

MARK YOUR CALENDARS!

**JUNE 21 - 25, 2010
(MONDAY - FRIDAY)**

**Cast Gold Restoration
Dr. Margaret A. Webb**

Don't miss this unique opportunity!
Times: 8 am - 6 pm
(format and times vary slightly each day)

Location: Nobel Biocare Oral Health Centre and John B. Macdonald Building, Faculty of Dentistry

This is an intensive five-day hands-on course. Each day begins with a lecture before proceeding to the hands-on clinical day. In addition to working on individual patient cases, participants will gain more in-depth knowledge of laboratory procedures.

**OCTOBER 22 - 23, 2010
(FRIDAY - SATURDAY)**

**Dr. Richard V. Tucker Symposium 2010
Current Topics in Restorative Dentistry**

Dr. Terry Donovan, Dr. Harald Heymann,
Dr. David Isen, Dr. Vince Kokich Jr.,
Dr. Dennis Nimchuk, Dr. Ashok Oommen,
Dr. Frank Roberts, Dr. Cliff Ruddle,
Dr. Ed Swift, Dr. Richard V. Tucker

Location: Vancouver BC

This is an exciting program of current topics in restorative dentistry with world-renowned speakers, moderated by Dr. Richard Simonsen.

UBC DENTISTRY



SPRING 10

IMPRESSIONS

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IMPRESSIONS

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Advancing Oral Health Through Outstanding Education, Research and Community Service



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

Dean's Message



Dear Colleagues,
Welcome to the spring 2010 edition of Impressions.

The last few months have been very active and productive. The preparations and program for the 2010 Olympic and Paralympic Winter Games involved many of our students, staff and faculty members. Their experiences were truly “once in a lifetime,” and we will share some of these stories with you.

We have received final approval from the UBC Board of Governors for our new clinical specialty graduate programs in orthodontics, pediatric dentistry and prosthodontics. These programs will provide many new opportunities for student learning and patient care. The first classes in these new graduate programs will begin September 2010.

The renovations on the second floor of the John B. Macdonald Building are underway. Where the old dispensary was located, in Room 218, there is now a new conference room. Architectural plans for a new computer learning centre with additional small conference rooms have been approved. This project will be tendered in April, with construction to begin after the end of classes.

The Faculty of Dentistry is in a remarkably strong position right now. We are working hard to continually improve all aspects of our teaching, research and service. We have successfully recruited new faculty members to support our educational and clinical programs and to enhance our scholarly productivity. After a very productive year in 2009, it looks as if 2010 will see even more improvements in our Faculty.

UBC is becoming internationally recognized in endodontics. One of the feature articles in this edition of *Impressions* is focused on Dr. Markus Haapasalo, who has had significant accomplishments in research studying the biofilms linked to endodontic disease and treatment. His results are leading to innovative approaches to endodontic treatment that will benefit patients. Haapasalo's research is also key to the success of the endodontics graduate program, providing novel projects for MSc and PhD student research.

The Faculty of Dentistry has also established a leadership position in oral health needs and care of senior citizens. The ELDERS

(Elders Link with Dental Education, Research and Service) Group is recognized internationally for achievement in geriatric dentistry. Drs. Michael MacEntee and Chris Wyatt have developed programs that are active in education, research and clinical care. The coming years will see a rapid rise in the number of seniors in the population and our Faculty is well prepared to lead the profession in determining the best approaches to seniors' oral health care.

I hope you enjoy the articles in this issue of *Impressions*, in which we continue to highlight the remarkable achievements of our students, staff and faculty members. We are excited by the opportunities for 2010 and are pleased to share them with you.

All the best,

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

PHOTO BY MARTIN DEE

NEWS

Dentistry at the Games!

UBC Dentistry is proud of its faculty, students and alumni who were involved in many ways with the 2010 Olympic and Paralympic Winter Games.

With a strong desire to volunteer, third-year dental student Oxana Korj found herself given a huge honour—to carry the country-name board for the Netherlands during the opening and closing ceremonies of the 2010 Olympic Winter Games. “I volunteered to be a performer in the ceremonies—perhaps a dancer, which is my background,” says Oxana, “but when the organizers offered me a placement to carry a country name during the parade of athletes, I was ecstatic.” Oxana admires the spirit of the Olympics and sees the Games as an example of society functioning at its highest order. “It’s an important position, to be the first face representing the country and its athletes.” Already looking beyond graduation in 2011, Oxana, a native Russian speaker, sees herself involved in the 2014 Olympic Winter Games in Sochi, Russia—perhaps as a volunteer dentist. But for now, she is thrilled to have been a volunteer for the Games in Vancouver.

While the smile of a dental student greeted the world as athletes paraded into BC Place Stadium, more dental-related smiles will have greeted athletes during their Olympic experience in Vancouver. Dr. Christopher Zed, associate dean of UBC Dentistry, and Dr. Mark Parhar DMD 1997 led dental care on behalf of the Vancouver Olympic and Paralympic Winter Games Organizing Committee (VANOC). After having developed the dental treatment protocols and the physical plans (layout, equipment and supplies) for two polyclinics located in the Vancouver and Whistler Olympic Villages and having recruited

a team of close to 70 volunteer dentists, Zed and Parhar anticipated more than 800 patients for everything from routine dental care to sports-related oral trauma during the Games.

Zed and his team also used the Games to showcase the BC College of Dental Surgeons' world-leading oral cancer screening guidelines, which UBC research helped to produce. “Outdoor winter athletes are at risk for cancers of the lip and mouth because the sun's UV rays are magnified by the snow,” says Zed. Also developed by Zed and Parhar are a number of awareness programs. One instructs athletes on the health benefits of sunscreen and lip balm with UV protection, and another tailored to athletes in high-contact sports extols the benefits of high-quality mouthguards.

By providing athletes from around the world with possibly the best oral health care available during the Games, Zed, Parhar and all the volunteer dentists, many of them UBC alumni, exemplified the highest standards of professionalism and community spirit—befitting the philosophy and magnitude of the Olympic Games.

Read more about Dr. Chris Zed and the dental services at the Olympics on page 23.



Oxana Korj carries the country-name board for the Netherlands.

Updates From BOLD—The Bureau of Legal Dentistry

Dr. David Sweet OC, director of the Bureau of Legal Dentistry (BOLD), continues in the role as INTERPOL's chief disaster victim identification (DVI) officer—a role he has fulfilled passionately since 2006. As a member of the executive of the INTERPOL Standing Committee on DVI, Sweet assists with formulating and developing international best-practice standards for DVI. Recent INTERPOL DVI executive meetings have taken him to New Zealand, Macedonia and the United Kingdom. BOLD has a reputation as a world leader in DVI based on the remarkable achievements of the BOLD team members deployed to Thailand in 2005 as part of the tsunami disaster victim identification response. One such achievement was the creation of a secure, encrypted website supported by information technology experts at UBC Dentistry to transfer antemortem data (dental, medical and fingerprint records). This led to a web-based protocol that was adopted by other countries' DVI teams to transmit their missing persons data.

In other BOLD news, UBC engineering physics professor Andre Marziali is collaborating with BOLD to determine whether his DNA extraction method, called Synchronous Coefficient of Drag Alteration (SCODA), can be applied to samples from forensic casework. Marziali invented the technology for extracting trace amounts of DNA from various surfaces. Laura Mai, who is completing an MSc degree at the BOLD lab through the UBC Department of Genetics, is evaluating SCODA extraction methods used on difficult forensic samples. BOLD lab's DNA technician, Diane Fairley, is helping Laura to directly simulate the kind of refractory samples from crime scenes that Diane is faced with, such as bloodstains in soil, fingerprints on spent shell casings from gangland-style murders, and buried bones and teeth. Sweet calls Diane Fairley “one of the best DNA analysts in the world today.”

New Clinical Specialty Graduate Programs: Orthodontics, Pediatric Dentistry and Prosthodontics



Reaffirming its commitment to developing new clinical specialty graduate programs, the Faculty of Dentistry is offering three new programs in orthodontics, pediatric dentistry and prosthodontics. These new programs were recently approved by the UBC Board of Governors and complement UBC Dentistry's existing clinical specialty graduate programs in periodontics and endodontics and the postgraduate programs in oral medicine/oral pathology and general practice residency.

The clinical specialty graduate programs are combined degrees. This means that the diploma in a clinical specialty is completed in conjunction with a PhD or MSc in Craniofacial Science to ensure that all students receive training as clinicians and researchers. In addition, to develop their teaching abilities, all students are actively involved in the undergraduate curriculum.

Dr. Edward Putnins, associate dean of Research and Graduate/Postgraduate Studies, explains that in BC, Canada and the world there is a recognized shortage of dental academics who are prepared to conduct outstanding research and teach at dental institutions. "Due to the aging of current faculty and the expanded number of North American dental schools, this shortage will continue to increase. UBC Dentistry is meeting this demand not only with clinical specialists, but is also preparing the next generation of dental faculty members by providing graduate training in a wide variety of clinical specialties and research."

This is a much more inclusive portfolio of recognized specialty degree programs, which allows UBC Dentistry to provide more integrated management for their patients with complex oral and craniofacial disorders. "We envision that these special patients could

be referred from across the province or western Canada."

UBC Dentistry's undergraduate dental students—those studying for general practice—will also benefit from the increased number of graduate programs. Studying at a dental school next to professionals undertaking additional clinical specialty training will enable them to observe this full range of treatment. "This valuable exposure during their dental education will help them become more effective oral physicians," remarks Putnins.

"Our integrated clinical specialty graduate programs are positioned to meet the critical need for basic science and clinical research. The recently funded Centre for High-Throughput Phenogenomics will ensure that state-of-the-art equipment required to undertake basic science research is available. In addition, these programs are well positioned to conduct clinical research and monitor patient outcomes by evaluating novel therapeutic approaches prior to their use in the undergraduate programs and general practices. The Faculty is working to establish itself as a centre of clinical research excellence. The opportunities for graduate students in the various disciplines are limitless."

The clinical specialty graduate programs at UBC Dentistry accept both national and international applicants. Normal length of study for the PhD option is six years, while the MSc option is three years. Graduates will be eligible to take the Royal College of Dentists of Canada (or its equivalent) examinations for their specialty certification.

For further information, visit dentistry.ubc.ca/education

PHOTO COURTESY OF DR. ALAN A. LOWE - PHOTO COURTESY OF DR. ROSAMUND HARRISON - PHOTO BY BRUCE MCCAUGHEY



Dr. Edwin H.K. Yen Receives 2009 UBC Honorary Alumnus Award

Dr. Edwin H.K. Yen, professor of orthodontics and dean emeritus, has been awarded the Honorary Alumnus Award from the UBC Alumni Association for raising the profile of UBC Dentistry internationally while reimagining its instructional methods. The award was presented November 10, 2009, at the 15th Annual UBC Alumni Achievement Awards and Elements of Achievement Afterparty.

Under his watch, the faculty evolved into a world leader for research and education. He

modernized learning facilities, restructured the undergraduate curriculum, increased international collaboration and raised standards for the dental profession worldwide. Dr. Yen is highly respected in his field and an inspiration and role model for colleagues, students and alumni.

Dr. Yen has been successful in engaging Dentistry alumni in the life and future of the faculty. An annual alumni reception he initiated eight years ago has grown from 30

attendees to more than 500. He celebrates alumni career successes and provides a forum for discussion via the annual dental conference. Many alumni are now involved in providing clinical experiences for students, and their donations to the faculty help support the next generation of dentists.

PHOTO BY BRUCE MCCAUGHEY

On the Cover



Christopher Overall, professor and Canada Research Chair in Metalloproteinase Proteomics and Systems Biology at UBC Dentistry, and Georgina Butler, research associate, inspired the cover of *Nature Reviews Drug Discovery* (December 2009), which published their paper, "Proteomic Identification of Multitasking Proteins in Unexpected Locations Complicates Drug Targeting."

