

MARK YOUR CALENDARS!

FALL 2012

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Designed for dentists who own their practice, this nine-day program delivered over three months will develop the strategic and operational skills and abilities to ensure an efficient, patient-centred business.

Each topic addressed has built-in exercises that help you focus on your own practice, from identifying your key performance issues, to developing a sound assessment of the current health and future prospects for your practice. There is also peer discussion to identify shared problems and a range of solutions. Guest speakers will deliver seminars on topics such as managing wealth and investment strategies, among others.

Developed and presented in partnership with the Sauder School of Business, the Faculty of Dentistry and the British Columbia Dental Association, this innovative new program is delivered by recognized industry leaders and leading business researchers.

Open to dentists and their staff.

October 18 - 20, 2012

November 1 - 3, 2012

November 29 - December 1, 2012

For more details, visit www.dentistry.ubc.ca/cde

FALL 2012 - SPRING 2013

EVENTS FOR STUDENTS AND ALUMNI

**DUS Welcome Back Bzzr Garden
& Yearbook Pick-Up**
September 14, 2012 (Friday)

Annual Alumni & Friends Golf Tournament
September 16, 2012 (Sunday)

UBC Dentistry Family Day & BBQ Lunch
September 22, 2012 (Saturday)

MORE EVENTS FOR ALUMNI

Open Wide Community Clinic Day
September 15, 2012 (Saturday)

**Alumni Reception
Northwest Dental Expo**
September 21, 2012 (Friday)

**Taste of Vancouver Island
Alumni & Friends Reception**

October 13, 2012 (Saturday)

**Alumni Wine Reception
TODS Meeting, Kelowna**
October 26, 2012 (Friday)

**Annual Alumni Reception
Pacific Dental Conference 2013**
March 8, 2013 (Friday)

More information about these events can be found on pages 36 – 37 in this issue of *Impressions* or at www.dentistry.ubc.ca/alumni

IMPRESSIONS

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UBC DENTISTRY



SPRING 12

IMPRESSIONS

2 Dean's
Message

12 Global Education

20 Far Reach of Graduate
Research Training

28 Off the Campus
Academic Year in Numbers

32 Alumni Class
Notes and Events

3 News

16 Host-Grown
Tissue and Bone

26 Donor Impact Stories

30 A 'Walk' With the Maasai

39 CDE Calendar



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 2012 edition of
UBC Dentistry's Impressions.*

This year marks 50 years since the province of British Columbia approved the establishment of the Faculty of Dentistry at the University of British Columbia. These past 50 years have seen some dramatic changes in the way oral health care is delivered and in the way our students master their graduation competencies. The John B. Macdonald Building, which was constructed a few years after the provincial approval, is now being renovated to meet the current educational requirements of our programs. New space suitable for study clubs and small-group learning, a computer centre, a new plaster lab and a new student lounge have all been completed. Additional renovations are underway to further enhance the space for the benefit of our students, faculty and staff. The change have been extensive, and we invite all our alumni and colleagues in the oral health professions to visit us on campus to see first-hand what is occurring.

The major articles in this edition of *Impressions* focus on some significant accomplishments in research and community service. You can read about Dentistry's Dr. Edward Putnins and Medicines's Dr. Fabio Rossi, who have made advances using stem cell technologies to regenerate oral hard and soft tissues. Stem cell approaches have tremendous potential for new therapeutic strategies, and it is important that UBC has a leadership role in their development. We also highlight three of our PhD graduates—Drs. Anak Iamaroon, Laisheng Lee Chou and Bjorn Steffensen—who have used the foundation of a UBC PhD to establish internationally recognized careers. Our PhD graduate program has had many graduates go on to productive academic careers, both at UBC and other institutions.

UBC Dentistry has become a very desirable location for international students. To demonstrate the international reputation that we have achieved, we take a look

at Dr. Ravindra Shah's approach to international relations and the programs he has developed. The interactions between UBC students and their international colleagues provide a very rich environment for knowledge exchange and collaboration.

I hope you share my excitement about our current accomplishments and the progress towards achieving our strategic goals. We have outstanding students, staff and faculty members, who are leading our profession into the future.

All the best,

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

PHOTO BY MARTIN DEE

NEWS

Graduate Endodontics and Dental Hygiene Programs Now Accredited by CDAC

The Commission on Dental Accreditation of Canada (CDAC) has conferred accreditation upon UBC Dentistry's Clinical Specialty Graduate Program in Endodontics and Dental Hygiene Degree Program. CDAC is the autonomous body responsible for accrediting dental, dental specialty, dental residency, dental hygiene and dental assisting education programs across Canada.

The graduate endodontics program at UBC was launched in 2008, with preliminary approval for three years—a time allowance for new programs to assemble all the components required to meet accreditation guidelines for eligibility. The dental hygiene program was launched in 2007 with preliminary approval for four years.

After CDAC conducted a thorough analysis of supporting documentation for both programs and paid a site visit to UBC in February 2011, full accreditation was granted for each program in November.

With full support of faculty and staff, program director Dr. Jeff Coil led the process of accreditation for graduate endodontics, while Prof. Bonnie Craig, director of the Dental Hygiene Degree Program, led the process of accreditation for dental hygiene.

Both processes culminated in hefty documents detailing curriculum development, including research and clinical courses; administration structure and staff support levels; infrastructure, such as space allowance and technological equipment; teaching resources, specifically part-time and full-time faculty; and support from the greater endodontics and dental hygiene communities.

Coil notes some key strengths remarked on by the CDAC reviewers: "The commission was impressed by the commitment and generosity of part-time and full-time faculty to endodontics teaching, and they were equally impressed by the support the program enjoys from the local endodontics community, and the British Columbia Society of Endodontics."

Students in the Dental Hygiene Degree Program train to become dental hygienists while obtaining a Bachelor of Dental Science in Dental Hygiene (BDSc (DH)) degree. "The degree gives a solid foundation for future graduate-level work," notes Craig, "and its curriculum is designed to train graduates to work in community health settings with other healthcare professionals." The breadth and depth of the dental hygiene program to prepare a new generation of health care providers was a unique strength of the accreditation application she remarks.

Based on the site visit, Coil adds, the assessors were particularly impressed with the clinic facilities in the Nobel Biocare Oral Health Centre and the Faculty's current technology for endodontic treatment. Craig points to the numerous small group conference rooms in the John B. Macdonald Building as outstanding educational facilities that made an impact during the site visit.



UBC Dentistry Gains \$1M to Enhance Patient-Based Research and Knowledge Transfer

The Faculty of Dentistry has opened a clinical research centre focusing on best practices and evidence-based patient care thanks to a \$1-million donation from Frontier Dental Laboratories.

Named the Frontier Clinical Research Centre, the new initiative allows researchers and industry participants to generate and evaluate scientific data for existing procedures and materials.

“This gift will ensure that BC continues to maintain the highest standards of dentistry,” says Dr. Charles Shuler, Faculty of Dentistry dean. “The Frontier Clinical Research Centre will be an important resource for oral health providers, industry professionals and patients.”

“The rate of change in approaches to oral health care will continue to increase,” says Shuler, “and it will be imperative for all dentists to have access both to the information and to the experts who can help them choose the best approaches in treating their patients.”

Over the past 40 years, the progression from basic science findings to new dental procedures, new materials, new therapeutics and improvements in oral health has been dramatic. Given the speed of change, the materials and procedures used for routine dental practice are an often-overlooked part of the clinical research cycle.

“We’re very excited to work with UBC on this commitment to the highest standards of clinical

research,” says Paolo Kalaw, CEO of Frontier Dental Laboratories and a UBC alumnus who studied microbiology. “Products need to stand up to claims. For that, we need exacting analyses and robust data.”

The Frontier Clinical Research Centre will provide contracted services, including protocol review, statistical consultation, budget planning, regulatory compliance, recruitment of subjects, data collection and maintenance, data analysis and report preparation.

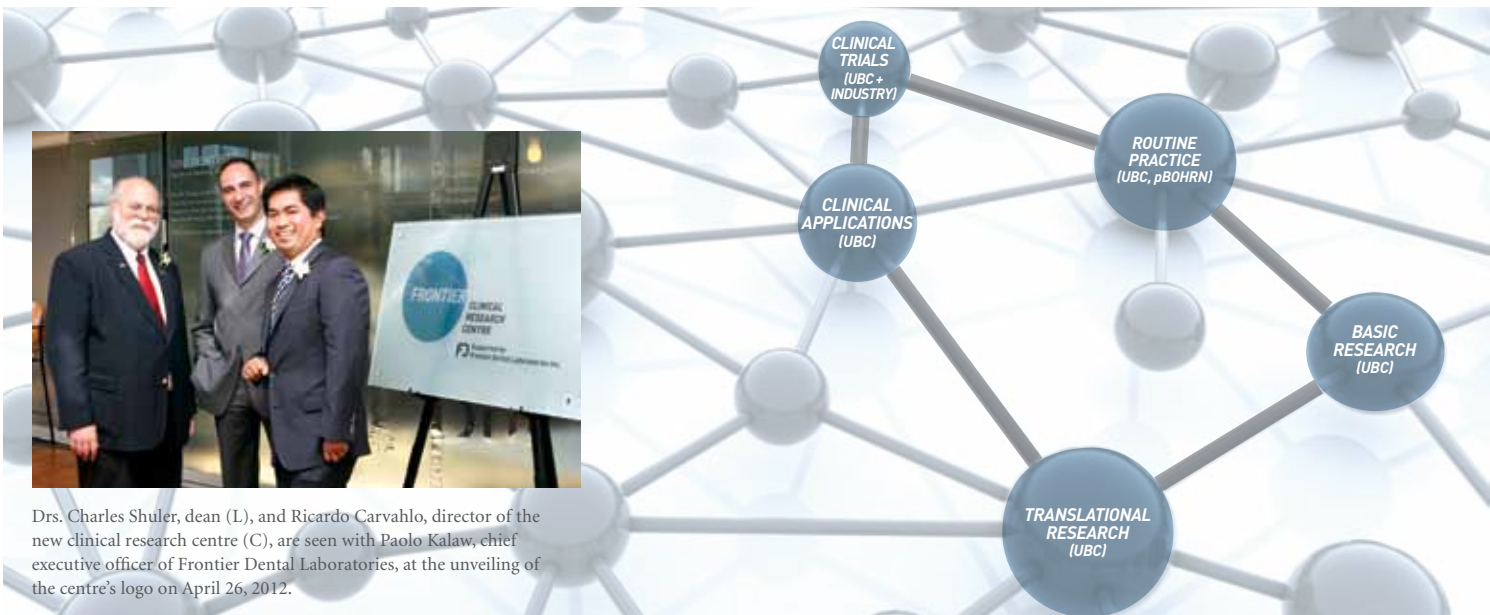
Per Dr. Ricardo Carvahlo, director of the new centre: “We encourage individual investigators, research teams, industry and corporate sponsors in general to explore the possibilities that the centre has to offer, to both facilitate and increase the value of their studies.”



FRONTIER DENTAL LABORATORIES INC

Frontier Dental Laboratories is a full-service, state-of-the-art dental laboratory specializing in all ceramic and ceromer composite restorations. For more information, visit www.frontierdentallab.com

To find out more about the Frontier Clinical Research Centre, visit www.fcrc.dentistry.ubc.ca



Once basic science researchers have made an observation that may have clinical significance for the development of new procedures, therapeutics or materials, a cycle is initiated: first, translate the basic science finding into a potential clinical application; next, extend that translation to a clinical application that is safe and effective; and then, develop a procedure that can be used in regular dental practice. Further along the continuum, in routine practice, an important additional point is often overlooked: The new Frontier Clinical Research Centre will add re-evaluation to the cycle.

Dr. Karen Gardner Wins U21 Award for Fostering International Student Dialogue



Dr. Karen Gardner, seen with UBC president Prof. Stephen J. Toope, received the U21 Award for Internationalisation in Lund, Sweden.

Universitas 21, a network of 23 research-led universities around the world, awarded Dr. Karen Gardner its inaugural U21 Award for Internationalisation on May 10, 2012, during its annual presidential meeting held at Lund University in Sweden.

The award recognizes initiatives to enhance global links and relations between U21 members. Gardner is being honoured for creating a website called diastemas.net, which fosters collaboration, learning and exchange among dental students across three continents.

“I am honoured to receive this award from Universitas 21 and grateful for their support for diastemas.net, my concept of a Web platform to encourage dental students to prepare for a lifetime career in a global society,” says Gardner, an associate clinical professor of oral health sciences and dental education research.

“The richness and fulfillment of working with other faculty around the world on this project has allowed me to consider myself a global citizen, and it is my desire to impart the feeling of belonging to a global society to all of our students,” says Gardner.

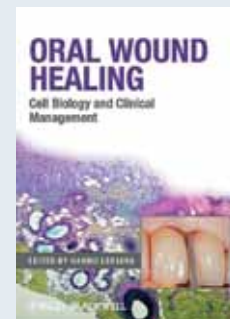
The project currently involves five U21 dental schools—UBC, Birmingham in the UK, Hong Kong, Melbourne in Australia, and Tecnológico de Monterrey in Mexico—and aims to expand further.

Using diastemas.net, dental students can present and explain their clinical case management. Students can also conduct peer reviews of each others’ clinical work and participate in case-based group tutorials in the different dental disciplines. The dialogue between peers also unveils cultural, political and infrastructure issues that have as much impact on clinical activity as does pure science.

The Universitas 21 network aims to promote and achieve collaboration, co-operation and work of a comprehensive nature, drawing on a strong bond of collegiality between like-minded universities.

For more information about Gardner’s project, read the fall 2008 *Impressions* article “Dr. Karen Gardner Works Towards Global Standards in Dental Care” online at www.dentistry.ubc.ca/go/glob_stand

On the Cover—New Book by Faculty Member



Oral Wound Healing: Cell Biology and Clinical Management, edited by Dr. Hannu Larjava, professor and chair of the Division of Periodontics and Dental Hygiene, brings experts from around the world together to provide an authoritative reference on the processes, principles and clinical management of wound healing in the oral mucosa.

This new resource draws together thinking on the basic biological processes of wound healing in the oral environment, as well as more detailed information and discussion on processes such as inflammation, re-epithelialization and angiogenesis. The book goes on to examine the effective clinical management of oral wound healing, with chapters on large dento-facial defects, dental implants, periodontal regeneration and pulp healing.

An essential synthesis of current research and clinical applications, *Oral Wound Healing* is an indispensable resource for dental specialists, oral and maxillofacial surgeons, and researchers in oral medicine and biology.

Published by Wiley-Blackwell; may be purchased at Amazon.ca

Oral Appliance Network: UBC Prof to Chair International Steering Committee



Dr. Fernanda Almeida, assistant professor and a renowned dental sleep medicine researcher, was chosen to chair the steering committee for a revolutionary new initiative: the Oral Appliance Network for Global Effectiveness (ORANGE Registry). Almeida co-leads the initiative with Dr. Olivier Vanderveken, a physician and researcher from the University of Antwerp, Belgium.

