WINTER - SPRING 2013
Managing a Successful Dental Practice—
Developing a Business Worth Smiling About

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-
centered business.

Each topic addressed has built-in exercises that
help you focus on your own practice, from
relationships and financial issues to
developing a sound foundation for the current
business and future prospects for your practice.

Open to dentists and their staff.

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

MARK YOUR CALENDARS!
WINTER - SPRING 2013
EVENTS FOR STUDENTS AND ALUMNI
5th Annual Battle of the Bands: Faculty/Alumni vs. Students
January 18, 2012 (Friday)

Young Alumni & Student Reception
Pacific Dental Conference 2013
March 7, 2013 (Thursday)

MORE EVENTS FOR ALUMNI
Annual Alumni Reception
Pacific Dental Conference 2013
March 8, 2013 (Friday)

Volunteer Community Clinics—Upcoming
January 1, 2013 (Saturday)
January 18, 2013 (Saturday)
January 26, 2013 (Saturday)
February 2, 2013 (Saturday)
February 16, 2013 (Saturday)
February 23, 2013 (Saturday)
April 6, 2013 (Saturday)

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

UBC DENTISTRY
Advancing Oral Health Through Outstanding Education, Research and Community Service
Dear Colleagues,

Welcome to the fall 2012 edition of UBC Dentistry’s Impressions. Once again, I am delighted to present the Faculty’s undertakings and successes in the areas of teaching, learning, research and community involvement.

This year has been noteworthy for several significant accomplishments. The Centre for High-Throughput Phenogenomics moved to the new Pharmaceutical Sciences Building, and by mid-October all the equipment was ready for use by UBC scientists. We also completed the Graduate Student Commons on the first floor of the John B. Macdonald Building (JBM), so now our graduate students have a home where they can study, plan patient cases and evaluate the data from their research. With the completion of both these projects, which were in the planning and construction phase for one to two years, student learning opportunities have been much improved and student learning will now be able to participate in patient care earlier, starting between second and third year.

Moreover, Ford anticipates that propinquity among researchers will lead to new, unexpected collaborations, and exposure to novel and different methods of imaging will accelerate the advancement of researchers’ work.

In this issue, we report on research that shows genetic mutations can have predictive value in determining which premalignant oral lesions have the greatest potential to become squamous cell carcinoma. Additionally, you will learn about new people, places and programs in the Faculty that further demonstrate our progress towards achieving our Strategic Goals.

I hope you share my excitement about the current accomplishments in the Faculty of Dentistry. 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
The Graduate Student Commons—Enhancing the Student Experience

In record speed—less than two years of planning and construction—a new study space in the John B. Macdonald Building (JBM) was ready to guide graduate students as this fall semester began.

The Graduate Student Commons is a 242-square-metre (2,605 sq. ft.) facility with study carrels, meeting rooms, a kitchen, and washrooms with showers and lockers. All are finished with the modern architectural touches like glass walls and calming wood tones that have characterized other recent renovations to JBM.

A decommissioned graduate periodontics clinic, an oral surgery and several small offices on the first floor were gutted and renovated for the project.

“We built it intentionally as one space for all the clinical specialties—in fact, for all graduate students across the programs—to help foster the kind of expansion. And by first accounts I think we’ve succeeded.”

UBC Dentistry is currently the only dental school in Western Canada that supports five graduate education programs: Periodontics, Prosthodontics, Endodontics, Orthodontics and Pediatrics. There are 96 students enrolled in these programs. With the huge growth of the graduate programs, one of the biggest issues has been where to put students, notes Dr. Ed Putnins, associate dean of Research, Graduate & Postgraduate Studies. “We had grad students sprawled around the building. There was no space to relax, no secure space for belongings, no place to change after a day in clinic, and most importantly,” he says, “we lacked a dedicated space where all graduate students can discuss and develop complex treatment plans in a multi-faceted learning structure.”

With a full suite of clinical specialty graduate programs, the dental school is able to serve more patients with complex case needs. The case management of these patients—most of whom have limited means—often involves consultation with graduate students and faculty in other specialty disciplines. Not only do patients receive comprehensive attention, but graduate education at UBC is enhanced by cross-discipline consultation in a dynamic and engaging group-learning environment. Three seminar rooms outfitted with high-definition plasma monitors for multidisciplinary treatment planning complement the individual carrels where students can study and conduct their research quietly.

“We consulted students for design input,” Putnins recalls, “and determined that the architectural principal to guide the space design was to first bring all grad students together by their shared common experience, rather than by discipline.”

Dr. Les Campbell, a graduate student in Endodontics, says the enhanced learning created by mixing disciplines in a single space and by having vigorous discussion in enclosed seminar rooms is one more step in UBC’s progress to become the grad school of choice. “It’s a place to call our own,” he says, “and the impact on students of having an environment where we can share the highs and lows of grad student experience will be immeasurable. It creates morale and camaraderie and friendships that will last well beyond our years at UBC.”

The Graduate Student Commons opened on September 13, 2012. The apt facility name was first coined by professor and oral biologist Donald Brunette.

Student Summer Program a Huge Success in 2012

The Summer Student Practitioner Program (SSPP) assembled an impressive number of students and practitioners this year. The program pairs incoming fourth-year dental students with practising dentists for two to six weeks during the summer. Thirty-two-fourth-year students were paired with 41 dentists across BC and Northwest Territories communities, most of them rural locations. Twenty-one of the dentists were UBC alumni.

The SSPP gives students an opportunity to be part of the day-to-day operation and management of a dental practice. Not only does it provide students with additional clinical experience, but it also provides the opportunity to gain valuable insight into the practice of dentistry beyond the university campus. Additionally, the program helps students at UBC recognize the opportunities that exist throughout the province for establishing their oral health care career.

Twenty-five communities welcomed this past summer’s SSPP placements: Abbotsford, Agassiz, Burnaby, Chilliwack, Comox, Dawson Creek, Elkford, Fort St. James, Hazelton, Kamloops, Mission, North Vancouver, Parksville, Port Alberni, Port Coquitlam, Prince George, Smithers, Sooke, Surrey, Vancouver, West Vancouver, White Rock and Williams Lake in BC, along with Yellowknife, NWT. To find out who sponsored dental students in 2012, see the “Thank you” page in this issue of Impressions.

