

Brighton's Hunter Watson is Research Winner on SIU SDM Research Day

by Megan Weiser
April 11 2019 10:39 AM



EDWARDSVILLE - The Southern Illinois University School of Dental Medicine (SIU SDM) demonstrated its commitment to student and faculty research during its 2019

Research Day program held Tuesday, April 9. The event annually highlights the important role research plays in the daily practice and continual advancement of the dynamic profession of dentistry.

Guest speaker Susan W. Herring, PhD, professor of orthodontics and oral health sciences at the University of Washington School of Dentistry, offered engaging presentations on the topic of Craniofacial Growth and on Botox in Jaw Muscles. She explained what research has shown to be a benefit of botulinum toxin (Botox) injections and one of the potential side effects of the treatment, namely, bone loss.

Following Herring's presentation, an award was presented to the winner of the Student Table Clinic Competition. Joel Pluymert with Dentsply Sirona presented the first-place award to second-year student Hunter Watson, of Brighton.

Watson's research with faculty mentor Kevin Rowland, PhD, sought to expand the lab's work on a pain model for dentistry.

"We used tooth extractions to study how the running behaviors of mice changed based on pain levels," Watson explained. "Our results were mixed, as pain is challenging to study. We learned a lot though, and have already applied for new grants and made plans for how we can build on this study in future research."

Dentsply Sirona's sponsorship of the first-place award provides Watson the opportunity to present his work at the annual American Association for Dental Research (AADR) meeting in Washington, D.C. in March 2020.

"At the SIU SDM, the faculty strive to teach students the importance of providing patient-centered dental care based on the most current scientific knowledge," Joy said. "Working with faculty mentors on research, as well as on other projects in the classroom or clinic, allows our students to begin building a foundation for evidence-based clinical practice. As always, I am incredibly proud of all our student researchers. Their commitment to working towards excellence was evident in each of their presentations."

The ASDA People's Choice Award and other student awards will be announced at the SDM Research Luncheon on Tuesday, April 30.

Other student research projects included topics such as salivary gland cancer, microleakage associated with composite restorations, and the effects of electronic cigarette liquid on oral cells and squamous cell carcinoma.

"It's been a powerful experience for me to have participated in electronic cigarette research that's on the forefront of scholarly work on the topic," said Alex Funk, a

second-year student from Peoria. He worked alongside faculty mentors Joy and Barbara McCracken, PhD, who served as the principal investigator. “A lot of companies are making claims in their advertisements for electronic cigarettes. It’s been impactful to be a part of this research that is bringing to light real, evidence-based data.”

“I’m always interested in advancing my learning, and this project has allowed that opportunity,” added second-year student Janice Choo, of Champaign. Her faculty mentors were Christa Hopp, DMD, and Morgan Emery, DMD. “This has pushed me beyond textbook learning, and taught me to apply my knowledge by conducting hands-on research.”

“The students’ projects were excellent,” said Herring. “These are engaged students who know what they’re doing and are giving interesting explanations of their work. I’m impressed by the quality of students at the SIU School of Dental Medicine. I appreciate that Research Day is such an important event here.”

“Our profession is constantly improving treatment alternatives and introducing new and better options,” said SIU SDM Dean Bruce Rotter, DMD. “The dental practitioner must often make choices regarding which are the best procedures and materials to treat their patients. Research forms the basis for these decisions. At the SIU SDM, we want students to have a functional understanding of basic and translational research so they have the ability to make informed decisions as practitioners.”

“Botox is regularly used for cosmetic and therapeutic purposes, as it causes muscle paralysis,” Herring explained. “My presentation focused on the masseter muscle that is one of the main muscles of mastication (chewing). My experiments have considered what happens to chewing and on the inside of the muscles and bones following botulinum toxin (Botox) injections.”

“In terms of function, Botox is OK, as it can reduce spasms, cause muscle atrophy - if that’s what you’re trying to achieve, damage to chewing is minimal and muscle activity recovers,” she added. “But, if you’re considering giving Botox to a patient, you need to tell them about what’s going on inside, especially with regard to the bone of the mandible. It is quite clear that the underloading of muscles as a result of Botox can cause bone loss.”

“This year’s keynote topic highlights the reason why understanding and/or performing research and using an evidence-based approach to clinical care is so important,” said Anita Joy, BDS, PhD, associate professor and director of the SIU SDM Office of Research. “The popularity of a treatment or product should not be the only reason why

clinicians adopt those therapies in their own practices. Rather, informed decisions that are rooted in evidence can help avoid complications, as well as ensure optimal results and patient satisfaction.”

The SIU School of Dental Medicine students manage approximately 35,000 patient visits each year at its patient clinics in Alton and East St. Louis. In addition, students offer oral health treatment, screenings and education to more than 10,000 people annually through a wide variety of off-campus community outreach events. These opportunities provide students the training they need to graduate and become highly skilled dentists. The School of Dental Medicine is a vital oral health care provider for residents of southern and central Illinois, and the St. Louis metropolitan region.