The first international meeting of leading international researchers in the field of oral appliance therapy (OAT) took place in March 2012. Delegates at the meeting called for the establishment of a registry to compile long-term data, with an overall goal of gaining a better understanding of outcomes, side effects and effectiveness of OAT while detecting variations that may exist around the globe. OAT is a treatment option for sufferers of snoring and obstructive sleep apnea—a disease only identified in the 1970s, yet increasing around the world.

“Once the registry is established and disparate and complex data and cultural challenges are ironed out, and possibly after its first findings are published—all of which will take a few years—we hope that dentists who have an interest in research and OAT will contribute to the registry,”

Almeida says. To illustrate the importance of the registry—to be hosted at UBC—she cites Dr. B. Gail Demko, a diplomate of the American Board of Dental Sleep Medicine. Demko has pointed out that long-term data are required to determine the characteristics of patients who do or do not respond to OAT treatment.

Almeida brings a wealth of expertise to this project. Along with teaching, doing research and co-leading the Sleep Apnea Clinic at UBC with Dr. Alan Lowe, she has a private practice treating patients with sleep-related breathing disorders and works closely with the Faculty of Medicine’s Vancouver Sleep Disorders Clinic. Almeida is the American Academy of Dental Sleep Medicine 2011 recipient of the Pierre Robin Academic Award—one of the highest distinctions among peers—for her outstanding work in the field.

Other UBC people involved in the ORANGE Registry, are Dr. Alan Lowe, professor and chair, Division of Orthodontics, and a pioneer in the field of dental sleep medicine, and Drs. Hiroko Tsuda and Satoru Tsuiki, former postdoctoral fellows at UBC’s Dental Sleep Medicine Group.



Members of the Oral Appliance Network for Global Effectiveness (the ORANGE Registry) during their first meeting, hosted by the American Academy of Dental Sleep Medicine at the national office in Darien, Illinois, in March 2012. Front row (L to R): Frederic Gagnadoux, MD (France), Hiroko Tsuda, DDS, PhD (Japan), Nelly Huynh, PhD (Canada), Fernanda Almeida, DDS, PhD (Canada), Bernard Fleury, MD (France), Marie Marklund, DDS, PhD (Sweden) and Sheri Katz, DDS (US). Back row (L to R): Dennis Hwang, MD (US), Gilles Lavigne, DMD, PhD (Canada), Jean Masse, DMD (Canada), Timothy Quinnell, MBBS (UK), Alan Lowe, DMD, PhD (Canada), Gail Demko, DMD (US), Olivier Vanderveken, MD, PhD (Belgium) and Cleite Kushida, MD, PhD (US).

New Appointments: Full-Time Faculty



Dr. Ricardo M. Carvalho

Ricardo M. Carvalho, DDS, PhD, has joined the Department of Oral Biological & Medical Sciences as professor and as director of the Frontier Clinical Research Centre—UBC Dentistry’s new clinical research facility. Dr. Carvalho received his Doctor of Dental Surgery degree in 1986, and a Doctor of Philosophy (Dental Science) in 1993, both from the Bauru School of Dentistry, University of Sao Paulo, Brazil. Carvalho was a postdoctoral research fellow and adjunct assistant professor at the School of Dentistry, Medical College of Georgia in Augusta, from 1993 to 1995. He has held various faculty appointments at Bauru, at the University of North Carolina at Chapel Hill, and in Japan at Tokyo Medical and Dental University and the University of Tokushima. He was director of research and development and then distinguished scientist at Bisco, Inc. from 2006 to 2008 in Schaumburg, Illinois, and an associate professor at the College of Dentistry at the University of Florida in Gainesville, 2008 to 2009. At Bauru, Carvalho was president of the research committee and director of the research centre laboratory. He has published over 180 articles in peer-reviewed journals and has authored a number of books and book chapters; he also sits on editorial boards of several respected journals. To date, he holds a citation count in the literature of 7,209 and a Hirsch index of 46. He has been the principal investigator on many funded grants. He invented the non-trimming microtensile bond testing method, which is the most widely used version of this technique worldwide, and has six patents. In addition to his own clinical research program, Carvalho will be developing a strong, externally funded clinical trial research centre for UBC Dentistry.



Dr. Adriana Pigozzo Manso

Adriana Pigozzo Manso, DDS, MS, PhD, has joined the Department of Oral Biological & Medical Sciences, Division of Biomaterials, as clinical assistant professor. Dr. Manso received her Doctor of Dental Surgery in 1992 from the State University of Londrina, School of Dentistry, in Londrina, Brazil. She completed her Master of Science in Operative Dentistry in 2005, and a Doctorate of Philosophy (Dental Biomaterials) in 2009, both at the University of Sao Paulo, Brazil. Manso also holds two specialty degrees, one in Endodontics from the Dental Association of North Parana, Londrina (1995), and the other in Operative Dentistry, completed in 2002 at the University of Sao Paulo, Bauru School of Dentistry. Along with 18 years of private practice experience, she taught dental biomaterials and operative dentistry in specialization courses in Brazil. From 2007 to 2008, she was clinical research manager at Bisco, Inc., Schaumburg, Illinois, and from 2008 to 2009 held a position as clinical assistant professor at the University of Florida, Department of Restorative Dental Sciences, in Gainesville. Manso’s research field is dental biomaterials. Some of her major research interests are related to the mechanisms involved in the degradation of resin-dentin interfaces for direct and indirect dental restorations, the evaluation of clinically feasible procedures to prevent and/or inhibit interface degradation and recurrent caries, resin cements and resin composites.

PHOTOS BY TIFFANY COOPER



Lifetime Achievement Award for Dr. Christopher Overall

The International Proteolysis Society presented Dr. Christopher Overall with a Lifetime Achievement Award at their 7th biennial general meeting on October 20, 2011, in San Diego, California. Overall was recognized for inventing and developing degradomics, a highly specialized field of biochemistry that studies the makeup of all proteins in a tissue.

Overall uses his techniques to study, in cancer, how proteases (enzymes that digest proteins into smaller pieces) work and which proteins they act upon. For instance, he works to decipher the actions of proteases that make tumours more cancerous. This information could potentially lead to new drugs for cancer treatment. Overall’s research also investigates how inflammation destroys tissues and causes diseases such as arthritis, and has shed light on how HIV infection can lead to dementia.

Overall’s team developed the CLIP-CHIP®, a DNA microarray chip that contains every protease, inhibitor and gene variant for both mouse and human.

A highly distinguished scientist, he is the Canada Research Chair in Metalloproteinase Proteomics and Systems Biology. Overall teaches in the Department of Oral Biological & Medical Sciences.

Dr. Christopher Overall (L) is seen with another Lifetime Achievement awardee, Dr. James Powers, a Regents’ Professor Emeritus from the Georgia Institute of Technology.



CDSBC's Highest Award and a Diamond Jubilee Medal Honour Dr. David Sweet OC

Each year the College of Dental Surgeons of BC (CDSBC) recognizes individuals from across the province at an annual awards ceremony. This year on March 8 at the Pan Pacific Hotel in Vancouver, Dr. David Sweet OC received the college's highest accolade, the Honoured Member Award. This award is presented to those who have made outstanding contributions to the art and science of dentistry, or to the dental profession over a sustained period of time.

The CDSBC recognized Dr. Sweet, a professor and the Faculty of Dentistry's associate dean of Students, for his enormous contribution to dentistry on a provincial, national and international level. He is credited with inventing the process for extracting DNA from teeth or bones for body identification.

In 2008 Sweet was invested as an Officer of the Order of Canada for enhancing Canada's reputation as a leader in forensic odontology and for his contributions as a teacher, researcher and consultant. He is also lead forensic odontologist for Disaster Victim Identification Canada and former chief disaster victim identification scientist on the INTERPOL Disaster Victim Identification Standing Committee.

Sweet's contributions to Canada have also been recognized this year as part of the 60th anniversary celebrations of Her Majesty Queen Elizabeth II's accession to the throne. A commemorative Queen Elizabeth II Diamond Jubilee Medal was awarded to Dr. Sweet OC honouring him as an exceptional Canadian for his achievements and significant contributions to fellow citizens, to communities and to the country.

Dr. Ravindra Shah Receives Honorary Degree From University in Taiwan

Chung Shan Medical University in Taichung, Taiwan, bestowed an Honorary Doctorate of Philosophy degree on Dr. Ravindra M. Shah, director of UBC Dentistry international relations. Shah received this honour during the Taiwan university's Golden Jubilee Anniversary Celebration on November 12, 2011.

The chairman of Chung Shan Medical University, Dr. Chou Ju-Chuan, recognized Shah's "significant contribution and achievement in education and research through international academic exchanges." UBC and Chung Shan Medical University share a long-term commitment to international relations, and Shah has played an instrumental role in facilitating exchanges between the two institutions.

For close to 27 years Shah has provided leadership to UBC Dentistry's international exchange program for students. This very enterprising education program hosts



students from 41 countries† around the world for one-week to three-month exchanges. These students come to gain experience in UBC Dentistry's undergraduate and graduate programs, and UBC Dentistry has attracted numerous graduate students through this program. Shah is the mentor-host for all the visiting international students, guiding them in organizing their academic pursuits, as well as their social and cultural programs. Shah also organizes UBC dental students' academic visits to a total of 20 countries†.

For more information about Shah and international relations, read the article "Global Education: A Qualitative Rather Than Quantitative Approach" on page 12 in this issue of *Impressions*.

† See list of countries on page 15.

Dr. Ravindra M. Shah (L) during his honorary degree acceptance ceremony at Chung Shan Medical University. Shah said he sees himself "as a catalyst to connect our institutions and people in this science- and technology-inspired, rapidly globalizing society."

➤ Watch the ceremony and view more photos online at www.dentistry.ubc.ca/go/shah

Hamber Foundation Visiting Professorship in Dental Geriatrics Hails From Singapore

Dr. Chao Shu Yao from the National University of Singapore is at UBC Dentistry for two years to help establish a fellowship in dental geriatrics and build links with the general geriatric community in and around Vancouver. She is visiting under the Hamber Foundation Visiting Professorship in Dental Geriatrics.

Trained as a prosthodontist at the University of Adelaide in Australia, Yao was a consultant prosthodontist at the National Dental Centre of Singapore. She is also a past president of the Prosthodontics Society Singapore.

During her time at UBC, Yao will be attending geriatric clinics and palliative care centres

and treating patients in Dentistry's dental geriatrics program. In addition, with Drs. Doug Waterfield and Markus Haapasalo, she will be exploring possibilities for reducing the burden of infective bacteria in the oral biofilm of frail patients.

This professorship was established by the Hamber Foundation, along with UBC Dentistry alumni and community friends, to assist academics visiting UBC with their geriatric dentistry research.



Meet the Dean's Advisory Board

Spring and fall are seasons for planting seeds, new growth and harvesting. They are also the times of year when members of the Dean's Advisory Board gather.

The 28-member board is made up of a strong cross-section of the professional dental community. Board members engage with the Faculty of Dentistry dean, Dr. Charles Shuler, to discuss, provide outside-world feedback and advise on the Faculty's goals, strategies and many projects.

The Dean's Advisory Board met most recently on March 7, 2012, and October 28, 2011. The next meeting will be in fall 2012.

At the Dean's Advisory Board meeting on March 7, 2012 (L to R): Margit Strobl BDS 2008, Dr. Timothy Tam, Kishore Pranjivan (Nobel Biocare), Dr. Charles Shuler, Susan Chow DMD 1972, Benjamin Yeung DMD 1983, Mrs. Sophia Leung CM, Tom Roozendaal DMD 2001, Carrie De Palma (College of Dental Hygienists of BC), Craig Dewar (Nobel Biocare Canada), Hank Klein DMD 1978, Ash Varma DMD 1983, Ron Suh (Bisco), Ron Zokol DMD 1974, Brenda Currie Dip DH 1976 BDS 2004 MSc 2007, Hyo Maier (Aurum) and Richard Busse DMD 1986.

Missing from photo: Dr. Ken Chow, Bob Coles DMD 1986, Mark Kwon DMD 1997, Dr. Jin Li-Jian (University of Hong Kong), Tuomas Lokki (Planmeca), David Poole (Scotiabank), Nick Seddon DMD 2006, Dr. Bill Wong and Dental Undergraduate Society members Tony Bae DMD 2013 candidate, Jonathan Hung DMD 2012 candidate and Trish Morales BDS 2012 candidate.



An 'Overall' of Overall at AAAS



Dr. Christopher Overall presented at two symposiums during the American Association for the Advancement of Science (AAAS) Annual Meeting, which took place February 16 to 20, 2012, in Vancouver, BC. He was one of 40 UBC researchers invited to speak during the AAAS meeting, which is one of the most widely recognized global science gatherings. Overall's groundbreaking research has led to a seismic shift in the understanding of immune response—discoveries like an "off signal" for inflammation and the changing functions of "moonlighting" proteins.



Read more about Dr. Christopher Overall at the AAAS meeting at www.dentistry.ubc.ca/go/aaas_overall

Research Day 2012

Experts highlight links between basic science research in microbial biofilms and clinical dentistry.

On January 24, 2012, during UBC Dentistry's annual Research Day forum—now in its fifth year—several members of the faculty, graduate students and an internationally renowned researcher from Pittsburgh, Pennsylvania, presented their progressive work on biofilms. Under the day's theme, "Biofilm Disease Dynamics: From Understanding to Eradication," presenters covered biofilm dynamics, control, eradication, significance of treatment failures, and community strategies to manage dental caries.

British Columbia native Dr. Bill Costerton, from the Center for Genomic Sciences in Pittsburgh, provided an outstanding keynote address reviewing the role biofilms play in disease. Costerton is widely credited with having founded the field of biofilm microbiology.

The Research Day program once again used a clinical case to effectively address the need to conduct basic research and to then translate research findings into patient care applications.

UBC Dentistry speakers included Drs. Jeffery Coil, Markus Haapasalo, Rosamund Harrison, Mark Parhar, Ya Shen, Charles Shuler and Sonja Stojicic.



Ali Bozargzad from Sinclair Dental (L) is seen with Dr. Bill Costerton (R) and dental hygiene student Michele Moreira. Michele is the winner of an iPad presented by Sinclair Dental, the Presenting Gold Sponsor of Research Day 2012.



Research Day 2012 took place in the UBC Student Union Building Ballroom. All faculty and students attended the annual event.

UBC Dentistry is grateful to the following Research Day 2011 sponsors.

PRESENTING GOLD SPONSOR



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PBL Conference a Success

Last fall UBC Dentistry hosted the 7th International Conference on Problem-Based Learning in Dentistry: Elements of a Successful Program, in Whistler, BC. The four-day event, held in September 2011, brought together the international dental education community to share problem-based learning (PBL) experiences and questions. The conference was designed to be an advanced forum for disseminating, discussing and debating the elements of small-group, student-centred learning.

