



Community Engagement

HKU Faculty of Dentistry enhances science education for 11 secondary schools

12 & 19 May 2012

A team from the HKU Faculty of Dentistry held two interactive science workshops at the Prince Philip Dental Hospital this May for 9 science teachers and 72 students from a total of 11 local secondary schools. By incorporating real-life content related to oral health, the team helped the school students learn about science, while also training their teachers.

The two 3-hour workshops included mini-lectures, small-group discussions using problem-based learning techniques, practical demonstrations, and hands-on exercises to teach aspects of biological science, with all the teaching materials focused on oral and dental health.



By referring to real examples taken from dentistry that students could relate to, instead of traditional science textbook examples, the team was able to vividly explain concepts such as bacteria in tooth plaque, biofilms (surface-attached communities of bacteria), acidity of saliva and popular drinks, and hence the scientific basis of tooth decay and gum disease. More than 95% of students rated the workshops as “very good” or “excellent”, and more than 90% of teachers said they intended to use the science teaching packs at their schools.

“Using real dental examples was a handy, practical, and fun way for the students to learn science concepts, and, as a by-product, this project also promoted interest in oral health,” says Dr C Jaya Seneviratne (Research Assistant Professor in Oral Biosciences), who coordinated the project with Prof Edward CM Lo (Clinical Professor in Dental Public Health). The other team members were Prof Lakshman Samaranayake (Chair Professor of Oral Microbiology), Dr Xiao-li Gao (Research Assistant Professor in Dental Public Health), Dr Susan Bridges (Assistant Professor in Dental Education and E-Learning), and Prof Li-jian Jin (Clinical Professor in Periodontology). The Hong Kong Association of Science and Mathematics Education was the collaborating partner organisation that assisted with contacting the 11 schools.

Titled *Enhancing Science Knowledge and Skills of Secondary School Students Using Dental Sciences Examples*, this Knowledge Exchange Impact Project was supported by the HKU Knowledge Exchange Fund 2011-12, granted by the HKSAR University Grants Committee to HKU.

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Knowledge exchange (KE) at the HKU Faculty of Dentistry (<http://facdent.hku.hk>) aims to maintain a two-way dialogue between the Faculty and all sectors of the community. The Faculty's KE strategy, public education, and community activities form part of the Faculty's fourth mission of “engagement”. We will be pleased to consider any suggestions or comments, or community/school invitations; please e-mail dentku@hku.hk

