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Fall 2010

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IMPRESSIONS

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UBC DENTISTRY



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To Advance Oral Health through Outstanding Education, Research and Community Service

Dean's Message

*Dear Colleagues,
Thank you for all the very positive responses that have been sent regarding the new format of the Faculty of Dentistry publication. We appreciate the feedback and support for this approach to sharing the achievements of our faculty, students and staff.*

This edition of *Impressions* highlights several current accomplishments in teaching, research and community service. The UBC Faculty of Dentistry is recognized as the front-runner in many of these areas, and it is my pleasure to share them with you.

Dr. Hannu Larjava is an internationally recognized researcher on the topic of wound healing in the oral cavity and skin. Healing following surgical procedures or trauma in the oral cavity and skin is required to establish the mucosal barrier that prevents bacteria from entering the body. Oral healing proceeds with lesser scarring than skin and provides an excellent model to better understand the scarring process in the skin. Dr. Larjava's work will engender new approaches to facilitate wound healing and improve surgical treatment outcomes.

Dr. Rosamund Harrison has taken a leading role nationally in dealing with the problems of early childhood dental caries. The incidence of dental caries and the problems associated

with this infectious disease remain an obstacle to developing good oral health, particularly in First Nations populations. Dr. Harrison has developed programs directly in communities to improve oral health practices and reduce the incidence of disease.

Dr. Sandra Fastlicht played a lead role in moving our undergraduate orthodontic teaching program to a completely digital environment. Computer-based treatment planning, digital study casts and Web-based teaching and examination are all state-of-the-art approaches now available to help our dental students achieve their learning objectives. These new approaches to patient care and teaching will benefit our dental students as they progress in their professional careers.

There are many other developments occurring in the Faculty of Dentistry that are helping to support our goals. We have completed the Student Learning Centre (SLC) in the old dental student clinic in the JBM Building. The SLC was opened in November 2008 and



PHOTO BY MARTIN DEE

is used extensively by students and staff for their learning activities and by faculty for teaching and assessment. We are pleased to be making productive use of the JBM space, while providing a resource that is beneficial to everyone in the Faculty.

In co-operation with the BC Dental Association (BCDA) and the College of Dental Surgeons, we have established mentorship programs and have enhanced involvement in the Summer Student Practitioner Program. The BCDA has provided financial support and logistical assistance for these programs, which will link current students with dentists in practice. These interactions will be beneficial to students in their career development and in identifying practice opportunities throughout British Columbia. If you are interested in participating in either of these programs, please contact us. We look forward to greater involvement and interaction with dental professionals throughout BC.

The Strategic Plan that will guide the Faculty of Dentistry for the next five to seven years is nearing completion; it is currently being discussed with all the faculty, students and staff. We will be sharing these plans for the future with you in the coming issues of *Impressions*, to ask your assistance in achieving our goals.

This is an exciting time in the Faculty. I hope you enjoy reading *Impressions* and learning about our many achievements.

All the best,

Charles Shuler, DMD, PhD
Dean and Professor, Faculty of Dentistry

NEWS

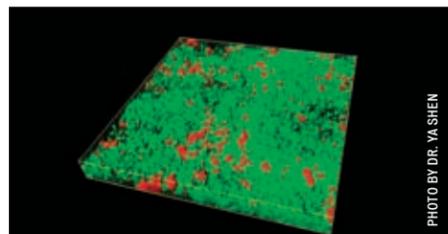
Novel Ways to Attack Biofilm Developed

A research team led by professor Markus Haapasalo at the Division of Endodontics, UBC Faculty of Dentistry, has reported exciting news about the progress of their focus on eradicating oral biofilms. Biofilms are thin, “sticky” films of bacteria that are responsible for development of all-too-familiar diseases such as caries (decay), gum infections and root canal infections.

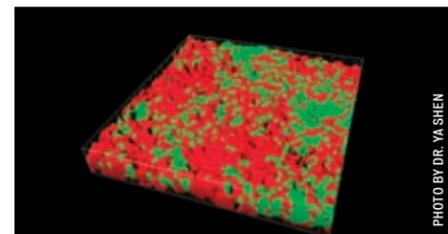
The challenge with biofilms is that microbes embedded in these structures are very resistant to efforts to remove or kill them. Haapasalo’s team has used a synergistic approach to attack biofilms, with promising results. “We are hitting the target (biofilm) from several directions simultaneously. By combining

known and new agents, we are creating a synergistic effect that wears down the defence of the biofilm more effectively than commonly used disinfecting agents alone.”

The team is working together with industry, which has resulted in promising improvements in the performance of some commercially available products—and a patent application. “There has been interest from both North American and European companies, which has resulted in active collaborations,” says Haapasalo. He hopes that the new innovations will further advance research efforts at UBC Faculty of Dentistry and positively impact the daily work done by dentists in the prevention and treatment of oral infectious diseases.



Laser confocal microscopy images of biofilm before and after treatment. Green colour shows viable bacteria, while the red colour shows bacteria that have been killed.



New Mentorship Program at UBC Dentistry

With funding assistance from the BC Dental Association (BCDA) and the Canadian Dental Service Plans Inc. (CDSPI), a new mentorship program at UBC Dentistry is taking shape. The goal of the mentorship program is to establish long-term, one-on-one relationships between DMD students (future graduates) and practising dental professionals.

For the young graduate, entering the dental profession can be a daunting experience, and mentors can be a valuable resource. Career guidance, learning about being an associate versus an owner, and coaching in practice management are common themes in dental mentorship programs. Dr. Joanne Walton, associate dean, Academic & Student Affairs, sees the mentorship program as a valuable tool for preparing students for professional practice. “Now that crucial funding is in place, I’m excited about building on the success of our existing Tri-Mentoring Program, which was developed and run by our manager of Student Services, Ms. Alex Hemming,” she says. “The additional support provided by the BCDA and CDSPI will allow us to expand the program to include more students and mentors.”

Walton adds: “One of the first steps in building our Tri-Mentoring Program was to seek out the needs and desires of our students, and we want to revisit their goals as we expand.”

The program will also reach broadly across the province for mentors. The BCDA and the CDSPI have committed \$10,000 per year for three years. For more information, contact Alex Hemming at alexaug@interchange.ubc.ca

UBC GPR Team Raises \$12k for Cambodian Children’s Hospital



Dr. Christopher Zed (R) with key fundraiser and Vancouver trainer Rob Elliot from Innovative Fitness.

Participants in UBC Dentistry’s General Practice Residency Training Program (GPR) raised over \$12,000 for a local children’s hospital while on their biannual community dentistry rotation in Siem Reap, Cambodia. The money raised from marathon pledges will directly fund the hospital’s dental program for an improved radiology system and salaries to hire more local dentists.

The annual Angkor Wat International Half Marathon is a popular event for runners from around the world. Dr. Christopher Zed, associate dean, Strategic and External Affairs, and head, Postgraduate and Hospital Programs, was quick to make good use of the marathon’s fundraising capabilities this past December. “Two residents and I decided to enter the marathon that would be taking place while we were in Cambodia for rotations, and that soon grew into nine additional people who believed in our cause joining us from Vancouver.”

The cause Zed refers to is the Angkor Hospital for Children (AHC), the base for UBC

GPR community dentistry rotations. The dental clinic within the AHC provides full dental treatment and much-needed patient education in Siem Reap, as well as outreach to outlying villages. UBC GPR residents participate in both hospital-based care and community outreach.

“It astounded me that nine additional people—personal trainers from Vancouver—wanted to run the marathon with us and get further involved,” says Zed. These trainers not only raised pledge money, but they also provided their expertise in personal health and well-being to the Cambodian health care workers. “This was a very unique kind of knowledge transfer to the local dental staff. The more they understand how to take care of themselves, the better they can provide health care in one of the most impoverished regions in their country.”

The knowledge transfer that occurs between dentistry residents and local health care workers is a significant contribution to a country where years of civil and foreign wars has wiped out most of the professional population. Zed explains that dental treatment is often delivered outdoors in shaded dirt areas, using flashlights and with no suction, or in schools, on desks where up to 160 tooth extractions can occur per day.

Currently half of the thirteen million Cambodians are under fifteen years old. Fifty-one percent of the Cambodian children are malnourished, and one in seven will die before his or her fifth birthday. The average salary of a Cambodian dentist is the equivalent of \$1,200 to \$3,000 per year.

Pledging continues at dentistry.ubc.ca



Left - Dental clinic at Angkor Hospital for Children. Upper Right - Mother and child waiting for care outside Angkor Hospital for Children. Lower Right - Father and child waiting for dental care outside Angkor Hospital for Children.

DMD Students Encouraged to Experience Rural Settings

New funding from the BC Dental Association (BCDA) will ensure UBC Dentistry's Summer Student Practitioner Program has a rural focus in British Columbia. The Summer Student Practitioner Program provides dental students, who have successfully completed their third year, a first-hand look at the daily operation and management of a dental practice. The program, approved by the College of Dental Surgeons of British Columbia, has been in operation since 1982.

Associate dean Dr. Joanne Walton, who coordinates the program, sees participation as mutually beneficial for both DMD students and participating dentists: "Not only will students get valuable experience in rural practice, but participating dentists cite many advantages." Benefits noted in comments Walton has received from past iterations include: exposure to current techniques being taught at UBC; experiencing what it might be like to have an associate; getting help clearing

backlogs; enjoying the interprofessional ideas exchange; and giving back to the profession by providing a learning opportunity for a student.

The BCDA has committed \$40,000 per year for three years to the program. This money will directly support those DMD students who choose a rural setting for their program placement. For more information, contact Alex Hemming at alexaug@interchange.ubc.ca



PHOTO BY BRUCE MCGAHEY

Student Learning Centre Opens in JBM Building

Do you remember the operatories in the former clinic located in the John B. Macdonald Building? With the recent installation of 80 computer stations, a different kind of learning activity is happening in these old cubicles.

Re-engineering the old clinic in the JBM Building is a technically complicated and expensive affair. Since redevelopment of the entire space is still a long way off, the space has been refitted to provide an immediate solution to the shortage of student learning and study space. As well as providing a student workspace for computer-based learning (and exams), the space — now called the Student Learning Centre — is ideal for simulation exercises that do not require clinical equipment. Students now have a much-needed after-hours study space in their home building.