Sixty-six people attended the conference, including participants from Australia, China, Fiji, Hong Kong, Indonesia, Iran, Japan, Kuwait, South Korea, Sweden, Thailand and the United States. International participation has grown each succeeding year of the conference as

awareness of PBL increases around the world. There was also a strong cohort of participants from British Columbia.

Conference organizers report that the conference received 4.27 out of 5 in the overall rating of its program based on evaluation questionnaires completed by participants.

The opening plenary, Self-Assessment, Self-Direction, Self-Regulation and Other Myths, by UBC professor Glenn Regehr from the Centre for Health Education Scholarship and the Faculty of Medicine's Department of Surgery, set a high note for the entire conference.

Participant feedback noted the quality of speakers and the richness and pertinence of ensuing discussions. Interactive sessions were

popular: presenters sharing their experience and expertise, and inviting the session attendees to "think on their feet" about the practical implications of PBL. The diversity of perspectives from the speakers and participants in the interactive discussions was appreciated, especially by the international audience who are faced with similar challenges regarding PBL in dental education.

Other aspects of the conference widely appreciated were the networking opportunities, where participants could connect with colleagues from around the world. And many participants commented on the wealth of ideas and resources they would be bringing back to their institutions.

Visit the 2011 conference website at www.dentistry.ubc.ca/pbl2011

For more information about UBC Dentistry's PBL pedagogy, read "Problem-Based Learning—Classical Antiquity Comes of Age" in the fall 2010 issue of *Impressions* online at www.dentistry.ubc.ca/features/pbl

Global Education: A QUALITATIVE RATHER THAN QUANTITATIVE APPROACH

BY HEATHER CONN

When Dr. Ravindra Shah, director of international relations at UBC Dentistry, arrived at a university in Jeonju, Korea, in April 2010, he realized that he had forgotten the power cord for his MacBook Pro. How would he be able to work in this foreign country, a PC stronghold?

A Korean student, whom he had never met, lent his own computer to Shah for 10 days. Another student, a stranger, spent four hours travelling by bus, outside his own city into territory where he had never been, to comb through dozens of stores, hoping to find a used power cord for Dr. Shah. The student was successful, and Shah was able to use his Mac PowerBook after all.

Some people might consider such gestures a sign of Asian hospitality or welcoming deference to an elder. To Shah, these selfless efforts reflect a lot more—a qualitative rather than quantitative life within global education. He says:

“In the university systems around the world . . . we stand for making human society easier and better for all humans.”

UBC Dentistry’s international exchange programs and world focus are rooted in this concept. Each human interaction and new personal experience becomes an opportunity to learn and reinforce the benefits of diversity: mutual respect and tolerance, a common vision and shared values.

To praise the initiative and generosity of the two students in Jeonju, Shah wrote a note to the president of the Korean university, and in return, received a note of thanks written by the president himself. This communication across borders and cultures is another core aspect of UBC’s approach to international dentistry: when you initiate quality connections, global relationships can run deep and last a lifetime. Shah remains in touch with many foreign exchange students from decades ago; one Taiwanese student, whose father died, calls Shah “my Canadian dad.” The director

frequently receives cards and heartfelt notes from international dentistry students who say that UBC’s exchange program changed their life or their outlook on life. Some participants have married a dentistry student from another country or culture, whom they met through the University of British Columbia.

Shah views science and education as universal tools to promote humanism first, then dentistry. His perspective has helped create a vibrant international dentistry program for undergraduates at UBC that involves about 50 countries, from Australia and New Zealand to nations in Asia, Europe, Latin America, Africa and beyond. He organizes UBC dental students’ academic visits to other nations and offers two main exchange programs each year; four students at a time usually participate for one to two weeks. He can design and personalize any program to suit the needs and interests of



PHOTO BY MARTIN DEE



a visiting student or faculty member. Once they’re in Canada, at least 10 to 15 percent of international students choose to pursue an undergraduate or graduate degree at UBC or elsewhere in Canada, he says.

With 150 visiting participants a year in both dentistry and dental hygiene, UBC’s international program is likely the largest of its kind in the world, says Shah. He relies on word of mouth, UBC Dentistry’s global reputation and his 40 years of international academic connections to bring new talent to learn and grow at UBC. Since the program’s inception, he has never advertised.

Every dentistry student or educator who visits UBC becomes a global ambassador for the university, says Shah. The international program breaks down cultural barriers and develops collaboration between dental schools and universities around the world. At an individual level, exchange students here and abroad learn greater patience, appreciation and communication with their peers, he adds. They become more tolerant of different values and more aware of other cultures and races, which will benefit their future patients in today’s multicultural world.

“There’s a whole new world out there,” says first-year UBC dentistry student Bruce Chou, who recently hosted a Korean student for two weeks and will be part of UBC’s exchange program in Korea in August. “It’s a really good experience to see how someone lives differently and to get to know different cultures, not to live in my own little shell.”

Besides classroom and clinical work, global visitors get a taste of west-coast culture as part of their exchange experience: they live on campus or in the home of local students, may snowboard at Whistler or visit other favourite tourist spots, try foods and drinks they’ve never tasted, and practise English while learning Canadian social customs.

While some of his fellow Korean students played ping-pong with local students in the dentistry building, first-year exchange student Kim Dae Young shared how much he enjoyed the student–faculty rapport at UBC. “In Korea, there is distance between faculty and students. Here, it’s closer. I like this way more.” He also explained how he loved Canada Dry soft drinks and his first meal of lamb steak. Of his first trip to Vancouver and Canada, he says:

“It’s so multicultural here. People are from all over the world. In my country, 90 percent are just Korean.”

He added that he might consider returning to UBC to complete his dental studies.

Shah has promoted his education credo—Explore, Experiment, Experience—since joining UBC’s dental faculty in 1974. Born and raised in Bombay (now Mumbai), India, he sees his role as a catalyst who connects institutions and people in science and technology within today’s rapidly globalizing world. He meets personally with each international dentistry student or faculty

member who visits UBC and hosts an international evening every fall. At that event, in a series of presentations, groups of two to 10 students explain the new insights and understanding they’ve gained from being in the international program. Shah says:

“People grow together if they communicate about their common passion.”

The university’s international dentistry program began to evolve in the early 1980s when Shah received requests from foreign students and faculty to visit UBC. Through his international committee work and national and global research, he was encountering bright minds and new ideas from dozens of countries. He wanted to explore and expand the idea of human development through education and research, realizing how his network could benefit student learning. In 1986-87, he introduced a structured, student-focused format for exchange requests and visits. Today, he still hasn’t formalized the process and uses no follow-up surveys; he continues to prefer qualitative connections rather than business metrics and statistical reports.

For his vision of international research and education, Shah draws inspiration from world-class academics, such as Karl Potter, a comparative philosopher and professor emeritus at the University of Washington, and Joseph Nye, an international relations scholar and distinguished service professor at Harvard. Nye coined the term “soft power,”

the ability to attract others to want what you want by sharing values, culture, policies and institutions; by contrast, “hard power” uses coercion and payment. Potter, meanwhile, reinforces that by working *with* nature and people of all kinds, rather than resisting, we create unity, both personally and culturally, through diversity.

In his office full of shelves of journals and stacks of papers and folders, Shah opens the top left drawer of his desk. Inside is a yellow pad bearing only three words: passion, possibilities, idealism. An eager philosopher, Shah readily shares his ideals for an enlightened world in which all people openly engage with life, using their innate wisdom, curiosity and soulful heart to transform their dreams into a loving and kind global community. In his words:

“I still dream of having a perfect world that manages our planetary life through acts of kindness to overcome poverty, disease, war and hunger.”

In a Zen sense, Shah is both the still pond and the pebble that forms expansive concentric ripples on the water surface: a source for reflection and mindful action.

When Shah was awarded an Honorary Doctorate of Philosophy degree from Chung Shan Medical University in Taiwan in November 2011, he shared a visual presentation of his personal philosophy. He quoted from the Upanishads of ancient India,

and remarked that natural laws of wisdom and truth infuse his views of education and life. He likes to cite Plato’s allegory of the cave as a powerful example of what Buddhists call *maya* or illusion: we do not experience true reality directly, but instead, react to a projection of it, which we create. (In Plato’s cave, a group of people, who spend their whole life chained to the wall of a cave, watch shadows on the wall, believing them to be real; this is the closest they get to viewing reality.)

In 2003, the American Dental Association’s International Association of Student Clinicians honoured Shah with their international faculty advisor award in recognition of his many years of work with students worldwide. Overall, his work reinforces a number of key strategic goals of UBC Dentistry: it expands the international presence at the university as well as UBC’s own global presence. It also encourages greater connection among UBC, external dental professionals and the public. This includes organizations and societies for dentists and dental hygienists, patients and community groups at local, national and global levels.

Countries that send visiting students to UBC Dentistry on exchange:

Australia	Italy	Syria
Austria	Japan	Taiwan
Brazil	Jordan	Thailand
China	Korea (South)	Turkey
Denmark	Malaysia	Ukraine
Egypt	Mexico	United Arab Emirates
Fiji	Nigeria	
France	Pakistan	United Kingdom
Germany	Peru	United States
Ghana	Portugal	Vietnam
Holland	Romania	
Hong Kong	Saudi Arabia	
Hungary	Singapore	
India	Sudan	
Iran	Sweden	
Iraq	Switzerland	

Countries that UBC dental students visit on exchange:

Belize	India	Uganda
Brazil	Japan	United Kingdom
Cambodia	Korea (South)	United States
China	Laos	Vietnam
Costa Rica	Nepal	
Germany	Panama	
Honduras	Paraguay	
Hong Kong	Taiwan	

HOST-GROWN TISSUE AND BONE

USING STEM CELLS IN PERIODONTAL REGENERATION

BY MARI-LOU ROWLEY

UBC Dentistry professor Edward Putnins is collaborating with medical colleague Fabio Rossi to investigate how a patient's own stem cells can be used to rebuild periodontal tissue and craniofacial bone.

A radiant smile is more than just the outward appearance of well-being, it is the body's barometer of overall wellness, which depends to a great extent on the health of teeth and gums. Periodontal disease—an inflammatory condition causing gingivitis, receding gums and tooth loss—has also been linked to heart disease, diabetes, osteoporosis, respiratory disease and autoimmune conditions.

As associate dean of Research, Graduate & Postgraduate Studies at UBC Dentistry, Dr. Edward Putnins has spent much of his career investigating the biology of gum tissue, specifically, the role epithelial cells play in periodontal disease. The epithelium provides a functional barrier that separates the host cells from the external environment. In the mouth, however, the barrier is challenging to maintain because of the biofilm of bacteria naturally present. These bacteria are able to penetrate the epithelial layers and cause epithelial cell growth and loss of connective tissue attachment, which is the onset and progression of periodontal disease.

In addition, during periodontal disease, three types of tissues are lost: two hard tissues, jawbone and cementum on the root surface, and one soft

tissue, the periodontal ligament that joins the two hard tissues together. "This makes periodontal regeneration unique and challenging compared to other types of tissue regeneration," says Putnins.

Stem Cell Regeneration: A Medical-Dental Collaboration

While on sabbatical, Putnins met UBC colleague and medical geneticist Dr. Fabio Rossi, Canada Research Chair in Regenerative Medicine, who is also intrigued by the complexity of periodontal regeneration. Putnins and Rossi are now collaborating on stem cell studies to repair periodontal tissue and craniofacial bone. As founding members (project leader and co-applicant) of UBC Dentistry's multi-faculty Centre for High-Throughput Phenogenomics, they share not only the \$9.5-million state-of-the-art imaging facility (see *Impressions* Fall 2011), but also research interests in tissue degradation and regeneration.

"Medicine and dentistry use different models for hard tissue degradation," explains Putnins, who credits UBC for supporting and

facilitating multidisciplinary research. "Medicine uses the arthritis model, because peripheral bone forms differently than head and neck bone. In craniofacial bone, periodontal disease is often used as the model for bone destruction."

Rossi is enthralled by the complexity of differences. "I am interested in understanding how a stem cell decides to become what it does, and how it is that in one context it does one thing and in another context it does something different," he says. "From there, my interest is in how these differences are communicated so these cells know what they should be doing. It is a very complex discussion among cells, with many parties influencing the conversation."

In periodontal tissues the complexity is multiplied. "Within a zone of 1.5 millimetres you need to make three different types of connective tissues in order to reform the proper attachment," says Putnins. "This tissue formation in approximation to the gingival sulcus [space between the tooth and gum] that communicates with the oral environment adds a further level of complexity."



Dr. Edward Putnins (L) and Dr. Fabio Rossi

PHOTO BY MARTIN DEE

Stem Cell Regeneration Primer

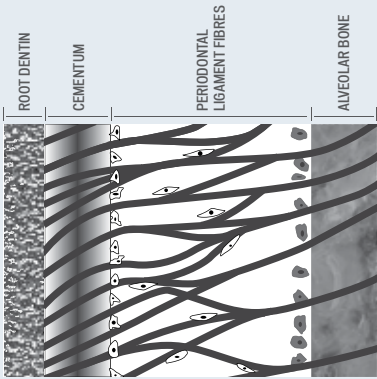
Stem cells occur in every tissue of the body. Only embryonic stem cells are thought capable of differentiating into all the various types of tissues and organs.

A specific type of adult stem cells, called mesenchymal stromal cells (MSCs), are able to differentiate into jawbone, periodontal ligament and cement cells.

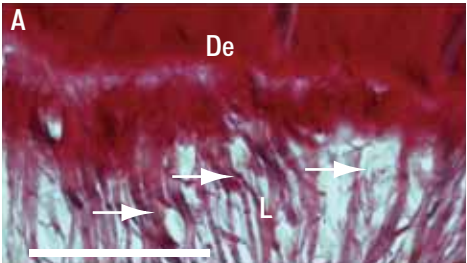
MSCs are found throughout the body, including in periodontal ligament and tooth pulp.

Like stem cells, progenitor cells differentiate but more specifically into the target cell type, and their ability to divide and replicate is much more limited. However, the quantity and quality of progenitor cells is often too limited for tissue regeneration.

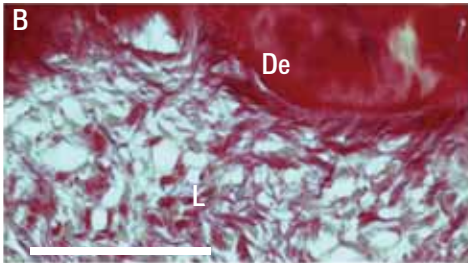
Bone marrow mesenchymal stromal cells (BM-MSCs), as well as adipose-derived MSCs, are being studied as an alternative for periodontal regeneration because they are abundant and easy to harvest.



Periodontal disease results in the loss of cementum (that covers root dentin), periodontal ligament fibres and alveolar bone. Periodontal regeneration requires the reformation of new cementum, periodontal ligament fibres and alveolar bone in such a way that the ligament fibres insert at 90 degrees into both the tooth and the bone.



