

Indiana University School of Dentistry Highlight Report 2013
<http://www.iusd.iupui.edu>

TEACHING and LEARNING

- Office of Academic Affairs continued to serve as the “central hub” for accreditation activities in preparation for the July submittal of IUSD’s self-study document to the Commission of Dental Accreditation (CODA). The intricate review of curricula and processes has allowed the school the opportunity to create the groundwork for even better learning opportunities for the students to become outstanding dental professionals. In addition, the final copy of the IUSD Commission on Dental Accreditation Reaccreditation Self-study Report was submitted in June 2013 on time for our upcoming site visit September 2013.
- New Academic Directions- this past year the IUSD Faculty Council approved formation of three task forces to review and look for opportunities for enhancements in these areas: Clinical Operations, led by Dr. George Willis; Academic and Curricula, led by Dr. Christianne Guba; and Admissions, led by Dr. Melanie Peterson. The groups have been very active already this year and are in the process of implementing some of their early recommendations.

RESEARCH, SCHOLARSHIP and CREATIVE ACTIVITY

- Dr. Angeles Bruzzaniti is Co-Principal Investigator with Dr. Melissa Kacena, Orthopedic Surgery on an NIH R01 titled *Regulation of Osteoblast Function by Megakaryocytes Key Signaling Proteins*, \$158,579 in YR2.
- Dr. Domenick Zero is Principal Investigator for the Army Medical Research Material award titled: *Clinical Studies of Antiplaque Chewing Gum*, \$1,219,651.
- Dr. Esperanza Angeles Martinez Mier is Principal Investigator for a HRSA award titled *Development of Regional Sealant Programs in Indiana* \$219,467 for YR1.
- Dr. Gerardo Maupome is Principal Investigator for an NIH R21 titled: *Influence of Community Networks on Oral Health/Behaviors among Hispanics* \$234,000 for YR1.
- The Preventive and Community Dentistry/ Oral Health Research Institute research faculty continue to receive numerous lucrative sponsored research industry awards, \$1,277,884 during the first three quarters of FY 12-13. Dr. Domenick Zero is Principal Investigator for five Unilever award related to *In Situ* dental erosion and caries prevention clinical studies for a total of \$229,230. Dr. Anderson Hara is the Principal Investigator on one GSK award related to dental erosion and remineralization for a total of \$252,730.
- The industry awards consist of clinical trials, *in situ* model studies, bioresearch, and laboratory testing. Research awards are mainly related to the prevention of dental caries and dental erosion, including evaluating and improving the clinical efficacy of fluoride products and optimizing oral hygiene practices. The Oral Health Research Institute has served as the University's core research facility for oral health care. The Institute's research has contributed significantly to local, state, national and international oral health science. By employing over 70 full-time faculty and staff, participating in numerous industry, government research, clinical and testing programs, it is a major participant in local economic development.

CIVIC ENGAGEMENT

- IUSD's student chapter of the American Academy of Pediatric Dentistry, known as Kids Club, provided a series of four educational presentations (Lifetime of Healthy Smiles) at 12 Indianapolis schools. They also provided oral screening at Indiana Black Expo and four other community events for children.
- Underserved children and adults on Indianapolis' Eastside will benefit from affordable dental services at the Jane Pauley Dental Clinic located in Warren Central High School. Dr. Joan Kowolik and Dr. Stuart Schrader were key players in the planning process.
<http://janepauleychc.com/>
- Rural Head Start programs are often unable to locate local dentists to provide the federally mandated dental care for their enrolled children are now receiving on-site complete dental services on IUSD's 40 ft., two-chair mobile dental clinic. The program is staffed by pediatric dentistry residents and fourth year dental students supervised by faculty dentists. This program is partially supported by Delta Dental Foundation. An interactive GIS map has been created to help Head Start programs find a local dental home.
<http://www.iusd.iupui.edu/Depts/CIVENG/WEB/index.html>
- Seal Indiana, established in 2003, staffed by dental students and supervising faculty, continued to provide preventive services including dental sealants for more than 2,000 underserved children at more than 100 community-based sites. This program is partially funded by Indiana State Department of Health and Delta Dental Foundation. http://www.iusd.iupui.edu/sealindiana_site/
- IUSD strengthened its international partnership with Moi University by launching distance learning for Kenyan dental students through podcasts via Oncourse and videoconferences via Polycom. IUSD faculty and students annually participate in a three-week academic partnership program at Moi University School of Dentistry and two Moi dental students study at IUSD for five weeks in the Fall-term. Indiana Dental Association supports the Kenyan exchange students' stay in Indianapolis. <http://editiondigital.net/publication/?i=108847&p=&pn=>
- Twenty-three dental students and 7 faculty members engaged in international service-learning programs of one to three weeks duration in Ecuador, Guatemala, Haiti, Kenya, Mexico and Vietnam. <http://isl.iusd.iupui.edu>
- IUSD's Student Outreach Clinic in cooperation with People's Health and Dental Clinic provided more than 350 dental treatment visits at no cost for the patient for uninsured Indianapolis Near-Eastside adults on two Saturdays each month. The students also deepened their responsiveness to community need by initiating Healthy Smiles for Employability. This program, through funding from the IUPUI Solutions Center, is aimed at improving a person's appearance by replacing missing teeth resulting in making him/her more employable for jobs in the public eye.
<http://www.iusd.iupui.edu/departments/office-for-civic-engagement/student-outreach-clinic/>
- For the 10th year dental hygiene students and faculty members provided dental screening and fitted mouth guards for athletes at the Indiana Special Olympics State Games in Terre Haute. Twenty students, four faculty members, and an alumnus participated.