The cover artwork references Karl Popper, a 20th-century Viennese philosopher who postulated that no number of sightings of white swans can prove the theory that all swans are white; sighting just one black swan may disprove it. The dogma that all swans are white held until the discovery in the 18th century of black swans in Australia. In their article, Overall and Butler used Popper's postulation as an analogy for the interpretation of proteomics experiments. View the article at www.nature.com/nrd/journal/v8/n12/full/nrd2945.html

The cover artwork, titled *Black Swans in Drug Targeting*, is by Susanne Harris. Original photograph is by Katie Kingwell.



Kevin Chien-Hsun Lee DMD 2011 (candidate) appears on the cover of the *Journal of the Canadian Dental Association (JCDA)* (September 2009), saluting him as winner of the 2009 CDA/Dentsply Student Clinician Research Program for his research project on the use of fluorescence visualization in identifying high-risk oral lesions. The program took place on March 6, 2009, in Vancouver, BC, at the CDA Annual Convention and Pacific Dental Conference.

Kevin told the JCDA that participating in the program was very meaningful to him. "It was a great experience to meet with so many students who are dedicated to research," he said. "It was interesting, because even though we had differences in our cultural backgrounds, education and research areas, we all shared the same passion for dental research."

For a full report of the 2009 Student Clinician Research Program, visit www.cda-adc.ca/en/cda/news_events/media/dentistry_news/2009/08_26_09_dentsply.asp

Dr. Rosamund Harrison Wins National Teaching Award



Dr. Rosamund Harrison, professor and chair of the Division of Pediatric Dentistry, has won the 2010 3M ESPE – ACFD National Dental Teaching Award for her outstanding work in dental education both locally and nationally.

Harrison was instrumental in the development of the combined medical–dental curriculum, serving on the Faculty of Medicine’s planning committee for six years as Dentistry’s representative. Her efforts ensured that Dentistry was not only included in the joint curriculum development process, but respected, and that medical and dental students at UBC would learn about their responsibilities to society as well as to individual patients.

As division chair of Pediatric Dentistry, Harrison also developed a research program in health promotion and access to care. In her groundbreaking 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.

Harrison’s students consider her an exceptional educator, an individual who “models the skills, knowledge and attitudes to which they aspire.” She is able to communicate uncompromising standards while displaying compassion for the stresses and challenges of being a dental student. Despite her busy schedule and heavy workload, students know they can chat with her long beyond the end of a session or drop by her office any time and receive a warm welcome.

The 3M ESPE – ACFD National Dental Teaching Award is presented annually to a faculty member who, in the opinion of his or her students and peers, is an outstanding teacher and displays exceptional interest in the learning needs of students. The award has now been given eight times, and four of the previous winners have come from the UBC Faculty of Dentistry: Dr. Joanne Walton (2002), Prof. Bonnie Craig (2005), Dr. Leandra Best (2007) and Dr. Christopher Clark (2008).

PHOTO BY BRUCE MCCAUGHY

Three Faculty Members Granted Fellowship to the ACD

UBC Dentistry faculty members Drs. Jeffrey Coil, assistant professor, Virginia Diewert, professor, and Christopher Zed, clinical associate professor and associate dean, were inducted into the American College of Dentists (ACD) as new Fellows. The convocation was held October 1, 2009, at the ACD Annual Meeting and Convocation in Honolulu, Hawaii.

The American College of Dentists is the oldest national [US] honorary organization for dentists. Its members have exemplified excellence through outstanding leadership and exceptional contributions to dentistry and society.



Dr. Marcia Boyd (C), UBC Dentistry professor emerita, joins newly inducted American College of Dentists Fellows following a ceremony in Honolulu, Hawaii. UBC Dentistry faculty members include: Drs. Jeffrey Coil (L), Virginia Diewert (2nd L) and Christopher Zed (4th L). Others pictured are newly inducted BC dentists.

UBC and Douglas College Oral Health Care Initiative Attracts Local Community Support

Increasing community involvement is a key priority at UBC Dentistry. In collaboration with Douglas College, the UBC Dental Hygiene Degree Program has devised a unique community service and learning project to address some of the unmet dental and oral health needs for low-income families and individuals in New Westminister. The Rotary Club of New Westminister is the lead supporter of the project, with a generous funding contribution of \$15,000 over three years. The TKC CNC Foundation and Dr. Norman Ferguson are also significant supporters.

Launched in September 2009, the project marries the learning needs of UBC dental hygiene students and Douglas College dental assisting students with the unmet dental needs of New Westminister residents by offering a family-oriented approach and no-cost access to dental hygiene services at the Douglas College Dental Clinic. Rather than expect interested New Westminister residents to trek out to the dental clinic at UBC for regularly scheduled Saturday morning sessions, the UBC students travel to New Westminister. “There was an overwhelmingly positive response from the community when the project launched last September, and screening appointments resulted in 49 clients accepted for dental hygiene care,” reports Bonnie Craig, professor and director of the Dental Hygiene Degree Program at UBC.

Term one of the project ran from September to December 5, 2009, and successfully supported 12 student clinic sessions. In mid October, a volunteer dental clinic also took place at Douglas College and several clients from the dental hygiene project

had restorative dental work completed by supervised UBC dental students. Term two of the dental hygiene project started in January 2010, with 10 dental hygiene student clinic sessions scheduled until April 10.

Craig understands the narrow options of publicly funded dental programs: “They are generally targeted to young children, elders in residential care and special needs clients. Availability and accessibility are difficult or non-existent for older children and adults seeking reduced-cost dental services. Any services available are limited to a few non-profit dental clinics and a restricted number of government-funded programs.” Craig explains that the City of New Westminister has been identified as a community in need. “It’s the oldest city in western Canada and the first capital of BC, and it is exciting to have the Rotary Club of New Westminister as a lead partner in this initiative—to work with us in the community.” Until now there has not been a project providing services to those New Westminister residents who do not have the means to pay for dental care, combined with the opportunity for students to enhance their knowledge and skills.

Clients for the project were either self-referred in response to project advertising or referred by a number of different community sources, including the Elizabeth Fry Society, the Salvation Army, local food banks and day care organizations.



Dalva Padilha: Hamber Foundation Visiting Professorship in Dental Geriatrics

UBC Dentistry is thrilled to announce the arrival of Prof. Dalva Padilha from Federal University of Rio Grande do Sul in Porto Alegre, Brazil. Padilha is the first international visiting professor under the Hamber Foundation Visiting Professorship in Dental Geriatrics. This professorship was established by the Hamber Foundation, as well as a number of UBC Dentistry alumni and community friends, to assist academics visiting UBC with their geriatric dentistry research.

Padilha will be working under the direction of Dr. Michael MacEntee, UBC professor of Prosthodontics and Dental Geriatrics, and will be comprehensively reviewing publications about managing oral health care for elders in long-term-care facilities. Padilha was the first president of the Dental Geriatric Society in Brazil and is an active advocate for the recognition of dental geriatrics as a specialty.

PHOTO BY BRUCE MCCAUGHY

UBC Dentistry Researchers Ranked No. 1: Awarded Over \$1.5M in CIHR Research Grants

The Canadian Institutes of Health Research (CIHR), the Government of Canada's agency responsible for funding health research, recently funded 401 out of 2,186 applications Canada-wide for operating grants. The success rate of obtaining one of these grants is just 18 percent. UBC Dentistry researchers Dr. Joy Richman and Drs. Donald Brunette and Douglas Waterfield not only received grants, but both applications were ranked number one by their respective peer review committees: Developmental Biology and Biomedical Engineering.

Dr. Joy Richman Secures Five-Year Funding to Research Inherited Birth Defects

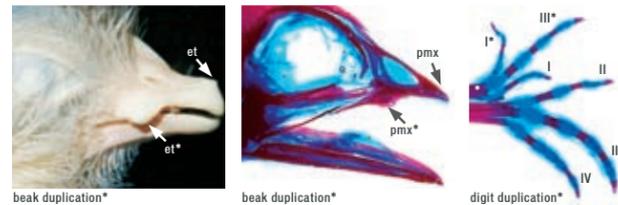
Ranked as the number one application by the Developmental Biology peer review committee, Dr. Joy Richman's research, titled "Molecular Controls of Jaw Identity and Limb Patterning," has been awarded five-year funding—just over \$907,000—from the CIHR.

In previous work, Richman unexpectedly found that the levels of retinoic acid (RA), a vitamin A derivative, and bone morphogenetic protein (BMP) are essential factors in jaw development. Tweaking these two molecules in early chicken embryos had a dramatic effect: the side of the face (cheek bones) was transformed to the centre of the face, essentially duplicating the upper beak! This experiment opened a window into the black box of facial development, since it was possible to jumpstart the process of face development and study its molecular consequences. Richman is now in the process of connecting the dots between molecules and intricately patterned facial bones. The most critical genes needed for forming certain parts of the face

will be determined, as well as how they interact with each other.

In the present application, she explains, "We are focusing on a secreted protein that previously had not been studied in great detail and was not connected to facial development. Our molecular work had shown that this protein was strongly turned on in the beak experiment." Putting the gene for this protein into the embryo was the next step, and Richman found that it was able to duplicate not only the beak, but also the digits of the limb. "This is exactly the kind of protein we would like to study, since it impacts many aspects of skeletal patterning. We now want to manipulate the levels of this protein in the early chicken embryo to determine its roles in shaping the skeleton of the limbs and face."

Richman is optimistic: "Our work will not only shed light on inherited birth defects that affect the upper face, such as cleft lip and mid-line clefts, but also will help us to understand



disturbances in the number of digits in the hands or feet." Congenital anomalies affect 1 to 2 percent of all newborns and, of these, 10 percent affect the upper extremities. Cleft lip, with or without cleft palate, affects one in 700 babies. Moreover, face and limb deformities often occur in conjunction with each other due to common molecular signalling. In order to correct face and digit abnormalities, multiple surgeries are required, often followed by expensive dental or orthopedic treatments. It will be possible to use the knowledge gained from this research to prevent or decrease the severity of these anomalies.

Chicken embryo showing beak duplication and digit duplication.

Drs. Donald Brunette and Douglas Waterfield Awarded Grant to Study the Effects of Surface Topography

Just over \$685,000 has been allocated over five years to professor of oral biology Dr. Donald Brunette and associate professor Dr. Douglas Waterfield for their research titled "Regulation of Cell Behaviour on Implants by Surface Topography." Their project ranked as the number one application to the Biomedical Engineering peer review committee for the CIHR's Open Operating Grant Program.

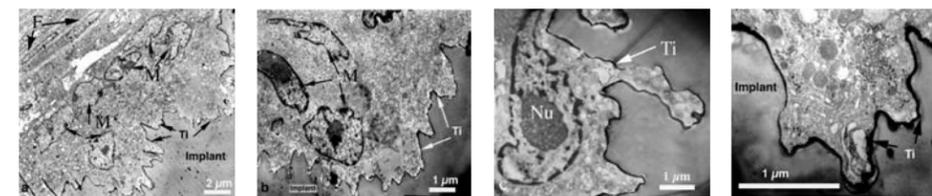
Artificial implants are now used in a host of applications, including hip joints, catheters, heart valves and dental implants. The shape of the implant surface—that is, its topography—at the micrometre and nanometre scale has been found to influence cell and tissue responses to it. Current knowledge of how cells may be specifically controlled by topography is limited, however, which compromises the ability to develop improved surfaces. Under more-or-less ideal conditions, dental implant failure rates can be as little as 1 to 2 percent. But dental and other implants are now being employed in more challenging situations such as sites with poor bone quality, and failure rates can approach 30 percent depending on risk factors.

Brunette and Waterfield's proposal will study the effects of surface topography on four types of cells that often contact implants: fibroblasts,

epithelium, bone cells and macrophages. Using sophisticated methods of microfabrication and nanofabrication, novel and precisely characterized surfaces will be produced and examined for their effects on cell structure, migration and cell-cell interactions, as well as gene and cell signalling activities.

