

Indiana University School of Dentistry **dentistry.iu.edu**

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 merge in concert to prepare tomorrow's dental professionals.

Located at the center of the IUPUI health sciences campus, many of the dental school's faculty members have established research and teaching collaborative relationships with physicians and other scientists in the IU Medical Center. We are engaged with populations in need across the city, state and globe to render oral health care by students trained by world-class faculty.

The Success of Our Students

IUSD students are extremely successful in persistence and graduation from each of the school's academic programs. For example:

- The Doctor of Dental Surgery (DDS) graduating class of 2015 achieved a 97% on time graduation rate.
- More than 80 percent of the IUSD DDS graduates practice and serve the oral health care needs of Hoosiers by remaining in Indiana throughout their professional careers. Many work at safety net clinics to treat underserved communities and receive tuition loan repayment. For example, 2014 DDS graduate Gabrielle Johnson now directs a dental clinic for the Amish population in Shippshewana, Ind.

Increase Capacity for Graduate and Graduate Professional Education

- IUSD enrollment is in high demand. In 2014, the school received more than 1,431 applications for 104 spots in the DDS class of 2018.
- In August 2015, the School of Dentistry anticipates IU Board of Trustees' approval to begin planning a 45,000-square-foot building addition to construct state-of-the-art clinical facilities. The additional space will increase our capacity and make IUSD one of the most technologically current dental schools for the 21st century.

Optimize our Enrollment Management

- In 2015, IUSD graduated the first cohort of 22 International Dental Program (IDP) students, who are previous graduates of foreign dental programs and wish to earn a DDS degree so they may practice in the United States. The class of 2015 had 157 applicants for 22 positions, and represented Pakistan, India, Burma, Egypt, Ukraine, Iran, Iraq, Nepal and the Philippines. The 2015 graduating IDP students achieved a 100 percent on-time graduation rate. With great humility and gratitude, the IDP students prepared an international feast of thanks for IUSD faculty, serving delicacies from their home countries.

- **Engaging Underrepresented Applicants**

The IUSD Office of Diversity, Equity & Inclusion has developed a number of community partnerships to encourage minority high school and undergraduate students to consider dental school. For example, the Community College Collaboration exposes Ivy Tech students to careers in dentistry. The P-20 Engagement program provides dental school visits and internships for high school students to prepare them for the rigors of dental school. Two past P-20 interns applied for admission to the DDS program in 2015, and all other participants are enrolled in college. We provide robust summer offerings for high school and undergraduate students, including: IUSD Dental Summer Undergraduate Research program; IUPUI Upward Bound Program; Project SEED; IU School of Medicine Brain Link/MASH; and Ivy Tech Bridges-to-the Baccalaureate Program.

- **Student Award Recipients**

- IUSD faculty have long been leaders in the American Dental Education Association (ADEA). In March our students emerged as leaders of the student group. Indeed, Tim Treat (DDS 2016 class president) was named national chair of the ADEA Council of Students, Residents, and Fellows, and IUSD's ADEA Student Chapter also received the Most Improved Chapter Award.
- We are also immensely proud of our student researchers. The 2015 American Association for Dental Research (AADR) and International Association of Dental Research (IADR) awarded:
 - Josh Evans (DDS' 16): AADR Student Research Fellowship and Second Place Clinical Dentsply Award. Evans is also spending his summer in Washington, DC, as the Gert Quigley Public Policy Fellow, which educates dental students interested in research on the federal legislative process.
 - Stuart Ryan: First Place, Basic Science Dentsply Award
 - Eliseu Munchow: International Association of Dental Research Heraeus Kulzer Travel Award
 - Sabrina Feitosa: IADR Toshio Nakao Fellowship, which is awarded internationally once every two years.
- 2015 Chancellor's Scholars Award – Laila Al Dehailan (PhD' 15)
- 2015 Inaugural Elite 50 Awards – Michael Daetwyler (DDS Candidate' 16), Allison Scully (DDS' 15), Lauren Mummert (Pediatrics' 15)
- 2015-16 University Fellowship – Yue Wang (DDS/PhD combined degree candidate)

Advances in Health and Life Sciences

The IU School of Dentistry is an integral member of the University Clinical Affairs group headed by Dr. Jay Hess, dean of the School of Medicine and vice president for health affairs. In addition to working with the Indiana Clinical and Translational Sciences Institute, the dental school integrates several of its research and life sciences programs with the schools of medicine, public health and nursing.

