

# WITH HONORS

Students with the interest, motivation, and required academic achievement can earn their DMD degree with honors. The competitive honors program is designed to enable students develop the skills to leverage their leadership potential in the areas of research, clinical dentistry, community health, and dentistry for the medically complex (oral medicine).

PENN DENTAL MEDICINE HONORS  
DEGREE PROGRAM OFFERS STUDENTS  
VALUABLE EXPERIENCES TREATING  
PATIENTS, DOING RESEARCH,  
SERVING THE COMMUNITY

MOST WEDNESDAY afternoons, Kari Hexem (D'15) takes the subway from Penn Dental Medicine's West Philadelphia campus to 13th and Locust streets, where she spends the next four hours helping to provide dental care to HIV/AIDS patients. Katharine Woehling (D'14) has had the opportunity to work on advanced clinical cases this year, while the research Jae Yeon Jang (D'14) did on a bacterium associated with periodontitis was published in a professional journal.

These three students have gained valuable experiences in patient care and research through Penn Dental Medicine's honors program. Since it was established in October 2010 with options in community health, clinical, and research honors, about 200 students demonstrating interest, motivation, and academic achievement have participated in the

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— DR. KATHLEEN BOESZE-BATTAGLIA

program, says Dr. Kathleen Boesze-Battaglia, Professor, Department of Biochemistry, and director of the honors program, as well as the research honors program.

This year, a fourth honors program in oral medicine, focusing on dentistry for the medically complex patient, was added as an option, and 12 students are currently in the program, according to Dr. Arthur Kuperstein, Assistant Professor of Oral Medicine and director of the new honors program.

“The honors program is important for several reasons,” says Dr. Boesze-Battaglia. “At Penn Dental Medicine, we pride ourselves not only on providing an excellent education, but on providing opportunities for students to pursue their passions. This program enhances the student experience by providing them a strong foundation for future specialties, as well as providing us an excellent opportunity to recruit a diverse student body as it relates to healthcare goals.”

For instance, she notes that more than half the students in the research honors program have published research papers, and many have won travel awards and presented posters to the International and American Associations for Dental Research. Students in community health honors, with Director of Community Oral Health and Associate Dean for Academic Policies Joan Gluch as director, spend 120 hours in a variety of community health settings and also can propose a site of their choosing. Fourth-year students in clinical honors work on advanced procedures in the William W.M. Cheung Advanced Dental Care Clinic.

The new program in oral medicine, dentistry for the medically complex, gives students the opportunity to work with medically complex patients—those impacted by a range of diseases and required medications—and participate in the professional dialogue and collaboration with all healthcare providers to better care for these patients, says Dr. Thomas Sollecito, Chair and Professor of Oral Medicine.

Roma Ghandi (D'14) one of the first students in oral medicine honors, says it “allows me to be exposed to very ill patients and, as a result, train to monitor and evaluate changes in patients' health and medications. By working closely with faculty and residents, I am able to develop specific treatment plans to fit the needs of patients based on their medical histories.”

200 students  
have participated in the honors  
program since established in 2010

In the future, there could be up to 20 students in the oral medicine honors program, says Dr. Boesze-Battaglia. About 30 students participate annually in the community health honors program and up to 10 are selected for research honors. While the clinical honors program has had as many as 40 students annually, the number will be limited to 20 students starting next year.

Dr. Jeffrey Ingber, Clinical Professor of Restorative Dentistry and new director of the clinical honors program, hopes to utilize social media, blogs, and other technologies to enhance communication between students and faculty on such issues as patient care, learning experiences, and scheduling logistics. With fewer students working on sophisticated cases involving implants and other treatments and a focus on conceptual learning, Dr. Ingber envisions the clinical honors program as a “laboratory for educational innovation.”

For student Kari Hexem, the experience in community health honors has been so positive that she is considering applying for the new medically complex oral medicine honors program, through which she could continue to work with HIV/AIDS patients. The honors program, she says, “is enriching what we are exposed to.”

## PROVIDING CARE FOR HIV/AIDS PATIENTS

COMMUNITY HEALTH HONORS PROGRAM:  
KARI HEXEM (D'15)



FOR KARI HEXEM (D'15), applying to the honors program in community health last year was a natural fit. She had been volunteering with Philadelphia FIGHT, the city's largest provider of comprehensive care for people with HIV/AIDS, as an intern with Penn's Bridging the Gaps program, which focuses on community healthcare. Hexem wanted to continue to work with the agency and hoped the honors program would provide an institutional framework and support for her to do so.

This year, under the auspices of the community health honors program, Hexem and two other honors students, fellow third-year Jonathan Vo and fourth-year Tyler Smith, have helped initiate a new dental care program at Philadelphia FIGHT, where they see up to seven patients on a typical Wednesday

afternoon. Hexem helped write a grant proposal that provided the organization with portable dental equipment and supplies to support their work.