Sleep Apnea: Children May Benefit from UBC Dentistry Device

BY CATHERINE LOIACONO

Children suffering from obstructive sleep apnea (OSA) may soon be sleeping better thanks to a new use of a device being studied in UBC's Division of Orthodontics, Faculty of Dentistry. The study, led by Prof. Alan Lowe, is the first to test and document the effectiveness of an oral appliance called Klearway™ in children with OSA. The device is already being used in 30,000 adults worldwide.

Habitual snoring in children can be an indicator of OSA, which is characterized by cessations of breathing and problems with sleep, including restless sleep. OSA occurs when a child repeatedly gasps and stops breathing during sleep because the upper airway is obstructed. During sleep, the tongue can be sucked back against the back of the throat, obstructing the airway. The Klearway oral appliance is made of clear acrylic resin and is similar to two connected orthodontic retainers. It prevents the lower jaw from dropping down and back and keeps the teeth together during sleep.

"The preliminary results from this clinical trial are promising and better than expected," says Lowe, who invented the UBC technology. "What is most surprising is how quickly the appliance works in children. In just a matter of months, we have found that children who wear the appliance show dramatic improvements in sleep and significantly improve how their upper and lower teeth fit together."

Although snoring in children is a common condition that may affect up to 27 percent of kids aged two to twelve, OSA affects from one to ten percent of children who snore. Many of these children also exhibit enlarged tonsils. The effects of OSA in children can include attention-deficit disorder, behavioural problems, poor academic performance, failure

to thrive, bedwetting, cardiopulmonary disease and, in some cases, obesity and type II diabetes.

The study shows promise for Klearway to treat OSA particularly in those children with prominent upper front teeth and short lower jaws—a condition called malocclusion. The distance between the upper and lower front teeth was reduced and the vertical incisor overlap decreased. According to the study, when compared to baseline recordings, the Klearway appliance demonstrated improved minimum blood oxygen levels. The results also show that the episodes of not breathing were reduced from eight per hour pre-treatment to 2.4 post-treatment.

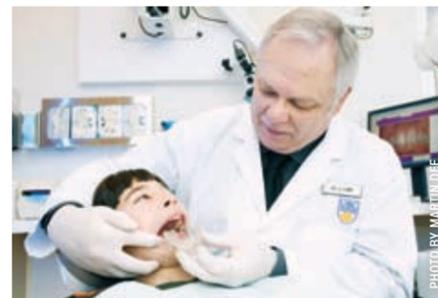
"One of our patients' grandmothers reported that she suspected a problem because her grandson was often very tired and reported that he fell asleep on the bus on the way home from school," says Lowe. "After using the device for a few months, the patient and grandmother have seen a tremendous improvement in sleep, energy, concentration and overall mood."

The Klearway appliance effectively increases the size of the airway during sleep by creating more room at the back of the throat at the base of the tongue. The appliance fits over the top and bottom teeth and gradually moves the lower jaw forward, giving the patient more room to breathe.

"In prepubescent children with this condition, Klearway may also correct the malocclusion," says Lowe. "It has the potential to treat OSA because it opens the airway and decreases the mismatch between the upper and lower teeth." Lowe cautions that not all children who snore suffer from OSA, nor do all OSA patients snore. Assessment by the family physician and referral to a pediatric sleep specialist are required before a definitive diagnosis of OSA can be made and therapy decisions determined.

For more information, visit www.klearway.com

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Dr. Alan Lowe placing a Klearway oral appliance in a young patient's mouth.

PHOTO BY MARTIN DIE

Community Note

UBC Dentistry Helps Renovate Multi-Purpose Clinic at Yaletown House

When Yaletown House, a care facility for seniors in central Vancouver, recently renovated its multi-purpose clinic, UBC Dentistry was happy to commit funding for a more patient-friendly space for dental services. Previously, several health service providers had been operating out of a shared space at Yaletown House. When the opportunity to upgrade the out-grown multi-purpose clinic arose, many of these groups, including UBC Dentistry, supported the project.

A more functional space for dentistry has been created, including improved privacy and updated equipment. "The dental team is much more functional in this new space," says Shunhau To, program manager for the UBC Geriatric Dental Program (GDP). "Yaletown House is a showcase facility, and we, like the administration of the facility, are very committed to the care of the residents."

The UBC GDP provides much-needed on-site dental care, such as annual check-ups, dental hygiene services and denture services, to the long-term residents. Patients requiring more complex treatment are referred to the Specialty Clinic on campus.

Yaletown House also serves as an important teaching facility. UBC General Practice Residents (hospital-based dental residents) participate in clinical care, while visiting dentists and undergraduate dental students observe treatment.

For more information about the UBC GDP, visit elders.dentistry.ubc.ca

Dental Hygiene Graduates Reach Higher



As of November 2008, the UBC Dental Hygiene Degree Program has a total of 97 graduates awarded the Bachelor of Dental Science in Dental Hygiene [BDSc (DH)] degree. Of the 97, nine have now also graduated with a master's degree in Science (Dental Science), Education or Health Administration. Two of the MSc graduates are now PhD candidates at UBC.

In addition, there are currently 11 BDSc (DH) graduates studying in a variety of master's programs at UBC, the University of Toronto, the University of Alberta, and the University of Idaho. Another four BDSc (DH) graduates are currently applying for admission to master's programs in Science (UBC), Public Health (SFU), Distance Education (Athabasca), and Education (UBC), to commence in September 2009.

Education beyond the BDSc (DH) prepares dental hygienists to assume positions as program directors and teaching faculty in dental hygiene and dental assisting programs, as well as administrative roles in community health and dental hygiene organizations.



Dr. David Sweet OC Accepts His Insignia

Dr. David Sweet OC has been appointed an Officer of the Order of Canada for enhancing Canada's reputation as a leader in forensic odontology—the science of victim identification using dental charts and analysis of teeth—and for his contributions as a teacher, researcher and consultant.

Her Excellency the Right Honourable Michaëlle Jean, Governor General of Canada, and Dr. David Sweet OC, Professor and Director of the Bureau of Legal Dentistry, at the Order of Canada investiture ceremony on December 12, 2008, at the official residence of the Governor General, Rideau Hall, Ottawa.

Research Day Makes Connections

Dental professionals from the community connected with Dentistry faculty and students for the second annual UBC Dentistry Research Day on January 27.

The theme for this year's one-day comprehensive review of basic science and clinical research was the early diagnosis of premalignant and malignant changes in the oral cavity of dental patients.

Graduate students, post-doctoral fellows and faculty presented, as well as distinguished UBC Dentistry alumnus David Wong DMD 1981. Dr. Wong, now professor and associate dean of Research, University of California, Los Angeles School of Dentistry, presented the keynote address: Identification of Salivary Diagnostic Markers for Early Oral Cancer Risk and Detection.

Community dentist Dr. Ken Neuman, who attended the event, remarked, "Research Day provided a wealth of research focused on early cancer detection. I am sure all who attended benefited from learning how we can enhance our patients' lives."



Research Day presenters (from left to right): Catherine Poh, Michele Williams, Ulrich auf dem Keller, David Wong, Lewei Zhang, Eli Whitney, Brenda Currie.

UBC Dentistry is grateful to the following Research Day 2009 sponsors.

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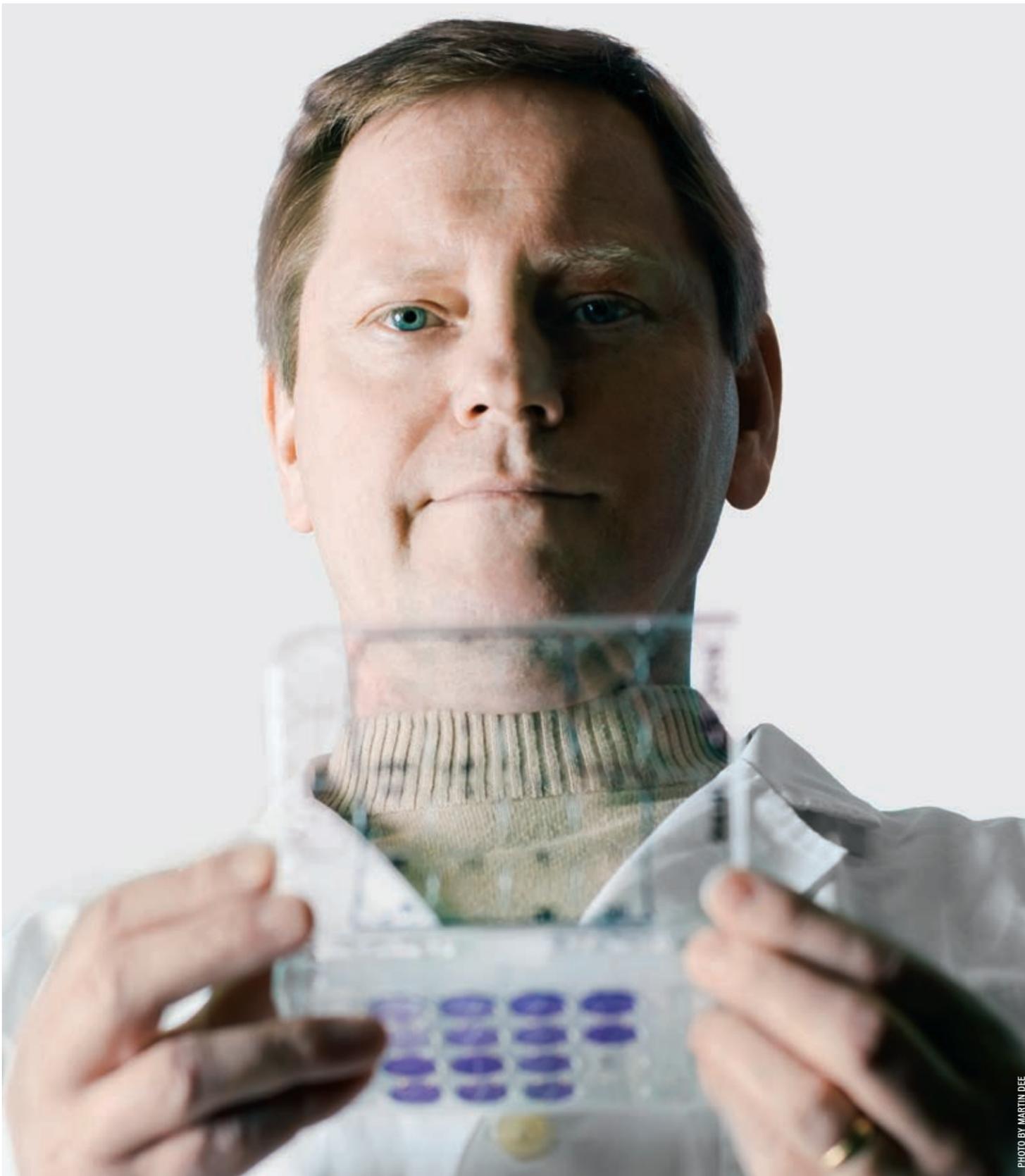


PHOTO BY MARTIN DEE

DENTISTRY RESEARCH— ORAL INSIGHTS INTO SCARLESS WOUND HEALING

BY MARY-LOU ROWLEY

Periodontology researcher, clinician and professor Hannu Larjava is investigating the remarkable self-healing properties of gums and soft tissue in the mouth in order to improve wound healing in the rest of the body and to reduce painful, debilitating and costly scarring.