The program is supported by both the College of Dental Surgeons of British Columbia and the British Columbia Dental Association.

A Ten-Year Longitudinal Study by UBC Dentistry Faculty Could Boost Oral Cancer Detection

UBC Dentistry professors Drs. Lewei Zhang, Catherine Poh and Michele Williams have taken a giant step closer to understanding the complex stages involved in malignant transformation, giving clinicians and their patients better information for treatment options.

In a study recently published in Cancer Prevention Research, Zhang and colleagues identified a group of molecular markers that can help clinicians determine which patients with low-grade oral precancers are at high risk for cancer development.

This study, which spanned 10 years and built on a previous risk model that showed loss of heterozygosity may predict the progression of cancer, involved analyzing lesion samples submitted to the BC Oral Biopsy Service by dentists and surgeons from across the province.

“By analyzing patients with mild or moderate oral dysplasia through the years, and including two additional markers to better differentiate patients’ risk, we were able to categorize patients into low- intermediate- and high-risk groups,” says Zhang, who is one of two oral pathologists running the provincial oral biopsy service.

Using the loss of heterozygosity model to reliably differentiate progression risk for oral precancers has tremendous implications for treatment management. Poh explains “Patients with oral lesions can be grouped according to risk level. We can increase surveillance for patients with elevated risk, improve target intervention for high-risk patients, and spare a large number of low-risk patients needless screening and treatment.” In terms of possible guidelines, Williams suggests that follow-up and treatment could be tailored to a patient’s risk level.

The John B. Macdonald Building

Recent renovations to the John B. Macdonald Building (JBM) include eight conference rooms, a student learning centre with 80 computer work stations, a modern plant lab, men’s and women’s locker rooms with showers, a student lounge with a kitchen and an atrium, plenty of informal learning space, and the Graduate Student Commons.

Future plans for the building include converting the remaining half of the decommissioned clinic into new operations for the graduate clinical specialty programs, and on the third floor, creating new laboratory space. Looking further ahead, initial planning for the addition of two more storeys to JBM has begun—the building’s original 1968 plan allowed for this kind of expansion.

Support for some of these projects has come from generous donors who recognize the importance of not only keeping ahead of the rapid advancements in knowledge and technology, but also in optimizing the learning experience for students. Dentistry has received no support from either UBC in the province to convert unused space in JBM into modern teaching, learning and research facilities.

Read more about JBM renovations and the generous supporters online at www.dentistry.ubc.ca/jbreno.

To learn more about opportunities to support the revitalization of the JBM, contact the UBC Dentistry Development Office at 604-822-6808.

Graduate students and faculty in the Graduate Student Commons on opening day, September 13, 2012. The space is now fully furnished with study carrels that are also computer work stations.

Graduate students and faculty in the Graduate Student Commons on opening day, September 13, 2012. The space is now fully furnished with study carrels that are also computer work stations.

The John B. Macdonald Building

Recent renovations to the John B. Macdonald Building (JBM) include eight conference rooms, a student learning centre with 80 computer work stations, a modern plant lab, men’s and women’s locker rooms with showers, a student lounge with a kitchen and an atrium, plenty of informal learning space, and the Graduate Student Commons.

Future plans for the building include converting the remaining half of the decommissioned clinic into new operations for the graduate clinical specialty programs, and on the third floor, creating new laboratory space. Looking further ahead, initial planning for the addition of two more storeys to JBM has begun—the building’s original 1968 plan allowed for this kind of expansion.

Support for some of these projects has come from generous donors who recognize the importance of not only keeping ahead of the rapid advancements in knowledge and technology, but also in optimizing the learning experience for students. Dentistry has received no support from either UBC in the province to convert unused space in JBM into modern teaching, learning and research facilities.

Read more about JBM renovations and the generous supporters online at www.dentistry.ubc.ca/jbreno.

To learn more about opportunities to support the revitalization of the JBM, contact the UBC Dentistry Development Office at 604-822-6808.

Graduate students and faculty in the Graduate Student Commons on opening day, September 13, 2012. The space is now fully furnished with study carrels that are also computer work stations.
UBC Dentistry Partners with Vietnamese Hospital to Create $8M Oral Health Research Centre

A long-term partnership between the UBC Faculty of Dentistry and the National Hospital of Odonto-Stomatology in Ho Chi Minh City, Vietnam, has been established. This collaboration will advance oral health research to study oral cancer, dental caries and craniofacial birth defects. Research centre space in the national hospital—an in-kind gift to the Faculty—is valued at $8 million.

The UBC Dentistry & National Hospital of Odonto-Stomatology Oral Health Research Centre will provide a dynamic hub for education, research and knowledge transfer. The centre will facilitate the transfer of knowledge to local and international researchers, to raise the baseline of oral health care in Vietnam and Southeast Asia, increasing the local capacity to treat their most pressing oral health issues (see sidebar).

“This partnership is a game changer for global health research and education,” says Dr. Christopher Zed, associate dean of Strategic and External Affairs. “The oral health research centre will increase the quality and impact of new discoveries and scholarship.” Zed points to the goals of the oral health research centre (see sidebar).

The Faculty of Dentistry has a long-standing history and commitment to Vietnam. Over the past decade, faculty members, general practice residents and dental students have rotated to HCM City to provide patient treatment and oral health education. They have treated a broad spectrum of diseases not typically seen in British Columbia—the experience subsequently benefits Canada’s multicultural dental health population.

“Our hospital is proud of co-operating with UBC,” says Dr. Lam Hoai Phuong, director of the National Hospital of Odonto-Stomatology. “It is a valuable opportunity to exchange knowledge between visiting dentistry residents, UBC faculty, Vietnamese scholars, dental students and general dentists.”

The centre officially opened on December 13, 2012. After an inaugural celebration, several UBC Dentistry scholars presented a series of seminars and lectures to their Vietnamese counterparts.

Research Areas of Oral Health Issues

ORAL/FACIAL ONCOLOGY

Oral cancer ranks as the fifth most common cancer in the world. In Vietnam, oral malignancies of all kinds are often not detected until individuals experience knowledge deficit, compromise of normal oral function.