Stem cells on microbeads have been transplanted into periodontal defects created in rats. In A, beads plus cells healed with periodontal ligament fibres (indicated by L and white arrows) that were orientated approximately 90 degrees to the tooth root surface and inserted into new cementum (regeneration). In B, defects that received beads alone exhibited poorly organized and orientated ligament fibres (repair). Bar=100 µm. De=dentin; L=ligament fibre.



‘All the Better to Eat With’ Challenges of Current Treatment

The ultimate aim in periodontal regeneration is to have the jaw and teeth fully functioning. Additionally, cosmetic benefits improve a patient’s overall sense of well-being. Current methods such as conventional periodontal surgery have limitations and costs. Surgery is not only invasive, but the healing process results in limited formation of new bone, cementum and periodontal ligament fibres, which often run parallel to the root surface (see illustrations), providing no or inadequate support for the tooth.

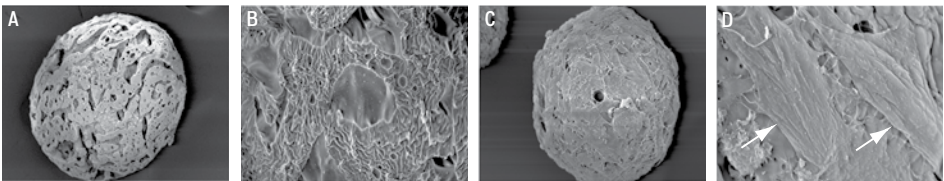
“If you let the gum heal naturally, connective tissue will form, but it will not be properly attached to the root surface, so it has no functional benefit,”

says Putnins. “For a periodontal ligament to function so that a patient can chew properly, the periodontal ligament has to go from bone and attach into the cementum on the root surface. That is what holds a tooth in place.”

“Guided tissue regeneration” is a term for newer surgical approaches. One method uses biomembranes to prevent the faster-healing epithelial cells from proliferating on the root surface, thus providing better healing of the periodontal ligament and more time for the cementum and jawbone to make new attachments. Another method involves using a bioactive gel on the diseased or damaged tissue to stimulate the growth and differentiation of host “progenitor” stem cells (see text box) found in the periodontal ligament. However, treatment outcomes are variable and at times unpredictable.

‘Something to Hang On To’ Microbeads Aid Tissue Growth

Putnins and Rossi have been collaborating on promising treatment alternatives using bone marrow mesenchymal stromal cells (BM-MSCs). “The advantage is that you have a robust and relatively large population of cells,” says Putnins. BM-MSCs are able to differentiate into the three types of tissue required for periodontal regeneration.



Gelatin microbeads prior culturing with mesenchymal stems cells (B is a close-up of A); stem cell proliferation (indicated by white arrows) on gelatin microbeads prior to transplantation into the surgical site (D is a close-up of C).

However, growing and expanding cells in culture is challenging. For example, the longer cells are cultured, the less they are able to differentiate into multiple types of tissue, and a large number of cells die in the process of transplantation.

“The problem with culture and expansion is that cells are grown in super-rich serum, which is somewhat like giving a child pure sugar—they go hyper and bounce all over the place for a while,” Rossi says. “Suddenly you take the cells out of the serum and put them back into tissue where they don’t have these nutrients, so most of the cells die.” In addition, most types of cells grown in culture, including BM-MSCs, need “something to hang on to.” Another type of cell death, anoikis, occurs when expanded cells are separated or detached from the culture plate.

In two different studies, Putnins and Rossi grew BM-MSCs on gelatin-based microcarrier beads, which were then transplanted directly into wound tissue in animal models. The novel culture method improved cell survival and increased bone formation. Importantly, their data demonstrated that BM-MSCs in conjunction with gelatin beads played a significant role in regenerating a more functional periodontal ligament, much closer to perpendicular (80 to 90 degrees) to the root surface. Although donor-derived cells were associated with new tissue in bone, cementum and periodontal ligament, they were as yet unable to determine whether these cells actually generated new growth (were osteoinductive), or simply provided an environment that helped host progenitor cells to produce new tissue (osteoconductive).

New Techniques Could Aid Craniofacial Repair

In a recent study on craniofacial bone regeneration, published in the *Journal of Biomedical Materials* in 2011, Putnins used microCT and histologic analysis to demonstrate that, in fact, BM-MSCs contributed to both osteoinductive and osteoconductive bone regeneration. “This is very important, because the mechanisms are so complex that even using GFP [green fluorescent protein] labeled cells, the outcome is difficult to determine,” notes Putnins. “With our new imaging technology and equipment, we will be able to better identify what is happening at the molecular level.”

Both Putnins and Rossi note that this research is still in the early stages, and several hurdles need to be overcome. The advantage to using a patient’s own stem cells to regenerate tissue is that there are no issues of rejection and the subsequent side effects of immunosuppressant drugs. The disadvantage with BM-MSCs is that extraction involves putting a needle into the bone. There are practical and economic problems as well. In animal models, fetal bovine serum is used to expand cells. “For human transplantation, you would need to expand donor cells in a serum-free medium and then put them back into the patient,” says Rossi. “This would require a designated Good Laboratory Practice facility. Stem cell research is in its infancy and these facilities are not very common and extremely expensive.” He adds that not enough studies have been done on delivering cells without culture and expansion.

Fat Could Provide the Best Chance

While fat gets a bad rap in most medical circles, Rossi’s research on fat-derived stem cells could provide an answer to these logistical and economic hurdles. “One solution would be to avoid expansion altogether and use a more abundant source of stem cells from human fat, which could be easily obtained in a non-invasive manner through liposuction,” he says.

Rossi envisions a process where the cells could be extracted, purified, attached to microbeads and transplanted back into the patient all within a few hours.

Whether gathered from bone marrow, fat or the “tooth fairy” (see below), stem cells have huge potential in periodontal regeneration. “With today’s treatments we can get back some of the lost tissue, but patients invariably must have the area cleaned every three months,” says Putnins.

“If we can regenerate tissue to what it was like to begin with, it is easier for the patient to manage and cheaper in the long run.” Not to mention that perfect smile.

Should the Tooth Fairy Be in the Banking Business?

While many dental researchers support the idea of banking lost baby teeth for use in stem cell regeneration, UBC medicine professor Fabio Rossi does not. With funding from the Canadian Institutes of Health Research, he and UBC Dentistry professor Edward Putnins have been studying the use of bone marrow stem cells for periodontal tissue regeneration—a more predictable and ethical source of donor cells.

“It’s true that we lose our deciduous teeth at a young age and perhaps we should bank them, however, it is also true that the number of stem cells in a tooth is very limited, and adult stem cells are generally not capable of growing in vitro indefinitely,” says Rossi, who doesn’t want to see tooth banking become a business, ultimately prone to illegal clinics and harvesting. “We don’t want to tarnish the image of the Tooth Fairy when there are better options.”

The Far Reach of UBC Dentistry's Graduate Research Training

BY TERRY WINTONYK

Back in the 1990s they were doctoral students in UBC's Faculty of Dentistry. Each came from a different part of the world, seeking a solid foundation in research and training that would give them the skills and confidence to investigate some of the most complex issues in oral biology. Now all are professors and established scientists, with careers that are significant, divergent and fascinating.



Dr. Bjorn Steffensen
University of Texas
Health Science Center
at San Antonio

Probing the Secrets of Desert Flora May Yield Clues to Treating Cancer and Tissue Degeneration

The local flora and his cactus collection help this Texas-based UBC graduate—Dr. Christopher Overall's first PhD student—to relieve the stress of long days teaching and doing research. Coincidentally, what's growing in the plains, basins and lowlands of the Lone Star State may also hold the keys to what he is investigating: treatments for cancer and tissue degradation, a devastating complication of diabetes and periodontal disease.

Dr. Bjorn Steffensen—dentist, periodontist, professor and world-renowned researcher—leads a research program on matrix metalloproteinases (MMPs) at the University of Texas Health Science Center at San Antonio, where he also teaches dental and periodontics students.

Originally from Denmark, Steffensen was an assistant professor at the University of Texas in San Antonio before completing his PhD at UBC in 1997. He had become increasingly engaged in research and wanted to gain the knowledge and skills needed to pursue research more independently. “I found the dental school and the Oral Biology program, offered in conjunction with the related basic science programs at UBC, to be a strong infrastructure for my training,” he recalls. He trained with Dr. Overall in molecular biology and protein biochemistry, laying a solid foundation for investigating the roles of MMPs in periodontal disease and oral cancer.

Today, Steffensen's research focuses on developing highly selective MMP inhibitors, following up on critical studies initiated with Overall that characterized how MMPs bind the proteins they degrade. His laboratory at the University of Texas has developed methods for identifying novel potent MMP inhibitors via high-throughput screening of large collections, or “libraries,” of molecules.

In collaboration with chemists in San Antonio, Steffensen is now screening a library of extracts from Texas plants. “Hobbies such as my interest in plants can relieve stress, and at the same time they can inspire an approach to research,” he says, adding: “A similar approach by other researchers led to the discovery of taxol, a plant-source drug that is used in cancer treatment. It pays to be open.”

Both diabetes and periodontal disease involve tissue destruction, and Steffensen noted the high risk of diabetes among the Hispanic population in South Texas. “I was prompted to investigate mechanisms of tissue degradation in poorly healing wounds in diabetes,” he says. “Untreated, such wounds have serious health implications and often lead to amputations.” Cancer, diabetes and periodontal disease are very complex, however, and Steffensen cautions that much more research will be required before applying any MMP inhibitors to these diseases.

Steffensen's strengths lie not only in research, but also in his commitment to mentoring and to improving research training. He is the 2012 recipient of the prestigious Irwin D. Mandel Distinguished Mentoring Award conferred by the American Association for Dental Research. As the associate dean for Research at the San Antonio dental school, he directs advanced research training for postdoctoral fellows and for students in PhD programs and a combined Doctor of Dental Surgery-PhD program.

Steffensen recalls his time in Vancouver fondly: “The five years my wife Jane—who concurrently studied at Simon Fraser University—and I spent at UBC were among our personal and professional high points. My UBC graduate training set the stage for a nearly 15-year period of productive academic contributions.” Many friendships and professional alliances made at that time were renewed during a four-month sabbatical spent at UBC in 2009.

University of British Columbia

Boston University

University of Texas Health Science Center
at San Antonio



Dr. Laisheng Lee Chou
Boston University

From Lab to Clinic: Bone Tissue Engineering and HIV-Related Disease

Over 15 years ago he was UBC oral biology professor Donald Brunette's PhD student. While at UBC he turned the biomaterials community upside down with a notion that he still uses today to successfully treat patients with severe bone defects.

Boston University professor Laisheng Lee Chou is a leading researcher in molecular biocompatibility of biomaterials, with multiple qualifications in dentistry, oral medicine, oral pathology and biology. He's also an expert in HIV-associated oral lesions, and a much sought-after clinician. But let's begin with his reputation as a teacher—he's one of the best around.

Dr. Chou, who began teaching in his native China at Shanghai No. 2 Medical University soon after completing his dental degree there in 1978, has held multiple teaching positions—undergraduate, graduate and post doctoral—at Boston University since 1994. By 2002, Chou's classroom notoriety garnered him the Metcalf Cup and Prize—that university's highest teaching award. He was the first-ever recipient from the Henry M. Goldman School of Dental Medicine. According to a former student: “Dr. Chou's informative lectures are professional and clear without exception. The ease with which he explains challenging material is a testament to his genuine brilliance as a teacher.”

Chou is no stranger to challenging material. At UBC, Chou studied the biocompatibility of material–tissue interfaces. Chou's work demonstrated for the first time that material surface chemistry and topography could

provide signals to regulate gene activity of functional proteins. “This contradicted a previous ‘inert’ theory of biomaterials known under the term ‘biocompatibility,’ and the phenomenon led to the coinage of a new term: ‘molecular biocompatibility,’” he recalls, while crediting the success of his PhD thesis at UBC to the mentoring and support he received from Dentistry professor Don Brunette and from research associate Jim Firth, who at that time was a lab assistant. This discovery was so significant that the World Biomaterials Congress now presents a molecular biocompatibility symposium at each annual meeting.

Chou notes that the theory of molecular biocompatibility has significantly impacted the testing, modification and innovation of new biomaterials for medical applications. One of the most successful examples is bioengineering in maxillofacial reconstruction. “I applied this new concept and developed osteogenic materials for human bone tissue engineering. We have invented inorganic materials that actively stimulate human bone regeneration and have used this process to successfully treat patients with severe bone defects.”

Current approaches to treating bone defects using biological products are not optimal; there is a need for safe, stable and effective materials for better outcomes, Chou says. “It's challenging work; the application of bone tissue engineering involves multidiscipline collaborations in material sciences, biology and clinical sciences.”

Chou also investigates the role of oral mucosal Langerhans cells in HIV-infected patients who have oral cancer and infectious oral lesions. To understand the mechanisms of antigen-presenting, cell-mediated mucosal immunity against oral cancer and infectious diseases, Chou uses gold chloride enhancement, a novel technique that he developed to intensify the molecular signals of immunohistochemical labelling. Lack of tissue samples is a serious obstacle to understanding the mechanisms of disease.

On the clinical side, Chou is director of Boston University's Oral AIDS Clinic, which he created. Renowned for its service to HIV patients, the clinic also trains dental students to look for suspicious precursors to disease. “Cases with oral cancer and infectious oral lesions are still increasing in number,” Chou explains, and notes that no other dental school in the country offers a rotation like it to undergraduate students.

● Chiang Mai University

Dr. Anak Iamaroon
Chiang Mai University

Finding a Bridge: Developmental Biologist to Oral Pathologist

Sixteen years ago he studied developmental biology—embryonic palate formation, to be specific—at UBC with Dr. Virginia M. Diewert. Today he fights Thailand’s number one killer: cancer.

Oral pathology professor Dr. Anak Iamaroon is located at Chiang Mai University in his native Thailand, where he teaches undergraduate and graduate students and provides microscopic diagnosis for patients through the dental school’s oral pathology services. He also has a lengthy list of research papers—in the two distinct fields of developmental biology and cancer—attributed to him. His more recent work, however, focuses on oral cancer, particularly its molecular pathogenesis, or development of the disease. Oral squamous cell carcinoma (OSCC) has a high mortality rate worldwide and is on the increase in Thailand.

Iamaroon has been studying cell signalling pathways during the formation of oral cancer tumours, especially in OSCC. Signalling pathways are part of a complex system of communication for molecular events such as cell growth and development, and message errors can cause disease. Iamaroon explains the importance of these signalling pathways: “The oral cancer cells utilize these pathways to become more aggressive during tumour progression—that is, tumour invasion and metastasis. One of the interesting aspects of cancer aggressiveness is that the cancer cells can transform their morphology

and property from a less plastic cell, or epithelial cell, to a more plastic cell, or mesenchymal cell. This molecular process,” he continues, “is called the epithelio-mesenchymal transition (EMT).”