When we think of dentistry, we generally think of teeth—not skin. Periodontology, a major branch of dentistry, is devoted to the study and treatment of diseases and conditions of the tissues that support and surround the teeth, including the jaw bone and gums, or gingiva. For years, dental clinicians have known that gum and oral soft tissue—like fetal tissue—has the astounding ability to self-heal without scar formation.

“Understanding the molecular mechanisms behind gingival wound healing could provide valuable information about the factors that regulate healing and scar formation in skin,” says Hannu Larjava, UBC dentistry professor and head of Periodontics and Dental Hygiene in the Faculty of Dentistry.

Wound healing is a complex molecular process that often results in excess scar formation, causing disfigurement in burn victims, organ dysfunction after surgery,

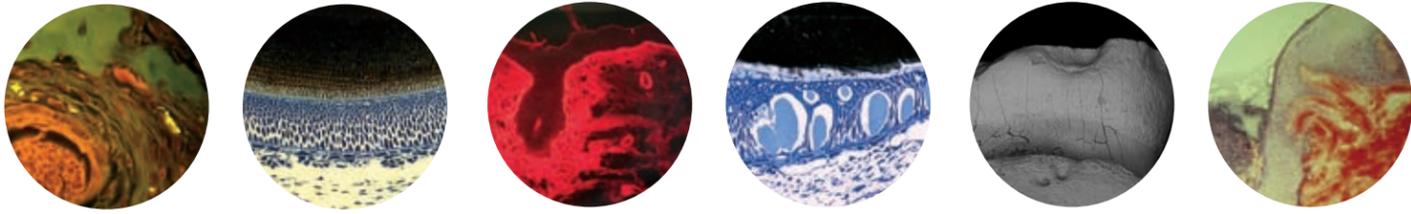
chronic wounds from diabetes and ulcers, and problems with surgical implants. It is estimated that in developed countries over 100 million people suffer from significant scarring and wound healing problems. This results in more than 50 million elective procedures and 25 million major operations, with cost estimates exceeding \$100 billion annually in North America alone.

The potential to apply research in oral wound healing to the rest of the body is enormous, and Larjava is one of the few researchers in the world taking up the challenge. He is also editing the first book on the subject.

“We already know the profile of genes involved in early gingival healing, but we don’t know the profile of what happens in skin,” says Larjava, who is also director of the Laboratory of Periodontal Biology, which receives funding from the Canadian Institutes of Health Research (CIHR), National

Institutes of Health (USA) and the Martha Piper Foundation. He is working closely with Lari Häkkinen (UBC, Dentistry), Colin Wiebe and David Hart in the Department of Surgery at the University of Calgary. Hart has developed a model for skin wounds in pigs. Larjava’s team is using porcine models and cDNA microarrays (see text box at end), to study the difference in gene expression in scar-free healing of oral soft tissue compared with scarring skin—at the same time in the same animal.

Identifying the genes involved is only the first step. Wound healing involves an intricate and highly regulated cascade of cells interacting with growth factors, signalling molecules and the extracellular matrix (ECM). “Our main focus now is studying the molecular events that happen early on when the cells move into the wounds and make things happen,” says Larjava.



Intriguing Integrins— Molecular Double Agents

Larjava's lab is currently focused on the study of integrins, intriguing membrane proteins and cell surface receptors that define the shape and mobility of a cell, and are involved in how cells attach to one another and to the extracellular matrix. They also play a role in signal transduction, whereby a cell transforms information from the outside world to the cell interior, thereby regulating cell behaviour. Integrins are unusual for their two-way communication. They transmit information about a cell to the ECM, and from the ECM to the cell. "We call them inside-out, outside-in proteins," says Larjava. Like double agent spies, they supply information to both sides.

Using transgenic mouse models, Larjava, Häkkinen and Marc McKee from McGill have discovered even more fascinating properties in the integrin $\alpha v \beta 6$. The protein is not expressed in normal epithelial skin cells—except in the cells that link the gums to the tooth.

Larjava's group has shown that $\alpha v \beta 6$ acts differently in gum tissue than in the rest of the body. While it is essential for healthy gums, in other skin tissue it is only found in cancer cells and open wounds—and the amount differs for acute or chronic wounds. "In other words, when the tooth comes in contact with the gingiva, it is like a wound, and gum disease around the tooth is like a chronic wound," explains Larjava. His lab found that $\alpha v \beta 6$ plays a major role in protecting against gum disease. When it is absent, there is significantly more bone loss and gum disease than there is in animals where the molecule is present.

In chronic skin wounds like diabetic ulcers, however, the signalling of $\alpha v \beta 6$ seems to go awry. "We found that $\alpha v \beta 6$ is present, or

upregulated, in acute wounds, but may be over-expressed in chronic wounds," Larjava says. "Through its signalling properties, this integrin may act like double-edged sword—doing beneficial things in acute wounds and harm in chronic wounds and cancer."

In related work, Larjava discovered that $\alpha v \beta 6$ is expressed in the formation of tooth enamel. In knock-out mice that lack this integrin, the enamel is not mineralized—meaning it is formed but not hard, and teeth wear down very quickly. This mimics a human genetic condition called amelogenesis imperfecta, or soft enamel, where the teeth are badly discoloured and worn, even in children who have good dental hygiene.

Solving the Mystery of Kindler Syndrome

Translating research from "bench to bedside" is a goal of medical and dental science. Larjava and colleagues are also working in reverse. They have taken a clinical observation of one patient all the way to a major research project, funded by the US National Institutes of Health, in collaboration with Cary Wu at the University of Pittsburgh.

It all began when a young patient came to UBC dental clinic with advanced gum disease. Only a few genetic defects make individuals susceptible to gum disease at an early age.

This patient had a rare congenital condition, Kindler syndrome, which is caused by a mutation of the kindlin-1 gene that results in severe blistering of the skin. Until recently, very little was known about the cause of the disease. Dr. Wiebe from Larjava's research team played an essential role in discovering the kindlin-1 gene and the association between Kindler syndrome and gum disease.

Larjava's lab found that kindlin-1 plays a role in epithelial cell adhesion in the gingiva. When the gene is not present, the gum tissue doesn't attach very well to the teeth, which may explain why these patients experience the early onset of gum disease—a major feature of Kindler syndrome.

Although the complete function of kindlin-1 is still unknown, it is also involved in regulating integrin membrane proteins. "This work is still linked to the main theme of our research program, which is cell adhesion to extracellular matrix integrins, because kindlin-1 is part of the signalling cascade," says Larjava.

Dentistry Research Opens Minds—and Doors

Larjava is passionate about the potential that dentistry research holds for students who want to expand their knowledge and skills. He is a faculty member in UBC's Skin Research Training Centre in the Department of Dermatology and Skin Science at Vancouver General Hospital. With \$1.8 million in CIHR funding, the multidisciplinary centre is the national hub of graduate and post-graduate training in the cause and treatment of skin diseases.

People don't realize the opportunities available in dentistry research, Larjava says, noting that most of his papers are published in journals outside of dentistry. "When you have an open mind, and are patient, you can take a clinical situation and develop a major research program out of it. The opportunities for dental students today are multi-faceted and multidisciplinary."

"When you have an open mind, and are patient, you can take a clinical situation and develop a major research program out of it. The opportunities for dental students today are multi-faceted and multidisciplinary." - UBC Dentistry Professor Hannu Larjava

PERIODONTAL BIOLOGY PRIMER

Extracellular matrix (ECM) - Often referred to as connective tissue, ECM is a complex, gel-like molecular structure that surrounds and supports cells, segregates tissues and regulates intercellular communication.

cDNA microarray - An array of thousands of microscopic dots of DNA deposited on a glass surface or silicon chip, each containing a specific DNA sequence. These molecular probes are used to simultaneously study the function of an array of genes and proteins.

Gene Expression - A complex and tightly regulated process whereby a cell responds dynamically to its environment and to its own changing needs. The process controls which genes and proteins are turned on in a cell, which are turned off, and which are increased (up-regulated) or decreased (down-regulated).

Gene Knockout - By knocking out the function of a specific gene product in model organisms, such as yeast and mice, researchers can determine the role these genes play in health and disease.