Brunette stresses that particular attention will be focused on the macrophage, as this cell orchestrates the body's response to foreign bodies such as implants. The intent is to develop surfaces that induce macrophages to promote healing rather than destructive inflammation.

"Our past work has been used to modify some types of dental implants, and we anticipate the proposed work will lead to the rational, cell behaviour-based design of specific engineered surfaces that improve implant tissue integration for multiple clinical applications," Brunette explains. "Improved surfaces will enable faster integration of implants with bone or other tissues, as well as enable implants to be used in situations that currently have a high risk of failure."



Electron micrographs of macrophages (M) adapting to sandblasted/acid-etched (SLA) surface topography, replicated in epoxy and coated with titanium. Ti = titanium coating, F = overlying layer of fibroblasts, Nu = nucleus. For a full report, see B. Chehroudi et al, *Journal of Biomedical Materials Research* (July 2009).

Dental Hygiene Clinical Trial Finds Help for Bleeding Gums

Clinical assistant professor Pauline Imai and clinical module coordinator and instructor Penny Hatzimanolakis conducted a randomized, controlled clinical trial comparing a novel interdental brush system to dental floss. The clinical trial involved 32 adults with intact but bleeding interdental papillae—a vulnerable area of the gums.

Subjects used the appropriate-sized interdental brush on one side of the mouth and waxed dental floss on the other side for three months. The interdental brush was significantly better at reducing bleeding than the dental floss. In the exit survey, the majority of subjects indicated that they preferred the interdental brush because it was easy to use and they were more willing to continue its daily use compared to dental floss.

"What we found is that the interdental brush used in the trial—in this case, a Curaprox interdental brush—is an effective, easy-to-use alternative to dental floss," says Imai, who acknowledges the Canadian Foundation for Dental Hygiene Research and Education and the British Columbia Dental Hygienists' Association for grants in support of the study.

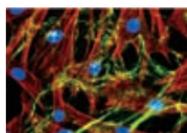
Save a Smile

UBC Dentistry is thrilled to partner with the British Columbia Dental Association (BCDA) in managing the Save a Smile Program funds account and supporting their mission to deliver dental care to children in need from families across BC. If you would like to support this program, please send your tax deductible donation to:

UBC Dentistry
Development Office
204 - 2199 Wesbrook Mall
Vancouver BC V6T 1Z3

CIHR Awards UBC Dentistry Periodontal Researchers Over \$1.28M in Research Grants

The Canadian Institutes of Health Research (CIHR) has awarded UBC Dentistry periodontal researchers funding for two investigations. Drs. Lari Hakkinen and Hannu Larjava will receive over \$1.28 million combined, over five and four years respectively, to investigate scar formation and enamel calcification.



Dr. Lari Hakkinen Receives Five-Year Research Grant Totalling \$685K to Study the Molecular Mechanisms in Scar Formation

Scar formation following injury to skin is a common, unwanted outcome of the wound healing process. Clinically, scars can range from fine lines to expansive, disfiguring hypertrophic or keloid scars. Dr. Lari Hakkinen explains: “Regardless of the type of scars, they lead to considerable psychosocial impacts or physical complications, or both, for the individuals.” Furthermore, he notes that at least 45 million patients in the United States alone undergo procedures that could benefit from therapies that reduce scar formation.

During the last decades, using various animal models, steady progress has been made to identify factors that may reduce scar formation. In spite of these advances, no effective therapy to prevent scar formation exists today. This is likely because information from the animal models cannot always be applied to humans. Thus, better models to compare scar-free and scar-forming wound healing are needed. “Intriguingly, there is a common impression among clinicians that human oral mucosal wounds heal with minimal scar formation. However, there has

been no rigorous experimental evidence that supports this notion,” Hakkinen says.

Systematic studies of experimental wound healing in humans are, however, difficult to perform for ethical reasons. Hakkinen and his research team have, therefore, developed a red Duroc pig model. Skin wound healing in these pigs has been extensively characterized; it closely resembles human skin wound healing and results in abnormal scar formation. Hakkinen’s team has shown that wounds in the oral mucosa of these animals heal with significantly reduced scar formation compared to skin wounds. “We have also confirmed that oral mucosal wound healing in these pigs is similar to that in human oral mucosa,” he says. “By using this model, we will identify novel mechanisms that promote scarless healing and reduce scar formation.” Hakkinen and his team believe that the present study will provide new information that can be used to design therapies that will reduce scar formation in human skin.

Cultured cells (red with blue nucleus) pulling collagen (yellow) to organize scar-like tissue.



Dr. Hannu Larjava Awarded Research Grant to Study Calcification of Enamel

Just over \$599,000 has been allocated over four years for Dr. Hannu Larjava for his research titled “Critical Role for $\alpha\beta6$ Integrin in Enamel Biomineralization.” Enamel, notes Larjava, is the hardest mineralized tissue in the human body. It covers the crowns of teeth and protects the teeth from decay and functional wear from chewing and grinding the teeth together. It is the only calcified tissue in the body that is produced by epithelial-derived cells called ameloblasts. During enamel formation, ameloblasts produce and process extracellular matrix that then becomes calcified to form fully mineralized enamel.

A number of proteins that are crucially important for enamel formation have been discovered. Human mutations in some of these proteins cause inherited conditions in which enamel is poorly developed or calcified (called amelogenesis imperfecta or AI). Larjava points out that this can lead to extensive wear and decay in both the primary and permanent dentition. “Often patients with AI lose their teeth at a young age or need to go through extensive restorative work to protect teeth from decay and attrition,” he says.

Larjava and his research team have recently discovered that mice lacking the ameloblast surface protein $\alpha\beta6$ integrin show weakly calcified rough enamel that poorly resists wear during chewing. This integrin regulates cell adhesion to proteins that have an arginine-glycine-aspartic acid (RGD) amino acid motif, but its function in ameloblasts is not known. In this grant proposal, Larjava will characterize, in detail, the enamel defect caused by $\alpha\beta6$ integrin deficiency and investigate the molecular mechanism by which $\alpha\beta6$ integrin regulates calcification of enamel.

Larjava explains the optimism of his research: “Understanding the molecular mechanism of enamel calcification would help us not only to better diagnose genetic and acquired conditions that affect enamel formation and prevent destruction of crowns of teeth, but also facilitate future endeavours aimed at tooth regeneration.”

Calcification of enamel.

Digital Learning Symposium Attracts Funding



Dr. Karen Gardner, clinical assistant professor, received funding from the Canada–California Strategic Innovation Partnership (CCSIP) to host a new symposium at UBC Dentistry. Gardner, developer of the International Peer Review teaching initiative in blog format, explained that the Digital Learning Symposium (DLS) leveraged synchronous and asynchronous online and in-person activities to present a model of 21st-century continuing education for dental professionals.

The symposium, held in March and April, followed a hybrid format with online (Phase 1) and face-to face (Phase 2) components. The target audience for the Digital Learning

Symposium was a group of 20 people from both California and Canada who represent a range of roles and organizations involved in dental education. They included university faculty, key leaders of professional associations, practising dentists (including recent graduates and established practitioners) and students.

The anticipated outcomes from the symposium are continued improvement in the technology to support digital learning exchanges, as well as an understanding of quality in approaches to digital learning exchanges.

Students working on www.diaSTEMAS.net, a web platform used to connect dental students studying at different schools.

PHOTO BY BRUCE MCGAUGHEY

Research Day 2010

Dental professionals from the community connected with Dentistry faculty and students for the third annual UBC Dentistry Research Day on January 26.

The theme, “3D Imaging for Assessment and Management of the Craniofacial Complex,” framed the exciting research being done by several members of the divisions of Orthodontics, Pediatric Dentistry, and Oral & Maxillofacial Radiology. UBC Dentistry was proud to have alumnus Ernest Lam DMD 1989 provide the keynote address: “Advances in 3D Craniofacial Imaging.” Dr. Lam is now associate professor at the University of Toronto, where he is also head of the Discipline of Oral and Maxillofacial Radiology and program director of the Oral and Maxillofacial Radiology Graduate Program.

Pathological and developmental anomalies affecting the craniofacial complex was the clinical

theme of the day. Presentations demonstrated the links between basic science research and clinical dentistry. They showed how advanced 3D imaging techniques are supporting craniofacial research and transforming the way dental professionals assess and manage a patient’s hard and soft connective tissues and airway. This is particularly challenging in the anatomically complex craniofacial region.

“Once again we were honoured to include presentations from a diverse but complementary group of full-time faculty, part-time clinical faculty and distinguished alumni,” remarked Dr. Edward Putnins, associate dean of Research and Graduate/Postgraduate Studies.



Research Day 2010 presenters (L to R): David MacDonald, Ernest Lam, Virginia Diewert, Joy Richman, Alan Lowe, Fernanda Almeida, Edwin Yen, Angelina Loo, Edward Putnins.

PHOTO BY BRUCE MCGAUGHEY

UBC Dentistry is grateful to the following Research Day 2010 Silver Sponsors.

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PHOTO BY MARTIN DEE

BATTLING BIOFILMS— INNOVATIONS IN ENDODONTICS

BY MARI-LOU ROWLEY

Computational fluid dynamics, multimedia teaching tools and novel irrigation fluids are among the arsenal of technologies developed and employed by UBC Dentistry professor Markus Haapasalo. They are all part of a multiple attack strategy to eradicate biofilms—pernicious colonies of bacteria that destroy teeth, roots and gums.

In the long history of dentistry, endodontics—the treatment of diseases of the tooth root and pulp—is a relatively new specialty, recognized by the American Dental Association in 1963. Prior to modern root canal procedures, treatment was often extraction and dentures. Despite advances in procedures, however, 30 to 50 percent of the root canal surface area in many teeth isn't amenable to mechanical cleaning. It is too difficult to reach all areas of the canal crevices, and the bacteria that lurk in them are too pernicious. In addition, up to 90 percent of endodontic disease is asymptomatic until it reaches the crisis point—a throbbing toothache.

At the peak of his career, and at the age of 50, endodontist Markus Haapasalo came to UBC from Oslo to undertake clinical research that is upping the odds for positive patient outcomes, while reducing pain and discomfort and revamping the image of endodontics for the root canal-phobic. "There have been remarkable changes in the field of endodontics in the past 10 years, resulting in a shift away from mechanically focused treatment to a more biological approach," notes Haapasalo. "I regard endodontics—and dentistry in

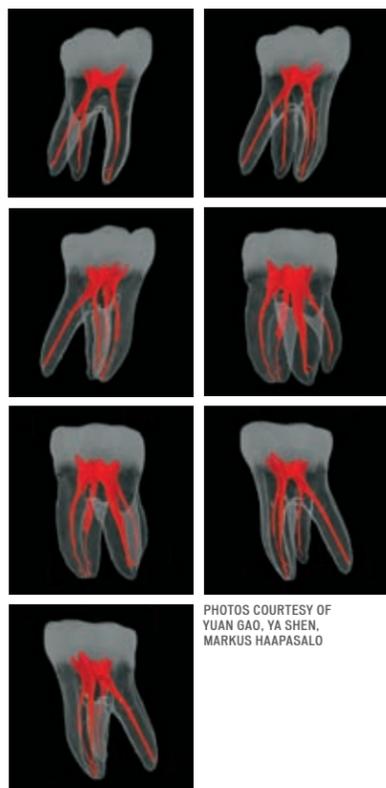
general—as just one specialty in the field of medicine, of which research is an integral part."

In collaboration with clinician researchers and industry partners around the world, Haapasalo is at the forefront of this sea-change. Tidal metaphors are apt for what he does. Root canal systems resemble complex, microscopic irrigation channels. If bacteria get into the system and cause disease of the pulp, or root interior that houses the nerves, the circulation in the root is permanently destroyed. Without blood flow, the body's defence system can't mount a response, and the tooth dies.

