

Indiana University School of Dentistry

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Highlights for 2013-14
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Introduction to the Indiana University School of Dentistry

As the only dental school in the Hoosier state, Indiana University School of Dentistry (IUSD) offers an extraordinary learning environment in which teaching, research, and community service come together in the best way possible for the preparation of tomorrow's dental professionals.

The school is located at the center of Indiana, and in the heart of the state capital of Indianapolis. It is situated at Indiana University-Purdue University Indianapolis (IUPUI), one of eight campuses in the IU system. IUPUI shares its location with the IU medical school and its partner, the IU Health academic health center. Many of the dental school's faculty members have established research and teaching collaborative ties with physicians and other scientists in the medical center facilities.

In fall 2013, the total dental school enrollment was 682 primarily consisting of DDS students (n=434) and other related academic program enrollments as shown below:

Certificate in Dental Assisting (29)
AS degree Dental Hygiene (80)
BS degree Public Health Dental Hygiene (15)
MS, PhD & Certificates in Specialty/Advanced Dentistry/Hospital Residency Programs (124)

Over eighty percent (80%) of the IUSD DDS graduates practice and serve the needs of the people of Indiana by remaining in Indiana throughout their profession careers.

The Success of our Students

IUSD students are extremely successful in persistence and graduation from each of the above mentioned academic programs. For example, the DDS graduating class of 2014 had 98% on time graduation in May 2014 with the remaining two DDS students scheduled to be completed by August 2014. Retention of enrolled students is equally successful as IUSD has minimal loss (<2%) of all enrolled students annually. Given the intense competition for admission particularly to the DDS program (14 DDS applicants to 1 admitted position), students come well prepared and are successful in on time completion of their respective programs.

- On time graduation rates (>98%) from all programs: DDS, allied and advanced/specialty programs annually within the standard program length.
- Local High School Engagement Pipeline: We have developed internships for students from several of the local high schools. Students spend 1-2 semesters at the dental school to learn more about the dental profession and how to prepare to enter the programs. The students come to IUSD weekly, completing a minimum of 100 hours of observation in our clinics and simulation laboratories. We continue to work with the students as they enter college. All past interns are currently in post-secondary programs with plans to enter a dental career. Schools that have participated in the internship program include:

- Key Learning High School
- Pike High School
- Crispus Attucks Medical Magnet High School
- Indianapolis Metropolitan High School
- Heron High School
- Plater Scholars 4 DDS students named as recipients for this campus-wide recognition.

Advances in Health and Life Sciences

The IU School of Dentistry is an integral part of the University Clinical Affairs (UCA) group headed by Dr. Jay Hess, dean of the school of medicine and vice president for health affairs (UCA). In addition to working with the CTSI, the dental school integrates several of its research and Life Services programs with the schools of medicine, public health and nursing.

- Interprofessional Education (IPE) Dr. Laura Romito (Oral Biology) serves as one of three co-directors of the Center for Interprofessional Education. A new IPE campus director has recently been named and will begin work fall 2014.
- [Dr. Marco Bottino](#) is Principal Investigator for an NIH K08 award titled: *A Novel Multilayered Membrane for Periodontal Regeneration* , \$143,105 YR1.
- [Dr. Tien-Min Gabriel Chu](#) is Principal Investigator for a DOD funded award titled: *Bone Healing Using Remipolstim and Thrombopoietin (TPO) Study*, \$ 389,944.
- [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*, \$153,225 YR3.
- [Dr. Domenick Zero](#) is Principal Investigator for the on-going Army Medical Research Material award titled: *Clinical Studies of Antiplatelet Chewing Gum*, \$1,330,384.
- [Dr. Esperanza Angeles Martinez Mier](#) is Principal Investigator for a HRSA award titled *Development of Regional Sealant Programs in Indiana* \$237,116 for YR2.
- [Dr. Gerardo Maupome](#) is Principal Investigator for an NIH R21 titled: *Influence of Community Networks on Oral Health/Behaviors among Hispanics* \$234,000 for YR2.
- The [Oral Health Research Institute](#) research faculty continue to receive numerous lucrative sponsored research industry awards, \$2,171,649 during the first three quarters of FY 13-14. [Dr. Domenick Zero](#) is Principal Investigator for one Unilever award for \$ 360,199 and one GSK award for 514,826 related to *In Situ* dental erosion and caries prevention clinical studies. [Dr. Anderson Hara](#) is the Principal Investigator on two GSK awards related to dental erosion and remineralization for a total of \$309,673. [Dr. Gossweiler](#) is Principal Investigator for one GSK awards related to clinical evaluation of denture adhesives and one GSK related to dry mouth clinical study for a total of \$240,041.
- 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.

Contributions to the Well-Being of the Citizens of Indianapolis, the State of Indiana, and Beyond

As the only dental school in the state, IUSD is extensively involved in serving the broader state-wide mission to enhance the well-being of Indiana citizens as well as those from Indianapolis and beyond.