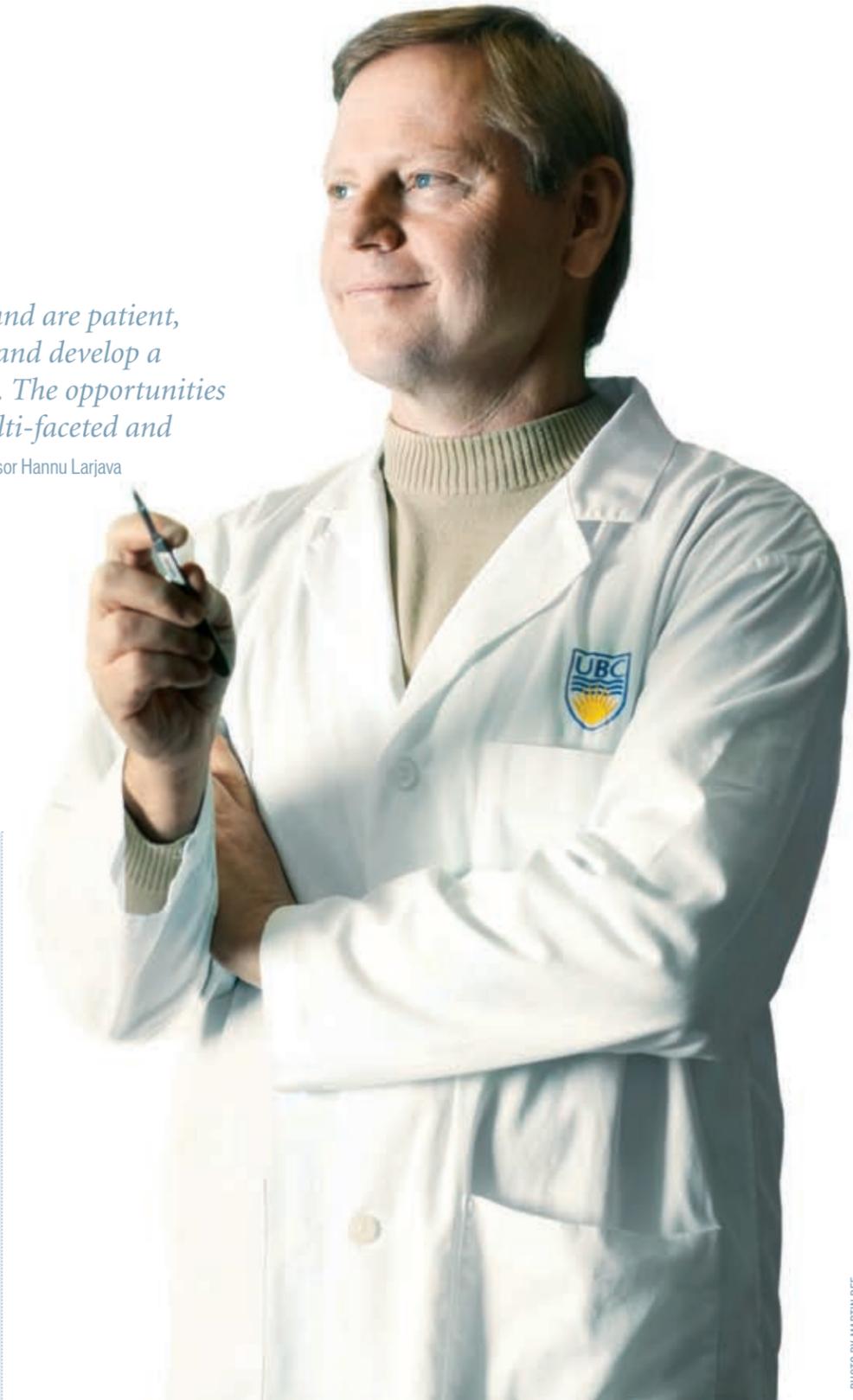


PHOTO BY MARTIN DEE

TOWARD A HEALTHY SMILE FOR EVERY CHILD

MOTIVATIONAL INTERVIEWING IN PREVENTIVE DENTISTRY

BY HEATHER CONN

She has winced at the sight of a 13-month-old infant in diapers anaesthetized on an operating table, having all but four of his teeth extracted due to decay. She understands why some Punjabi mothers in Surrey add sugar to their baby's milk; in parts of India, non-pasteurized milk is boiled and becomes unpalatable to an infant. She has heard Vietnamese mothers in Vancouver misunderstand the need to care for their child's baby teeth: they know the teeth will all fall out anyway.

Few people know and appreciate the value of a child's healthy smile more than Dr. Rosamund

Harrison, UBC's chair of Pediatric Dentistry and an award-winning researcher. In her ground-breaking studies, she focuses on low-income and new immigrant communities that have a high rate of cavities in preschool children. To help control this trend, she has promoted accessible, community-based oral health programs for hundreds of babies and toddlers, from South Asians and Vietnamese in BC's Lower Mainland to Cree in remote Quebec villages. Her grassroots work has made a significant difference in these high-risk groups, resulting in fewer caries (cavities) for preschoolers and much-improved dental health.

"The most common chronic disease of childhood is dental caries," says Harrison in her on-campus office, seated between a desktop computer and a shelf of academic books, topped by a Variety Club teddy bear. "The biggest predictor of dental decay is family income." As she points out, you can't legislate parents to brush their kids' teeth, but you can share a strong preventive philosophy. "You can start really early when a woman's pregnant, getting her to think about her own oral health and feeding practices. It's really about building the capacity of the parent, the family and the community."





The use of lay health workers from the subjects' community is a key component of Harrison's inclusive approach.

Harrison's research has focused on an effective approach to preventive counselling that is new to dentistry: motivational interviewing (MI). Her studies are the first in the world to apply this empathic model to dentistry; it has been used successfully in other fields to change behaviours in vulnerable groups like substance abusers and diabetics. Motivational interviewing avoids traditional forms of patient education such as advice or persuasion, which can instill guilt and defensiveness if the patient doesn't comply. In Harrison's words: "It [motivational interviewing] gets away from the approach of 'If you don't do this, you're a failure.'"

Instead, an MI approach strives to prevent and control tooth decay by influencing parents with praise and positive reinforcement. Open-ended questions help to establish trust and rapport with a parent (usually the mother), then determine her hopes for her child's dental health. Targeted strategies then reinforce the changes required to meet these goals. For example, "If we could change the future, leaving the past behind, tell me what you would want for the dental health/teeth of your child" can lead to a mother choosing a solution from a menu of options that relate to diet and oral hygiene. These options range from "Clean your baby's teeth as soon as they appear" to "Limit the time your child spends in sipping and snacking."

While the MI model succeeds, standard approaches to behaviour modification don't, reaffirms the soft-spoken Harrison. The control group bore this out in Rainbow Smiles, the first dental research study to use motivational interviewing. After one year in this randomized controlled trial, which ran from 1999 to 2005, children whose mothers

received written information and watched an educational video averaged more than twice as much tooth decay as kids in the MI group. The MI group's success continued into the second year of the trial.

Harrison conducted Rainbow Smiles jointly with Philip Weinstein, professor of dental public health sciences and director of the behavioural dental research program at Seattle's University of Washington, and Tonya Benton, a research coordinator with the University of Washington's dentistry school. With project staff and volunteers from the Progressive Intercultural Community Society in Surrey, they recruited 240 healthy infants and mothers from the Punjabi-speaking community in Surrey, BC. Funding came from the National Institutes of Health in the US.

To bridge language and cultural barriers, Weinstein trained three local South Asian women as MI counsellors. The use of lay health workers from the subjects' community is a key component of Harrison's inclusive approach. As she says: "By engaging mothers in dialogue, they actually start to think about: 'What do I really want for my child?'"

Using affirmations and reflective listening, the counsellors met one-on-one with parents who chose from a menu the dental health options that would work best for their family situation. At the project's end, each child had a dental examination by a local Punjabi-speaking dentist.

"It was wonderful to see what a huge difference it [the study] made," says Monika Verma, who served as Rainbow Smiles' project manager. "It wasn't just a project; it was more than that. The women really looked up to us. They were very grateful. It became like a big family. Some of the moms still call me."

Verma particularly noted how Rainbow Smiles served to embolden mothers who initially didn't think they could modify behaviour or challenge the power dynamics of their extended family. "We empowered mothers to change the habits of the whole family in things like buying groceries and not leaving candies out [where they can be eaten]."

For Harrison, motivational interviewing entered her life when Weinstein approached her at a conference; he was impressed by the presentation she gave regarding the one-on-one counselling that was part of a project she did in a Shuswap First Nations community in the interior of BC. (This project, which ran from 1992 to 1996, incorporated a committee of mothers, local community workers and counselling by the public health nurse. It reported encouraging reductions in decayed tooth surfaces in 30-month-old children.) "She [Harrison] had a profound and deep understanding of what was necessary," says Weinstein of this project, funded by the BC Health Research Foundation (BCHRF), now the Michael Smith Foundation for Health Research. "I was very taken with her work, which was difficult and successful. I thought she'd be a great collaborator."

In the Rainbow Smiles study, Weinstein found working with lay counsellors "very rewarding." "They became totally committed to oral health," he says. "Their work stuck. It didn't go away after the study was over." (The study won an American Academy of Pediatric Dentistry Foundation Research Award in 2006 and the one-year results received top attention as the cover story in that year's June issue of the *Journal of the American Dental Association*.)

Before integrating MI into her research, Harrison conducted a community-based

demonstration project that targeted inner-city Vietnamese children in Vancouver. She wanted to determine what behavioural and environmental factors contributed to the high rate of caries in this group. The resulting Healthy Teeth, Happy Children study trained Yvonne Phung, a Vietnamese mother and lay health worker in counselling.

Phung counselled mothers in their own language at infant immunization sessions, promoting dental health as a priority to be valued from birth. Follow-up assessments held at four separate intervals after the project began showed that participating children, 18 months and older, consistently had significantly fewer decayed teeth compared to children at baseline and to other children in the neighbourhood. (Funded again by BCHRF and then supported by Vancouver Coastal Health, this 1993-2003 project left a lasting legacy as to where children's dental public health programs should be focused, says Harrison. Its success garnered Harrison, Phung and co-investigator Tracy Wong the Canadian Dental Association's Oral Health Promotion Award in 2004.)

"Peer counselling definitely made a difference," says Phung. "People from Vietnam don't go for prevention. We only see the dentist when we have problems. When I tell mothers that back teeth won't change until their child is eleven or twelve, they say: 'Really?' We gave mothers all the resources and they passed the information on to their extended family."

