

Source: Journal of Dental Hygiene, Vol. 81, No. 2, April 2007

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## **Dental Hygiene Research Center Old Dominion University**

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On October 3, 2006, Gov Timothy Kaine joined Old Dominion University President Roseann Runte and Dean Andrew Balas for a ribbon cutting ceremony to mark the grand opening of the Dental Hygiene Research Center (DHRC) and the newly renovated Health Sciences Building. Gayle McCombs, director of the DHRC, was on hand to welcome the governor and share the significance of the Center. The DHRC, established in 2000, is the first facility dedicated solely to dental hygiene research, located within a dental hygiene program.

The \$9.3 million, 2-story facility allowed the consolidation of the College of Health Sciences into one building. More than 1800 students are enrolled in the college's programs in dental hygiene, nursing, physical therapy, environmental health, nuclear medicine, cytotechnology, community and public health and medical technology. The 80 000 sq ft building now features the DHRC, laboratories, classrooms, and a 30-station dental hygiene clinic. In addition, the building hosts a hospital ward, assessment and motion analysis labs, human diagnostic research center, and fully mediated classrooms and labs.

The DHRC, a stand alone facility housed adjacent to the Dental Hygiene Care Facility, provides designated clinical and laboratory space whereby faculty and students can conduct clinical and laboratory research. Typically, research is centered around the development of safe, effective measures to prevent and treat common oral conditions; expand knowledge of occupational risk assessment and ergonomic issues related to the practice of dental hygiene and other healthcare professionals; support claims related to dental techniques, products, and devices; and explore the relationship between oral and systemic health. The Center is dedicated to conducting quality, clinical, and population-based research to explore diagnosis, pathogenesis, and treatment of conditions that are related to overall health in order to advance oral and general health through inter- and multidisciplinary research in collaboration with academic institutions, medical facilities, private industry, and the community. The DHRC represents a dental hygiene research paradigm, unique for undergraduate and graduate education because currently no other dental hygiene program maintains such a facility.

Research is an integral and essential component of the School of Dental Hygiene's educational mission whereby students experience the link between theory and practice. The faculty believe that, broadly defined, research is one of the most valuable parts of the education experience, which helps build a foundation for students' life long learning. Students and faculty work together to create new knowledge through discovery, and disseminate research findings through scholarly publications and presentations. The faculty strongly believe that mentoring and experiential learning are important educational tools. This complementary relationship has the ability to bring together real life experience and learning. Through the mentoring process, faculty help move students through the rigors of the curriculum while fostering research experiences.

The program has initiated several strategies to increase research activity. For example, undergraduate students who are interested in graduate school are identified early in the program so they can be linked with a faculty mentor who will help guide them through the educational process. Faculty help students choose a topic, design and implement a research project, and facilitate the scholarly dissemination of findings. All students are enrolled in a research course, which is one of the core courses in the accelerated BSDH to MSDH curriculum, during the fall of their senior year. Accelerated courses allow

undergraduate students to enroll in a course for graduate credit that can be applied to requirements for both BSDH and MSDH programs. If students are interested in the graduate program, they are encouraged to develop an undergraduate research proposal, which will become their thesis or non-thesis project during graduate school. Students enrolled as a graduate student, will be mentored in a similar manner and most likely will become involved in a current line of research.

To support the mission of the DHRC, faculty prepare dental hygienists for leadership roles in health care, research, education, and industry through an innovative curricula leading to baccalaureate (entry-level and degree completion) and master's degrees. The sense of excitement and accomplishment that students feel as they move through the program is obvious.

Currently there are several projects underway looking at toothwhitening:

Vital Tooth Whitening Effects on Tooth Color Satisfaction, Self-Perceived Dentofacial Appearance, and Self-Esteem

Vital Tooth Whitening Effects on Dental-Health Related Quality of Life in Older Adults

Effects of Over-the-Counter Tooth Whitening on Oral Health Interests and Values

Exploring the Relationship Between Tooth Whitening and Obsessive Compulsive Behavior

Selected other research activities include:

In Vitro Comparative Evaluation of the Traditional Rotating Disposable Prophylaxis Angle with the Newly Designed Reciprocating Disposable Prophylaxis Angle on Extrinsic Stain Removal

Effects of Five Different Finger Rest Positions on Arm Muscle Activity During Hand Scaling by Dental hygiene Students

Concentration of Bisphenol A in Blood After Placement of Dental Sealants

Bacterial Effects of Cold Plasma Technology on *Geobacillus Stearothermophilus* and *Bacillus Cereus* Microorganisms

ADHA's commitment to providing funding for so many student and faculty research projects over the years has helped expand the research body of knowledge in dental hygiene and allowed for growth of the Center.

For More information visit the Dental Hygiene Research Center webpage at: <http://www.odu.edu/dental>