- The IUSD Binational/Cross-cultural Health Enhancement Center provided direct support for pilot data for six grant proposals resulting in six awards totaling \$1.8 million.
http://www.iusd.iupui.edu/BICCHEC_Site/

DIVERSITY

- ADEA National Learning Institute Dental Pipeline Program: Indiana University School of Dentistry (IUSD) and Ivy Tech Community College of Indiana, Central Indiana (Ivy Tech) are partnering on a pilot program to support the development of an academically prepared, highly motivated cohort of underrepresented minority (URM) students interested in dentistry. The project supports the growth of an oral health workforce that ensures all people have access to oral health care. Providing Rewarding Experiences in Dentistry (PRE-Dent) helps to provide qualified students the academic enrichment, encouragement, and support to prepare for careers in dentistry. Activities for advisors, students, and faculty occurred on both campuses including an advisors training workshop on IUSD educational programs and the admissions process, a Kick-off event at the Indianapolis and Lawrence campuses of Ivy Tech Community College, and regular meeting and webinars for the administrative team of the project. The program was funded in August 2012.
- National Science Foundation (NSF): Dr. Pamela Shaw, Associate Dean for Diversity, Equity, and Inclusion at IUSD serves as a Co-Principal Investigator on collaboration with Chicago State University and IUPUI to establish a NSF supported Louis Stoles Alliance for Minority Participation (LSAMP) Midwest Center of Excellence for Broadening Participation in Science, Technology, Engineering, and Mathematics (STEM). The Center of Excellence aspires to be the premier source of information and insight for underrepresented minority students at 28 Midwest institutions of higher education. The total budget for the project is \$2.5M over a five year period. Dr. Shaw served as the Statewide Director of the Indiana LSAMP from 2003-2011. The 5-year award was funded August 2012.
- Summer Programs: We worked with several student groups during the summer. They include the IUSD Dental Summer Undergraduate Research program and the Dental Summer Institute at IUSD and IU Northwest. Students in the Dental Summer Undergraduate Research Program work with Indiana University School of Dentistry faculty to complete research activities and learn more about dentistry. The IUSD Dental Summer Institute is a one-week residential program for high school students. It offers a variety of faculty presentations, workshops, and hands-on activities designed to motivate students to consider careers in dentistry. We also offer a one-day camp for students at IU Northwest. We also worked with several other summer student groups that include: Project 100, the Upward Bound program, IUPUI LSAMP, Crispus Attucks Medical Magnet High School, and the IU School of Medicine Brain Link and MASH programs.
- Community Engagement: Several activities in the Indianapolis area have become a routine part of our relationship building efforts with schools, churches, and community organizations. This includes: Indiana Black Expo, Indiana Latino Expo, Indiana Area Health Educational Center Boot Camp/Annual Meeting, and Jobs for American Graduates (JAG).
- Dow Promise: An application for program support and pipeline expansion was submitted to the Dow Chemical Company's Dow Promise program. The one-year award will help support pipeline building efforts with pre-college and undergraduate students. The award decision is still pending.

BEST PRACTICES

- The School of Dentistry is now in the process of reviewing the outcomes of the action plans developed in conjunction with the IUPUI Service with Distinction Program. Many positive outcomes have evolved and IUSD continues to receive very positive evaluations from our patients, faculty, staff and students. The latest survey did identify a few areas where new action plans needed to be developed. This continues to be a valuable and ongoing process.
- The School of Dentistry has now fully implemented intra oral and extra oral digital radiography into its' main campus facility. Depending on the clinic patient population and type of radiograph needed, IUSD utilizes either phosphor plates or digital sensors. The next step is to develop a plan to implement digital radiography in the IUSD satellite community dental clinics. This will result in greater efficiency and best practices in current dental radiographic technique.
- All IUSD students have had preclinical training in CAD CAM technology (E4D) and are now using it clinically for their patients. These Computer-Aided Design /Computer Aided Manufacturing units allow students the ability to scan in their patients tooth that is prepared for a crown and then design the crown on a computer. It is then milled from a ceramic block and placed in the patient's mouth. This state of the art technology improves efficiency by allowing the crown to be fabricated at the dental school and placed on the patients tooth in only a few days versus the usual two week time frame.