Phung calls her involvement with this project and the "very dedicated" Harrison a wonderful experience. "Doing the counselling by myself made me grow so fast and build up my confidence." She laughs, recalling one

mother's overzealous response to weaning her youngest son off bottle feeding. A week after a counselling session, the mom told Phung: "He quit the bottle already." Surprised, Phung inquired how. The mother had sprinkled hot pepper on the bottle nipple—not the community-based solution that Harrison had in mind!

Harrison's respect for her low-income research subjects is obvious as she relates their daily challenges that thwart healthy dental care: poverty and unemployment; life as a single parent; fear of losing their job if they take time off to visit the dentist; and loneliness and alienation in a new culture. She'd like to see more dental professionals in aboriginal communities and more First Nations people in dental health overall.

Harrison's ongoing work includes another randomized controlled trial with the Cree Health Board in Quebec's James Bay region, which began in 2004. As part of this project, local Cree dental health workers are using MI in their own communities. The project is funded by the Canadian Institutes of Health Research.

What's ahead for Harrison's research and MI work? This year, she plans to work with the Cree project's health economics team from the University of Calgary to explore whether a motivational interviewing approach can decrease costs of treatment as well as lower dental disease in Cree children. Her UBC post-doctoral fellow, Kristine Carino, a Filipino dentist and researcher, is examining the prevalence of early childhood caries (ECC) in Filipino-Canadian children and the relationship

of ECC to family demographics. Motivational interviewing might play a role in her future oral health promotion activities using the social networking sites popular with Filipino families.

On a broader level, Harrison would like to see MI offered as part of dental health promotion in the public health care system. Motivational interviewing is now in use in dentistry in Norway and in at least a half-dozen states in the US. (Weinstein says he has been overwhelmed with thousands of requests about MI. His workbook *Motivate Your Dental Patient* is available at philw@u.washington.edu.)

Overall, Harrison would like to see children's oral health made a higher priority. "A lot of people in their regular practice don't see a lot of young children. They often aren't aware that the problem [caries in high-risk groups] is as prevalent as it is." As one indicator, she mentions that BC Children's Hospital has a six-month waiting list for kids waiting to receive a general anaesthetic for dental work.

Ideally, Harrison envisions better accessibility to oral health care for low-income families, especially in remote areas. This would include an enhanced community-based dental public health workforce. The oral and general health care of people of all ages will continue to suffer as long as they endure poverty, poor housing and lack of access to clean, potable water, she says. "There's a lack of funding, but it's more than just money," says Harrison. "It's about building and sustaining community."



LEADING THE WAY TO DIGITAL ORTHODONTIC MODELS

BY TERRY WINTONYK

The task of transitioning dental records in the UBC undergraduate dental program to electronic files may seem as daunting as Lao Tzu's thousand-mile journey. But Dentistry clinical associate professor Dr. Sandra Fastlicht recently took a few huge strides in the orthodontic component of the undergraduate dental program, bringing the journey significantly closer to its digital destination.

In businesses and institutions these days, the task of migrating to digital technologies is commonplace and, in fact, expected. In UBC's undergraduate dental program, charts, photographs and radiology images have been securely stored in the electronic realm for some time. However, in the orthodontic component of the undergraduate program, plaster dental casts—the reproductions made from impressions of patients' teeth—remained outside the electronic dental record. The trail to full digital record keeping had another mountain range to cross.

Fastlicht understood well the need to move to digital dental casts. The dental clinic at UBC had been spending an enormous amount of time and expense creating traditional plaster casts (sometimes called stone casts). Additionally, regulations require that all dental casts have to be kept for up to 30 years. Referring to the breakable, clumsy and difficult-to-catalogue single-record stone artifacts, Fastlicht chuckles: "With our long-running orthodontic program, the undergraduate students' patient dental casts

started to reach a critical mass. We were running out of storage space. But with digital dental casts, storing them for 30 years is no longer an issue of physical space."

Fastlicht was also confident that the undergraduate orthodontic program was ready to make the transition to digital orthodontic models. "UBC Dentistry is a leader in technology for preparing undergraduate dental students for modern practice," she explains. "But we needed to move even further towards a paperless dental record to remain at the leading edge of using technology in teaching and learning. The orthodontic study models still needed to be digitized."

When the issue was brought up at a Division of Orthodontics meeting, Fastlicht enthusiastically volunteered to lead a project to close this digital gap. Dr. Alan Lowe, head of Orthodontics, and Dr. Virginia Diewart, head of Oral Health Sciences, immediately endorsed her vision and gave full support—as did the dean, Charles Shuler, who was looking to improve how dental casts were managed.

Sourcing to Implementation —A Four-Month Giant Step

In May 2008, Fastlicht began to investigate 3D digital modelling and imaging solutions. Typical installations for managing digital orthodontic models were on single-computer or several-computer stations in private practice settings. “The challenge in our environment,” reflects Fastlicht, “was that we needed to integrate into an existing imaging system and to have it networked to 144 operatory computer stations.”

In an educational setting, the installations landscape is also more complex due to the volume of licenses and the layers of security levels required for patient confidentiality.

Fastlicht selected a 3D digital modelling and imaging solution based on its ease of integration with the existing imaging system, its set of analytical tools and the practicality of its impressions-to-digital imaging services. It was the first time an integration of imaging systems was to be implemented in a dental clinic of this size for use in an undergraduate orthodontic program.

“With the system and service we chose, several steps are streamlined or even eliminated: they supply all the sterilized impression trays and return digitized files of casts,” Fastlicht says. “It’s just like sending anything out to a lab and the cost is similar—but without the need to create and manage expensive physical storage locations on campus.”

After a short testing period, the 3D digital modelling and imaging solution was launched in September 2008. “Four months was an incredibly short sourcing-to-implementation time. Without the expertise of our in-house Technology Support Team, it wouldn’t have been possible,” lauds Fastlicht.

From the Orthodontic Stone Age to Digital Possibility

While the digital solutions marketing literature is verbose about the benefits of digitized models in dental practice—ease of storage and access, convenience, precision (there is no difference between the information stored in a plaster cast and a digital version), and the analytical tools—Fastlicht is taking the migration to digital models further. She sees enormous potential in the technology for teaching and learning opportunities.

With her students, Fastlicht introduces traditional plaster casts first. “Students still need to be familiar with the stone casts in their education and careers, so we start with that,” she explains. “They handle stone models, evaluate them and perform manual calculations. But, after they’ve been introduced to the digital models, their excitement and proficiency skyrockets—they have no reason to miss the physical casts.”

To illustrate why students might not miss using the plaster casts, Fastlicht, seated at her desk, demonstrates the physical contortions of evaluating a stone cast. She picks it up, measures a space with calipers, puts the cast and calipers down, writes a number in a chart, consults a figure table, moves her finger to cross-reference a number, finds her pen, writes another number on a chart, puts the pencil down, then picks up the stone cast and calipers again to check her measurements. She then repeats the process for a new measurement. “Can you imagine doing this over and over again—and not only on the same cast, but for several patients’ casts?” she asks. “Now imagine the time students waste manipulating these items while learning to do evaluations.”

To explain how digital models enhance learning, Fastlicht turns to her computer. She calls up a digital model image, flips it around, zooms into detail closer than a 1:1 ratio, selects the digital calipers tool, plots a point on the digital study model, takes a measurement, makes her plot point even more precise, then

clicks the results into an electronic chart. A few more clicks of the mouse cross-references the numbers and more figures are complete. “I can do this anytime I want at the office, and I don’t need to carry around any materials,” says Fastlicht. “It’s all online and accessible from any computer connected to the clinic’s network.”

Fastlicht points out that students are already proficient in the electronic world. And, she adds, “Students learning to evaluate study models can now concentrate all their time in the learning process and can see results instantly—without fumbling around with pieces in their hands. It takes just seconds to make precise measurements.”

Fastlicht can hardly wait to use the digital study models in an examination setting. Trolleys full of the same stone casts for each student will no longer be needed. Instructors will be able to easily create even more model varieties and learning evaluation methods with the digital modelling technology.

Sharing digital models electronically is one of the biggest advantages of this technology. Not only can students consult with each other about treatments at lightening speed, but instructors can give immediate feedback to their students and instantly analyze their progress.

And, Fastlicht quickly found, the digital modelling system’s friendly user interface not only works well for students and faculty, but is intuitive enough for part-time instructors, who hail its implementation—some of them already use it in their private practices. What about those part-time instructors who have no familiarity with using digital modelling systems? “No problem,” assures Fastlicht. “Students familiarize themselves very quickly with the technology, so they can easily demonstrate it to part-time instructors in just a few moments.”

A New Standard in Undergrad Orthodontic Training

UBC is the largest undergraduate orthodontic program in North America and the most comprehensive in Canada training undergrads to do orthodontic treatment within the scope of a general practice. Now, UBC is the first, and only, dental school in Canada to use digital study models in its undergraduate orthodontic program. Until this transition, digital models were available only to students in graduate programs. But now that the technology is available to undergrads at UBC, representatives from other Canadian schools of dentistry are coming to see how it’s being used.

And beyond Canada? Fastlicht’s fourth-year dental student Sean Chung gave a presentation on UBC’s dental program during a 2008 externship in Japan. His audience was amazed to discover that UBC had complete digital models in an undergraduate program.

Fastlicht’s digital model transition project has raised the standard of its undergrad orthodontic training to a new height. UBC Dentistry students are being prepared for careers where their orthodontic treatment planning can be done anywhere, anytime and in consultation with colleagues in the next office or around the globe.

What Next?

Now that the transition to digital models in the undergrad orthodontic program is complete, what is next for Fastlicht? She points to the enormous potential of the data. “With all that patient data, measurements and other analytics being deposited into a central database, data recall is a snap—no more requesting stacks of charts and sifting through piles of paperwork. Researchers can create custom analysis of data at the click of their mouse.”



PHOTO BY MARTIN DEE

Fastlicht is taking the migration to digital models further. She sees enormous potential in the technology for teaching and learning opportunities.

Community, Culture and Practice: A DMD Student in Haida Gwaii

Trevor Lake (fourth-year DMD student) explores the rural north coast and confirms his plans for the future.