"This is just one reason why we don't use systemic antibiotics to treat root canal infection, since antibiotics need to circulate in the bloodstream to be effective," he explains.

Another reason why antibiotics don't work is that the life cycle of biofilms is relatively slow, with bacteria multiplying roughly once per week. In contrast, most antibiotics were developed to kill bacteria grown under optimal conditions, where multiplication occurs once every 20 minutes. In the slower ecosystem of biofilms, antibiotics are just not effective.

Using Technology to Thwart Biofilms

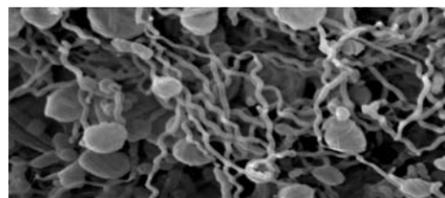


PHOTOS COURTESY OF YUAN GAO, YA SHEN, MARKUS HAAPASALO

Perhaps the most challenging aspect of treating root canal infections lies in the ubiquitous nature of bacterial biofilms themselves. Unlike a single species bacterium that might be responsible for a throat or respiratory infection, most bacteria form in colonies known as biofilms. And like most living systems, biofilms need something to “hang on” to. The thin pink films that form at the bottom of a water jug, in the basin of a humidifier or on a mouthguard are common examples of biofilms. They consist of numerous types of bacteria that coexist in their own unique ecosystem—a cocktail of morphotypes intertwined and interdependent. Under the microscope biofilms may look beautiful, but they wreak havoc with biological and even industrial systems.

“These bacteria all have specific functions within their ‘bacterial society,’” says Haapasalo. “Even in non-endodontic environments, antibiotics can be ineffective because there are so many different species of bacteria, and some have enzymes that destroy the action of the drug.”

Haapasalo and his research team simulate an actual in vivo root canal system and build biofilm colonies in vitro, in the laboratory setting. Using powerful confocal laser scanning microscopy (CLSM), they are able to obtain detailed images of biofilm structure for analysis. In a recently published study, Haapasalo and his group were the first to create multispecies biofilms in vitro that closely simulate oral in vivo multispecies biofilms. In particular, they were the first group to successfully cultivate biofilm with an abundant growth of corkscrew-shaped spirochete bacteria (see illustration below).



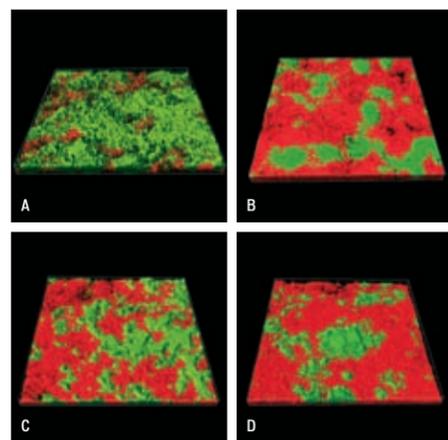
An abundant growth of corkscrew-shaped spirochete bacteria. PHOTO COURTESY OF YA SHEN, MARKUS HAAPASALO, WEI QIAN

Irrigation Key to Root Canal Treatment

The shift towards a biological approach to treating root canal disease lies in irrigation of the canal system in order to maximize the effectiveness of disinfection. “This is the important strategic or philosophical difference,” notes Haapasalo. “We now understand that the main benefit from instrumentation is to make effective irrigation physically possible.”

Dental irrigants are chemical fluids that dissolve infected pulp tissue and attack bacteria. With support from industry, including Vista Dental and Dentsply among others, Haapasalo’s group studied the effectiveness of different irrigants against biofilms grown in his laboratory. They helped to improve the effectiveness of the irrigating solutions in tissue dissolution and against biofilm bacteria (see illustration, figures A to D). “Our research is both basic and translational, which makes it natural that we have active collaboration with industry,” Haapasalo says.

While traditional approaches use irrigants with a single active component, Haapasalo is working to develop a multi-agent approach that attacks different aspects of bacterial cell membranes. His group has recently patented a novel irrigation fluid with UBC’s Industry Liaison Office.



Biofilm treated with 2% CHX treatment for 3 min (A); CHX-Plus treatment for 3 min (B); 2% treatment for 10 min (C); CHX-Plus treatment for 10 min (D). Green (viable cells); red (dead cells). PHOTO COURTESY OF YA SHEN

Root Canal Fluid Dynamics

Computational fluid dynamics is an area of research usually associated with large-scale phenomena and related problems, such as forecasting weather, developing drilling mud and managing hydroelectric systems. But fluid flow problems exist at the microscopic level of the root canal systems as well. The velocity, distribution, volume and pressure of irrigants, the root canal shape and size, and the type, size and insertion depth of needles all complicate the endodontist’s task. In addition, the complexity of root canal anatomy makes it difficult to observe how effectively irrigants flush through the system.

“The hydrodynamics of the root canal are very different than in macro environments, such as a dam on a river for instance, because the ‘banks’ in a root canal system are so close together,” Haapasalo explains.

In an international collaboration with colleagues at UBC and in China, Haapasalo developed a 3D computational fluid dynamic model of root canal irrigation. By testing their virtual model with different mathematical algorithms, and then comparing the results with a standardized fabricated model, they were able to validate their model against what happens in a physical setting.

“Now that we have found the right algorithm, we can start to study in detail how to optimize the physics of irrigation for effectiveness and safety,” he says. It is a delicate balance; under-irrigation can leave traces of bacteria, while over-irrigation can cause tissue damage and even pain.

In addition, when someone has an unusually shaped root canal, the instrumentation may not be able to reach into the root. Haapasalo is also developing the first flexible ultrasound needle tip for root canal irrigation. The benefit would be to reach more difficult configurations and to maximize spreading of the irrigant using ultrasound vibrations.

“Eradication of dental biofilm requires multiple attack strategies,” says Haapasalo. “Today, there is a whole new philosophy for cleaning and disinfection of the root canal that is completely different from traditional approaches, and we are working together with industry to develop many novel techniques.”

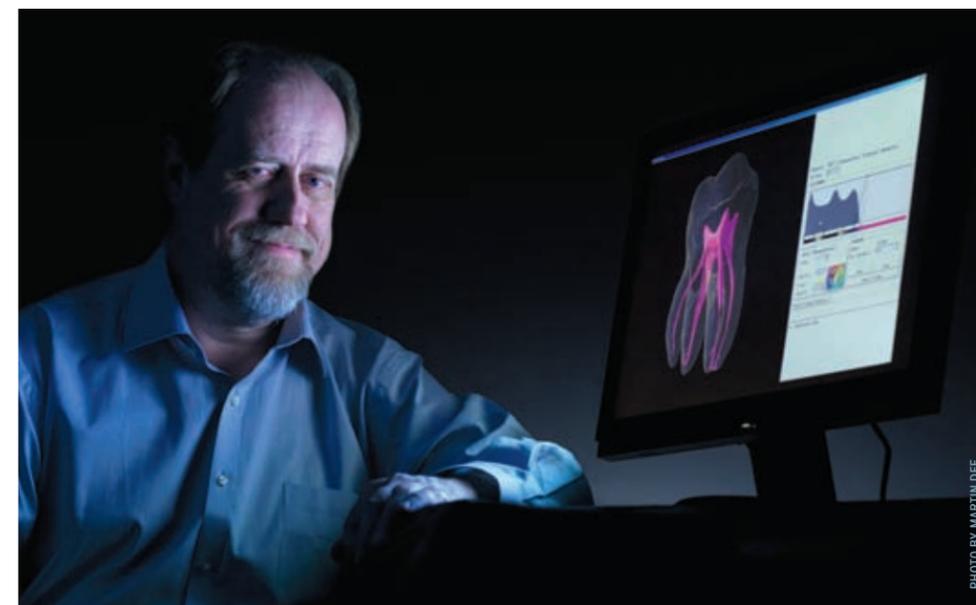


PHOTO BY MARTIN DEE

Expanding Teaching and Learning

A native of Finland, Dr. Haapasalo came to UBC from Oslo in 2004, after two previous visits and fruitful collaborations with former Science dean Dr. Barry McBride. Haapasalo’s reputation preceded him, and he continues to play a very active role in international scholarship and teaching. He is editor-in-chief of *Endodontic Topics*, and the first non-US associate editor of the *Journal of Endodontics*.

Haapasalo was instrumental in establishing UBC Dentistry’s first graduate program in endodontics—one of only two in Canada, and the only one in western Canada. He also developed an interactive DVD-ROM, *Endodontics and Traumatology*, a hands-on teaching and learning program now used by universities and dentists around the world.

“We are fortunate to have such a strong dentistry faculty and alumni group at UBC,” Haapasalo says. “The dedication and high level of professionalism of BC endodontists is an important cornerstone of our work here at UBC. Students, general practitioners and, most importantly, patients in the community reap the benefits.”

Endodontics Primer

Endodontics – One of the nine specialties of dentistry recognized by the American Dental Association (from the Greek *endo*, or inside, and *odons* for tooth).

Biofilm – Colony of numerous, interdependent bacterial species that form a film on the tooth, root and gums causing disease and decay.

Bacterial Morphology – A single bacterial cell has three basic types or shapes: bacillus (little rod), coccus (grain or berry) and spirochete (coiled or helical).



ELDERS Wisdom Improves Seniors' Quality of Life

BY HEATHER CONN

On her 95th birthday, a spry-looking woman with gleaming teeth smiles down at a high mound of brownie-style cake, topped with ice cream, chocolate sauce and a single candle.

Only days before, this woman had a broken front tooth, which made her reluctant to talk and socialize. Like many in her circumstances at a long-term-care facility, she could well have stopped eating, too embarrassed to appear at meals without a full smile.

Thankfully for this proud celebrant, she received immediate attention from UBC's geriatric dentistry experts, who fixed her tooth, restored her dignity and ensured that she shared an unblemished smile with family and friends. A loved one sent a note of gratitude: "Thanks for helping to keep her teeth so good."

Some might consider this dental work a minor, cosmetic repair, but Dr. Michael MacEntee, professor of prosthodontics and dental geriatrics at UBC's Faculty of Dentistry, sees it as part of a vital service to today's frail seniors in residential facilities. "This work is not just fashion issues or white teeth," says the bespectacled professor with a salt-and-pepper beard, who specializes in artificial teeth, crowns and dentures. "It can be life-death issues."

If a senior's dental needs remain unattended, whether a result of tooth decay or poor hygiene, serious medical problems can occur, says MacEntee. Unattended dental problems in a vulnerable elder can lead to unnecessary infections, disease or premature death. At the very least, they can cause depression, withdrawal and refusal of food. "Someone can go from being reasonably healthy to having severe problems in six months," he says.

Many of the medications taken by older people have serious side effects in the mouth, he adds: more than half decrease saliva and are laced with sugar, which leaves seniors prone to decay. The prevalence of late caries (cavities) and dental disease in elders is as destructive as early childhood caries, says MacEntee, and yet the seniors' conditions get almost no attention in today's youth-skewed culture.

Under MacEntee's lead, UBC's ELDERS (Elders Link with Dental Education, Research and Service) Group has created a highly successful model that strives to reverse

this trend. Imagine a compelling blend of research, education and community service, with each component continually motivating and enriching the other. Add compassion, a commitment to preventive care, and a proactive style. Build in a passionate belief that dentistry and dental hygiene are a social and ethical responsibility. Then reinforce the notion that every elder, regardless of health or income, has a right to access this care. You have just laid the foundation for a visionary and responsive geriatric dental team that is unique in the world.

“We’re offering access to care when you can no longer look after yourself,” says associate professor Dr. Chris Wyatt, director of UBC’s Geriatric Dentistry Program. “We’re providing that missing link.”