It would appear, then, that palate formation and cancer are not such distinct fields. Iamaroon first investigated EMT during his PhD research in developmental biology with Dr. Diewert. In addition to being a component of the inflammatory process and normal wound healing in adulthood, EMT is a process that has long been recognized by researchers in the area of embryology and development, where it is involved in normal embryogenesis and organ development from single-layered to multilayered organisms.

Recently, Iamaroon’s research group found aberrations in two signalling pathways during OSCC tumour formation: in the transforming growth factor beta (TGF-β) and the Akt (protein kinase B) pathways. Already aware that the aberration of TGF-β and Akt signalling pathways leads cancer cells to EMT, his team recently found that oral cancer cells can also undergo EMT. This marked step makes the cancer cells move from place to place or makes them metastasize and finally kill the patient.

Iamaroon’s goal is to literally stop cancer growth “in its tracks”—the signalling pathways. He hopes his work on the molecular pathogenesis of oral cancer will lead to the discovery of drugs specifically for oral cancer treatment, drugs that have fewer side effects than surgery, radiation and chemotherapy.

He is also interested in collaborating on research into the herbal remedies used in Thai Traditional Medicine. “Oral cancer mainly occurs in patients with low social-economic status, and in Thailand we have to look at all possible ways of treating them,” he says.

This is good news for the Southeast Asian country that was devastated by floods last year. This disaster further eroded already-scarce government funding for basic research. However, Iamaroon has been able to continue his research thanks to funding from Chiang Mai University. As the Thai saying goes: “Seven times bad, seven times good.”

Study Backs Effectiveness of UBC Dentistry Workshop for the Tech-Tenuous

BY TERRY WINTONYK

Having taught dental students for many years, Dr. Nancy Scott, a 1980 alumna and now clinical assistant professor, was confident in her dentistry, yet not particularity confident in manoeuvring through the online patient management system at UBC. Most students put their treatment plans and radiographs up on screen for Scott to review. All she was required to do was sign the record by swiping an identification card in the system. Scott, however, was secretly haunted by fears of clicking the wrong button and deleting an entire patient record, or worse, crashing the system and causing irreparable damage.

Her pent-up angst around digital technology emerged a few years ago when students began asking for document sharing and more immediate responses to emails (at the time she only answered email from her private office account). They wanted her to connect with them in the digital world. This was unfamiliar territory for Scott, and she realized that her skills didn’t match the expectations of these “digital natives.” She had no idea that webmail could be used from home to respond to students at any time. She didn’t know how to sign up for a blog account. “Attachments” were about feeling affection in relationships, not digital learning resources sent to students via email.

Fortunately, Scott found help for her digital illiteracy in a UBC Dentistry workshop that transformed her working life.



Dr. Karen Gardner (L) and Dr. Ingrid Emanuels

“We noticed some discomfort among older graduation classes and retired dentists in Dentistry’s high-tech teaching clinic,” says associate clinical professor Dr. Karen Gardner. She points out that people can easily avoid digital technology if they are not particularly interested. “A dentist who graduated as recently as 10 years ago may have been left behind in the digital age because their support staff handled the technology in their practice.”

Dr. Ingrid Emanuels, clinical assistant professor and operative dentistry liaison, notes that low-level computer skills may discourage many experienced, competent and benevolent dental practitioners from returning to the university to teach new practitioners. “An unfortunate consequence would be the loss of great knowledge not handed down,” she says.

So Gardner and Emanuels designed a course to help get these dental practitioners and instructors up to speed with digital technology. Their aim was to re-ignite an enthusiasm for learning by reducing embarrassment.

And according to a pilot study led by Gardner and Emanuels, and conducted with dental personnel from the community and part-time clinical educators, the Continuing Dental Education course succeeds in bringing people over the digital divide.

A paper on the study, published in *Transformative Dialogues: Teaching & Learning*

Journal, attributes the success to presenting the information in a non-threatening way and demonstrating the relevance of the technologies to participants’ professional and personal lives.

Course participants, who ranged from 35 to 70 years of age, examined their perceptions of everyday digital technology (like writing an email, which is familiar to most people), then projected those perceptions onto their professional lives and its digital technology. The basic idea is that it’s not a big leap from writing and sending an email to calling up and updating an electronic patient record.

Third-year dental students, recruited as reverse mentors (a model whereby younger people teach older people), tutored course participants in a hands-on computer lab session, helping with real-life dental issues such as searching for peer-reviewed literature on Medline. Says Gardner:

“What we learned is that those with low-level computer skills just need a ‘bump’ to get over their bewilderment of all the bells and whistles.”

And of Scott’s bump into her newfound personal digital capability?

She is now fearlessly synching her new iPhone to her new MacBook Air and communicates effortlessly online. Paper documents—from that world of linear thinking—evoke a bygone era. Scott now moves easily among students in their digital learning communities. “Even from home I’m comfortable grading and providing feedback for my students online—in blogs, Google Docs and forums.” And the best part of Scott’s transformation after the course, according to Emanuels, is that she now has the courage to ask for help, if needed.

Reference
Gardner K, Emanuels I, Aleksejuniene J. (2011). Helping experienced professionals become tech savvy for lifelong learning. *Transformative Dialogues: Teaching & Learning Journal*, 5(2).



Dr. Nancy Scott

PHOTOS BY KAVITA MATHU-MUJU

UBC Dentistry 'Adopts' Florence Nightingale

BY LORRAINE CHAN, WITH FILES FROM TERRY WINTONYK



Dr. Sarah S. Park, UBC general practice resident (L), sees patients for checkups, which may include fillings and extractions. Dr. Christopher Zed (R) notes that children can receive dental care in the school, whereas going to a community dentist would require parents, who may not be able or available, to accompany them.

Rebecca, age nine, looks happy as she exits the UBC-run dental clinic at Florence Nightingale Elementary School. Equally pleased is her mother, Josefina Romero.

The fact that Rebecca can get free dental care is a great weight off her shoulders, says Romero, who immigrated to Vancouver from Puerto Vallarta, Mexico, with her husband and four children in 2006. "The clinic is very good for families who can't afford dentists. Vancouver is very expensive for dentists, especially when there are six of us."

This situation is not unique to the Romeros. Most of the 250 children at Florence Nightingale don't usually see a dentist. According to school principal Jenny Chin Petersen, dental care has been the missing element in the drive to improve the overall wellness of the students in this Mount Pleasant neighbourhood.

The match was a natural. Last fall, the Faculty of Dentistry opened a dental clinic at Florence Nightingale as part of its Adopt a School Program to serve at-risk, inner city schools. Working with the Vancouver School Board, Vancouver Coastal Health Authority and Mount Pleasant Community Centre, the clinic is staffed by UBC general practice residents—licensed dentists who

are doing advanced postgraduate training with the Faculty of Dentistry.

Chin Petersen says, "That means children from the most vulnerable families, who don't have insurance coverage or a regular dentist, can receive the care they need."

About 30 percent of the children at Florence Nightingale experience pain from tooth decay and oral disease, notes Dr. Christopher Zed, associate dean of Strategic and External Affairs with the Faculty.

"By providing oral health treatment and education, we hope to reduce absenteeism, sleep deprivation and improve classroom attentiveness due to lack of oral pain," says Zed, whose research looks at oral health disparities in under-served communities in Canada and internationally.

More than a "drill-and-fill relief program," says Zed, the Adopt a School Program aims to improve overall oral health standards and knowledge among children and their families. Family members of children at Florence Nightingale can also get free oral health care from a UBC-led community volunteer dental clinic at the nearby Mount Pleasant Community Centre.

"The idea is to provide service to the entire family so there's an integrated approach and lasting change in both the children's and their parents' health behaviour and attitudes," says Zed.

Open year-round, the one-chair clinic at Florence Nightingale operates every second Thursday, between 1 p.m. and 8 p.m.

For the past two years, UBC's Doctor of Dental Medicine students have been coming to Florence Nightingale as part of their Professionalism and Community Service (PACS) program. Through games and exercises, the PACS students teach the children about oral health care, from proper brushing and flossing to smart food choices—crunchy apples versus sticky cupcakes, for instance.

"So when the dental clinic appeared, it wasn't a new or scary thing for the kids. They were really familiar with the idea of dentists and what they do," says Chin Petersen.

Reprinted with permission from UBC Public Affairs; published in *UBC Reports*, Apr. 4, 2012.

Watch the *UBC Reports* video story about the Adopt a School Program. Video includes interviews with Jenny Chin Petersen, principal of Florence Nightingale Elementary School (pictured), Dr. Sarah S. Park, UBC general practice resident, and Dr. Christopher Zed, associate dean of Strategic and External Affairs. Click through to www.dentistry.ubc.ca/ubcr_afn, or scan the QR (quick response) code with your smartphone.





Standing inside the newly designed student-lounge atrium, Nadean Burkett smiles as she looks out the massive glass windows down onto a courtyard surrounded by trees. “This is exactly the kind of space I wanted for Dentistry students to come and enjoy the natural light and serenity. It’s a place for them to relax, unwind and reconnect with their friends and classmates.”

It is hard to believe that for over two decades this atrium—once an outside balcony on the north side of the John B. Macdonald Building—was locked tight because it didn’t meet safety codes during a building inspection in the 1980s. Now, thanks to the generosity of Nadean Burkett & Associates, the space has been revitalized as part of the massive renovation of the building. The former unsafe balcony has been transformed into a glass-enclosed terrace, a unique space for students to enjoy.

Jonathan Hung, a fourth-year DMD student, agrees. “This area helps us to wind down, refocus and to relax. It’s a place where students want to be.”

A transition coach, mentor and expert in the business of private practice and ownership, Nadean is a long-time supporter of students, alumni and the school. She believes in giving back to the community and to dental professionals who have contributed to her success. Committing to support the new student-lounge atrium aligns with her personal mandate to empower through philanthropy, and in particular, to support the vision and future goals for UBC Dentistry and the profession. Her passion to assist UBC Dentistry students reaches beyond the glass windows of the atrium, past the landscaped view and well into their future.



It’s as Easy as 1, 2, 3



While touring the John B. Macdonald Building during renovations, Dr. Amin Shivji stopped in the area of the old clinic, where his assigned open operatory once stood, and gazed up at the ceiling. As a young dental student in the early ’90s, he and his classmates shared some interesting antics, including one that placed popcorn kernels strategically near the hot overhead lights . . . You can imagine what happened next!

Now some 20 years later, Dr. Shivji, an alumnus and leader in the dental community, has helped create another impact at UBC Dentistry along with 28 colleagues from 123 Dentist.com. Two newly renovated conference rooms in the JBM building have been named for Amin & Sharon Shivji and Family and for 123Dentist.

The 123Dentist community network has a strong sense of social responsibility and believes in making a positive difference. Their commitment to providing a dynamic and

interactive learning environment for future oral health care professionals brings student-centred learning to the forefront.

“We understand the importance of providing students with a clean, nurturing and professional environment where they can learn, interact and exchange information with professors and peers alike,” says Amin Shivji.

These new conference rooms are used for small-class lectures, interactive learning and independent study. Open 24 hours a day for students, these rooms are occupied on a constant basis. And sometimes, late at night, you might even hear the crunch of someone studiously enjoying popcorn kernels.



LOCK IT UP FOR STUDENTS

MAKE IT COUNT

Remember those old dented lockers—the ones that jam and look like they belong in a downtown boxing gym rather than a dental school?

Renovations to the John B. Macdonald Building have slammed the doors on the last bank of old lockers. Now alumni and friends can “lock up” a gift of new student lockers.

Every contribution of \$1,000 helps purchase a locker, and official recognition of the gift will be displayed on the locker.

Visit www.dentistry.ubc.ca/lockers to make a gift, or call the UBC Dentistry Development Office at 604-822-6808.

PHOTOS BY TIFFANY COOPER, TERRY WINTONYK

ONLINE TOOLS MAKE GIVING SMOOTH

Ready to make a class gift or a contribution to the Community Access Fund?

Donations to these projects and more at UBC Dentistry can now be made effortlessly online.

A few clicks do it all, and a tax receipt will be emailed to you immediately.

Smooth, quick, easy and secure.

start an evolution

<http://startanevolution.ubc.ca/dentistry>

PHOTOS BY TIFFANY COOPER

THE 2011 – 2012 ACADEMIC YEAR IN NUMBERS

Measuring success usually involves some numbers. Take a look at these to learn how Dentistry fulfilled a university-wide mandate to provide community-based experiential learning (CBEL) in the 2011–2012 academic year. In educational parlance, CBEL is a term to describe pedagogical practices that focus students' discipline-specific knowledge onto community-based challenges. Such argot notwithstanding, Dentistry's Strategic Plan embraces the themes of enhancing student experience and increasing community involvement. So, through these lenses, here are some of the numbers in sharp focus.

All students in all four years of the Doctor of Dental Medicine program—205 students to be precise—participated in curriculum-based projects beyond the UBC campus at locations throughout the Lower Mainland. Pictured: colourful props used by dental students in the Professionalism and Community Service (PACS) program to interact with children and promote oral health at an elementary school.

Read an article about PACS at www.dentistry.ubc.ca/go/pacs



To support our aging population, 10 long-term-care facilities were on the 2011–2012 roster. Seniors were served by general practice residents and by both dental and dental hygiene students. Pictured: Simon K.Y. Lee Seniors Care Home in East Vancouver.

For more information about dental services for residents of intermediate and extended care hospitals, visit www.elders.dentistry.ubc.ca. Read about the oral health care of seniors—a compelling blend of research, education and service—in the spring 2010 *Impressions* article “ELDERS Wisdom Improves Seniors' Quality of Life” online at www.dentistry.ubc.ca/features/wisdom



Close to 20,000 toothbrushes were given away by UBC Dentistry residents, students and volunteers at locations in the Lower Mainland and rural British Columbia, and at three international locations. Colgate generously donated the toothbrushes.



Thirteen general practice residents served 11 Vancouver locations, three locations outside the Lower Mainland in British Columbia, and two locations overseas. Pictured: Dr. Pawandeep Sekhon, general practice resident (R), treats a young patient at Vancouver's Florence Nightingale Elementary School in UBC Dentistry's Adopt a School Program. Read more about the program on page 24.



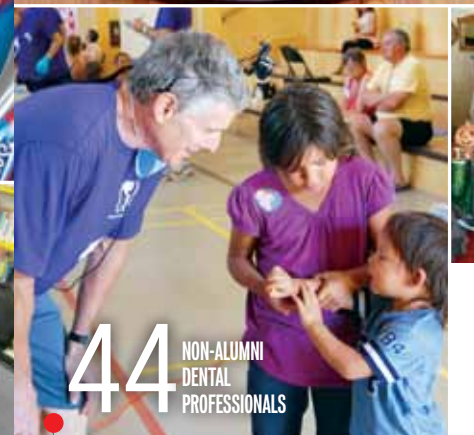
Elementary schools, long-term-care facilities and community health centres welcomed 63 second-, third- and fourth-year dental hygiene students in curriculum-based projects. These projects begin in the second year of the dental hygiene program. Pictured: Nora Tong (L) and Kim Nguyen, both second-year dental hygiene students, teaching elementary-school children how cavities form.