Worldwide, Vietnam has the highest rate of smoking among males (83.4 percent).

CARIOLOGY

Over 80 percent of Vietnamese children suffer tooth decay. In the general population, the prevalence of caries is 67 percent; periodontal disease is 72 percent.

DEVELOPMENTAL BIOLOGY

Approximately one in every 500 babies in Vietnam is born with a cleft lip and/or cleft palate.

Goals of the Oral Health Research Centre

Expand familiarity with various disease processes and traumatic injuries involving the head and neck, especially with respect to pathologies of high prevalence in Asian populations. Reciprocate education and research development that is beneficial to both Vietnam and Canada. Gain competence in alternative modalities for the provision of oral health care in a less-resourced country, which can also be applied in Canada.

Through collaborative research, we aim to advance oral-facial health and scientific knowledge across international boundaries.”

To discuss the mandate and direction of the oral health research centre, contact Dr. Christopher Zed, associate dean, Strategic and External Affairs, at czed@dentistry.ubc.ca.

Support for the centre currently includes the principal in-kind donation of space from the Vietnamese national hospital and the naming of a research lab by Septodont. Further contributions for naming space in the centre, and for travel fellowships for researchers and students, are encouraged. For more information, contact Jane Merling at 604-822-5880 or merling@dentistry.ubc.ca.

The UBC Dentistry & National Hospital of Odonto-Stomatology Oral Health Research Centre is located on the fourth floor of the national hospital in Ho Chi Minh City, Vietnam.

Faculty of Dentistry External Awards and Recognition in 2011–2012

<table>
<thead>
<tr>
<th>RECIPIENT</th>
<th>AWARD/RECOGNITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Mania Boyd, Dean Emeritus</td>
<td>Honorary Degree, Dalhousie University</td>
</tr>
<tr>
<td>Dr. Mario Bremond, Assistant Professor</td>
<td>CADR-Quintessence-ACFD Visiting Professorship to visit McGill University, May 15 to 21, 2012, Montreal, Quebec, Canadian Association for Dental Research</td>
</tr>
<tr>
<td>Dr. Hai Chen, Clinical Assistant Professor</td>
<td>Awards to attend the International Association of Dental Research (IADR) General Session, June 2012, Indian Falls, Brazil, Brazilian Institute of Health Research – Institute of Musculoskeletal Health and Arthritis, Institute Community Support</td>
</tr>
<tr>
<td>Dr. Wei Shao Cheung, Clinical Part-Time Faculty</td>
<td>Awards to attend the Young Investigators Forum, June 2012, King City, Ontario, Canadian Institutes of Health Research – Institute of Musculoskeletal Health and Arthritis</td>
</tr>
<tr>
<td>Dr. Chris Clark, Professor Emeritus</td>
<td>Distinguished Service Award, British Columbia Dental Association</td>
</tr>
<tr>
<td>Dr. Karen Gardner, Clinical Associate Professor</td>
<td>Merit Award, British Columbia Dental Association</td>
</tr>
<tr>
<td>Dr. Caroline Tran Nguyen, Assistant Professor</td>
<td>U21 Award for Internationalization, University of (21 \</td>
</tr>
<tr>
<td>Dr. Christopher M. Dovati, Professor, Canada Research Chair in Multispecies Infections, Proteomics and Systems Biology</td>
<td>Lifeline Achievement Award, International Prosthetics Society</td>
</tr>
<tr>
<td>Dr. Benjamin T. Pihlarski, Assistant Professor</td>
<td>2012 Robert E. Gaylord Teaching Fellowship Award, American Association of Orthodontists Foundation</td>
</tr>
<tr>
<td>Dr. Ravindra Shah, Director, International Relations</td>
<td>Honorary Doctorate of Philosophy, Chung Shan Medical University, Taichung, Taiwan</td>
</tr>
<tr>
<td>Dr. David Sweet, OC, Professor, Associate Dean of Students</td>
<td>Honorary Member Award, College of Dental Surgeons of British Columbia</td>
</tr>
<tr>
<td>Dr. Caroline Tram Nguyen, Assistant Professor</td>
<td>Roche F. Segawa Award of Excellence in Forensic Odontology, American Academy of Forensic Sciences</td>
</tr>
</tbody>
</table>

For more information on these awards, visit the Faculty of Dentistry website at www.dentistry.ubc.ca/awards.

To stay connected to UBC Dentistry, visit www.dentistry.ubc.ca — news — Subscribe to the RSS news feed at www.dentistry.ubc.ca/rss — Read or download past issues of Impressions at www.dentistry.ubc.ca/impressions.

Stay Connected to UBC Dentistry

UBC DENTISTRY IMPRESSIONS

FALL 12

UBC DENTISTRY IMPRESSIONS

FALL 12

UBC DENTISTRY IMPRESSIONS

6

UBC DENTISTRY IMPRESSIONS

7
Graduates and Residents of 2012

May 29, 2012, marked the 44th class of graduates from UBC Dentistry. This year, 134 people graduated from undergraduate and graduate programs. June 12 marked the ceremony for 14 residents who completed a postgraduate residency program. Here are the numbers:

- DMD: 27
- BDS (international): 2
- MS: 27
- PhD: 5
- MSc/Dip End: 2
- MS/Dip Pol: 1
- GMP: 2
- 10: 20; 30: 40; 50: 60; 70

Congratulations to everyone. To find out who the grads and residents are, visit www.dentistry.ubc.ca/grads

New Appointments: Full-Time Faculty

Leeann Donnelly, Dip Dr, BDSc, MSc (Dental Science, PhD (Oral and Facial Science), has joined the Faculty as assistant professor. Dr. Donnelly received her diploma in dental hygiene from Vancouver Community College in 1996. At the University of British Columbia, she received her Bachelor of Dental Science (Dental Hygiene) in 2002, Master of Science in 2005, and doctoral degree in 2012 for the dissertation “The Relationship Between Perceived Oral Health, Body Image, and Social Interactions Among Institutionalized Elders.” Donnelly has taught in both the Dental Hygiene Degree Program and the DMD program since 2002, and currently teaches in, and is the fourth-year coordinator for, DHDP. She also oversees the community service learning component for DHDP in the area of special care populations. Donnelly’s primary research interest is in the biopsychosocial aspects of oral malodor. She also continues to develop, develop and evaluate community outreach programs designed to further understand and improve the oral health of older adults, specifically, those who are institutionalized and other special care populations.