MacEntee, Wyatt and their ELDERS group aim to inspire undergraduates to serve seniors in long-term care in their future practices. In their final year, dental students participate in two clinical rotations with a dentist and dental hygienist, respectively. Often for the first time, these undergrads encounter elders with dementia and painful physical disabilities such as rheumatoid arthritis, which make mouth care and dental treatment challenging. They might face aged residents’ lack of trust and the conflicting priorities of facility staff concerning oral health.

After a rotation, one undergrad commented that she never fully appreciated how the geriatric population had unique dental needs and care requirements. In her words: “The rotations served to consolidate these theories for me. All these have made me appreciate even more the concept of treating the patient as a whole and how quality of life influences one’s treatment objectives and priorities.” (This year, dental hygiene undergraduates have begun rotations through the same program.)

“We’re out there practising what we’re teaching,” says Wyatt. “The students understand that this isn’t just some intellectual pursuit. It’s not just

research.” In addition, several MSc and PhD students undertake research projects within the program.

Besides its on-campus clinic, the Geriatric Dentistry Program treats 2,800 seniors at 20 long-term-care facilities, including Providence Health Care’s hospitals in Vancouver and Peace Arch Hospital in White Rock. Since its inception in 2002, the program’s dental hygienists have made significant headway in educating hospital nursing staff about the importance of daily mouth care. As training, they use seminars, clinical demonstrations, a manual, interactive CDs and PowerPoint presentations. They also offer informal consultations upon request. The program’s total patient care approach includes:

- *A dental examination within six weeks of an aged patient’s arrival in residential care, since clinical medical information obtained helps to diagnose diseases and harmful conditions.*
- *Comprehensive oral health care, when needed, by dentists and dental hygienists.*
- *Annual re-examinations of each patient.*

MacEntee stresses the effectiveness of UBC’s multidisciplinary team approach, which draws on expertise from many faculties. Besides dentists and dental hygienists, the ELDERS team ranges from social workers and statisticians to psychologists and nurses. This collective wisdom fuels groundbreaking studies and a large database that woos dental specialists and leading scientists from around the world to study, learn and research on-site. As a result, UBC has created a thriving centre that is unparalleled in its field.

An integral part of the UBC program’s success relies on broad-based, applied research. Funded by the Canadian Institutes of Health Research, MacEntee and his ELDERS research team ensure that their areas of investigation will continually improve their service component and vice versa. Current research includes literature reviews of geriatric oral health, the development of more sensitive-

minded focus groups and patient interviews, and a comparison of how Chinese who immigrate to Canada and Australia experience and view oral health care relative to those in Hong Kong and southern China. Researchers also study oral implants and related prostheses, caries management and ways to deliver affordable health care to vulnerable and disadvantaged groups.

Hence, it’s no surprise that MacEntee recently won a Distinguished Scientist Award from the International Association of Dental Research. This global group acknowledged the crucial worldwide contribution to geriatric oral research that MacEntee’s pioneering work has made.

To better understand his global trail-blazing, it is helpful to know what research, patient care and cultural attitudes prevailed decades ago. When MacEntee arrived at UBC from Ireland to teach in 1975, tales of patient neglect in long-term care were rampant, resulting in significant untreated problems. Few dentists got involved with these facilities because they saw elders as too feeble to treat. Recognizing a huge gap in both research and treatment, MacEntee switched his focus by the late 1980s from “tooth counting” and disease-control studies to interviewing seniors about what they wanted and needed.

For the first time in dentistry, MacEntee applied survey techniques previously used only in fields like sociology and anthropology. Using open-ended questions, he asked elders what dental issues they thought were significant, what administrators of long-term-care facilities needed and what techniques most dentists were using. The elderly patients made their dental priorities clear: hygiene and comfort. (MacEntee adds “overall health” as a third main consideration.) In his words: “They [seniors] were concerned that their mouths were clean. They didn’t want teeth to look ugly and they wanted to be able to eat.”

MacEntee continued his qualitative research approach throughout the 1980s and 1990s, when most dental researchers were using

what he calls “fairly barren” methods like impersonal questionnaires that continue today. Administrators and care providers at residential facilities told MacEntee that they averaged less than a minute a day on an aged patient’s teeth cleaning.

In response to his findings, MacEntee formed the ELDERS Group in 1998 with Wyatt, making standardized methods of oral care a priority. Five years later, UBC’s Geriatric Dentistry Program started when this specialization was “not even on the map,” says its program manager Shunhau To. After only one year, the program produced positive results. For instance, out of 894 long-term-care residents assessed, 24 percent fewer were recommended for denture-related treatment and 35 percent fewer needed teeth and roots extracted. “It [our work] is very rewarding,” To says. “We are making a difference.”

Numerous tributes to the dentistry program’s valuable community service appear in To’s on-campus office. She shares thank-you cards from patients, families and administrative staff that contain comments like “You are doing a wonderful job with the elderly patients” and “Heartfelt gratitude for the unreserved and outstanding professional care that you provided to my mother . . . she could be in no finer hands.”

The UBC geriatric dental team recognizes the daunting future of its field: without more practitioners interested in serving seniors, this fastest-growing patient group might not get the care it deserves. “Dentists need to see these people as part of the population of patients that they treat,” Wyatt says.

Today, only 10 percent of seniors live in residential, long-term care and most arrive much frailer and more ill than they once did because people now remain at home longer, says To. “There’s a huge need out there for the 90 percent of people who are not being looked after.” With that in mind, MacEntee has no trouble articulating his ideal wish list for this “quiet population”:

- *Have a designated champion of oral health at every long-term-care facility who ensures proper daily dental care.*
- *Have the medical world and government policy-makers recognize elder oral health care as a key priority with far greater access and funding, especially for the working poor and homeless.*
- *Make geriatric dentistry an official area of specialization like medicine’s gerontology.*

“Canadians spend 10 billion dollars a year on oral health,” says MacEntee. And yet, within that figure, the true cost of geriatric dentistry remains unknown in this country, he adds. Thankfully, he and his team look far beyond mere cost-effectiveness in treating the high-needs aged population. From the psychological, emotional and social impacts of seniors’ neglected oral care to multicultural influences, they fully recognize that no one can ultimately put a price on the value of a smile.

Dr. Michael MacEntee (L) and Dr. Chris Wyatt.



“We’re offering access to care when you can no longer look after yourself. We’re providing that missing link.”

PHOTO BY MARTIN DEE

Oral Medicine Specialist Now Grad Student Fights a Deadly Cancer in South Asian Populations

BY TERRY WINTONYK

From oral cancer screenings in rural India to epidemiological studies among ethnic minorities in BC, PhD candidate Dr. Ajit Auluck brings his unique talent, independent ability and personal understanding of an ethnic community to a fledgling research area.

Auluck is a prolific research author, with 64 publications since graduating from an oral medicine specialty program in India in 2005. “I was impressed by his number of publications when he was introduced and recommended highly to me by Dr. John O’Keefe [editor-in-chief of the *Journal of Canadian Dental Association (JCDA)*],” said his graduate supervisor, Dr. Lewei Zhang.

Auluck came to UBC from India in 2008 to pursue a doctorate and has since been moving at high speed: he has already published 14 papers, the most recent accepted for *Cancer*, the journal of the American Cancer Society. “This is no small accomplishment for a student in a PhD program less than two years, having a paper accepted by a high-impact journal,” says Zhang, who quickly realized Auluck’s intellectual ability and personal drive to explore new areas of cancer research.

Oral cancer is the major focus of Auluck’s research. During his specialty training in India, Auluck volunteered to work in rural and remote villages to provide both basic

dental services and oral cancer screening. He was deeply troubled by the prevalence of oral cancer and pre-cancer lesions (see *JCDA*, November 2005, www.cda-adc.ca/jcda/vol-71/issue-10/753.html). It is the most common cancer in India, with the five-year survival rate a dismal 20 percent. The widespread use of betel quid (a chewed product containing tobacco leaves and areca nut), smoking and alcohol consumption are contributing factors.

Auluck’s work in India won him three national awards, a role as keynote speaker at an international conference in Vienna and invitations from 11 international journals to be a reviewer. His work there also motivated him to learn more about oral cancer so he can make a difference in the fight against this deadly disease. Community health in Canada can only benefit from Auluck’s personal commitment to do something about the extremely high incidence of oral cancer in India.

He credits his work at UBC to the philosophy and guidance of Zhang, who has encouraged him to work independently of existing areas

of research in oral cancer, including her own. “Students are reflections of what opportunities and guidance their supervisors provide, and the philosophy of Dr. Zhang allows me to develop as an individual, independent researcher in new areas,” Auluck says.

Auluck’s research at UBC involves both quantitative and qualitative research across multiple disciplines—from epidemiological studies to sociology and psychosocial oncology studies. His epidemiological studies involving cross-discipline collaborations have shown exciting results. For example, in one study he showed, for the first time, that rates of oral cancer at sites associated with human papillomavirus (HPV) infection surpassed the cancer’s rates at other oral sites. The discovery of such a major change in etiological factors could have significant impact on treatment, prognosis and policy-making. Auluck has also played a significant role in oral cancer research among ethnic minorities in BC. His research showing that South Asian men and women in BC have a higher incidence of oral cancer and poorer survival rates than the general population will also have social impact.

“The field of psychosocial oncology is very young and a budding science,” Zhang notes. “We encouraged Ajit in this new field, where he is learning enthusiastically and is already networking with leaders in this field across Canada. He is researching ways to complement and integrate the strengths of both quantitative and qualitative approaches into his research—and is producing exciting results.”

Auluck’s outstanding performance has been recognized locally and nationally. Locally, he was awarded best poster presentation at the 2008 British Columbia Cancer Agency (BCCA) annual conference. In 2009 he received the Joseph Tonzetich Fellowship from the Faculty of Dentistry, given to a student in the Oral Biology doctorate program who shows superior research abilities. Nationally, a Canadian Institutes of Health Research fellowship awarded for 2008–2009 through the Psychosocial Oncology Research Training (PORT) initiative has been extended through 2010.

PHOTO BY BRUCE MCGAUGHEY

Biochemistry PhD Enriches DMD Experience for All

BY TERRY WINTONYK



Everything is falling into place for second-year DMD student Ersilia Cocco.

When she started dental school at UBC two years ago, she was nearing completion of her graduate studies in biochemistry at the University of Alberta. Now, having recently defended her doctoral dissertation, she is excited at the prospects for her future—as not only a researcher, but also a practising dentist.

The hands-on aspects of the research laboratory and the rigours of scientific inquiry are important elements for Ersilia, but she also has a strong desire to work directly with people. “Being a dentist will bring it all together,” Ersilia says.

Ersilia recalls that, when she began dental school, the Faculty of Dentistry was very supportive of her PhD work. “It was a recognition of the importance of research and of a larger education being critical for growth in any area or field.” Both Ersilia and the Faculty knew it would be hard, though not impossible, to find a balance while doing a DMD at the same time as graduate work. It has demanded focus: Ersilia created a schedule and committed to stick to it. “If Saturday was my day for thesis work, then that’s what I did and nothing else,” she says. Ersilia also acknowledges the expertise, flexibility and guidance of her University of Alberta supervisor, Dr. Larry Fliegel, without whom, she says, she could have not completed her PhD work.

The Faculty of Dentistry recently asked Ersilia to give a seminar to faculty and students on her doctoral thesis, “Regulation of the Na⁺/H⁺ Exchanger in the Myocardium.” About her research, she says enthusiastically: “I studied the sodium hydrogen exchanger—a membrane protein that is in all cells of the body—and how this protein regulates pH (the measure of the acidity or basicity). This protein has increased activity in cardiovascular disease, and this has been shown to cause damage to the heart. I examined how the protein is activated, by analyzing the amino acids that regulate its activity.” Biochemistry has always interested Ersilia, who saw the prevalence of cardiovascular disease as an exciting subject for graduate study. Her energetic, lay-language explanation makes clear her love for sharing knowledge and working with different groups of people.