"We do screenings, look inside their mouths, talk about any complaints, provide information, rate their dental anxiety," Hexem explains. "If they need care, we try to connect them with the appropriate clinic" at Penn Dental Medicine.

For Hexem, the motivation is clear: helping to provide dental care to a population that is underserved and at risk of serious complications because of their compromised immune systems. But the benefit to her is equally clear. "Dental school is very overwhelming," she says. "Having these four hours set aside every week has been an incredible blessing. It provides a counterbalance to more didactic learning and allows me to focus on something I feel really committed to."

Philadelphia FIGHT is one of several organizations served by community honors students; others include healthcare clinics at Homeless Health Initiative, Puentes de Salud clinic in South Philadelphia, and Sayre Health Center in West Philadelphia.

At FIGHT, the Penn Dental Medicine honors students often deal with a wide range of issues that impact their patients. "We're learning how to appropriately interact with and triage a patient population with complex needs," says Hexem, who plans to work in community health dental care.

The honors program provides "a tremendous opportunity to give students more support in learning about community health endeavors," she says. "Now, when I think about community health dentistry, I have a clear vision of what this could look like, both the frustrations and the rewards."



## SEEKING CHALLENGING CASES

CLINICAL HONORS PROGRAM:  
KATHARINE WOEHLING (D'14)

KATHARINE WOEHLING (D'14) applied to the clinical honors program for her senior year because she wanted “to expand my clinical knowledge and be introduced to more challenging dental procedures.”

And challenge is what she got, working with faculty on such procedures as restoring implants and other complex treatments. “I’ve been introduced to new techniques, new equipment, and dental materials that I otherwise may not have been exposed to in dental school, and for this I’m very grateful,” Woehling says. “I learned new techniques for sculpting and staining composite resin restorations to enhance my restorative dentistry skills.” She also learned to use the Lava intraoral scanner to fabricate impressions digitally.

In addition to gaining experience working on tough cases and with new materials and tools, Woehling applied to the honors program because she “wanted to be exposed to the teaching styles of many clinical faculty members to learn how to treatment plan from different perspectives.”

Woehling says her honors experience has been a valuable bridge between dental school and private practice, helping her develop the skills to formulate more comprehensive treatment plans and observe how faculty members interact with patients to explain procedures and treatment plans. “Communicating with patients is one of the most important parts of dentistry, and I know I will incorporate the skills I learned in honors clinic into my future practice,” she says.

The honors program has provided Woehling with other benefits as well. “I’ve learned to be a more organized and efficient dental professional,” she explains. “The

program has helped me to become more independent, while being guided by talented faculty. The collaborative environment educates students through a team approach, and because of this I have learned so much from my peers.”



## INVESTIGATING BACTERIA INVOLVED IN PERIODONTAL DISEASE

RESEARCH HONORS PROGRAM:  
JAE YEON JANG (D'14)

AS A RESEARCH HONORS STUDENT, JAE YEON JANG (D'14) collaborated with Penn Dental Medicine faculty on a study of a protein, cytolethal distending toxin (CDT), which is produced by a bacterium associated with some forms of periodontitis.

"I was involved in creating various mutations on CDT toxins in an attempt to identify structural and functional motifs," Jang says. "I was also localizing various subunits of CDT during its intoxication process using fluorescence tags and observing them under the confocal microscope."

The findings were published May 2012 in the journal *Infection and Immunity* of the American Society for Microbiology. For the research honors program, Jang worked under the tutelage of Dr. Joseph DiRienzo,

Professor, Department of Microbiology, who was a co-author of the study along with several other Penn Dental Medicine faculty members.

Jang said his work on the project was not just about learning what CDT does, but also about putting scientific concepts into practice. "You really gain a lot of experience in vast areas of research techniques that are commonly used," he says. "And these experiences will be very useful if I decide to participate in further research during my specialty training."

Jang was interested in participating in the research honors program because he "believes strongly that research is what connects basic science to real life." As an undergraduate at the University of Wisconsin-Madison, he worked on research projects for three years and was pleased to be able to continue to do so at Penn Dental Medicine.

"We learn so many basic science concepts through lectures and reading textbooks," Jang says. "But we have limited opportunities to use what we learn in basic science classes in real life. The research honors program gave me that opportunity. I was actually at the frontier of the specific subject that I researched."

Although he plans to go into practice after graduation, he is not ruling out the possibility of doing research in the future. Meanwhile, he's pleased to have had the experience to immerse himself in a research project with Penn Dental Medicine faculty. "I believe offering this type of research opportunity for students is what distinguishes Penn from other dental schools," Jang says. ■

—By Debbie Goldberg