Ya Shen, DDS, PhD, has been appointed assistant professor in the Department of Oral Biological & Medical Sciences. Dr. Shen received her Doctor of Dental Surgery degree in 1993, and a Doctor of Philosophy (Dental Science) in 2004, both from Wuhan University, Wuhan, Hubei, China. She also completed her endodontic specialty training in 2004 at Wuhan University. and from then until 2007, was an associate professor and in charge of clinical training in the endodontics graduate program. During 2006, Shen also worked as a senior research assistant at the University of Hong Kong Faculty of Dentistry. Shen was a clinical assistant professor at UBC’s Faculty of Dentistry from 2008 to 2011. She has published more than 50 papers in peer-reviewed journals and is a reviewer for several international journals, including Journal of Dentistry and Endodontic Topics. Shen’s main research interests are nickel-titanium instrument fracture mechanics, biofilms, dental materials and three-dimensional imaging in endodontics.

UBC Dentistry Research Day 2013

Technological advances in clinical practice continue to develop at an increasing rate. In-office cone beam computed tomography (CBCT) imaging and ultrasound machines allow unprecedented examination of patients. New computer-aided design and computer-aided manufacturing (CAD/CAM) systems and next-generation dental materials continue to transform patient care. Research Day 2013 will highlight research in the areas of CBCT quality control, dosimetry and imaging of the pediatric patient. Participants will also discuss the paradigm shift to CAD/CAM systems, review material selection and examine the marginal fit in final restorations.

The Faculty of Dentistry is pleased to announce that the keynote address will be delivered by Dr. Jack Ferracane from the Oregon Health & Science University in Portland. A world-renowned speaker on dental resin composites, Dr. Ferracane will discuss research in the area of resin properties and performance enhancement.

Keep up-to-date at www.dentistry.ubc.ca/researchday

UBC Dentistry Impressions

New Appointments: Full-Time Faculty

Leeann Donnelly, Dip Dr, BDSc, MSc (Dental Science, PhD (Oral and Facial Science), has joined the Faculty as assistant professor. Dr. Donnelly received her diploma in dental hygiene from Vancouver Community College in 1996. At the University of British Columbia, she received her Bachelor of Dental Science (Dental Hygiene) in 2002, Master of Science in 2005, and doctoral degree in 2012 for the dissertation “The Relationship Between Perceived Oral Health, Body Image, and Social Interactions Among Institutionalized Elders.” Donnelly has taught in both the Dental Hygiene Degree Program and the DMD program since 2002, and currently teaches in, and is the fourth-year coordinator for, DHDP. She also oversees the community service learning component for DHDP in the area of special care populations. Donnelly’s primary research interest is in the biopsychosocial aspects of oral malodor. She also continues to develop, develop and evaluate community outreach programs designed to further understand and improve the oral health of older adults, specifically, those who are institutionalized and other special care populations.

Ya Shen, DDS, PhD, has been appointed assistant professor in the Department of Oral Biological & Medical Sciences. Dr. Shen received her Doctor of Dental Surgery degree in 1993, and a Doctor of Philosophy (Dental Science) in 2004, both from Wuhan University, Wuhan, Hubei, China. She also completed her endodontic specialty training in 2004 at Wuhan University. and from then until 2007, was an associate professor and in charge of clinical training in the endodontics graduate program. During 2006, Shen also worked as a senior research assistant at the University of Hong Kong Faculty of Dentistry. Shen was a clinical assistant professor at UBC’s Faculty of Dentistry from 2008 to 2011. She has published more than 50 papers in peer-reviewed journals and is a reviewer for several international journals, including Journal of Dentistry and Endodontic Topics. Shen’s main research interests are nickel-titanium instrument fracture mechanics, biofilms, dental materials and three-dimensional imaging in endodontics.

UBC Dentistry Research Day 2013

Technological advances in clinical practice continue to develop at an increasing rate. In-office cone beam computed tomography (CBCT) imaging and ultrasound machines allow unprecedented examination of patients. New computer-aided design and computer-aided manufacturing (CAD/CAM) systems and next-generation dental materials continue to transform patient care. Research Day 2013 will highlight research in the areas of CBCT quality control, dosimetry and imaging of the pediatric patient. Participants will also discuss the paradigm shift to CAD/CAM systems, review material selection and examine the marginal fit in final restorations.

The Faculty of Dentistry is pleased to announce that the keynote address will be delivered by Dr. Jack Ferracane from the Oregon Health & Science University in Portland. A world-renowned speaker on dental resin composites, Dr. Ferracane will discuss research in the area of resin properties and performance enhancement.

Keep up-to-date at www.dentistry.ubc.ca/researchday
Education for the Educators—Dentistry Faculty Sharpen Their Teaching Acumen in Campus-Wide Program

When Dr. Komkham Pattanaporn received her Certificate on Teaching and Learning in Higher Education this past May, she, like many Dentistry faculty before her, joined an already long list of educators at UBC and around the world that have completed the intensive UBC Faculty Scholarship of Teaching and Learning Leadership Program.

Offered by UBC’s Institute for the Scholarship of Teaching and Learning (SoTL) in collaboration with the Faculty of Education, the program is an ideal resource for Dentistry’s faculty development, the long-term goal of which ultimately is to enhance the student experience—a central theme of Dentistry’s strategic plan.

Information on teaching and learning is not a component of dental curricula; consequently, when an individual joins a dental faculty, their level of teaching skill does not generally match the level of their patient care skills, says Dr. Charles Shuler, dean of UBC Dentistry. “UBC is fortunate to have a program that provides a way for clinicians to enhance their expertise in the areas of teaching and learning. Completing this certificate allows the faculty members to become even more effective facilitators of teaching for our dental students.”