Ersilia’s research background now enriches her perspective as a dental student. The demands

of doing scientific research can be applied in many ways to dental school and dentistry: the need to be a self-motivated learner is familiar; the need to use critical thinking skills is familiar; the need to reference current literature is familiar; and the need to collaborate, as in Dentistry’s problem-based learning (PBL) pedagogy, is familiar. All of these familiarities have benefited Ersilia in her DMD studies—and benefit the other students in her PBL groups. “PBL is a great fit for me because of my research background. I thrived in the collectivity of the group’s perspectives and wasn’t timid or afraid to be wrong,” she says.

Ersilia’s comfort with speaking up and her inclination to work with people and share knowledge is a natural fit with her role as academic representative for her DMD 2012 class. “I believe in continuing dialogue and feedback to improve the education, now and in the future.” While Ersilia’s future may be simply captioned as “dentistry combined with research,” in her mind this epitomizes teamwork. “I loved it [teamwork] in grad school and now more so in the DMD program,” she says. “I look forward to the potential of a successful team-based career in an office of diverse backgrounds.”

At this stage of her dental education, Ersilia is inspired by the integration of the clinical and science components of the DMD program. “As a researcher and eventual dentist, I see myself moving from the molecular to the larger system; from being focused on a smaller scale to a broader sense—the bigger body. I look forward to combining these two worlds.”

UBC Dentistry is thankful for dental students such as Ersilia. Her natural curiosity and passion for learning and participating, her enriching science background and her desire to share knowledge and to work in groups align with the maxim: “The best thing a school can do for its students is to provide them with other interesting students to study with.”

PHOTO BY BRUCE MCGAUGHEY

Paying It Forward

Support from our alumni who share UBC Dentistry's vision to create an exceptional learning environment for our students is invaluable. Annual support of student scholarships, bursaries and research funding helps strengthen our academic programs and provides opportunities for our DMD, Dental Hygiene Degree Program and graduate students to focus on their dental education. Below are a few comments by alumni about what motivates them to be annual supporters of their alma mater. Thank you for your generosity and foresight.



Dr. Sunny Tatra
DMD 2003 - Practice in Victoria, BC

"I had a good experience at UBC, and everyone was good to me. As the class president, I was able to bring issues to the faculty and always found them open to discussing solutions with us. UBC Dentistry was always there for me as a student. I felt it was important to establish a student award because I saw how my classmates struggled with the cost of dental school."



Dr. Joey Dahlstrom
BSc 1995, DMD 2000 - Practice in Duncan, BC

"I was lucky enough to have benefited from receiving a bursary as a dental student and want to help pay that forward to today's students."



Dr. Jay Philipsson
BComm 1982, DMD 1988 - Practice in Duncan, BC

"I'm in a privileged profession. I went through dental school when it wasn't as expensive as it is today, and I believe that dental school should be accessible to all, not just the privileged."



Dr. Majid Sherkat
DMD 1992 - Practice in West Vancouver, BC

"Education is something that I treasure. Having the opportunity to educate myself and others has been the highlight of my career. I feel strongly about giving back, to make sure that the dental students get what they need and do not lack the things that we did in school."

MAKE IT COUNT

UBC Dentistry is proud to announce the creation of the TD Canada Trust Leadership Award, which will recognize the outstanding academic achievement and community service of a DMD student. This new award will be presented at Dean's Night in September 2010.

By supporting a student award or bursary, you will help enhance a student's experience by lessening 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



Message From the Director of Development and Alumni Engagement

As the new director of development and alumni engagement, I am proud to be part of this dynamic, growing faculty led by Dean Charles Shuler. Seeing the progressive oral health care we are delivering at the Nobel Biocare Oral Health Centre and hearing about our expanded graduate programs, I feel honoured to represent such a highly respected dental school to our community and beyond.

I look forward to meeting each one of you and hearing your thoughts on the strategic plan that will lead us into the future. Our strategic vision is: to graduate well-educated students who are ably prepared to meet the oral health and science needs of their communities; to conduct innovative research that has a positive impact on oral health science, education and patient care; and to engage enthusiastic donors and partners who want to join and support our efforts. Your input and ideas are very important to us.

Please stop by our Annual Alumni Reception being held at the Pacific Dental Conference on Friday, April 16, between 5:30 and 7:30 p.m. at the new Vancouver Convention Centre. You may be the lucky winner of the trip for two to Las Vegas that will be awarded at the reception, compliments of Nadean Burkett & Associates. If you are celebrating a milestone reunion, bring your classmates together at this year's reception for a class photo and to share old stories with us over a glass of wine.

Barbara E. Becker, CFRE
P 604 822 6808
E barbara.becker@ubc.ca

PHOTO BY MARTIN DEE

Athletes Taking a Bite Out of Dentists' Workdays

IOC Mandates Oral Care, Including Cancer Screening, for 20 Percent of All Competitors

BY PAMELA FAYERMAN

Reprinted with permission from Canwest Publishing Inc.; published in the *Vancouver Sun*, Feb. 15, 2010.



Dr. Chris Zed outside the Vancouver Olympic Village.

Dentists will be among the busiest health professionals during the Olympics, and it's not just smashed-up teeth and mouths they'll be fixing.

They'll also be practising preventive dental care through gentle coercion.

With a new International Olympic Committee (IOC) mandate that 20 percent of athletes—up from 10 percent—receive a comprehensive examination, including a screen for oral cancer using a BC-developed device making its Olympics debut, the 72 dentists and their volunteer assistants anticipate about 800 athletes will sit in their dental chairs for treatment. They'll be doing everything from minor or routine dental care to trauma surgery.

"After physiotherapy or general medicine, we expect to be the busiest because of the demand and the 20-percent mandate from the IOC," said Dr. Chris Zed, associate dean of dentistry at the University of BC, who is head of dental services for the 2010 Games, along with Dr. Mark Parhar [DMD 1997].

Based on previous Winter Games, dentists can expect about 100 trauma cases involving possible damage to teeth, lips, cheeks and tongues, and broken bones. Of those, up to 20 cases might require surgery under general anaesthetic after being transferred to Vancouver General Hospital.

Athletes who wear mouthguards have a lower risk of concussions and serious oral injuries, Zed said, so dentists at the Games will be trying to coax more athletes into using such devices. They will also provide general hygiene information.

Mouthguards are proven to minimize damage to teeth from accidents and impact and reduce the effects of concussions. A local firm—Aurum Dental Labs—will have technicians on hand at each of the dental centres in the Whistler and Vancouver polyclinics to take impressions for moulds on the spot and then create customized guards for the Olympians.

Zed said he agrees it seems shocking that all athletes don't wear mouthguards.

"I don't think I can pinpoint why that is, but they train so hard and are focused on doing things a certain way and they don't want to all of a sudden do something that might throw them off. But mouthguards should really be seen as an extension of the helmets, pads and other protective equipment that is worn, especially in hockey. A big part is awareness and that's one of our roles."

His associate, Parhar, is the team dentist for the Vancouver Giants and is passionate about the benefits of mouthguards.

Once athletes are in the dental chairs, they will also receive education about the importance of wearing sunscreen to prevent oral cancers. Alpine sports athletes who train year-round at high elevations are especially prone to damaging ultraviolet rays, raising the risk of developing skin and lip cancers. The problem is compounded by the additional reflection of ultraviolet radiation off the snow and ice.

Zed points to a German study that showed outdoor athletes seem unaware of the elevated cancer risks associated with their training.

"Year-round, the alpine athletes follow winter around the world to train and they are at higher risk of lip and mouth cancers because of the altitude and sun exposure," he said. "The skin on the lips is thin and poorly protected. The damage is cumulative and you have to consider they are exposed to these intense ultraviolet rays for up to 30 years, through their training and post-competitive coaching years in many cases."

Some athletes in Nordic events chew tobacco. It contains numerous carcinogens that can cause

oral cancers, so dentists will screen them for precancerous lesions using the VELscope, a device developed by the BC Cancer Agency that emits a blue light inside the mouth to help detect suspicious tissue that needs further investigation.

"It's a terrific adjunctive visual tool being integrated more and more into general dentistry practices," Zed said.

The value of dental services and equipment for the Games is estimated to be worth about a million dollars, but Zed said almost the entire amount is covered by in-kind donations. The firm 3M ESPE is providing a large array of dental supplies; the dental chairs have been donated by a local company, Sinclair Dental. At least one of the four chairs will become a legacy item, taking up a permanent home at the University of BC ice arena [Doug Mitchell Thunderbird Sports Centre] after the Games.

Dr. Jack Taunton, the co-chief medical officer of the Games, said athletes are so nomadic they tend to defer dental care, so he's hoping many of them take advantage of the superior care they can get while in Vancouver and Whistler.

Although it was originally planned that UBC dental students would be involved in the delivery of care, Taunton said issues over liability and malpractice insurance arose and the IOC said the Olympics weren't conducive to teaching.

Downside of the Ability to Withstand Pain—Olympic Athletes May Neglect Dental Care

Listen online: Dr. Chris Zed talks to Claudia Hammond from the British Broadcasting Corporation (BBC) World Service about some of the worst cases, including abscesses, he saw in his chair during the 2010 Olympic Games. Zed also posits that the high pain threshold of elite athletes might be why they sometimes neglect their dental health. www.bbc.co.uk/iplayer/episode/p006cfd/Health_Check_01_03_2010

For more stories about UBC Dentistry's involvement with the 2010 Olympic and Paralympic Winter Games, visit www.dentistry.ubc.ca/games

PHOTO BY JENELLE SCHNEIDER, VANCOUVER SUN



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

1970s



REUNION
Dip DH 1974

In September 2009, Barb Robson, Sara McTaggart, Gillian Cornish, Gale Rocky, Suzanne McBride, Linda Maschak and Sue Sumi (all Dip DH 1974) celebrated 35 years since graduation with a weekend getaway to Sooke, BC. Highlight of the weekend was realizing that, after 35 years, they still enjoy each other's company. Furthermore, they look back fondly on their time at UBC and have formed some awesome lifetime friendships!



Jim Armstrong
DMD 1975

Jim Armstrong is competing in wheelchair curling for Team Canada during the 2010 Winter Paralympic Games in Vancouver this March. The team will be defending their 2006 gold medal.



Wendy Rondeau
DMD 1979

Wendy Rondeau attended men's curling during the 2010 Winter Olympic Games and had the opportunity to meet Canadian team member Marc Kennedy after his team won gold.

DMD 1975 REUNION

35th Year Reunion
Thursday, March 18, 2010

Buy a ticket for Wheelchair Curling - Round Robin Session 12 on March 18 to watch Jim Armstrong compete in the 2010 Paralympic Winter Games. The game starts at 6 p.m. at the Vancouver Paralympic Centre. After the game, meet for drinks at the Vancouver Curling Club.

For more information, contact Jim Armstrong at dr.jimarmstrong@gmail.com or Jenn Parsons at dentalum@interchange.ubc.ca

DMD 1975 REUNION

35th Year Reunion
Friday, April 16, 2010

Cioppino's Mediterranean Grill, Vancouver, BC
Enjoy a fine Italian dining experience following the Annual Alumni Reception at the Pacific Dental Conference. The reunion dinner starts at 7 p.m.

For more information, contact Ken Roberts at painfreeken@gmail.com or Jenn Parsons at dentalum@interchange.ubc.ca

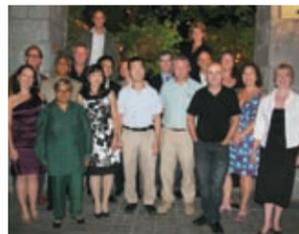
1980s

Dip DH 1980 REUNION

30th Year Reunion
Friday, April 16, 2010

Dinner to follow the class photo session at the Annual Alumni Reception at the Pacific Dental Conference.

