling over \$1,000,000 in grant funding.
- In partnership with the Center for Research and Learning and multiple IUPUI Schools, piloted an initiative to expose students to research innovations and their transformation into commercial enterprises. This effort represents the first multidisciplinary, campus-wide program at IUPUI that involves students in hands-on work with faculty mentors and other participants to learn about research commercialization, and develop entrepreneurial and business skills. The highly successful outcome of this piloted effort has led to plans for the formal launching of this initiative in Fall 2011 under the title of *Innovation-to-Enterprise Central (ITEC)*.
- Served as OVCR liaison to [TRIP \(Translating Research Into Practice\)](#), a campus-wide effort that supports translational research. The Solution Center and TRIP co-hosted the first Distinguished Speaker's Series workshop with speaker Michael Evans, founder of AIT Laboratories, and the Community Research Showcase at the IUPUI Research Day.
- Partnered with the IUPUI Career Services Council to plan the Just in Time Career Fair, drawing 600 students and 90 recruiters to IUPUI.
- Hosted the 2010 [Indiana Achievement Awards \(IAA\)](#), an annual awards program created to recognize exemplary nonprofit practices and leaders in Indiana. Secured \$41,300 in funding from foundations and community partners in support of IAA cash gifts and ceremony.
- Hosted the third annual Indiana Nonprofit Capacity Building Conference, attracting over 300 attendees together to learn nonprofit best practices from local and national peers and experts.
- Served on campus and community committees and teams, including: the Plater Institute, Coalition of Urban and Metropolitan Universities (CUMU) Conference Sub-Committee, IUPUI Talent Alliance, Program Review and Assessment (PRAC), United Way of Boone County, TCEM Industry Advisory Council, TCM Advisory Board, IUPUI Superbowl Communications Committee, IUPUI Career Services Council, Public Allies Board, Criterion 5 Reaccreditation Committee, Indiana Health Industry Forum Advisors, Lilly Collaborations Group, Techpoint Summit, and Techpoint Foundation Communication Team.
- Presentations: Presented at 2010 National Outreach and Scholarship Conference; Proposal accepted for the 2011 National Outreach and Scholarship Conference; Two proposals accepted for presentation at 2011 Assessment Institute.