PHOTO BY IAN SMILLIE

This past summer, I had the opportunity to do an externship in Haida Gwaii (Queen Charlotte Islands) through the UBC General Practice Residency Program. My classmate Ian Smillie and I flew from Vancouver to Sandspit, looking forward to doing some volunteer dentistry while exploring these stunning islands and learning about the amazing history and culture of the Haida people.

The dental clinic was in Skidegate, a Haida reserve just outside of Queen Charlotte City. Staying in Skidegate gave us a chance to interact with the locals and feel connected to the community. The warmth and friendliness of the people we met was amazing. We were invited to a number of community events. One evening we got to watch the local kids practising their dances and songs for the grand opening of the Haida Heritage Centre. They wore full ceremonial dress—as the Eagle, the Raven and the Bear—while singing traditional Haida songs. Later, they got us to join in on one of the dances. We hopped around the room, trying our best to keep up with the kids, while everyone had a good-hearted laugh at our expense. The sense of community was everywhere.

This experience felt like we were finally putting the things we had learned at UBC into action. In our Doctor, Patient and Society (DPAS) course, we had learned a lot about the importance of giving back to communities and about the need to provide underserved and underprivileged members of our society with access to dental care. I think the Queen Charlotte Islands combines both these groups: people living in rural areas and First Nations people.

Our clients truly appreciated our services. They were very thankful for the help we were providing them, especially when they learned that we were volunteering to be up there. And the feeling I got from helping these people cannot be measured in dollars and cents.

Haida Gwaii is a majestic place. The ocean brings in massive schools of salmon, which serve to feed the bears, the Haida people and countless bald eagles that are seen circling the skies. After spawning, the salmon die, but their carcasses fertilize the soil, giving the nutrients that allow the massive Sitka spruce and cedar trees to grow up to the heavens. It is a delicate balance that is awe-inspiring to observe.

Many nights we walked down to the beach for a campfire. We listened to the waves crash in and watched the sun sink behind the mountains while sharing stories from the day. Each night we were amazed that we had this entire beach to ourselves. These islands are isolated enough to remain unspoiled.

We also got to go dip netting for crab at North Beach, attend the Edge of the World music festival and go on a sea kayaking trip to the west coast during our time there. The entire experience was one I will never forget.

The beauty of the natural landscapes and the richness of the Haida culture were amazing. However, what really made the trip stand out was that we got to give back to the community through our work at the dental clinic. During our stay in Skidegate, we were made to feel like members of the community, rather than tourists passing through.

One of the main reasons I got into dentistry is that I wanted to be able to provide health care to people in need. While business will always be a part of any dental practice, this experience confirmed that it is always important to stay true to your values and remember that the core goal of our profession is to improve the oral health of all members of our society. My time in Haida Gwaii also reinforced my plans to practise dentistry in a rural community.

Portrait of a Dental Hygiene Student as a Leader

Meet Priscilla Ojeda. She's a second-year student in the first campus-based Entry-to-Practice Admission Option¹ of UBC Dentistry's Dental Hygiene Degree Program. Priscilla is on her way to an exciting career in dental hygiene. But it is clear that she will reach high and far beyond basic practice—because of her passion to serve. While educators debate whether leaders are born or taught, Priscilla exemplifies what leaders do—they lead. And in Priscilla's case, she leads in many areas.

Priscilla is the founding president of the Dental Hygiene Class of 2011. She also represents her class in the Dental Undergraduate Society (DUS), a collaborative society of dental and dental hygiene students. Her primary function is to link dental and dental hygiene students at UBC. Issues brought to the DUS are generated at Dental Hygiene student council executive meetings, which Priscilla coordinates. "I want to help address any concerns within the student body," she says. "I want to assist incoming classes to create their own student representatives, so that they can participate in the DUS."

The theme of engagement epitomizes Priscilla. She is also student representative to the UBC Dental Hygiene Alumni Committee. In this role, she is helping to establish a Dental Hygiene Mentorship Program. This program will provide opportunities for students to interact with experienced UBC dental hygiene alumni for support, goal setting and career discussions.

Priscilla's passion for helping others is further underscored by her involvement in Orientation Day for the Class of 2012. Along with a fellow student, she developed and facilitated a Student Success workshop. The workshop covered study skills, time management and how to be successful in the dental hygiene program. Priscilla also coordinated two CPR/AED (cardiopulmonary resuscitation / automated external defibrillation) certification and recertification training sessions for the orientation.

In the greater campus community, Priscilla is a Peer Leader in the Vice-President, Students Emerging Leaders Program (ELP). This is a campus-wide initiative at UBC involving approximately 300 first-

year students and 64 Peer Leaders. The program is designed to reflect core leadership themes that are important to the development of leadership and global citizenship skills. "I volunteered for ELP because I am in a brand new program and wish that there had been someone to help answer my questions and be a guide. I wish not only that I'd had someone to help direct me to get integrated in my faculty and the UBC community, but that I still had a leader to guide me." Knowing first-hand that there is a need for such leadership, Priscilla is motivated to be that leader for other students who need a contact for answers, advice and referral to resources.

When asked what leadership means to her, Priscilla reflects: "My take on leadership is to step up to the plate when everyone else is wary of it, to speak on behalf of others when silence falls, and to encourage people around me to reach their goals. What motivates me to be a leader is the satisfaction of moving ideas forward and getting things accomplished."

Of her immediate goals, she says, "I intend to continue assisting the incoming students in my program by paving the way as the pioneer; by unifying my program with the other programs in the Faculty of Dentistry, as well as connecting them with the broader UBC community. I want to contribute to others what hadn't yet been developed for me."

Priscilla is from Vancouver and is fluent in Spanish. After graduation she wants to travel to South America to meet her extended family (her mother is Paraguayan and father is Chilean) and get in touch with her cultural roots. Her dream is to work internationally with an organization like Ayuda Inc., a non-profit organization engaged in improving and sustaining the oral health of people in underserved areas of the world. "I haven't experienced a developing country and, coming from a very fortunate place like North America, I want to contribute to societies and people in need."

Priscilla sees graduate school in her future. "I'd also like to go further in my education—maybe a master's in education or teaching," she says.

Whether leaders are born or taught is irrelevant to Priscilla. She shares her truism in the debate: "I know that nothing comes easy. It takes hard work and I know what that is—I learned it from my mother. She's the source of my inspiration."

¹ The Entry-to-Practice Admission Option is an entry point to the UBC Dental Hygiene Degree Program open to secondary school graduates and applicants who have completed more than six credits of university-transferable coursework.



PHOTO BY MARTIN DEE

The 'Fine Arts' of Giving

BY JANE MERLING

Philanthropy is defined as goodwill to humankind and an active effort to promote human welfare. Why people choose to give varies as much as the type of gift they choose to share, whether it be time, talent or wealth. In the case of Barry Morley, it is all three.



Barry graduated in 1969 as a Registered Dental Technician. He joined Fine Arts Dental Laboratories in 1970 as a dental technician, where he was exposed to subperiosteals and, later, blade implants in conjunction with crowns and bridges.

In 1973, Barry became head of the crown and bridge studio at Fine Arts and also became one of the company's owners. In his position as an owner, he created an education component at Fine Arts for his staff and for dentists to learn about advancements in dental technology. This continues today in the form of study club sponsorships and seminars.

Now president of Fine Arts Dental Laboratories, Barry's commitment to the oral health profession extends across the community and includes strong advocacy for accessible dental education. Helping dental students with the cost of their education is "paramount" for Barry. Tuition fees have increased, making student financial assistance a major priority for UBC Dentistry. For over a decade, Fine Arts has helped relieve the financial difficulties faced by many UBC Dental students by supporting two generous student bursaries.

Barry's leadership and vision in supporting outstanding dental students at UBC is, by all definitions, that of a true philanthropist.

UBC Alumna Announces Establishment of the W. Jo Gardner Award

I attended the second annual UBC Alumni Wine Reception on Thursday, October 23, 2008, with my daughter Katie Russell (pictured with me on the left), who is a dental hygiene student at Vancouver Community College. It was my first time at this event and I found it a great way to reconnect with fellow classmates and colleagues.



This event also gave me an opportunity to honour my mother Jo Gardner BDS Sc 1998, who graduated at age 73 from the Dental

Hygiene degree completion program. Sadly, she passed away on August 5, 2008, and has left a big hole in the dental hygiene profession. That night at the alumni reception, I announced the establishment of a W. Jo Gardner Award, which will be given to a student graduating from the four-year Dental Hygiene program.

Janice Cox Dip DH 1978

For information on how to make a donation, contact Jane Merling at merling@interchange.ubc.ca

Generous Support from the Dental Hygiene Alumni

The UBC Dentistry Class of 2011 will not only welcome the first Dental Hygiene Entry-to-Practice[†] degree graduates, but will also confer the first recipient of the W. Jo Gardner Memorial Award.

Jo Gardner's determination, ambition and professionalism inspired her family and friends to collectively create a legacy gift to recognize a dental hygiene student for outstanding academic achievement and leadership. The first Dental Hygiene Entry-to-Practice class graduation will mark an

important milestone for the profession and place UBC graduates as leaders in oral health care. This first award in support of Dental Hygiene Entry-to-Practice degree recipients will honour Jo's interest in lifelong learning and will be an important landmark for future graduates.

With the support and generosity of Dental Hygiene alumni, the W. Jo Gardner Memorial Award will continue to flourish and provide for future graduates.

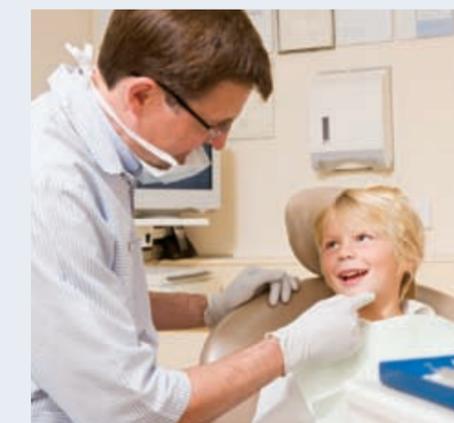
[†] The Entry-to-Practice Admission Option is an entry point to the UBC Dental Hygiene Degree Program open to secondary school graduates and applicants who have completed more than six credits of university-transferable coursework.