For more information, contact Christine Rimmington at clappertonranch@hughes.net



REUNION
DMD 1984

Last September the CFP's of the Class of 1984 held their 25th anniversary reunion in beautiful Whistler, BC. There was plenty of golf, gastronomy, memories shared and good times. Many of the attendees had not rendezvoused for a decade or more. One of the highlights was viewing the grad video *Driller*, with Bhasker Jackson at his breakdancing best. A review of the acting suggested that many who played roles in the video are lucky to be able to keep their day jobs.

Dip DH 1985 REUNION

25th Year Reunion
Friday, April 16, 2010

Dinner to follow the class photo shoot at the Annual Alumni Reception at the Pacific Dental Conference.

For more information, contact Jessica Dube at jessbrat@shaw.ca



Les Ennis
DMD 1987

In the first week of May 2009, a group of five dentists and two hygienists from the South Surrey area travelled to central Vietnam on a humanitarian dental mission. Our team consisted of Les Ennis DMD 1987, Dr. Ken Stones, Dr. Murray Bonh, Dr. Dan Green and Lange Soo DMD 1987, as well as dental hygienists Deborah McDonald and Judy Simonson. We worked in partnership with the

amazing NGO East Meets West, which has a permanent dental clinic based in Da Nang. Our outreach clinic was set up in a school room at #1 Primary School in Quang Nam Province, approximately an hour's drive west of Da Nang. Over a period of four working days, our team treated 688 children, averaging 175 children per day. We provided 3,378 services, including 597 extractions, 548 fillings and 1,283 cleanings and fluoride treatments. We worked eight hours a day and enjoyed fabulous lunches prepared by the teachers at the school. For those of you who want life-altering experiences that will dampen your cynicism—it is on these humanitarian missions that you will meet many good people doing good things for the right reasons. Altruism at its finest!



Larry Hill
DMD 1987

Citta Hospital Humla, Nepal

I arrived in Kathmandu at 10 o'clock at night on a flight from Hong Kong. When asked by Customs why I was visiting Nepal, I simply replied "trekking." I didn't want to explain the collection of dental instruments, surgical gloves, boxes of needles and anaesthetic, bottles of antibiotics and pain medications, plus 200 toothbrushes that I was carrying in my two sports bags. I also carried an improvised surgical suction device made from a pump designed to pump oil out of boat engines, which I had purchased from a ship chandler. That would have been difficult to explain with my very limited Nepali! But I wasn't totally lying: there was a bit of a hike from the airstrip in Simikot up to the hospital where I would spend the next week and a half. Customs accepted my explanation, stamped my visa September 8, 2008, and I emerged into the frenzy that is Kathmandu.

The two days I spent in Kathmandu were in stark contrast to the tranquility of the Humla area close to the Tibet border in northwest Nepal. To get to the Humla region, I first flew to Nepalgunj on the border with India. We spent a night there in unbelievable heat, and the next

morning sat at the airport drinking tea and waiting for the small airplane that was to take us into the mountains. There didn't seem to be a schedule. In fact, there was uncertainty whether we would fly that day. Suddenly Dr. Llama, the local medical doctor who had accompanied me from Kathmandu, shouted: "The plane is here. Run!"—and I was on my way. He would follow on the next flight—if there was one! We left the flatlands around Nepalgunj and climbed up into the mountains. Through the dirty windows of the plane, I saw the incredible landscape that is Nepal. Deep valleys with raging rivers, and mountainsides with terraced farms everywhere.

We landed in Simikot on a rough landing strip at an elevation of about 10,000 feet. I was asked to present my passport to one of the local policemen, and then Jens, a medical student from Germany, introduced himself and escorted me to the hospital. It was magical finding myself hiking the trail to the hospital after months of planning. I started to notice the plants I was hiking through and asked Jens: "Isn't this marijuana?" He replied, "Yes, it is one of the most common plants in the Humla area."

We arrived at the hospital, met the staff and I began unpacking my dental supplies. Our "dental camp" started the next day. My new dental operatory was a room in the back of the hospital building; its rock walls were plastered with mud, and the floor was mud as well. We had solar-powered lights, thanks to the people of Gabriola Island, but didn't have enough power to run a surgical suction apparatus. My improvised pump proved its worth many times. I had brought a battery-powered handpiece (drill), which we were able to charge overnight. I used it to do a number of fillings for my patients.



After setting up the room, we toured the area and prepared for supper in the kitchen building adjacent to the hospital. There, morning and night, the cook prepared *dahlbhat*—rice, a mixed vegetable curry that is usually cabbage based, and a thin *dahl* (lentil

soup)—all ingredients locally grown except for the rice. The cook supplemented this periodically with goat or lamb meat and with *dui*, a fermented milk. Most suppers included some beer, carried up from the village in a jug.



The village of Simikot, the capital of the Humla region, is home to about a thousand people. Most people there live a simple existence as subsistence farmers. They own and farm small terraced fields on the mountainsides, sometimes a great walk from their homes. They harvest barley, corn, millet and a number of local grains. They also grow potatoes, apples, cabbage and carrots, along with other root crops. Peppers and tomatoes can be grown in the warmer locations in the area. Land is so precious that, rather than break up a farm between sons as they mature and marry, there is a local custom that the brothers all marry one woman—and the farm remains intact.

Mornings there bring no sounds of motors; in fact, there are no automobiles, motorcycles or even bicycles within hundreds of kilometres. One only hears the sound of donkeys braying, or the sound of bells on the long-horned local cattle turned out to graze the slopes. In buildings, every wood plank or beam is hand sawn from logs in forests a day hike away and carried up long, winding footpaths that connect the distant villages. Because of the great expense of air transport (which is the only way into this area), cement is almost unheard of; homes are constructed with posts and beams, filled in between with rocks, and then covered with mud. Cooking and heating is done with wood stoves, which often have poor ventilation. (Respiratory complaints are one of the common symptoms that bring people into Citta Hospital.) There are forests close by Simikot, but they are closed to the populace. People have to hike a day's journey there and back to forests that are open for firewood collection.

During the dental camp, we had over 300 people come to the hospital. Of those, we treated about 130. These people came from the area around

Simikot and hiked sometimes for days to see us. I worked with the three German medical students and with Dr. Llama assisting me. The students learned how to administer dental freezing and each of them got to extract a tooth. I did a large number of extractions, but also placed a number of dental fillings. I found that the people of the area had a fair amount of decay, which increased with age because of the lack of available treatment. I believe I was the first dentist, foreign or Nepali, to ever visit the area. Our days began at about 9 a.m., and we treated our last patient at about 6 p.m. During the day, we took two breaks of about 10 minutes each and a 45-minute lunch. I was able to train the hospital staff in local anaesthetic and extraction techniques—and even to place simple fillings.

The people of this region are amazingly hard-working and have very little materially; the per capita yearly income for this area is estimated to be \$10. Their houses are simple. I can't imagine living there during the winter when temperatures drop to 40 degrees below freezing. Jens (the young German) and I spent some wonderful afternoons hiking in the fields and hillsides, meeting the local people who were harvesting their crops.

I left all the equipment I carried over there at the hospital and plan to go back to continue training the staff. If possible, I would like to take several dental students from UBC with me so treatment can be provided to more people.

1990s



Mark Forgie
DMD 1995

Mark and a friend's dad were fishing on the Skeena River in Terrace, BC, on Mark's jet boat *Dr. Evil*. It was July 2006, and they had only fished for 10 minutes when the 50 pounder struck. The fish took 30 minutes to land and tasted great.

DMD 1995 REUNION

15th Year Reunion
Friday, April 16, 2010

Dinner to follow the class photo session at the Annual Alumni Reception at the Pacific Dental Conference.

For more information, contact Christopher Chung at chrischung.perio@gmail.com



Rob Myers
DMD 1998

I have now spent 12 years up here in the frigid North. I suckered a local into marrying me and we now have two young boys, ages three and four. I am in the process of setting up a new clinic, with specialist services provided by Dr. Jeff Coil, Dr. Hannu Larjava and Dr. John Nasedkin. I'm planning on providing a one-stop dental facility for my patients, as well as another dental resource for people in the North. This is all with the goal of taking more time off to spend on my all-terrain vehicle (ATV)!

2000s



Mark Casafrancisco
DMD 2005

He's back, and with a few updates! Since returning in December 2007 from his combined pediatric dental residency and Master of Public Health program in Kentucky, Mark has been an associate at Monarch Pediatric Dental Centre in Burnaby and Port Moody, BC. Soon, however, serendipity will lead him to be a co-owner of this wonderful group practice. In November of 2009, Mark received Diplomate status in the American Board of Pediatric Dentistry. And this past summer, last but foremost, he exchanged wedding vows with his beautiful wife, Gina Chong, on August 8.

DMD 2005 REUNION

5th Year Reunion
Friday, April 16, 2010

Steamworks Restaurant, Vancouver, BC

Dinner at 7:30 p.m., following the Annual Alumni Reception at the Pacific Dental Conference.

For more information, contact Mark Casafrancisco at marcasa@gmail.com or Steve Tsao at cartcom@hotmail.com



Jennilee Jamison
DMD 2009

Jennilee received her promotion from second lieutenant to captain on July 10, 2009, from commanding officer Major Chambers. The ceremony was held at the Canadian Forces Dental Clinic at CFB Edmonton.



Ian Smillie
DMD 2009

Brennan Weaver
DMD 2009

Brennan (pictured on the left) and Ian sport their catch from the Copper River, about 35 kilometres up a dirt road just outside of Terrace, BC, at the end of October. These fish are two of the 15 caught that day. Both Brennan and Ian are from the Class of 2009 and chose to work in northern British Columbia following a referral from a classmate in the Summer Student Practitioner Program (SSPP) the year before. This program places third-year students in a rural BC community to work for a summer before entering fourth year. Like 11 of the 22 students in the SSPP, Ian and Brennan were placed in communities outside the Lower Mainland upon their graduation.

In Memoriam

Victor Soo Chan (1953-2009)
DMD 1976

This past year, the Faculty of Dentistry mourned the loss of Victor Soo Chan, a part-time faculty member in the Department of Oral Health Sciences since September 1999. Victor taught in the Integrated Care Clinic until June 2006. He will be missed by his classmates, colleagues and everyone at the Faculty of Dentistry.

Almost Alumni

Arash Maskan
DMD 2010 candidate

Arash Maskan is getting married to his sweetheart, Cheryl Kimelman, this summer. After an extended four-year engagement, the wedding is set to take place this August in Toronto. The couple will be apart for the remainder of Arash's education here at UBC, but are excited about starting a family of their own soon.



Sam Sedaghat
DMD 2010 candidate

Dario Sedaghat was born August 25, 2009, to DMD student Sam Sedaghat and his wife Azar. Dario is their first child and arrived just in the time for his Dad's last year of school. Congratulations to Sam and Azar!



Diana Younan
DMD 2010 candidate

The Dental Undergraduate Society (DUS) has voted Diana Younan DMD 2010 (candidate) to represent alumni relations on the DUS. She has set up the Young Alumni Committee (YAC), which will organize networking and

social events for recent grads and students. The first event will be on Wednesday, April 14, at 7:30 p.m. in Vancouver (location TBA). For more information, e-mail Diana Younan at younan@interchange.ubc.ca

Recent Events



7th Annual Alumni & Friends Golf Tournament

Once again the past UBC Dentistry Annual Alumni & Friends Golf Tournament was a sellout! Highlights of the September 2009 event included: the Scotiabank rubber ducky chipping contest and the Dentsply marshmallow drive.

Mark your calendars for September 19, 2010, when we will return to Morgan Creek Golf Course in sunny Surrey, BC.