Read about dental hygiene students at a Level 1 English-language classroom in New Westminster at www.dentistry.ubc.ca/go/dh_enrich



Roughly 51 percent of all dental students volunteered in the Volunteer Community Clinic Program this past academic year. In July, the annual volunteer-clinic trip to Penelakut Island will shift to Chemainus in order to serve a greater number of First Nations groups.

Read about past volunteer-clinic trips to Penelakut Island at www.dentistry.ubc.ca/go/penelakut



Forty-four non-alumni dental professionals supported the school and their professions by volunteering with UBC dental students in the non-curriculum-based Community Volunteer Clinic Program. Forty-six alumni dentists also volunteered their time. Pictured: Dr. Ken Stones is a regular volunteer dentist.

Read about two volunteer dentists in the fall 2011 *Impressions* article “Giving Back—Volunteer Dentists at Home and Abroad” online at www.dentistry.ubc.ca/go/giving_back

Last year the Summer Student Practitioner Program matched 17 students to eight alumni and nine non-alumni dentists in locations across British Columbia. Interest from students and supervising dentists has grown for this summer; preliminary placements in the 2012 program already exceed last year's.

Go online at www.dentistry.ubc.ca/spp to find out more about the Summer Student Practitioner Program. To facilitate student matches, use the online form to answer questions about your practice and location.

17 STUDENTS
Summer Student Practitioner Program

UBC Dentistry offers six clinical specialty graduate programs—endodontics, oral medicine and oral pathology, orthodontics, pediatric dentistry, periodontics and prosthodontics. Graduate students in endodontics regularly rotate to the dental clinic in Skidegate on Haida Gwaii.

Download a PDF overview of graduate programs and research clusters at www.dentistry.ubc.ca/go/grad_pgms

6 CLINICAL SPECIALTY GRADUATE PROGRAMS



All participants in the Volunteer Community Clinic Program—students and volunteer dental professionals—contributed approximately 2,000 hours of professional work to benefit people in need. Pictured: A volunteer team at the Vancouver Native Health Society's storefront dental clinic on Saturday, February 5, 2012.

Read about students' volunteer experience at the Vancouver Native Health Society dental clinic located in the Downtown Eastside, online at www.dentistry.ubc.ca/features/challenges

The dental mentorship program includes 22 alumni and six non-alumni dentist-mentors. The program is gaining popularity among students, and more mentors are needed.

If you are a dental professional and are interested in being paired up with a student, contact Alex Hemming at ahem@dentistry.ubc.ca



The following organizations provided community-based experiential learning (curriculum and non-curriculum) opportunities during UBC Dentistry's 2011–2012 academic year.

In the Lower Mainland of BC

ABC Dental (private practice)
Adanac Park Lodge
BC Cancer Agency
BC Children's Hospital
Broadway Pentecostal Lodge
Burnaby Family Life
Centre for Child Development of the Lower Mainland
Developmental Disabilities Association
East Van Youth Clinic
First United Church
Florence Nightingale Elementary School
General Brock Elementary School
John Henderson Elementary School
Little Mountain Place
Louis Brier Home and Hospital
Monarch Pediatric Dental Centre (private practice)
Mount Pleasant Community Centre
New Westminster Family Place
Pacific Spirit Community Health Centre
Pioneer House
Portland Hotel Society,
Portland Community Dental Clinic
Positive Living BC
Reach Community Health Centre
Richmond Health Department
Simon K.Y. Lee Seniors Care Home
Sir William MacDonald Elementary School
St. Paul's Hospital, Psychiatric Unit
Strathcona Community Dental Clinic
Sunny Hill Health Centre for Children
Tot2Teen Dental (private practice)
UBC Hospital, Detwiller Psychiatric Unit
UBC Hospital, Purdy Pavilion
Union Gospel Mission
Vancouver General Hospital, Banfield Pavilion
Vancouver General Hospital, Dentistry Clinic
Vancouver General Hospital, Medically Complex Patient Clinic
Vancouver Native Health Society, Dental Clinic
Villa Cathay Care Home
West Vancouver Community Health Centre
Windermere Care Centre
Woodward Elementary School

In BC outside the Lower Mainland

Kelowna Gospel Mission
Penelakut First Nation
Skidegate Dental Clinic
Victoria Cool Aid Society

Outside Canada

Angkor Hospital for Children, Cambodia
National Hospital of Odonto-Stomatology, Vietnam

A 'WALK' WITH THE MAASAI

BY TERRY WINTONYK



Nick Piemontesi remembers the day, in August 2011, that he arrived at the Maasai Dental Clinic in Kenya. "I was promptly collected at the Nairobi airport and endured four hours in a safari vehicle on a hot, dusty road before arriving at the clinic," he says.



Located just eight kilometres from Kenya's Maasai Mara National Reserve, in the middle of nowhere, the small clinic is fenced off from wild animals, with a guard stationed day and night. So Nick was surprised to find—at what was to be his workplace and home for the next three weeks—an ultra-modern facility. "There were four rooms for volunteer dentists to live in; a well-stocked and well-equipped clinic with three operatories; two assistants, who between them spoke both Maasai and Swahili; and plenty of food—we ate at the nearby tourist lodge of the national game reserve."

The clinic serves the Maasai, a semi-nomadic people who live in a large swath of land in East Africa that overlaps Kenya and Tanzania. Close to 30,000 people live within walking distance of the clinic—a walk fraught with perilous geography and wildlife. The clinic is often miles from home villages where huts made from sticks, mud, grass and dung are arranged in an *enkang*, a circular fence made of acacia. The *enkang* protects people's wealth—goats, sheep and cows—from night predators.

Clad in red *shukas*, groups of Maasai would arrive by 10 a.m., on foot, all at once. "It's not uncommon for people to be hit in the face by animals they work with. And one young man was hit by a Cape buffalo on the way to the clinic," says Nick, who at the time was a beginning fourth-year dental student at UBC. "Our first task in the day at the clinic was to triage patients; trauma cases were handled immediately."

People come to the clinic because of pain from tooth decay, and if too far gone, extractions are necessary. In children, the culprit is candy—a popular gift given to them from many of the 290,000 annual tourists visiting the nearby national reserve.

Working under the expert eye of Dr. Kirk Hunt, the clinic's volunteer coordinator, Nick restored savable teeth, extracted countless decayed teeth, cleaned teeth and, unexpectedly, performed many endodontic treatments. "It's actually a well-stocked clinic for endodontics," he says.

Other cases involved discouraging unnecessary tooth removal. Requests for the removal of teeth are unique to this population, and an important element of working with the Maasai is to dissuade them of their traditional practice of tooth removal.

Nick explains: "Primary canine tooth buds are commonly removed as they are seen as 'worms or maggots' causing vomiting, diarrhea, fever and other diseases—symptoms we associate with teething. In the lower jaw, the mandibular deciduous and permanent teeth are also often taken out. Originally this was done to make a hole for feeding in the event of diseases like tetanus that lock the jaw. Now, even though there are modern vaccines that prevent tetanus, the custom of removing teeth persists—it's seen as normal. Elders in the village perform these extractions with no anaesthesia, using crude instruments like needles and nails that expose the child to extreme pain and potentially life-threatening risks such as shock, loss of blood and transmission of other diseases like HIV and, ironically, tetanus."

The Maasai are fearless patients. Nick speculates that this could be an ethnic character trait. The Maasai have a reputation of being warriors, and their cultural rites of passage include beating boys to test their courage and doing circumcisions without anaesthetic, both of which must be endured in silence. His patients, Nick says, "never flinched in the dental chair, nor batted an eye at my 'bush dentistry,' such as my make-shift dental bridges."

During his down time—rains kept patients from travelling over the already difficult terrain to the clinic—Nick did a lot of reading. And if treating the people of East Africa in the middle of nowhere was not adventure enough, he was moments away from one of the best wildlife parks in East Africa. Nick took several trips into the reserve, witnessing a lion kill and seeing the other "Big Five" animals—leopards, African elephants, buffalo and the black rhinoceros—as well as cheetahs. A balloon ride over the savannah to view zebra herds ranked at the top of his adventure list.



Nick was inspired to travel to Africa after hearing accounts of previous student trips, particularly that of Amy Bellamy DMD 2011, who was recognized for community service leadership for her volunteer work at the Maasai Dental Clinic in Kenya.

After graduating in May 2012, Nick plans to do an oral surgery residency in Nashville, Tennessee—and to keep in touch with Kirk Hunt, his now good friend and lifelong mentor.

The Maasai Dental Clinic, established by the World Health Dental Organization, is operated by the National Association of Seventh-Day Adventist Dentists in partnership with Loma Linda University, School of Dentistry. For more information and volunteer opportunities, visit www.maasaidental.org

PHOTOS BY NICK PIEMONTESE



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 1972

To celebrate 40 years as friends and colleagues, the Dip DH 1972 class has decided to take a cruise together this year. To find out more, contact Yolanda Buxton at yolandab@shaw.ca or email alumni@dentistry.ubc.ca



Doug Nielsen
DMD 1972

For his volunteer community work in rural BC, Doug was honoured with the commemorative Queen Elizabeth II Diamond Jubilee Medal presented by the Lieutenant Governor of British Columbia, the Honourable Steven L. Point OBC, on March 30, 2012.



Garry Sutton
DMD 1972

Fourteen of our 30 class members made an appearance at the 40th reunion. There is no doubt in my mind that we all feel we made lifelong friends and colleagues in our four years at dental school. There is genuine affection and respect shared amongst us that has not diminished over the last 40 years. The dinner—more accurately, a dinner party—was a tremendous success. The setting and food were ideal, and the fact that everyone was talking at once was a sign of a truly great time. The prevailing sentiment was that we cannot wait another 10 years—five at the most!



David Sweet OC
DMD 1978

David received both the Honoured Member Award from the College of Dental Surgeons of BC, presented in March, and the commemorative Queen Elizabeth II Diamond Jubilee Medal in April. Read more about David's award and medal in the news section on page 8 in this issue of *Impressions*.

1980s



Melanie Grant
(née Leitch)
Dip DH 1982

We had a great time at our 30-year dental hygiene reunion dinner. Five of the 20-member class were able to attend. Seven members of our class have been at the same dental office for over 20 years, and three of us for 30 years! This we attribute to our love of the profession and our appreciation of the excellent education we received at the University of British Columbia—all of us are very grateful for our careers in dental hygiene. It was a great evening, and we all agree that we don't look any different than the day we graduated!

PLANNING A REUNION?

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

DMD 1982 REUNION

The Class of 1982 is planning a weekend trip at the Cove Lakeside Resort in West Kelowna, BC, from June 22 to 24, 2012, to celebrate their 30-year grad anniversary. To reserve a room, call the hotel directly at 1-877-762-2683. For more information about the dinners being planned in the Bonfire Grill on Friday, June 22, or at the Quail's Gate Old Vines Restaurant on Saturday, June 23, email Doug Conn DMD 1982 at doconn@oakridgeendo.com or Jenn Parsons at alumni@dentistry.ubc.ca



Michael Racich
DMD 1982

Michael is proud to announce that his latest book, *The Basic Rules of Occlusion*, has just been published. It is the sequel to *The Basic Rules of Oral Rehabilitation*. For information on ordering a copy, go to www.drracich.ca. Michael has also just qualified as a Diplomate with the International Congress of Oral Implantologists.



Henry Tom
DMD 1982

Henry has been doing magic for over 20 years and has won numerous awards and competitions. The latest was a first-place finish in the Canadian Championship of Close-up Magic sponsored by the Canadian Association of Magicians in July 2011. He recently engaged dentists in a lively lecture at the 2012 Pacific Dental Conference, showing other dentists how to use magic and balloon animals to help manage pediatric patients. Watch for Henry's magic shows at future UBC Dentistry Family Day events.



Angie Loo
DMD 1985



Angie Loo, founder of Spring for Kids Foundation, was the recent recipient of a \$100,000 grant from the Pepsi Refresh Challenge (Cycle 5). The grant will help provide ongoing assistance for children with cleft and craniofacial differences. To date, just over half of the funding has been allotted. Angie is seeking craniofacial patients ineligible for conventional funding sources that help cover the cost of prosthetic treatment. Contact Angie at drloo@bracedinbc.com for more information.



Joan Eaton
Lange Soo
DMD 1987

Following the Annual Alumni Reception at the Pacific Dental Conference (and a good laugh at our graduation class composite), we enjoyed a wonderful dinner at Cioppino's Mediterranean Grill in Vancouver's Yaletown. Surrounded by bottles of aging wine in the private wine room, we visited and reunited as old friends. After 25 years, we remain dedicated to UBC Dentistry. We are not only fundraising together to raise money for the Class of 1987 Travel Fellowship Endowment Fund to support DMD students on international community outreach programs in Southeast Asia, but also, several of us are current volunteers with the dental school. David Larsen is supervising students in the Volunteer Community Clinic Program, and Janis Boyd, David Ciriani, Joan Eaton and Les Ennis are taking summer students into their practices this year. Part two of our reunion celebrations will be a weekend event at the Cove Lakeside Resort in West Kelowna, BC. See below for more information.

DMD 1987 REUNION (THE SEQUEL)

The DMD Class of 1987 is planning a second reunion this year to celebrate 25 years since graduation. The class has booked into the Cove Lakeside Resort in West Kelowna, BC, from September 28 to 30, 2012. To reserve a room, call the hotel directly at 1-877-762-2683. A welcome reception is planned in the hospitality suite on Friday, September 28, and dinner at the Bonfire Grill on Saturday, September 29. To find out more, email Lange Soo at drsoo@telus.net or Joan Eaton at joan.nick@shaw.ca

1990s



Robert (Joe)
Germain
DMD 1992

Shown here are the dean, Charles Shuler, and on the right, Joe Germain—sporting a moustache in support of Movember, an event to raise funds for prostate cancer research—at the Grey Cup Gala this past November. Joe played for the BC Lions from 1987 to 1988 before entering dental school at the University of British Columbia in 1989.



Suzanne Rozon
DMD 1992

When I arrived at the reunion, I was filled with a mixture of trepidation and excitement as I hadn't seen many of my classmates in 20 years. My anxiety, however, soon dissolved in a sea of laughter and shared memories. I will forever treasure the images of my classmates greeting one another. The night passed too quickly, and as we all exchanged hugs and goodbyes, we resolved to get together more often. So I am optimistic that the renewed friendships will not be quickly forgotten, and we will all make a greater effort to come together again—a reunion is truly a blessing.



Senia Bobanovic
DMD 1997

It was great to celebrate the DMD Class of 1997 15-year reunion at Oru Restaurant in the Fairmont Pacific Rim Hotel following the Annual Alumni Reception at the Pacific Dental Conference. For those unable to attend, our 20-year reunion will be here before you know it, so mark down March 2017! Shown here are Rand Barker and wife Cia Harms. Rand is wearing his original student scrubs from his days at dental school.