MAKE IT COUNT

The BC Society of Pediatric Dentists and its president Dr. Felicity Hardwick unanimously voted to double the amount of their annual prize to UBC Dentistry. This prize is given to a graduating student who demonstrates a special interest and excellence in the field of pediatric dentistry. As strong advocates of pediatric dental education and care, we would like to thank the BC Society of Pediatric Dentists for its vision and outstanding leadership. We also acknowledge Dr. Peter Y.K. Chan, past president, and his continued connection with UBC Dentistry.

By supporting an existing student award or bursary, you will help enhance a student's experience by easing financial burden. You will also exemplify professionalism and community contribution for all future oral health professionals.

To support existing student awards and bursaries, or to create a new one of your own, please contact Jane Merling at 604-822-5886 or merling@interchange.ubc.ca





UBC
DENTISTRY
ALUMNI

CLASS NOTES AND EVENTS

Share your news with classmates, faculty and friends. Look for reunion announcements and events for all alumni. Submit alumni stories and keep in touch at www.dentistry.ubc.ca/alumni

1960s + 1970s



Battle of the Bands 2009—Faculty vs. Students

Bill McDonald
DMD 1977



Imagine a day in the life you might think of a fantasy—like being a rock star.

You think **someday never comes**, then **suddenly last summer** the telephone line is ringing.

Would I play in the faculty band?

Thought I **had too much to dream last night**, but **call me the breeze**—I was in.

Into the great wide open, the next twelve weeks would be practise time and a **life of illusion**.

It was the highlight of the week for the five of us—Dr. Mel Sawyer, Lesley Branton, Dr. Larry Rossoff, Bill Rosebush DMD 1983, and Bill McDonald DMD 1977.

It was like there was **something in the air** and we were **running down a dream**.

The going was rough at first, but soon it started to **come together**.

Nobody told me to walk this way, but *that's the way I like it*.

Soon it was time to **move it on over** to the Medical Student Alumni Centre, as **the night time is the right time**.

The date was January 16, 2009, and **we will rock you**.

Hey tonight, *come on feel the noize*—people, music, food, and beverages.

The faculty and student bands rocked the night away **with a little help from our friends** and a sound technician.

It **hurts so good**, we were **eight miles high**.

Under pressure as we started **reelin' in the years**, that night will certainly be **something to talk about**.

Here's hoping we will **not fade away**, as it truly was **wonderful tonight**.

Lyrics credits: Imagine - John Lennon · A Day in the Life - The Beatles · You Might Think - Cars · Someday Never Comes - Creedence Clearwater Revival · Suddenly Last Summer - The Motels · Telephone Line - Electric Light Orchestra · I Had Too Much to Dream Last Night - Electric Prunes · Call Me the Breeze - Lynyrd Skynyrd · Into the Great Wide Open - Tom Petty · A Life of Illusion - Joe Walsh · Something in the Air - Thunderclap Newman · Running Down a Dream - Tom Petty · Come Together - The Beatles · Nobody Told Me - John Lennon · Walk This Way - Aerosmith · That's the Way I Like It - KC & The Sunshine Band · Move It On Over - George Thorogood · The Night Time Is the Right Time - Creedence Clearwater Revival · We Will Rock You - Queen · Hey Tonight - Creedence Clearwater Revival · Come On Feel the Noize - Slade · With a Little Help from My Friends - The Beatles · Hurts So Good - John Mellencamp · Eight Miles High - The Byrds · Under Pressure - Queen · Reelin' In the Years - Steely Dan · Something to Talk About - Bonnie Raitt · Not Fade Away - Rolling Stones · Wonderful Tonight - Eric Clapton



Thank you to Scot Buchanan at Long & McQuade Musical Instruments for lending the sound equipment, and to Andre Arsenaault for making it sound right!



Kenji Shimizu
DMD 1979

Reflections on 30 Years of Part-Time Teaching

For three decades, I've had the pleasure of teaching a wide variety of courses in the UBC dental curriculum, including preclinical and clinical operative dentistry, fixed and removable prosthodontics, oral diagnosis, periodontics, communication skills, PBL sessions, and integrated care clinic.

One thing has remained constant through all the years, however: the satisfaction of witnessing the growth and development of the students I've been privileged to teach. The camaraderie of the dedicated faculty and staff at UBC has also kept me motivated. I'm truly grateful for this wonderful experience, which has added so much to my life. [Photo: Kenji Shimizu and daughter Andrea.]

DMD 1974 REUNION

35th Year Reunion · September 25 - 27, 2009

Reunion being held in Vancouver, BC

Contact Daniel Ng DMD 1974 at daning@telus.net or Jenn Parsons at dentalum@interchange.ubc.ca for details.

DMD 1979 REUNION

30th Year Reunion · June 5 - 7, 2009

Spirit Ridge Vineyard Resort & Spa, Osoyoos, BC
Enjoy sharing memories on the golf course or over a glass of Nk'Mip wine. UBC Dentistry dean Charles Shuler to present a CDE course.

Contact Paul Andersson DMD 1979 at drpaulandersson@shaw.ca for details.

1980s



Keenman Feng
DMD 1985

UBC Dentistry Alumnus Volunteers in China

Our recent mission to Chengde, China, was to help with an effort to do cleft palate/cleft lip work for the local children. The Rotary Clubs of Vancouver Chinatown and of Richmond raised \$100,000 to send 30 volunteers from Canada, the United States and New Zealand to Chengde for two weeks. We were invited to China by Hebei Population and Family Planning Association, under the auspices of Rotaplast International of San Francisco, and we stayed at the hotel next to Chengde North Hospital where we worked.

A Chinese pharmaceutical company raised matching amounts of money to transport approximately 180 children from areas surrounding Chengde to Chengde North Hospital for screening. Ultimately, approximately 130 children received free plastic surgical and/or dental treatments and free stays at the Chengde North Hospital for one week, along with family members.

It was an eye opener for me to work in a state-of-the-art hospital and to observe the finesse that the US plastic surgeons applied to cleft lip/cleft palate repairs, as well as to rhinoplasties and repairs to various Tessier clefts. The use of pharyngeal flaps and a flap that was invented by one of the attending plastic surgeons was also observed. The dentist and orthodontist were involved with extractions, obturators and speech bulbs.

The local people, the local doctors and medical staff were friendly and helpful and made our trip most rewarding and unforgettable.



Reunion
DMD 1983

Alumni from the DMD class of 1983 shared memories cruising together from Vancouver to San Diego in September 2008.



Bill Liang
DMD 1983

Bill Liang ran the Newport Marathon and qualified to run in the Boston Marathon in April 2009. He also plans to run the New York Marathon in October.

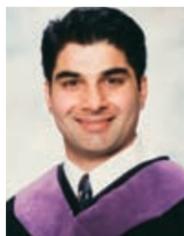
DMD 1984 REUNION

25th Year Reunion · September 11 - 13, 2009

Pan Pacific Hotel, Whistler, BC
Dinners will be at Bearfoot Bistro and Quattro.

RSVP and book your room before May 30, 2009. For more information contact Bhasker Thakore DMD 1984 at bhasker@shaw.ca or Jenn Parsons at dentalum@interchange.ubc.ca

1990s



Mark Parhar
DMD 1997

UBC alumnus Dr. Mark Parhar was recently featured in a UBC Public Affairs article written by Basil Waugh. The following is adapted from the original article.

Parhar will help lead dental care on behalf of the Vancouver Olympic and Paralympic Winter Games organizing committee (VANOC), along with Dr. Christopher Zed, UBC Dentistry's associate dean of Strategic and External Affairs. Parhar, who led dental care for the 2006 World Junior Hockey Championship and is team dentist for the Vancouver Giants hockey team, expects the dental team to treat more than 500 patients for everything from routine toothaches to severe sports-related oral trauma.

Parhar says he is happy he has rekindled his relationship with his alma mater. "UBC gave me a really well-rounded education and the tools to help me to be successful in dentistry and the community. It really laid a great foundation for me to build upon."

To read the original article, visit www.publicaffairs.ubc.ca/ubcreports/2008/08dec04/dental.html



Michelle Chang
DMD 1998

Chris, Caitlin and I are happy to announce the arrival of our second daughter! Her name is Hayley Mah, and she was born on October 15, 2008, at 9:05 p.m.



Karen Gardner
DMD 1992
Suzy Hupfau
DMD 2001

Karen Gardner [pictured with Suzy Hupfau (L)] presented her International Peer Review Project at the Vancouver & District Dental Society Midwinter Clinic on December 12, 2008.

2000s



Ryan Lauwers
DMD 2004
Kevin Lauwers
DMD 2005

Over the past year, Kevin and I have been volunteering one day a month at the Vancouver Native Health Clinic in the Downtown Eastside. We join other volunteer dentists to help provide first-come, first-served dental services at no charge to those patients in need. Dr. Bruce Ward recruited us. We wish to thank everyone at the clinic—we have really enjoyed our time there and would encourage others to consider donating their skills to those in need.

GOT TIME?

UBC Dentistry students are leading Community Volunteer Clinics on Saturdays. They are in need of volunteer dentists to supervise in the Downtown Eastside and at Douglas College. Please contact Jenn Parsons at dentalum@interchange.ubc.ca for more info.



Ash Hafezi
DMD 2000

Ashkan Hafezi and Parishad Sadeghieh (BSN 2000) are proud to announce the arrival of their baby boy, Kion, on July 26, 2008. He has brought much joy into their lives.



Roger Chan
DMD 2002

My daughter Carissa was born on August 8, 2008. Here is a recent picture of Carissa with her big sister Breanne.

Almost Alumni



Jaspal Sarao
DMD 2010 (candidate)

Jaspal and Sandeep Sarao are pleased to announce the arrival of a baby girl, Nimret Kaur, on December 30, 2008.



Becky Olacke
DMD 2010 (candidate)

Becky Olacke finished 32nd overall in the November 8, 2008, Silverman Triathlon in Henderson, Nevada.



Mike O'Brien
DMD 2010 (candidate)

This year's UBC Faculty of Dentistry Golf Tournament had quite a familiar feel to it. Teeing it up once again at beautiful Morgan Creek, the tourney was blessed with perfect weather, delicious food and fun festivities, as is the case year after year. Keeping with tradition, the usual suspects were atop the leaderboard, our favourite master of ceremonies kept us laughing, and everyone left the tourney with a smile on their face. As per usual, this year's tournament was better than the last. Thanks again to all our participants and sponsors. We are looking forward to seeing you all again next year!