Registration will be open in May at www.dentistry.ubc.ca/alumni



Priscilla Ojeda
BDS 2011 candidate

Linda Talbot
BDS 1999

3rd Annual Dental Hygiene Wine Reception & Fashion Show

Priscilla: The fashion show held at the Annual Dental Hygiene Wine Reception in October 2009 was the best social event we have put on yet! Everyone had an awesome time bouncing in their seats to the runway music while watching all the trendy dental hygienists strut their stuff.

Linda (pictured above): It was great fun participating as a "model" at the 3rd Annual Dental Hygiene Wine Reception & Fashion Show. I was a little nervous initially, but once I stepped onto the "red carpet," I transformed from dental hygienist into fashion model, strutting the stylish wear supplied by Cindy's

Side Door. The food and wine flowed as the audience was treated to a show of business, casual and evening attire for both men and women. All clothing was on sale after the show—I bought pants and a coat—along with a table full of items to bid on. Funds raised go to support dental hygiene students in community outreach programs. I encourage all Dental Hygiene alumni to attend next year.

Big thank-yous to our colleague Kim Laing BDS 2004 and to Cindy Minnaker, who supplied the clothes and coordinated the show! Thanks also to Tanya King and Jessica Dube Dip DH 1985, BDS 2004, MSc 2009 who co-emceed.



2nd Annual Battle of the Bands: Faculty/ Alumni vs. Students

In November 2009, four bands battled to earn the top prize of UBC Dentistry entertainment champions. All musicians and singers outperformed themselves: it was a true test of what musical talent there is in the dental profession. To learn more about the event planned for 2010, check the website at www.dentistry.ubc.ca/alumni

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



KEEP IN TOUCH
at www.dentistry.ubc.ca/alumni



Evan Wiens
DMD 2012 candidate

UBC Community Dental Clinic Over the Holiday Season

The most memorable experience for me during the holiday clinic on December 22, 2009, was when we saw a young patient who had been to our clinics repeatedly for extensive dental care. The clinic had previously paid cab fare for her and her guardian to travel from Surrey, but this time they had made the significant journey by bus. Her guardian was so thankful for our clinic, saying: "I don't know where we would have gone if you weren't doing this!" It was a great feeling to see people so affected by our outreach, and a good way to start the holiday season.



Adventure and Learn Hawaii 2010

In January, alumni and friends gathered on the beach in Hawaii to earn their CDE credits in the sun. Watch for further details about the next event.

SHARE

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

Events for Students and Alumni

SUMMER STUDENT PRACTITIONER PROGRAM MEET & GREET

Friday, April 16, 2010 · 7:30 - 8:30 am
Coal Harbour Suite, Pan Pacific Hotel, Vancouver, BC

Looking for a student or new grad to work in your practice? Come meet third- and fourth-year DMD students from UBC for an informal chat over coffee. Third-year students are available for the summer of 2010 and graduating students will be available in June 2010.

To register and for more information, e-mail alexaug@interchange.ubc.ca

UBC COMMUNITY DENTAL DAY AT DOUGLAS COLLEGE WITH BCDA

Saturday, April 24, 2010 · 8 am - 5 pm

Interested in volunteering? Join current DMD and Dental Hygiene students in one of their community dental clinics. Volunteer dentists are needed to supervise.

To volunteer and for more information, e-mail dentalum@interchange.ubc.ca

ANNUAL UBC DENTISTRY SOCCER GAME

Sunday, April 25, 2010

To join the alumni/faculty soccer team, send an e-mail to the Dental Undergraduate Society sports reps: Derek at ddecloux@interchange.ubc.ca or Peter at parkearl@interchange.ubc.ca

DUS WELCOME BACK BZZR GARDEN & YEARBOOK PICK-UP

Friday, September 17, 2010 · 5 - 8 pm

Student Lounge, John B. Macdonald Building, UBC Point Grey Campus

All alumni and current students are invited to kick off the new school year at a party in the JBM Student Lounge. Yearbooks will be available for current students and for the Class of 2010 to pick up.

No RSVP is necessary. For more information, e-mail Robyn at rlisaacs@interchange.ubc.ca

8TH ANNUAL ALUMNI & FRIENDS GOLF TOURNAMENT

Sunday, September 19, 2010 · 1 pm (shotgun start)

Morgan Creek Golf Course, Surrey, BC

For more information and to reserve your foursome for this sell-out event, contact Jenn Parsons at dentalum@interchange.ubc.ca

UBC DENTISTRY FAMILY DAY

Saturday, September 25, 2010
2 - 4 pm

Nobel Biocare Oral Health Centre, UBC Point Grey Campus

All DMD and Dental Hygiene alumni, students, staff, faculty and their families are invited to an Open House. Join the dean 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, contact Alison Kovacs at akovacs@interchange.ubc.ca or Jenn Parsons at dentalum@interchange.ubc.ca

More Events for Alumni



ANNUAL ALUMNI RECEPTION PACIFIC DENTAL CONFERENCE 2010

Friday, April 16, 2010 · 5:30 - 7:30 pm

Vancouver Convention Centre, Second-Floor Lobby

Commemorative anniversary class photos will be taken for: 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005 and 2009.

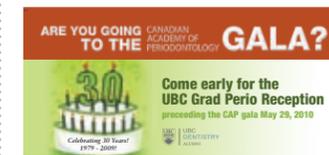
No RSVP is necessary, but if you would like to organize a class reunion to follow the reception, contact Jenn Parsons at dentalum@interchange.ubc.ca

UBC ALUMNI WEEKEND

Thursday - Saturday, May 27 - 29, 2010

Join alumni from across campus for a weekend at UBC.

For more information, check out www.alumni.ubc.ca



UBC GRAD PERIO RECEPTION CELEBRATING 30 YEARS

Saturday, May 29, 2010 · 6 - 7 pm

Crystal Pavilion, Pan Pacific Hotel, Vancouver, BC

All UBC Grad Perio alumni, former and current faculty, students and staff are invited to a reception, with a champagne toast hosted by UBC Dentistry. Dinner follows at 7 p.m. during the Canadian Academy of Periodontology conference gala.

For event information and to buy tickets, check out www.cap-acp.ca or e-mail Jenn Parsons at dentalum@interchange.ubc.ca

PART-TIME FACULTY RECOGNITION DINNER

Monday, June 7, 2010

University Golf Club, Vancouver, BC

Stay in Touch

The alumni relations department at UBC Dentistry will help you stay connected with your fellow graduates, help you plan and promote reunions, and keep you informed of upcoming educational opportunities. To learn more, 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. www.dentistry.ubc.ca/alumni



UBC FACULTY OF DENTISTRY & BC DENTAL ASSOCIATION DENTAL MENTORSHIP PROGRAM SPONSORED BY CDSPI

The UBC Faculty of Dentistry & BC Dental Association Dental Mentorship Program, sponsored by CDSPI, is recruiting dentists to be mentors. If you are interested in being paired up with a student, 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, contact Alex Hemming at alexaug@interchange.ubc.ca

2010 UBC Dentistry Alumni Reunion Ideas

- 1 Spend a weekend away with your classmates...
 - Class Reunion Dinner
 - Wine Tasting in the Okanagan - across the Southern Coast!
 - More venues: Skiing the Rockies and dog sledding at The Buffalo Lodge near Banff
 - ideas: Golf getaways in Whistler and stay at the Pan Pacific Hotel
- 2 Book a private dinner following the Annual Alumni Reception at the Pacific Dental Conference, April 16, 2010...
 - Three course meal at the TransContinental or Steamworks Restaurant in Gastown
 - Five Italian dining experience at Cioffino's Mediterranean Grill in Yaletown
 - West Coast cuisine at the Five Sails Restaurant in the Pan Pacific Hotel
 - Hip drinks and tapas at the new Diamond Restaurant in Gastown

To book your reunion call Jenn Parsons, Manager of Alumni & Community Affairs at 604-822-6751 or email dentalum@interchange.ubc.ca
www.dentistry.ubc.ca/alumni

PLANNING A REUNION?

For ideas, contact Jenn Parsons, manager of Alumni & Community Affairs, at 604-822-6751 or dentalum@interchange.ubc.ca

ALUMNI PARTNERS



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CONTINUING DENTAL EDUCATION 2010 - 2011

MAY 2010

1 (SATURDAY)
Oral Surgery for the General Practitioner
Dr. Kenneth Chow, Dr. Ian Matthew

7-9 (FRIDAY - SUNDAY)
Inhalation and Oral Sedation in Dentistry
Dr. David Donaldson, Dr. Mark Donaldson,
Dr. Fred Quarnstrom

15 (SATURDAY)
Mastering Anterior Esthetics—Hands-on
Laminate Veneers
Dr. Lisa Powell

JUNE 2010

21-25 (MONDAY - FRIDAY)
Cast Gold Restoration
Dr. Margaret A. Webb

OCTOBER 2010

2 (SATURDAY)
Technological Resources and Biological Concepts
in Minimally Invasive Endodontics
(hands-on workshop)
Dr. Renato Leonardo

22-23 (FRIDAY - SATURDAY)
Dr. Richard V. Tucker Symposium 2010
Current Topics in Restorative Dentistry
Dr. Richard Simonsen (moderator), Dr. Terry
Donovan, Dr. Harald Heymann, Dr. David Isen,
Dr. Vince Kokich Jr., Dr. Dennis Nimchuk,
Dr. Ashok Oommen, Dr. Frank Roberts, Dr. Cliff
Ruddle, Dr. Ed Swift, Dr. Richard V. Tucker

29 (FRIDAY)
Course TBA
Dr. Louis Malmacher

NOVEMBER 2010

20 (SATURDAY)
Course TBA
Dr. Fred Barnett

26-27 (FRIDAY - SATURDAY)
Positive Aging 2010
An Interdisciplinary Team Approach for
Health Professionals
Various dental speakers: Ms. Leann Donnelly,
Ms. Penny Hatzimanolakis, Dr. Michael MacEntee,
Dr. Michelle Williams, Dr. Christopher Wyatt

27-28 (SATURDAY - SUNDAY)
Bone Grafting
(hands-on course)
Dr. Tassos Irinakis

FOR REGISTERED DENTAL HYGIENISTS AND CERTIFIED DENTAL ASSISTANTS

MARCH - APRIL 2010

Local Anaesthesia for Registered
Dental Hygienists
MARCH 27-28 (SATURDAY - SUNDAY)
Lecture and clinical sessions
APRIL 16-17 (FRIDAY - SATURDAY)
Written and clinical examinations

MAY - JUNE 2010

Orthodontic Module for Certified
Dental Assistants and Registered
Dental Hygienists
MAY 26-28 (WEDNESDAY - FRIDAY)
Lecture sessions
MAY 29 - JUNE 2 (SATURDAY - WEDNESDAY)
Clinical session A
JUNE 5-9 (SATURDAY - WEDNESDAY)
Clinical session B

SEPTEMBER - OCTOBER 2010

Local Anaesthesia for Registered
Dental Hygienists
SEPTEMBER TBA
Lecture and clinical sessions
OCTOBER TBA
Written and clinical examinations

CLINICAL PARTICIPATION COURSES 2010 - 2011 (Limited Enrolment)

Basic Orthodontics for the General Practitioner
Dr. Paul Witt
Friday morning sessions
September 2010 - June 2011

Advanced Orthodontics for the General Practitioner
Dr. Clement Lear
Thursdays, Fridays, Saturdays
(morning and afternoon sessions)
September 2010 - August 2011

Advanced Prosthodontics for the General Practitioner
Dr. Chris Wyatt
Tuesday evening sessions
October 2010 - May 2011

Cutting Edge Periodontal Surgery for the
General Practitioner
Dr. Jim Grisdale
Saturday sessions
October 2010 - March 2011

Advanced General Dentistry Study Club
Coordinators: Dr. Jeff Coil, Dr. Chris Wyatt
Wednesday evenings
October 2010 - February 2011

Practical Clinical Occlusion
Dr. John Nasedkin
Monday afternoons
October 2010 - May 2011

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