Highlights of our interprofessional research program:

- IUSD faculty published 174 peer-reviewed publications in 2014.
- In January 2015, the U.S. Patent Office granted a patent to IUSD research scientist Mythily Srinivasan, BDS, MDS, PhD, for identifying a peptide that reduces inflammation in people with multiple sclerosis, without many of the side effects of existing drugs. This anti-inflammatory agent may also transfer to other diseases, such as periodontitis, arthritis, diabetes, Alzheimer's and Parkinson's. This is Dr. Srinivasan's second patent in the field of immunomodulatory therapeutics, which are substances that help regulate the immune system.
- The Oral Health Research Institute has served as the University's core research facility for oral health care. The Oral Health Research Institute investigators continue to receive numerous industry-sponsored research awards, which totaled \$2,782,392 during FY 14-15. Their research focuses on prevention of dental caries and biofilm (plaque) prevention, dental erosion and remineralization, and evaluation of dental adhesives
- Dr. Marco Bottino is principal investigator for a coveted NIH K08 award, *A Novel Multilayered Membrane for Periodontal Regeneration*, a study to create novel biomaterials that regenerate tissue destroyed by periodontitis and translate these materials to clinical practice.
- Dr. Angela Bruzzaniti is co-principal investigator with Dr. Melissa Kacena, *Orthopedic Surgery* on an NIH R01 grant entitled *Regulation of Osteoblast Function by Megakaryocytes Key Signaling Proteins*, \$157,150 YR4.
- Dr. Esperanza Angeles Martinez Mier is principal investigator for a HRSA award titled *Development of Regional Sealant Programs in Indiana*, \$119,437 for YR3.

Contributions to the Wellbeing of the Citizens of Indianapolis, the State of Indiana, and Beyond

IUSD students and faculty collaborate with local, state, national and international agencies and organizations to meet community-identified needs related to access to dental care and oral health.

Deepen our Commitment to Community Engagement

- In 2014, students and faculty provided comprehensive clinical dental services for 9,073 Indianapolis area residents at the IUSD clinics during 33,924 appointments. These services promote oral health for underserved populations by providing dental services at approximately half of the usual and customary fees encountered in private practices. <https://www.dentistry.iu.edu/index.php/patient-services/>
- Students and faculty partnered with HealthNet's Peoples Health and Dental Center to serve uninsured, low-income adult residents of Indianapolis' near eastside. Comprehensive dental services were provided, at no cost, during 21 Saturday clinic

sessions: 176 individuals were served in 420 encounters during 21 sessions. The value of services provided based on Medicaid fees was more than \$75,000. This program exists in cooperation with IU School of Medicine's interdisciplinary Student Outreach Clinic. <https://www.dentistry.iu.edu/index.php/departments/office-civic-engagement/student-outreach-clinic> <http://soc.medicine.iu.edu/>