2000s



Adam Lyle
DMD 2002

The class of 2002 met at the Irish Heather for a private long-table dinner to celebrate 10 years since dental school. The grads filled the 40-person table with ease. Pictured here are Adam Lyle and his fiancée Buffy Mills.



Arek Siwoski
DMD 2007

Wow, what a fantastic time at our five-year reunion! It was nice to see that while some of us look so drastically different (just kidding), our attitudes and styles have remained the same. Happy practising, and see you all in another five!



Winnie Chan
DMD 2008

Winnie is pleased to announce her marriage to Jeff Obayashi MD 2008 on June 18, 2011, at the Morgan Creek Golf Course in Surrey. Jeff and Winnie met in first-year medicine courses and have been best friends ever since. They are currently working in northern BC. When they are not practising together as a rural doctor/dentist duo, they ski and enjoy the cold weather up north.

KEEP IN TOUCH

www.dentistry.ubc.ca/alumni



Derek Decloux
DMD 2011

The Class of 2011 was all smiles when we had the opportunity to mix and mingle at Joey's after our hard hours put in at the Pacific Dental Conference. We keen new dentists loved catching up. Talk of ideas for our fifth-year reunion has already commenced. . . and we are open to any ideas that would accommodate walkers and wheelchairs. Hope to see everyone again next year.

Almost Alumni



Jonathan Hung
DMD 2012

It wasn't exactly the 2010 Winter Olympics, but students, faculty and alumni all got together to put on a good show for those who came out to watch this year's students vs. alumni hockey game at UBC's Doug Mitchell Thunderbird Sports Centre.

A spirited affair with flashy pad saves and a couple of inadvertent, accidentally-on-purpose body collisions, the game lived up to its pre-game "trash talk" and ended with a 5-5 draw, fought right down to the buzzer.

Led by Jeff Coil DMD 1985 and Brian Standerwick DMD 1988, the alumni team scored early and put the students on their heels. The students clawed back into the game with outstanding performances from Mike Crisanti DMD 2013 up front and Steve Barkwell DMD 2014 on the back end. MVPs of the game were, deservedly, goaltenders Glenn van As DMD 1987 and Micah Pyde DMD 2014 for keeping the score in single digits.

Hope to see everybody out again next year!



Chandni Parekh
DMD 2012

The young alumni and student pub night at the Pacific Dental Conference attracted 100 guests for beer and snacks, compliments of Mahony & Sons Burrard Landing. The students wish to thank Sinclair Dental and Scotiabank for sponsoring the event.



Danielle Coulson
DMD 2014

The volunteer clinic at the Mount Pleasant Community Centre has been an incredible opportunity for me to work with experienced dentists, upper-year students and my fellow classmates, while learning something from each of them along the way. Coordinating this clinic has shown me what community dentistry truly entails, and I have experienced first-hand the rewards of providing dental work where it is truly needed. It is very motivating and inspirational to hear how appreciative patients are. Aside from the invaluable clinical experience that I've gained, I am inspired to continue volunteering in community dentistry throughout the rest of my education and career.



Kim Nguyen
Nora Tong
BDSc 2014

UBC Health Sciences Student Association's Teddy Bear Day was held at Woodward Elementary School in Richmond, BC, this past term. Dental hygiene students taught 60 grade one to four students how cavities form and how to take care of their teeth with proper tooth brushing. The experience was a great opportunity for the dental hygiene students to share their knowledge with the children, who were very enthusiastic to learn.



Michael Mah
DMD 2015

Storm the Wall, a longstanding tradition at the University of British Columbia, is the biggest intramural event held in North America, with over 3,000 participants. The race includes: a specialized relay of a nine-lap swim, 200-metre sprint, 2.8-kilometre bike ride, one-kilometre run and the finish at a 3.65-metre-high "wall of glory," which each and every member of the team must get over in order to complete the race.

The DMD Class of 2015 has had a rivalry with the current MD Class of 2015 since the Day of the Longboat on October 3, 2011, another UBC REC event, which is held at Jericho Beach. After considerable anguish, a second-place finish behind the MD team at that event inspired us to a Storm the Wall qualifying heat of 0:12:56, one of the top times in the entire campus event. This victory further fueled the existing rivalry between our two student teams.

As we moved into the divisional finals for health faculties, we reminded ourselves that the MD class had won for three years running, but we had our eyes firmly set on creating our own destiny.

After a highly dramatic finish, we took the health faculty divisional title over the MDs, and also finished second overall in the entire UBC campus for men's teams. Our team (pictured from left) is made up of Jamie Marshall, Jordan Sanders, Zack Zeiler, Mike Mah and Chris Dare, and we represented the Faculty of Dentistry in fine form. We plan to continue this legacy. . .

SHARE

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

Recent Events



9th Annual Alumni & Friends Golf Tournament

The golf tradition continued this past September at the annual golf tournament. Over 136 golfers participated. The winning foursome—Ray Fong DMD 1989, Mark Wilson, Ed Lowe DMD 1986 and Dr. Mike Koczarski—won tickets to attend a hockey game with Dentistry dean Charles Shuler. A special thank you to all the golfers who entered the costume contest and to our alumni partners: Scotiabank, Aurum Ceramic, Dentsply, Patterson Dental, Nadean Burkett & Associates and Pfizer. Thank you also to all the tournament supporters: Jeannie Haslett Financial, Pat Madaisky & Company, MNP Accounting, Mahoney's & Sons UBC, Inn at Laurel Point, Hawksworth Restaurant, Rogue Restaurant, Libations Wine and Liquor Store, Protec Dental Laboratories, Nobel Biocare, The Dental Mission Project, Tammy Carrillo, Henry Schein, Mike O'Brien DMD 2010 and the Dental Undergraduate Society.



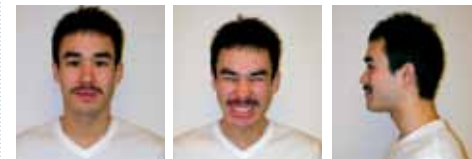
UBC Dentistry Family Day

UBC Dentistry Family Day attracted more than 200 alumni, friends and their family members to try hands-on clinic experiences, participate in children's activities and meet the Tooth Fairy. Pictured here is Heather Cooke DMD 2013 and Eloise, one of the dental school's special guests.



Alumni Wine Reception at TODS Meeting Kelowna

Alumni and friends from the Okanagan area enjoyed a glass of wine at the reception following the Thompson Okanagan Dental Society meeting in Kelowna last October. Here are Dr. Mark Spurr (left) and Karl Denk DMD 1983 having a laugh.



November

Students, under the guidance of moustache guru Jim Richardson DMD 1984, MET 2011, grew or wore moustaches during November in support of prostate cancer research. At the end of the month, students gathered for their mug shots and a group photo. Dental hygiene student Christopher Lee BDSc 2013 was one of the "Mo Bros" and "Mo Sistas."



4th Annual Battle of the Bands: Faculty/Alumni vs. Students

Bands from the second-, third- and fourth-year DMD classes battled it out with the Faculty/Alumni band featuring: Lesley Branton (UBC Dentistry development coordinator), Dr. Duncan Higgins, Bill McDonald DMD 1977, William Rosebush DMD 1983, Dr. Larry Rossoff and Dr. Mel Sawyer. While all bands performed beyond the call of duty, the third-year band stole the show: Elnaz Ghandchi DMD 2013 (left) and Whitney Weisshaar DMD 2013.



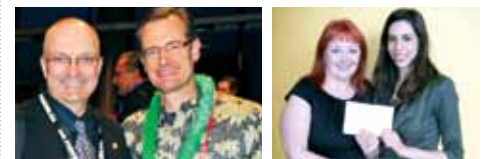
CDE in Maui

UBC Dentistry alumni attended Adventure & Learn Hawaii 2012, a UBC Dentistry Continuing Dental Education travel-and-learn conference held at the Fairmont Kea Lani in Maui, February 2012.



Annual Alumni Reception at the Pacific Dental Conference

Over 600 alumni and friends joined in the tiki-themed Annual Alumni Reception this past March at the PDC. Nadean Burkett & Associates sponsored the getaway contest—a trip to Las Vegas with accommodation at the Mirage Hotel. The lucky winner of the getaway contest was Patrick Manders DMD 1980. Scotiabank sponsored the student contest, which gave winner Nicole Vicenzino DMD 2012 two tickets to the Coldplay concert and dinner out. The alumni partners' beach-themed basket was won by Anne Kelly DMD 2010. One of the highlights was the group photo of dental hygiene alumni from 1970 to 2011. The group photo is available for downloading from www.dentistry.ubc.ca/alumni, and hard copies are also available. For a hard copy, email Jenn Parsons at alumni@dentistry.ubc.ca



FRIEND US ON FACEBOOK

Find Jenn Parsons, manager of Alumni & Community Affairs, on Facebook.



Tooth Fairy Gala

The Faculty of Dentistry hosted two tables at the BC Dental Association Tooth Fairy Gala on March 10, 2012. Pictured with Jenn Parsons, manager of Alumni & Community Affairs, are Kevin Lauwers DMD 2005 (left) and his brother Ryan Lauwers DMD 2004.



Community Clinic Volunteers Night in the Box

Volunteer dentists who donate their time on weekends to supervise dental and dental hygiene students in the community enjoyed a live Canucks game on March 30, 2012, as a thank you for their dedication. Volunteer community clinics are student-led and offer free dental care for the Abbotsford Food Bank dental clinic, H'ulh-etun Health Society (Chemainus, BC), Florence Nightingale School Adopt a School (Mount Pleasant Community Centre), Vancouver Native Health Society and Douglas College. During the 2011 – 2012 academic year, students organized 17 volunteer clinics, providing free service totalling approximately \$80,000. Next academic year, students are aiming to add a few additional clinics. Dentists willing to donate their time to supervise students are invited to contact Jenn Parsons at alumni@dentistry.ubc.ca. Pictured are volunteers David Larsen DMD 1987 (L), Wendy Rondeau DMD 1979 and Emery Bland DMD 2010.

More Events for Students and Alumni

DUS WELCOME BACK BZZR GARDEN & YEARBOOK PICK-UP

Friday, September 14, 2012 · 5 pm

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

For more information, email
alumni@dentistry.ubc.ca



ANNUAL ALUMNI & FRIENDS GOLF TOURNAMENT

Sunday, September 16, 2012 · 1 pm
(shotgun start)

Morgan Creek Golf & Country Club, Surrey, BC

For more information and to reserve your foursome to this sell-out event, contact alumni@dentistry.ubc.ca or gerri@vdds.com. This year, UBC Dentistry is pleased to welcome the Vancouver & District Dental Society as a community partner for the tournament.



FAMILY DAY & BBQ LUNCH

Saturday, September 22, 2012 · 11 am - 2 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, a BBQ lunch and a fun relay race. Bring your children and enjoy activities planned by the Tooth Fairy and her pixies.

For more information, contact Alison Kovacs at akovacs@dentistry.ubc.ca or Jenn Parsons at alumni@dentistry.ubc.ca

More Events for Alumni



ALUMNI RECEPTION AT THE ONTARIO DENTAL CONFERENCE

Friday, May 11, 2012 · 6 pm

Real Sports Bar and Grill, Toronto, Ontario

For more information, email
alumni@dentistry.ubc.ca or Diana Younan
DMD 2010 at deeyounan@gmail.com



UBC ALUMNI WEEKEND

Saturday, May 26, 2012

Point Grey Campus, Vancouver, BC

For more information, go to www.alumni.ubc.ca



OPEN WIDE COMMUNITY CLINIC DAY

Saturday, September 15, 2012

CDI College, Burnaby, BC

UBC Dentistry alumni and the British Columbia Dental Association have teamed up to delivery free dentistry and dental hygiene in Burnaby at CDI College. The clinic will offer basic dental care to the clients of a local social agency. For more information on volunteering for this community clinic, email Anita Gartner-Makihara DMD 1993 at anita_gartner@telus.net or Jill Moore Dip DH 1976 at jill4travel@gmail.com or Jenn Parsons at alumni@dentistry.ubc.ca



ALUMNI RECEPTION AT THE NORTHWEST DENTAL EXPO

Friday, September 21, 2012 · 6 pm

Location TBA, Edmonton, Alberta

For more information, contact Jenn Parsons at
alumni@dentistry.ubc.ca



TASTE OF VANCOUVER ISLAND ALUMNI & FRIENDS RECEPTION

Saturday, October 13, 2012 · 4 - 6 pm

Inn at Laurel Point, 680 Montreal Street
Victoria, BC

Join Dr. Charles Shuler, dean of UBC Dentistry, and fellow Victoria & District Dental Society alumni and friends at the Taste of Vancouver Island reception. Local food prepared by Inn at Laurel Point chef Takashi Ito and wine from Cherry Point Vineyards will be served.

For more information, email organizers Sunny Tatra DMD 2003 at gtatra@shaw.ca or Anna Rankin DMD 2010 at shortrankin@hotmail.com



ALUMNI WINE RECEPTION AT TODS MEETING, KELOWNA

Friday, October 26, 2012 · 5:30 - 7:30 pm

Delta Grand Okanagan Resort and
Conference Centre

Join Dr. Charles Shuler, dean of UBC Dentistry, and fellow Okanagan alumni for a glass of wine, hors d'oeuvres, cheese and conversation following the 2012 Thompson Okanagan Dental Society (TODS) Annual Dental Meeting. Conference registration is not required to attend the reception. For conference registration, go to www.todsmeeting.com. For information about the reception, email alumni@dentistry.ubc.ca



ANNUAL ALUMNI RECEPTION PACIFIC DENTAL CONFERENCE 2013

Friday, March 8, 2013 · 6 - 8 pm

Second Floor Lobby, Vancouver Convention
and Exhibition Centre

Commemorative anniversary class photos to be taken of: 1973, 1978, 1983, 1988, 1993, 1994, 1998, 2003, 2008 and 2012.