Pattanaporn, a clinical assistant professor, sees the program as essential for instructors in higher education.

“Skills such as critical thinking and reflecting, researching, and devising evidence-based assessments are high on the list of the program’s learning objectives,” Pattanaporn says.

Other UBC Dentistry faculty graduates of the program include: Drs. Jolanta Alekjeziene, Nancy Black, William Bryant, Lamia El-Adwa, Ingrid Emanuels, Mark Fogelman, Karen Gardner, David MacDonald, Anthony McCullagh, James Richardson, Clive Roberts, Eli Whitney and Tracy Wong, Drs. Nancy Scott and Mel Schmidt, both clinical assistant professors, are currently enrolled in the program.

Conquering Cancer: Better Outcomes!! Beats Goal

UBC Dentistry improvements

UBC students complete rotations under the supervision of practising dentists and UBC professors. They treat elderly with dementia and painful physical disabilities such as rheumatoid arthritis, which make dental care challenging. Students have an opportunity to work with other health-care professionals to better understand how to care for patients with complex medical, physical and psychological conditions.

UBC graduate student Dr. Angela Wong completed a general practice residency where she treated patients at Simon K.Y. Lee Seniors Care Home during 2009-2010. Wong recalls treating a 76-year-old patient, a woman “on heart medication that thins the blood, so we had to ask her physician to change the dosage before doing a tooth extraction.” Paying attention to the elderly’s stamina was critical, says Wong. “We would set out to observe and maintain a tooth for as long as possible rather than extract or place a crown if the patient could not tolerate long, complex treatment.”

Wong says many older adults are keeping their natural teeth longer. “At the Villa Cathay Care Home, for example, close to 70 percent of the senior residents have some natural teeth compared to 60 percent in 2002. Oral care now goes beyond keeping the residents’ dentures clean. “What we’re seeing is that it’s about the patient’s orifice or a long-term care facility.”

Wong says that improved care and oral health have gained national attention. “In 2012, the Canadareport showed that more than one Canadian in 10 avoids full dental treatment over the course of a year because they can’t afford it.” If left untreated, dental problems in a vulnerable elder can lead to unnecessary infections, disease or premature death.

But seniors who can afford care may still face hurdles, says Wyatt. “We have also found that dentists may hesitate to treat elderly patients who are very frail or face serious health challenges.”

Team captains Dr. Michele Williams and Dr. Catherine Poh—both UBC Dentistry faculty members—understand what it takes to beat cancer: Williams, an oral medicine specialist, and Poh, an oral pathologist, are part of a large group of experts involved in the BC Oral Cancer Prevention Program and the BC Cancer Agency Research Centre.

The funds raised by Better Outcomes!! are being dedicated to oral cancer research through the BC Cancer Foundation. Many team members have signed up for the 2013 ride, already putting their next fundraising goals in motion.

In 2011, the Faculty of Dentistry launched the “adopt a long-term-care facility” initiative, which provides high-quality care at no cost to residents at the Simon K.Y. Lee Seniors Care Home and Villa Cathay Care Home.

The creator of the program, UBC dental geriatric expert Dr. Chris Wyatt, says the main goals are to treat at-risk seniors while providing a dynamic learning environment for students. With seniors as the fastest-growing population, says Wyatt, there’s a need for dentists, dental hygienists and dental specialists such as prosthodontists, who focus on restoring or replacing teeth, to treat elderly patients—not only at their offices, but also in hospitals and care facilities.

Meeting the gaps in oral health care for seniors has been a longstanding goal for Wyatt and faculty colleague Dr. Michael MacEntee. In the late 1990s, they established the ELDERs (Elders Link with Dental Education, Research and Service) group to deal with this unmet need, earning the Faculty international acclaim for its innovations. “Our studies show that seniors lack access to dental care, especially in long-term-care facilities,” says Wyatt, professor and head of the prosthodontics and dental geriatrics division.

A major barrier to oral health care is cost. A 2009 Statistics Canada report showed that more than one Canadian in 10 avoids full dental treatment over the course of a year because they can’t afford it. “If left untreated, dental problems in a vulnerable elder can lead to unnecessary infections, disease or premature death.”

But seniors who can afford care may still face hurdles, says Wyatt. “We have also found that dentists may hesitate to treat elderly patients who are very frail or face serious health challenges.”

UBC Dentistry, however, aims to reverse this trend, he says. “To increase access and address oral disease, we decided to develop the first program of its kind in Canada where seniors receive free care provided by our students under close clinical supervision.”

Wong adds, “We want to give our dental and dental hygiene students the experience of treating vulnerable populations so they can include these patients in their practice.”
Painted war canoes, hand-carved from red cedar. Cedar baskets and hats, intricately woven from long strips of bark. Tall, cedar totem poles: visual tales of family lore, mythic figures and beasts of power. For many centuries, the Haida people on the BC islands of Haida Gwaii have lived amidst stunning, mossy rain forests of cedar and fir, surrounded by salmon-rich seas.

Across time, they have lived as warriors, hunters and gatherers, living in balance with the land and water. Through compelling stories, songs, art, totems and ceremonies, they have shared the cultural traditions of their Raven and Eagle heritages. “Our culture is born of respect and intimacy with the land and sea and the air around us,” says the Council of the Haida Nation website. “We owe our existence to Haida Gwaii.”

Today’s communities of Old Massett in the north and Skidegate at the south end of Graham Island form the main First Nations centres on this 9,940-square-kilometre archipelago, formerly called the Queen Charlotte Islands. And for more than a decade, UBC Dentistry has sustained a significant presence in these two Haida Gwaii towns, providing round-the-clock service 365 days a year.

The university provides top-quality generalist and specialist care at Skidegate Dental Clinic—a collaborative effort between the UBC Faculty of Dentistry, Health Canada and the Haida Nation—which opened in February 2002. A dental clinic at the Haida Health Centre in Old Massett offers leading care to residents who range from children and retirees to commercial fishermen, loggers, small business operators and tourism entrepreneurs. About 20 percent of UBC Dentistry’s Haida Gwaii patients are non-First Nations people.