EXTERNAL AWARDS and APPOINTMENTS

- Omicron Kappa Upsilon, the field of dentistry's national honor society, gives two national awards for teaching excellence each year, and in 2013 IU School of Dentistry professors – **Jeffrey Platt**, Ralph W. Phillips Scholar in Dental Materials, and **Kelton Stewart**, assistant professor of orthodontics – received both of them:
<http://news.iupui.edu/releases/2013/03/Dental%20teaching%20awards.shtml>
- Former full-time IU preventive and community dentistry professor **Margherita Fontana**, now a University of Michigan professor and an IU adjunct professor, received a Presidential Early Career Award from President Obama during ceremonies at the White House. Fontana works with her IU colleagues on one component of her award-winning, National Institutes of Health-funded research that addresses inequities in tooth decay among preschool-aged U.S. children:
<http://newscenter.iupui.edu/5712/IU-School-of-Dentistry-Colleague-Receives-Presidential-Early-Career-Award>
- Periodontics professor **Steven Blanchard** received the 2012 American Academy of Periodontology Humanitarian Award for his ongoing dedication to serving populations in greatest need of oral health care, including his work as a volunteer dentist at Hamilton County's Trinity Free Clinic and his establishment of a service-learning program in Honduras for IU's dental students : <http://inside.iu.edu/spotlights-profiles/faculty-staff/2012-09-26-faculty-steven-blanchard-iupui.shtml>. Blanchard also received the Indiana Dental Association's Outstanding Faculty Award recognizing his entire body of work while at IU.
- Pediatric dentistry professor **Joan Kowolik** has been named chair of the Administrative Board of the American Dental Education Association Council of Sections. The council is composed of 38 Sections and 10 Special Interest Groups that represent major disciplines and various areas of interest in dental and allied dental education. Oral diagnosis professor **Cheryl Krushinski** chairs

ADEA's Oral Diagnosis and Oral Medicine section, and the following IU professors have assumed the duties of chair-elect: **Lorinda Coan**, Dental Hygiene Education section; **Carrie Klene**, Oral and Maxillofacial Surgery.

- Anesthesia/Hospital Dentistry section; **Kelton Stewart**, Orthodontics section; and **Elizabeth Ramos**, Career Development for the New Educator special interest group. In addition, **Pamella Shaw**, associate dean for Diversity, Equity, and Inclusion, was accepted into ADEA's year-long Leadership Institute in 2013, and will serve as the ADEA/Colgate-Palmolive Co./National Dental Association Dr. Jeanne C. Sinkford Scholar in that institute. Shaw is contributing to key IUPUI STEM and ADEA PIPELINE projects: <http://newscenter.iupui.edu/5754/Chicago-State-IUPUI-and-Argonne-get-25-million-for-regional-STEM-center-with-goal-of-increasing-minorities-in-science-career>; and <http://newscenter.iupui.edu/5800/IU-dental-school-receives-grant-to-increase-diversity-of-students-entering-dental-programs>.
- Oral biology professor **Laura Romito**'s leadership as an officer during the past four years of the American Dental Education Association's special interest group on Tobacco-Free Initiatives, and her contributions to the group's research of tobacco, were instrumental in ADEA's decision to transition the group to a full-fledged section in 2013 renamed Substance Abuse, Addiction, and Tobacco Dependence Education. "It has been largely through Dr. Romito's dedication to tobacco education that this was made possible," said IU's **Lorinda Coan**, who serves as the new section's secretary.
- Orthodontics professor **Ahmed Ghoneima** is one of 11 young professors in the U.S. and Canada to be chosen for an Orthodontic Faculty Development Fellowship Award from the American Association of Orthodontists Foundation. He received the Michael Matlof Memorial Teaching Fellowship Award for the proposal he submitted titled "Cone Beam Computed Tomography and Airway Analysis in Obstructive Sleep Apnea."
- **Vanchit John**, chair of Periodontics and Allied Dental Programs, was inducted as a fellow into the American College of Dentists. Also, he recently received a special citation from the International College of Dentists for his role as lead author of the article "Recruitment, Development, and Retention of Dental Faculty in a Changing Environment," published in the *Journal of Dental Education* during the previous academic year (2011).