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

Stay in Touch

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

Stay connected to more than 2,300 alumni. Share your news, thoughts or comments. Visit www.dentistry.ubc.ca/alumni

MENTORSHIP PROGRAM

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 ahem@dentistry.ubc.ca

FOLLOW US ON TWITTER

Follow Alumni & Community Affairs
@dentalum_at_ubc
www.twitter.com/dentalum_at_ubc

COMMUNITY PARTNERS



ALUMNI PARTNERS



Thank you to all our volunteers and industry supporters. **4TH ANNUAL BATTLE OF THE BANDS: FACULTY/ALUMNI VS. STUDENTS** • Lesley Branton • Coco Butler DMD 2013 • David Chen DMD 2014 • Nelson Chen DMD 2012 • Jaejun Choi DMD 2012 • Jay Choi DMD 2012 • Danielle Coulson DMD 2014 • Chris Di Ponio DMD 2013 • Sophie Dong DMD 2012 • Kaitie Enns DMD 2013 • Amro Foda DMD 2012 • Elnaz Ghandchi DMD 2013 • Travis Gibson DMD 2012 • Dr. Duncan Higgins • Anderson Hsu DMD 2014 • Priya Kandola DMD 2014 • Scott Kollen DMD 2013 • Julie Kwan BDSc 2013 • Amanda Lacerda DMD 2015 • Graham MacDonald DMD 2014 • Scott Martyna DMD 2012 • William (Bill) McDonald DMD 1977 • Julianne Proniuk DMD 2015 • William Rosebush DMD 1983 • Dr. Larry Rossoff (faculty) • Peter Ruoho DMD 2012 • Atyaf Saleh DMD 2012 • Dr. Mel Sawyer • Jorell Valdes DMD 2012 • Jennifer Vandergaag BDSc 2013 • Michelle Watroba DMD 2012 • Evan Wiens DMD 2012 • Whitney Weisshaar DMD 2013 • Bryan Wong DMD 2013 • Jocelyn Yang DMD 2013 • Zack Zeiler DMD 2015 **DEAN'S ADVISORY BOARD** • Richard Busse DMD 1986 • Dr. Ken Chow • Susan Chow DMD 1972 • Bob Coles DMD 1986 • Brenda Currie Dip DH 1976 BDSc 2004 MSc 2007 • Carrie De Palma BDSc 2010 • Mr. Craig Dewar • Hank Klein DMD 1978 • Mark Kwon DMD 1997 • Mrs. Sophia Leung CM • Dr. Jin Li-Jian • Mr. Tuomas Lokki • Mr. Hyo Maier • Mr. David Poole • Mr. Kishore Pranjivan • Tom Roozendaal DMD 2001 • Nick Seddon DMD 2006 • Dr. Chuck Slonecker • Margit Strobl BDSc 2008 • Mr. Ron Suh • Dr. Tim Tam • Ash Varma DMD 1983 • Dr. Bill Wong • Benjamin Yeung DMD 1983 • Ron Zokol DMD 1974 **DEAN'S STUDY CLUB** • Tony Bae DMD 2013 • Mark Kwon DMD 1997 • Wilson Kwong DMD 1989 • Dr. Sonia Leziy MSc/Dip Perio 1993 • Dr. Edmond Liem • Ed Lowe DMD 1986 • Dr. Brahm Miller • Nick Seddon DMD 2006 • Ron Zokol DMD 1974 **DENTAL MENTORSHIP PROGRAM** • Colleen Adams DMD 1993 • San Bhatha DMD 1995 • Janis Boyd DMD 1987 • Mary Lou Campbell DMD 1985 • Dr. Tom Cheevers • Dr. Rod Clarence • Dr. Zahra Davami • Jeffrey Davis DMD 1980 • Dr. Myrna Halpenny • Russel Hamanishi DMD 1975 • Dr. Vincent Hartloper • Dr. Chris Kan • Andrew Kay DMD 1981 • Dr. Peter Kearney • Hank Klein DMD 1978 • Alisa Lange DMD 1994 • Alex McFarlane DMD 1982 • Dr. Ali Mehio • Dr. Mojgan Niktash • Suzanne Philip DMD 1986 • William Riddell DMD 1987 • Tony Semren DMD 2006 • Dr. Andrew Shearon • Dr. Bob Sims • Brian Standerwick DMD 1988 • Dr. Francis Valdes • Dr. Bruce Ward • Dave Waterman DMD 1979 **DENTAL UNDERGRADUATE SOCIETY** • Mohamed Al-Janabi DMD 2012 • Tony Bae DMD 2013 • Arielle Brown BDSc 2012 • Danae Brownrigg DMD 2013 • Jaejun Choi DMD 2012 • Marco Chung DMD 2012 • Michael Crisanti DMD 2013 • Sophie Dong DMD 2012 • Manu Dua DMD 2012 • Flore-Anne Foellmi DMD 2013 • Joshua Garcha DMD 2012 • Travis Gibson DMD 2012 • Christine Green BDSc 2015 • Phil Hou DMD 2014 • Jonathan Hung DMD 2012 • Scott Kollen DMD 2013 • Julie Kwan BDSc 2013 • Michael Mah DMD 2015 • Aleesha Manji DMD 2012 • Trish Morales BDSc 2012 • Nancy Nguyen BDSc 2012 • Chandni Parekh DMD 2012 • Leila Shahbazi DMD 2012 • Tanmeet Singh DMD 2014 • Jhustine Tolentino BDSc 2012 • Nora Tong BDSc 2014 • Michelle Watroba DMD 2012 • Whitney Weisshaar DMD 2013 • Alex Wong DMD 2013 **PACIFIC DENTAL CONFERENCE** • Sunpreet Bains DMD 2013 • Danae Brownrigg DMD 2013 • Ersilia Coccaro DMD 2012 • Kaitlin Enns DMD 2013 • Joshua Garcha DMD 2012 • Elnaz Ghandchi DMD 2013 • Heather Jones DMD 2013 • Shahab Keshmiri DMD 2012 • Caitlin Meredith DMD 2013 • Chandni Parekh DMD 2012 • Anzhaliika Rumiantseva DMD 2012 • Atyaf Saleh DMD 2012 • Leila Shahbazi DMD 2012 • Melineh Stepanian DMD 2012 • Yili Wang DMD 2012 • Whitney Weisshaar DMD 2013 • Alex Wong DMD 2013 • Bryan Wong DMD 2013 • Jocelyn Yang DMD 2013 **REUNION LEADERS** • Senia Bobanovic DMD 1997 • Yolanda Buxton Dip DH 1972 • Doug Conn DMD 1982 • Lisa

THANK YOU

Coveney DMD 1997 • Derek Decloux DMD 2011 • Joan Eaton DMD 1987 • Melanie Grant Dip DH 1982 • Adam Lyle DMD 2002 • Suzanne Rozon DMD 1992 • Arek Siwoski DMD 2007 • Lange Soo DMD 1987 • Garry Sutton DMD 1972 **VOLUNTEER CLINIC-ABBOTSFORD FOOD BANK** • Tony Bae DMD 2013 • Angela Chai DMD 2012 • Marco Chung DMD 2012 • Jessica Church DMD 2014 • Kaitlin Enns DMD 2013 • David Hemerling DMD 1993 • Phil Hou DMD 2014 • Patrick Kanda DMD 2012 • David Larsen DMD 1987 • Charis Luk DMD 2013 **VOLUNTEER CLINIC-DOUGLAS COLLEGE** • Dr. Houman Abtin MSc/Dip Endo 2011 • Tony Bae DMD 2013 • Anthony Bellusci DMD 2012 • Daniel Berant DMD 2013 • Danae Brownrigg DMD 2013 • Kira Burvill BDSc 2014 • Susan Choi DMD 2013 • Airra Custodio BDSc 2014 • Sayena Faraji BDSc 2013 • Maria Huellas BDSc 2013 • Colin Inkster DMD 1979 • Ambreen Khan BDSc 2013 • Jinny Kim DMD 2013 • Julie Kwan BDSc 2013 • Kevin Lauwers DMD 2005 • Ryan Lauwers DMD 2004 • Chris Lee DMD 2015 • Lawrence Lin BDSc 2012 • Deb McCloy BDSc 1995 MSc2004 • Wendy Rondeau DMD 1979 • Peter Ruoho DMD 2012 • Shamsher Sandlas DMD 2015 • Jason Tao DMD 2013 • Nora Tong BDSc 2014 • Candace Woodman DMD 2007 • Marco Wu BDSc 2013 • Vivian Yip DMD 2012 **VOLUNTEER CLINIC-MT. PLEASANT COMMUNITY CENTRE** • Dilraj Bal DMD 2014 • Anthony Bellusci DMD 2012 • Dr. Bill Brymer (faculty) • Natalie Chaudhary DMD 2014 • Nelson Chen DMD 2012 • Marco Chung DMD 2012 • Danielle Coulson DMD 2014 • Manu Dua DMD 2012 • Kaitlin Enns DMD 2013 • Cameron Garrett DMD 2012 • Dr. Matthew Gustafson (GPR) • Sarah He DMD 2013 • Elizabeth Johnson-Lee DMD 1992 • Scott Jung DMD 2014 • Priya Kandola DMD 2014 • Doug Nielsen DMD 1972 • Susan Nielsen • Dr. Larry Rossoff (faculty) • Garry Sutton DMD 1972 • Dr. Samuel Tam (GPR) • Dr. Nirvani Umadat (GPR) • Akash Villing DMD 2013 • Evan Weins DMD 2012 • Dr. Jayde Wiedemann (GPR) • Vivian Yip DMD 2012 **VOLUNTEER CLINIC-PENELAKUT ISLAND (2011)** • Daniel Berant DMD 2013 • Bob Blacker • Joanne Dawson • Sayena Faraji BDSc 2013 • Cameron Garrett DMD 2012 • Travis Gibson DMD 2012 • David Hemerling DMD 1993 • Kathryn Hunter DMD 2012 • Elizabeth Johnson-Lee DMD 1992 • Charis Luk DMD 2013 • Melissa Milligan DMD 2012 • Trish Morales BDSc 2012 • Doug Nielsen DMD 1972 • Susan Nielsen • Garry Sutton DMD 1972 • Kathy Van Vliet • Akash Villing DMD 2013 • Evan Wiens DMD 2012 **VOLUNTEER CLINIC-VANCOUVER NATIVE HEALTH SOCIETY** • Tony Bae DMD 2013 • Andrea Baird DMD 2015 • Dilraj Bal DMD 2014 • Anthony Bellusci DMD 2012 • Emery Bland DMD 2010 • Adam Byam DMD 2012 • Nelson Chen DMD 2012 • Matthew Choi DMD 2013 • Heather Cooke DMD 2013 • Keith Engel DMD 2014 • Lindsay Flumerfelt DMD 2014 • Flore-Anne Foellmi DMD 2013 • Rosalyn Fung DMD 2012 • Sarah Garbelya DMD 2012 • Azadeh Ghasemi DMD 2013 • Travis Gibson DMD 2012 • David Hemerling DMD 1993 • Scott Kollen DMD 2013 • David Larsen DMD 1987 • Ann Lu DMD 2014 • Michael Mah DMD 2015 • Firouzeh Majlessi DMD 2013 • Caitlin Meredith DMD 2013 • Micah Pyde DMD 2014 • Fran Rhee DMD 2014 • Wendy Rondeau DMD 1979 • Darrell Ross DMD 2012 • Harlene Sekhon DMD 2014 • Kevin Shen DMD 2015 • Michael Stearns DMD 2014 • Michael Tsai DMD 2015 • Whitney Weisshaar DMD 2013 • Emma Wong DMD 2012 • *Those listed with DMD or BDSc years from 2013 through 2015 following their name are candidates for graduation in the specified year. UBC Dentistry appreciates all who volunteered their time. We apologize if your name or organization was missed.*

CONTINUING DENTAL EDUCATION 2012 - 2013

This calendar is subject to change.
For updates to fall 2012 and spring 2013 course offerings, visit www.dentistry.ubc.ca/cde

SEPTEMBER 2012

- 22 (SATURDAY)
Simplicity in Endodontics: An Achievable Goal-Didactic and Hands-On Course
Dr. Sergio Kuttler
- 29 (SATURDAY)
Contemporary Approaches to Management of Jaw Atrophy in Dental Implant Patients
Dr. Peter Krakoviak

OCTOBER 2012

- 13 (SATURDAY)
Common Craniofacial Pain Disorders Frequently Misdiagnosed
Dr. Wesley Shankeland
- 18 - 20 (Thursday - Saturday)
Managing a Successful Dental Practice-Developing a Business Worth Smiling About
See back cover for more details.
- 20 (SATURDAY)
Applied Dental Biomaterials Today-An Overview
Dr. Ricardo Carvalho, Dr. Adriana Manso
- 27 (SATURDAY)
The Basic Rules of Oral Rehabilitation
Dr. Michael Racich

NOVEMBER 2012

- 1 - 3 (Thursday - Saturday)
Managing a Successful Dental Practice-Developing a Business Worth Smiling About
See back cover for more details.
- 3 (SATURDAY)
Complications: A Prosthodontist's View of an Imperfect Science
Dr. George Zarb
- 29 - 1 (Thursday - Saturday)
Managing a Successful Dental Practice-Developing a Business Worth Smiling About
See back cover for more details.

DECEMBER 2012

- 1 (SATURDAY)
Biomechanics for Long-Term Stability
Dr. Wick Alexander
- 1 (SATURDAY)
Medical Emergencies
Dr. Dan Hass
- 8 (SATURDAY)
Baby Steps and So Little Room, So Much to See
Dr. Greg Psaltis

FEBRUARY 2013

- 4 - 8 (MONDAY - FRIDAY)
Adventure & Learn: Hawaii 2013

Ideal Restorative Materials and Techniques for Long-Term Success
Dr. Paul Child Jr., Dr. Byoung Suh

An Architectural Plan for Creating Ideal Implant Aesthetics: A Vision for Success and Change
Dr. Sonia Leziy, Dr. Brahm Miller

These People Are Now My Friends?
Social Media in the Workplace
Mr. Jesse Miller

Location: The Fairmont Kea Lani, Maui, Hawaii
- 14 - 16 (THURSDAY - SATURDAY)
Ski & Learn

Topics to be announced.
Dr. Samson Ng, Dr. Phoebe Tsang
Location: Four Seasons Resort Whistler, Whistler, BC

CLINICAL PARTICIPATION COURSES 2012 - 2013

September 2012 - June 2013
Basic Orthodontics for the General Practitioner
Dr. Paul Witt

September 2012 - August 2013
Advanced Orthodontics for the General Practitioner
Dr. Clement Lear

October 2012 - March 2013
Cutting Edge Periodontal Surgery for the General Practitioner
Dr. Jim Grisdale

October 2012 - May 2013
Occlusion
Dr. John Nasedkin

FOR REGISTERED DENTAL HYGIENISTS AND CERTIFIED DENTAL ASSISTANTS

SEPTEMBER 2012

Local Anaesthesia for Registered Dental Hygienists
29 - 30 (SATURDAY - SUNDAY)
Lecture and clinical sessions

OCTOBER 2012

26 - 27 (FRIDAY - SATURDAY)
Written and clinical examinations

Orthodontic Module for Certified Dental Assistants and Registered Dental Hygienists

Fall dates for Lecture Sessions, Clinical Session A and Clinical Session B, will be posted on www.dentistry.ubc.ca/cde

2012 FALL THURSDAY EVENING LECTURE SERIES FOR DENTAL HYGIENISTS

Fall dates, topics and speakers will be posted on www.dentistry.ubc.ca/cde

STUDY CLUBS 2012 - 2013

October 2012 - May 2013
Advanced Fixed Prosthodontics for the General Practitioner
Dr. Chris Wyatt

October 2012 - May 2013
Basic and Advanced Periodontics for the General Practitioner
Dr. Tassos Irinakis, Dr. Dimitrios Karastathis

For dates, times and locations of Clinical Participation Courses and Study Clubs, visit www.dentistry.ubc.ca/cde

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

ADA CERP

Continuing Education Recognition Program