Through a series of rotations that also involve visiting health care professionals, UBC’s dentistry residents, graduate students in specialty programs and dental students receive invaluable hands-on learning and gain quick access to more complex and diverse dental issues than they would otherwise see at the university’s controlled clinical setting at the Point Grey campus. UBC Dentistry’s stellar model in Haida Gwaii combines service learning with comprehensive community education and research. (See sidebars on pages 15 – 16 for program model details.)

This community-based program, which emerged directly from the needs and requests of the Haida, provides cost-effective dental work to a population that previously had poor access to oral health care and disease management. The Canadian Dental Association likens the oral health condition of the country’s Aboriginal people, in general, to that of those in developing countries.
Haida Gwaii Model Has Global Cross-Cultural Relevance

Beyond Haida Gwaii’s fishing boats, wind-swept beaches and shades of bald eagles lies a nindschrift, one-storey building known as Xaxayangga Naaay or “House of Life” the Skidegate Health Centre. Within its walls, the dental clinic offers state-of-the-art equipment as well as a generator to restore power when a severe storm causes a blackout.

Few tourists who come to Haida Gwaii to kayak, fish, see the humble grave of famed Haida carver Bill Reid, or photograph the grey, aging totem poles of Ninistints, the UNESCO World Heritage Site, would realize the global impact that work within this clinic has had. UBC Dentistry’s highly successful cross-cultural model has prompted interest from dentistry faculties in Brazil, in London, England, and in Melbourne, Australia.

“Our core program of service, education and research is transportable to Vietnam, Myanmar, Laos, Brazil, China, any First Nations community or Vancouver’s Downtown Eastside, geriatric or pediatric,” says Dr. Christopher Zed, UBC Dentistry’s associate dean of Strategic and External Affairs, who has been instrumental in creating and maintaining the Haida Gwaii program.

“There’s one common thing: it serves a unique, distinct group that has issues, either related to access to care or the delivery of their care and the attitude towards that care.”

UBC Addresses Poor Service History

Before UBC began its work in Haida Gwaii, local First Nations people who needed emergency or specialist dental work had to be airlifted to the mainland, at a cost to Health Canada of $3,000 to $4,000 per trip, says Zed. Back then, an off-island dentist flew in temporarily, unavailable to provide ongoing, consistent care. When UBC was approached to provide a dental outreach program, Haida Gwaii had only one resident dentist, a non-native part-time who charged about 30 percent above the insurance fee guide that covers First Nations dental care, Zed adds. This dental office maintained a waitlist of six months to a year.

Through a needs assessment, UBC Dentistry discovered that First Nations patients in Haida Gwaii had a higher level of caries, decay and periodontal disease than the general population in Vancouver. Some adults had never been to a dentist. Others were too afraid to get surgery or never showed up for appointments.

With these obstacles, how could UBC Dentistry faculty, as non-Aboriginal outsiders, enter the local Haida community and win members’ trust and respect while remaining true to their own vision of student training and community dental care? After all, this was a First Nation culture with a long history of colonial exploitation, from the decimation of their ancestors through smallpox to residential schools and the intrusive removal of totem poles and sacred artifacts, without Haida permission, to international museums.

Program Success Has Proven Results

Ongoing dialogue and openness, excellent listening skills and heartfelt socializing have been decisive factors in the UBC program’s success in Haida Gwaii, says Zed. (See sidebar on page 16.) Community consultation and resulting program adjustments remain an integral part of UBC’s model in Haida Gwaii.

This model is an excellent example of UBC Dentistry’s strong commitment, as stated in its Strategic Plan, to maximize student learning opportunities in clinical environments to better serve disadvantaged population groups and under-accessed communities. In particular, the plan stresses the need for an increased presence in First Nations communities to help address their health care needs. (One in four Aboriginal children in Canada lives in poverty, for example, compared to one in 10 in the general population, based on a 2010 report card on poverty released by Campaign 2000, a multi-partner advocacy network.)

Both dental clinics on Haida Gwaii now see less serious gum disease and less need for urgent treatment, Zed says. Children are coming for dental visits at an earlier age. Patients, as a whole, show less fear about seeing a dentist or receiving complex care. Significant cost savings for Health Canada have resulted: patients who previously would have had to fly off island now receive treatment at a visiting specialist.

The community-wide education program has resulted in greater awareness regarding oral health among patients, their relatives, Haida students of all ages and their school principals and teachers.

“The program’s been a great success,” says Dr. Jay Wortman, a Metis physician and UBC assistant clinical medical professor. Now senior medical advisor for Health Canada’s First Nations and Inuit Health Branch, he attended the opening ceremonies of the Skidegate Dental Clinic. “Everything I’ve heard about it [the program] is positive. The community has been very grateful for this. They’re getting a very high quality of care.”

For more information about the Strategic Plan, read fall 2009 (expressions article “Planning for Success: UBC Dentistry’s Strategic Plan” online at www.dentistry.ubc.ca/Strategicplan).

Strategic Vision for First Nations Program a Plus in Paradise

This community-based dental model is an important part of the mandate of both UBC and its dentistry faculty within an overall global strategy, Zed says. The university as a whole, through its strategic plan, seeks to “create an exceptional learning environment that fosters global citizenship, advances a civil society and supports outstanding research to serve the people of British Columbia, Canada and the world.”

More specifically, the university’s plan states that UBC is striving to widen opportunities for students to learn about Aboriginal issues and perspectives, while also expanding educational opportunities for Aboriginal peoples. It also strives, through community engagement, to stimulate action for positive change and greater understanding of societal issues.

UBC students on rotation in Haida Gwaii gain exposure to Haida culture and spiritual traditions. An invitation to kayak or attend a salmon bake, for example, provides a chance to experience the kindness of the Haida people and explore the region’s spectacular setting. While beachcombing, a student might discover a fossil, moon shell or eagle feather.

“Paradise is our experience,” says the website of the Haida Health Hub, a collaboration between First Nations health-care providers in Old Massett and Skidegate. Zed says: “Haida Gwaii is a special place. You see whales and porpoises. There are a lot more eagles [than in Vancouver]. When you drive home from UBC, you’re stuck in traffic. When you leave the clinic there, you’re staring at the ocean the whole time.”