Diversity

- **Community College Collaboration:** IU School of Dentistry (IUSD) has developed an ongoing partnership with Ivy Tech Community College of Central Indiana. Our goal is to enhance academic readiness and increase awareness of dental career opportunities for students. The relationship developed as part of a grant supported by the American Dental Education Association (ADEA) National Learning Institute Dental Pipeline Program in 2012. Since the inception of the program, the IUSD/Ivy Tech administrative team has developed several new strategies designed to increase diversity and access to oral health care. The program has helped both institutions learn more about their programs, identify minority pre-dental students, and implement supportive initiatives to prepare Ivy Tech students for careers in dentistry. Ivy Tech students participate in research projects with IUSD faculty, interact with IUSD students, and work with IUSD Diversity, Equity, and Inclusion staff to prepare to enter IUSD programs.
- **National Science Foundation (NSF):** Dr. Pamela Shaw, Associate Dean for Diversity, Equity, and Inclusion at IUSD serves as a Co-Principal Investigator on a project supported by the National Science Foundation. The Louis Stokes Alliance for Minority Participation (LSAMP) Midwest Center of Excellence (LSMCE) was established to help NSF in its efforts in Broadening Participation in Science, Technology, Engineering, and Mathematics (STEM). The Center of Excellence is a collaborative project between Chicago State University, IUPUI, and Argonne National Laboratories. We are positioning the center to serve as the premier source of information for underrepresented minority STEM students at 28 Midwest institutions of higher education. We have currently established relationships with several institutions and we are completing visits to several other Midwest campuses. The first LSMCE conference was held in Indianapolis last October when we were honored to have representatives from the national LSAMP community, several institutions in Indiana, and STEM students from across the nation. The second conference will be held in October in the Chicago area.
- **Summer Programs:** We work with several student groups during the summer. They include the IUSD Dental Summer Undergraduate Research program, IUPUI Upward Bound Program, Project SEED, IU School of Medicine Brain Link/MASH and the Ivy Tech Bridges-to-the Baccalaureate Program. Students in the programs complete research projects or work with IUSD faculty and staff in areas related to research and/or dental administration. This has been an excellent opportunity for students to learn more about dentistry. We offer students a variety

of activities including faculty presentations, workshops, and hands-on activities that are designed to motivate them to consider careers in dentistry.

- 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 Meetings, and Jobs for American Graduates (JAG). We continue to identify opportunities where we can reach new students.

CIVIC ENGAGEMENT 2013-14: Indiana University School of Dentistry

- Seal Indiana, IUSD's on-site dental sealant program for children from low-income families completed its 11th year and provided preventive services for 1,710 children at 111 sites in Indiana. Since the program's inception 27,522 children have been served.
- In order to help preserve healthy dentitions for children, IUSD provides the School Fluoride Rinse Program for 50 elementary schools throughout Indiana and 8,615 children whose parents consent to the weekly fluoride rinse program receive this preventive treatment.
- Because dentists are more plentiful in urban areas of Indiana, rural Head Start programs often find it difficult to obtain dental examinations and preventive services as required by Federal Performance Standards. IUSD provided 17 site visits for 14 Head Start programs to fulfill their program requirements.
- IUSD provides affordable access to dental services for residents of the Indianapolis area. Reasonable fees, rapid availability of clinical services enabled 24,480 individuals to have 98,429 dental visits at the IUSD building on West Michigan Street and its affiliated clinics. Of these patients 3,956 were enrolled in Medicaid or Hoosier Healthwise.
- IUSD Kids Club and Students United for America's Toothfairy (SUAT) provided series of four educational presentations at four schools for 95 children. Nineteen community-based events were sites for screening and or oral health education for 1,714 children.
- The Dental Student Outreach Clinic (SOC) serves the near Eastside neighborhood and people who are homeless by providing comprehensive clinical services at People's Health and Dental Center two Saturdays per month. In 2013-24, SOC was open for 22 sessions and provided more than 440 patient visits. Faculty volunteered 176 hours and students volunteered 1,760 hours which resulted in providing almost 450 patient visits. The IUSD Dental SOC is a member of the interprofessional SOC which received the 2013 Governor's Award for Service-Learning at a ceremony in the Rotunda of the Indiana State House.
- The IUSD mobile dental clinic was used to provide dental screening at the annual Pour House Overflow event for people who are homeless. Overflow is an annual pre-winter community event held to meet practical needs of those experiencing homelessness. Blankets and coats were distributed to 750 people in addition to medical and dental screening.
- Working on the premise that people applying for a job in the public eye are at a disadvantage if they are missing front teeth, IUSD launched a program to improve economic development by

improving employability in the near Eastside. With funding from the IUPUI Solution Center, an interprofessional team of students from dentistry, public health and philanthropy identified adult candidates from the near Eastside who were missing front teeth and looking for employment. To date 12 residents of the area have been treated at IUSD, have improved their appearance by obtaining teeth and have attended job training at the Boner Community Health Center. Their success at becoming and staying employed is being tracked.

- A program, similar to Healthy Smiles for Employability, was initiated to improve employability of military veterans who are homeless. A partnership was formed with Hoosier Veterans' Assistance Foundation (HVAF) and funding was secured from the American Dental Education Association, Delta Dental Foundation and the Solution Center. A committee of dental students and faculty screen and identify eligible candidates by specific criteria. To date eighteen veterans are having teeth replaced for the purpose of improving their appearance and overall health. They are participating in job training at the Boner Community Center with the goal of sustained employment resulting in independence and self-esteem.
- IUSD dental assisting students assisted with treatment at Trinity Free Clinic on 36 days. <http://www.trinityfreeclinic.org/>
- Twenty-three dental students and seven faculty members traveled to six countries for international service-learning. Participants worked in Ecuador, Guatemala, Haiti, Kenya, Mexico and Vietnam.
- The two top academic dental students from Moi University School of Dentistry were hosted as exchange students at IUSD for six weeks. Each week they accompanied one or more of the students who have spent three weeks in Eldoret, Kenya at Moi University as international service-learning participants.
- During Indiana Black Expo 230 adult attendees received dental screening. Marion County Health Department in cooperation with IUSD provided screening for additional child participants.
- The Community Dental Clinic of LaGrange County hosts three dental students each month to provide clinical dental services for children of the Amish community, many of whom do not yet speak English. One dental student served a three-week externship at the "Amish Clinic".