- The Seal Indiana Program, now in its 11th year, provided oral health services at 61 Title I schools, summer camps and homeless shelters within 150 miles of Indianapolis. In 2014-2015, more than 200 dental and dental hygiene students examined 1,871 children, 890 of whom received 3,190 dental sealants. https://www.dentistry.iu.edu/sealindiana_site/
- Two new dental care programs for low-income military veterans have served more than 70 veterans. These programs are conducted in cooperation with Hoosier Veterans' Assistance Foundation (HVAF), Job Ready Vets and the Roudebush VA Hospital. One program, for those who are seeking employment and are missing front teeth, provides free comprehensive dental services and incorporates job training and an ongoing job coach. Additional funding has been secured to begin a similar program at IUSD for individuals who have lost one or more front teeth as a result of domestic violence. A second program for low-income military veterans provides a comprehensive treatment plan including all needed services for a flat fee of \$299. <<http://www.hvafofindiana.org/>> <<http://www.ojrv.org/>> <<http://www.indianapolis.va.gov/>>
- Indiana Special Olympics State Games, held in June in Terre Haute, enabled IUSD students and faculty to provide dental screening, consultation, referral information and athletic mouth guards for 253 of its Special Olympics athletes. <http://soindiana.org/programs/summer-games-2015/>
- In April 2015, 50 IUSD students and faculty volunteered at the inaugural two-day Indiana Mission of Mercy program at the Indiana State Fairgrounds, sponsored by the Indiana Dental Association. Two thousand Indiana residents received free dental treatment in a clinical setting with 200 portable dental chairs and hundreds of dental volunteers. <http://indianamom.org/>
- This summer, 91 fourth-year dental students are involved in two-week externships in nine Indiana dental safety net clinics. The Medicaid value of the services rendered, when completed in August 2015, will exceed \$240,000 and will be income generated for these not-for-profit community dental clinics. <<http://www.northshorehealth.org/>> <<http://healthlincchc.org/>>
- IUSD partnered with Jane Pauley Community Health Center Dental Clinic on Indianapolis's eastside to employ two general dentists who are IUSD adjunct professors, giving more than 100 final year dental students the opportunity to provide dental care in this safety-net clinic. The Walker Career Center has its high school dental assistants work chair-side along the dental students. In 2014 the Jane Pauley Community Health Center Dental Clinic provided much needed dental care to more than 1,400 patients. In February

2015 the partnership received the State of Indiana Award for Excellence
https://www.dentistry.iu.edu/files/5413/7235/7132/IUSD-AB-2013_24-1.pdf

Strengthen Internationalization Efforts

In 2012, IUSD formally subscribed to President McRobbie's call to enhance our efforts in the area of globalization by appointing Dr. Michael Kowolik, at that time Associate Dean for Graduate Education, as Associate Dean for Global Engagement (10% FTE). Working together with the Office of International Affairs, there have been two years of accumulating information about the disposition of international graduate alumni, investigating the potential for engaging in current high-priority collaborative projects, and identifying new opportunities for fruitful global developments. A key element in the coming year will be the publication of a strategic plan for the global engagement of IUSD in the context of the IUPUI and IU Strategic Plans.

In the past year, some of the key projects have been:

- Creating a framework for establishing a PhD program at King Saud University in Riyadh, Saudi Arabia.
- Further developing our collaborative relationship among IUSD, IUSM and the Japan Implant Practice organization. We marked the 5th anniversary of this collaboration in June 2015.
- Initiating a dialogue with Tehran University of Medical Sciences in Iran, with a view to exploring the potential for collaboration.
- Reviewing our joint and collaborative relationships in Mexico.

Highlights of our student international engagement:

- International Service Learning (ISL), in which 40 IUSD students accompanied by faculty journeyed to Ecuador, Haiti, Guatemala, and Mexico to render dental care to communities in need in 2015. Since 2010, between 21-41 percent of each graduating class has participated in one or more ISL experiences. In 2015, an Indian reservation dental clinic in North Dakota was added to the roster as an intercultural experience. https://www.dentistry.iu.edu/isl_site/
- IUSD sponsored two dental students from Moi University for a five-week exchange student program. They were hosted by IUSD dental students who studied at Moi University for three weeks in previous years. <http://www.ampathkenya.org/our-programs/clinical-public-health-services/dentistry/>

Develop Faculty and Staff

IUSD is committed to recruiting, retaining and developing the best faculty and staff in order to fulfill its mission. The Office of Faculty Affairs, under the direction of Professor Gail Williamson, is dedicated to assisting chairs, the Executive Associate Dean and the Dean in all stages of that process. FY 2014/15 was a record year for recruiting new faculty, with more than a dozen hires, and for the number of faculty achieving either promotion or tenure, or both – 8 in total.