When UBC Dentistry first began its program model in Haida Gwaii, a local First Nation person asked: “My aunt died; can my sister use her dentures?” This reflects the local First Nations customs of sharing and mutual caring, says Dr. Christopher Zed of UBC Dentistry. “That’s the belief system. It’s saying: ‘I value those things expensive. Should I throw these out?’”

Cultural sensitivity or competency—respecting and understanding Haida values, beliefs, and lifestyles—is an integral part of the success of UBC’s Haida Gwaii program model, Zed says.

Before dashing off to perform a local anesthetic, Zed shared, with obvious passion, these three primary components of the Haida Gwaii community dental model:

Top-quality service and experiential learning

Each year, UBC Dentistry has 30 to 35 people visit Haida Gwaii, including residents, students, interns in dental and dental hygiene programs, and alumni. The service learning offers these key features:

- Continuity of care: Two clinics provide 24-hour oral health care, all year, including general practice and emergency services and after-hours care.

- Rotations (residential): An all-year core program of resident rotations, driven through the General Practice Residency Training Program, includes two residents at a time for up to 12 weeks. One goes to Old Massett, one to Skidegate.

- Rotations (undergraduate and graduate): Undergraduate students participate in an elective rotation for Doctor of Dental Medicine (DMD) training, or in a summer mentorship program between third and fourth year for two to six weeks. Graduate students do six-week rotations. Mixed rotations are offered to dental hygienists.

- Excellent hands-on learning: Students gain highly useful clinical exposure to a great variety and complexity of patient issues. While learning directly from patients and specialists, they also experience First Nations culture in a beautiful non-urban setting.

- Engaged specialists: UBC Dentistry alumni, committed to community service, provide dental services at the clinic’s peak or vacation times. This provides a high level of care for patients and expertise for students.

- Responsive, flexible and structured care: The Haida Gwaii program model remains flexible enough to respond to community requests and needs, yet provides the same level of care, with the same protocols, structures and infection control, as any other residency program. This fully fulfills UBC Dentistry’s Strategic Goal that “all undergraduate, graduate and postgraduate programs meet the highest standards of excellence and effect community needs and expectations.”

This program model meets the university’s strategic requirements and those outlined by WorkSafeBC, Health Canada and the College of Dental Surgeons of BC.

Grassroots community education

- Strong preventive focus: The public teaching program addresses oral care as part of overall health, explaining how dental disease relates to obesity, diabetes and other diseases. Initiatives include residents, undergraduate dental students and dental hygienists.

- Oral care information is also provided to patients in the dental clinic, then relates to local health-care professionals. The UBC program adds dental care education to existing community programs such as the Healthy Moms, Healthy Kids initiative for nursery mothers. Seminars on healthy food choices target new and experienced parents.

“Paradise is our experience,” says the website of the Haida Health Hub, a collaboration between First Nations health-care providers in Old Massett and Skidegate. Zed says: “Haida Gwaii is a special place. You see whales and porpoises. There are a lot more eagles [than in Vancouver]. When you drive home from UBC, you’re stuck in traffic. When you leave the clinic there, you’re staring at the ocean the whole time.”

When UBC Dentistry first began its program model in Haida Gwaii, a local First Nation person asked: “My aunt died; can my sister use her dentures?” This reflects the local First Nations customs of sharing and mutual caring, says Dr. Christopher Zed of UBC Dentistry. “That’s the belief system. It’s saying: ‘I value those things expensive. Should I throw these out?’”

Cultural sensitivity or competency—respecting and understanding Haida values, beliefs, and lifestyles—is an integral part of the success of UBC’s Haida Gwaii program model, Zed says.

Before dashing off to perform a local anesthetic, Zed shared, with obvious passion, these three primary components of the Haida Gwaii community dental model:

Top-quality service and experiential learning

Each year, UBC Dentistry has 30 to 35 people visit Haida Gwaii, including residents, students, interns in dental and dental hygiene programs, and alumni. The service learning offers these key features:

- Continuity of care: Two clinics provide 24-hour oral health care, all year, including general practice and emergency services and after-hours care.

- Rotations (residential): An all-year core program of resident rotations, driven through the General Practice Residency Training Program, includes two residents at a time for up to 12 weeks. One goes to Old Massett, one to Skidegate.

- Rotations (undergraduate and graduate): Undergraduate students participate in an elective rotation for Doctor of Dental Medicine (DMD) training, or in a summer mentorship program between third and fourth year for two to six weeks. Graduate students do six-week rotations. Mixed rotations are offered to dental hygienists.

- Excellent hands-on learning: Students gain highly useful clinical exposure to a great variety and complexity of patient issues. While learning directly from patients and specialists, they also experience First Nations culture in a beautiful non-urban setting.

- Engaged specialists: UBC Dentistry alumni, committed to community service, provide dental services at the clinic’s peak or vacation times. This provides a high level of care for patients and expertise for students.

- Responsive, flexible and structured care: The Haida Gwaii program model remains flexible enough to respond to community requests and needs, yet provides the same level of care, with the same protocols, structures and infection control, as any other residency program. This fully fulfills UBC Dentistry’s Strategic Goal that “all undergraduate, graduate and postgraduate programs meet the highest standards of excellence and effect community needs and expectations.”

This program model meets the university’s strategic requirements and those outlined by WorkSafeBC, Health Canada and the College of Dental Surgeons of BC.

Grassroots community education

- Strong preventive focus: The public teaching program addresses oral care as part of overall health, explaining how dental disease relates to obesity, diabetes and other diseases. Initiatives include residents, undergraduate dental students and dental hygienists.

- Oral care information is also provided to patients in the dental clinic, then relates to local health-care professionals. The UBC program adds dental care education to existing community programs such as the Healthy Moms, Healthy Kids initiative for nursery mothers. Seminars on healthy food choices target new and experienced parents.
The following factors have enabled UBC’s community service model in Haida Gwaii to gain the acceptance of local people and create an effective cross-cultural approach, says Dr. Christopher Zed.