More Events for All Alumni

UBC DENTISTRY COMMUNITY DAY
April 25, 2009

Douglas College, New Westminster, BC
Students and community dentists / dental hygienists volunteer time in the community.

Interested volunteers can contact Jenn Parsons for more information at dentalum@interchange.ubc.ca

SHARE

Send an alumni story or update for "Class Notes" to dentalum@interchange.ubc.ca

PLANNING A REUNION?

For ideas, call Alumni Relations at 604-822-6751



UBC DENTISTRY FAMILY DAY

May 23, 2009 · 2:00 pm - 4:00 pm

Nobel Biocare Oral Health Centre at UBC

All DMD and Dental Hygiene alumni, students, staff, faculty, and their families are invited to an Open House. Join dean Charles Shuler and our students for a tour of the clinic. Bring your children and enjoy activities planned by the Tooth Fairy and her pixies.

For more information, please contact Alison Kovacs at akovacs@interchange.ubc.ca or Jenn Parsons at dentalum@interchange.ubc.ca

PART-TIME FACULTY RECOGNITION DINNER

June 9, 2009

University Golf Club, Vancouver, BC

WELCOME BACK BZZR GARDEN & YEARBOOK PICK-UP

September 18, 2009

Watch for more announcements, including location details, at www.dentistry.ubc.ca/alumni

For Students and Alumni

7TH ANNUAL ALUMNI & FRIENDS GOLF TOURNAMENT

September 20, 2009

Morgan Creek Golf & Country Club, Surrey, BC

3RD ANNUAL DENTAL HYGIENE WINE RECEPTION

October 21, 2009

Uber Lounge, Vancouver, BC

Stay in Touch

The alumni relations department at UBC Dentistry can help you stay connected with your fellow graduates, plan and promote reunions, and keep informed about upcoming educational opportunities. To learn more, please contact Jenn Parsons, manager of Alumni & Community Affairs, at 604-822-6751 or dentalum@interchange.ubc.ca

Stay connected to more than 1,800 alumni. Share your news, thoughts or comments at www.dentistry.ubc.ca/alumni

DENTAL MENTORSHIP PROGRAM

The UBC Dentistry Mentorship Program, presented by the BC Dental Association and the Canadian Dental Service Plans Inc., is recruiting dentists to be mentors. If you are interested in being paired up with a student, please contact Alex Hemming at alexaug@interchange.ubc.ca



DENTAL HYGIENE MENTORSHIP PROGRAM

If you are a dental hygiene professional and have a few hours to donate to mentor a Dental Hygiene student, please contact Alex Hemming at alexaug@interchange.ubc.ca

KEEP IN TOUCH

at www.dentistry.ubc.ca/alumni

ALUMNI PARTNERS



Thank you to all our volunteers and industry supporters. **ANGKOR WAT INTERNATIONAL HALF MARATHON** · Richard Alm

· Johann Burger · Paul Burger · Dianne Carruthers · John Cassils · Nina Cassils · Barb Elliott · Rob Elliott · Kim Gartland · Dr. Katherine Lee · Josip Maras ·

Samson Ng DMD 2002 · Dr. Egle Sakalauskaite · Phoebe Tsang DMD 2002 · Dr. Chris Zed **UBC DENTISTRY BOARD OF COUNSELLORS**

· Richard Busse DMD 1986 · Dr. Ken Chow · Susan Chow DMD 1972 · Brenda Currie Dip DH 1976, BDS Sc 2004, MSc 2006, PhD candidate ·

Dr. Will Gaede · Miss Christine Hibberd · Mrs. Sophia Leung CM · Dr. Jin Li-Jian · Mr. Tuomas Lokki · Ms. Heather Mohr · Mr. David Poole · Mr.

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Varma DMD 1983 · Dr. William Wong · Benjamin Yeung DMD 1983 · Ron Zokol DMD 1974 **UBC PROFESSORSHIP IN DENTAL GERIATRICS**

COMMITTEE · Dr. Ludlow Beamish* · Dr. David Christie · Dr. Myrna Halpenny · Dr. Mike Kaburda · Dr. Michael MacEntee · Dr. Joe McIvor

· Wendy Rondeau DMD 1979 · Dr. Jon Strom · Theresa Wong DMD 1976 · Chris Wyatt DMD 1986 **RESEARCH DAY 2009** · Alexei Doudkine

(Perceptronix) · Scott Ellis (Scotiabank) · Tuomas Lokki (Planmeca Oy) · Angus MacDonnell (LED Dental Inc.) · Dave Morgan (LED Dental

Inc.) · Patty Scrase (Scotiabank) · Lydia Taylor (Perceptronix) · Bojana Turic (Perceptronix) · Bill Wilson (Scotiabank) · David Wong DMD 1981

UBC LEARNING EXCHANGE OPEN HOUSE, DENTISTRY BOOTH · Dr. Maryam Fathimani (UBC GPR) · Dr. Darcy MacLellan (UBC GPR)

THANK YOU

Thank you to all the alumni sponsors and prize donors of the past several months. **DENTAL HYGIENE WINE RECEPTION**

2008 · Cruiseship Centres · Edible BC · Gavin Craig Personal Chef · Judy Brown · Kim Laing Jewelry · Morgan Creek Golf Course & Country Club

· Pacific Palisades Hotel · Penfolds · Serendipity Lab Coats · Steamworks · Tech 1 Hair Design · Tinhorn Creek · Wyeth Consumer Healthcare

DENTAL HYGIENE MENTOR VOLUNTEERS 2008 - 2009 · Carrie De Palma · Rebecca Kan Dip DH 1980 · Debra MacNeil Dip DH 1976 ·

Harkamal Powar BDS Sc 2008 · Rosemarie Weber Dip DH 1976 **BATTLE OF THE BANDS 2009-FACULTY VS. STUDENTS · FACULTY**

BAND · Lesley Branton · Bill McDonald DMD 1977 · Bill Rosebush DMD 1983 · Dr. Larry Rossoff · Dr. Mel Sawyer **STUDENT BAND** ·

Janice Duong DMD 2010 candidate · Arthur Lau DMD 2010 candidate · Alvin Lo DMD 2010 candidate · Cung Nguyen DMD 2010 candidate

· Sam Sedaghat DMD 2010 candidate · David Wong DMD 2010 candidate **SOUND** · Andre Arsenault · Scot Buchanan · Long & McQuade

Musical Instruments · *UBC Dentistry is thankful to all who volunteered their time. We apologize if your name or organization was missed.*

*deceased

CONTINUING DENTAL EDUCATION 2009 - 2010

**April 18, 2009
(Saturday)**

"If You Can't Beat'em, Enjoy Them"
& "But Aren't They Just Baby Teeth?"
Dr. Greg Psaltis

**June 15 - 19, 2009
(Monday - Friday)**

Cast Gold Restoration
Dr. Margaret A. Webb

**November 21, 2009
(Saturday)**

Ortho Update
Presenter TBA

**April 24 - 26, 2009
(Friday, Saturday, Sunday)**

Inhalation and Oral Sedation in Dentistry
Dr. David Donaldson, Dr. Mark Donaldson
and Dr. Fred Quarnstrom

**October 17, 2009
(Saturday)**

Simplified Adhesive Solutions-Using
All the Tools in the Box
Dr. Bruce Leblanc

FOR REGISTERED DENTAL HYGIENISTS

**April 4 - 5, 2009 (Saturday, Sunday)
April 24 - 25, 2009 (Friday, Saturday)**

Local Anaesthesia for Registered
Dental Hygienists

May 27 - June 10, 2009

Orthodontic Module for Certified Dental
Assistants and Registered Dental Hygienists
Lecture sessions: May 27 - 29
Clinical session A: May 30 - June 3
Clinical session B: June 6 - 10

November 2009 (Date TBA)

Local Anaesthesia for Registered
Dental Hygienists

CLINICAL PARTICIPATION COURSES 2009 - 2010 (Limited Enrolment)

Basic Orthodontics for the General Practitioner
Dr. Paul Witt
Friday morning sessions
September 2009 - June 2010

Cutting Edge Periodontal Surgery for the
General Practitioner
Dr. Jim Grisdale
Saturday sessions
October 2009 - March 2010

Advanced Orthodontics for the General Practitioner
Dr. Clement Lear
Thursdays, Fridays and Saturdays
(morning and afternoon sessions)
September 2009 - August 2010

Advanced General Dentistry Study Club
Coordinators: Dr. Jeff Coil and Dr. Chris Wyatt
Wednesday evenings
October 2009 - February 2010

Advanced Prosthodontics for the General Practitioner
Dr. Chris Wyatt
Tuesday evening sessions
October 2009 - May 2010

Practical Clinical Occlusion
Dr. John Nasedkin
Monday afternoons
October 2009 - May 2010

CLINICAL TOPICS IN DENTISTRY PROGRAM

37 topics available - 28 available on DVD! Great savings when you purchase 3 or more!

Clinical Topics in Dentistry is a series of recorded educational programs designed to enable dental professionals to learn independently. The clinical topics have been recorded from live procedures performed at the mid-winter meetings of the Chicago Dental Society and the Hinman Dental Society. Each program includes one study guide and one post-test. These videos/DVDs are available for purchase. Once you have placed an order, your programs will be mailed to you so that you may begin working on them at your own pace. As you complete each program, send the original post-test to Continuing Dental Education. Your post-tests will be marked and a certificate of completion will be sent to you. Your credits will be forwarded to your licensing body at the end of each month, if applicable. Extra study guides are available for additional participants, only if purchased at the time of the initial order.

To receive a copy of our catalogue, please call Continuing Dental Education at 604-822-2627, or e-mail us at cde@interchange.ubc.ca. For more information on our video/DVD program, please visit our website at www.dentistry.ubc.ca/cde and click on "Clinical Videos."

FOR FULL DETAILS OF CDE COURSES AND TO REGISTER VISIT DENTISTRY.UBC.CA/CDE