Communication: mutual respect and trust

- a willingness to ask many questions like “What, specifically, do you feel that you need? How can we reduce the no-shows?”
- clarity on how treatment and care decisions are made: for example, whether via the extended family, Haida chief or First Nation band
- enough humility to say “Here’s where we’re struggling, and here’s where we’re falling”

Collaboration: local engagement and buy-in

- ongoing partnerships and an excellent relationship with key First Nation decision-makers, such as the local band councils and the health director
- school principals and teachers who champion the oral health curriculum provided by UBC Dentistry

Cultural competencies: understanding values and beliefs

- an awareness of how parents’ own attitudes and fears about dental practices influence their children
- an appreciation of the differences in how people access and believe in their dental care

What do students and stakeholders say about their Haida Gwaii dentistry experience?

Dr. Matthew Gustafson, general practice resident (January-February 2012): A teenager patient stuck in the face while playing road hockey would likely have lost his teeth without the specialist care he received, says Gustafson, who repositioned the youth’s teeth and gave him a dental splint. Later during his 10-week rotation, Gustafson removed the patient’s splint and restored some chips in his front teeth. “What left the biggest impression on me during my rotation was the chance to provide service to a group of isolated people who would otherwise not have access to treatment.”

Gustafson saw patients ranging in age from 11 months to 86-something. Besides doing multiple fillings, he did preparations for crowns and bridges, partial and complete denture fabrications, cleanings, root canals and extractions. He also worked with three specialists: a pediatric dentist who used oral sedation on children with behaviour management problems, an oral surgeon who extracted difficult wisdom teeth using intravenous sedation, and a periodontist who did soft tissue grafts and implant placement.

The Haida Gwaii rotation provides an excellent opportunity to learn from specialists, hone your technical skills and see a large number of patients with a wide range of treatment needs, Gustafson says. Culturally, the rotation’s approach stresses the importance of being mindful of the customs of patients, he adds.

Dr. Ellen Park, endodontic resident (one-week rotation, September 2010): Ending a work day with a kayaking trip through spectacular scenery, and a comparison, “is exquisite,” Park says. “I was impressed to see a thriving and well-appointed dental clinic in such a beautiful natural setting.”

When not helping students perform root canals, Park says, she learned a lot from UBC Dentistry faculty, who provided practical tips and tied them into ongoing research.

The local community was quick to welcome the students: “Artists stopped by with their art work. The proprietor of the local coffee shop steered us toward incredible hikes and lent us his kayaks. Everyone was quick to chat and say hello. The clinic patients met were friendly and full of character.” She definitely wants to go back for another rotation.

Dr. Paul Mikhail, a 2012 UBC Dentistry grad (two-week rotation, April 2012): A military dentist in Ottawa for the federal government, Mikhail now does recall exams more efficiently thanks to his rotation in Haida Gwaii.

Then a fourth-year DMD student, he also performed emergency work on a cracked tooth and watched the pediatric dentist work with the general practice hospital residents. He appreciated the opportunity to see how a public clinic operates.

While on the islands, Mikhail hiked on trails and went clam digging. “It’s beautiful out there. We loved the environment and this is the kind of people a lot. It’s a very relaxed kind of life.”

Dr. Les Campbell, UBC endodontics grad (July 2012): From a panoramic view atop Tow Hill to eating freshly caught salmon at a waterfront home, Haida Gwaii is “really, incredibly,” says Campbell. “The view is unfearable anywhere else. The place is magical.”

When he wasn’t supervising general practice residents, dentistry graduates or undergraduates, Campbell was catching salmon and halibut and exploring the islands, which he has visited a handful of times on his own.

He says that he found his role as mentor at the Skidegate clinic fun and satisfying. The newly minted grad saw endodontic challenges they had never encountered and asked questions that prompted him to rethink the foundations of his training. “Being a teacher, you’re a lifelong student,” he says.

Robert Mills, chief councillor, Skidegate Band Council: “This 14-year-old autistic daughter, whom he describes as low functioning, received phenomenal treatment at the Old Massett Health Centre. With great patience and interest, the dentist got her accustomed to using a toothbrush and had her teeth cleaned with the ‘air-powered tool.’ I was very surprised,” he said. “Usually, I have to take her to Children’s [Hospital] and generally, they knock her out.”

Mills calls the clinic service “awesome” and says he hasn’t heard any negative remarks about it. The education program at the elementary school and the display booth at the annual Skidegate Days summer event, which offers oral care information and free toothpaste, floss and sugar-free gum, have been a success, he says. “Overall, our community members have better access to dental care.”

It can still take months to get into the clinic, he adds, but not if you ask to be put on a cancellation list. Mills has one complaint: “I have many off-reserve people and Old Massett residents are coming to the Skidegate clinic.

Michelle Brown, health administrator, Haida Health Centre in Old Massett: It would be awful if UBC Dentistry wasn’t working in Old Massett, she says. “The closest dentist is a hundred kilometres away in Skidegate. Nobody would go.”

With no orthodontist on the island, her 17-year-old son has received help with his braces at the Old Massett clinic. UBC’s graduate orthodontics program plans to start rotations in Haida Gwaii soon to provide such service from a specialist. He has also learned about flossing at school, as have his two younger siblings. Pictures of gum disease, along with sessions on cancer prevention and good oral hygiene, have helped promote better health in the community, she says.
Medical imaging has come a long way since 1966, when the classic film Fantastic Voyage was released. In the movie, a submarine and crew are shrunk to microscopic size and injected into a diplomat’s bloodstream. The remarkable images in that sci-fi fantasy provided a glimpse into what researchers are able to see today with powerful electron, laser and light microscopy in the Centre for High-Throughput Phenogenomics, recently located to UBC’s new Pharmaceutical Sciences Building.

Assistant professor in the Department of Oral Biological & Medical Sciences, Nancy Ford is an expert in micro-computed tomography (micro-CT) and in vivo small animal imaging. As director of the Centre for High-Throughput Phenogenomics, her work involves optimizing images, minimizing X-ray exposure and navigating massive, complex data sets.

Micro-CT is the research tool of choice for centre director, imaging physicist and Dentistry assistant professor Dr. Nancy Ford. Like a clinical CT scan, micro-CT uses X-rays to create cross-sectional 3D images of organs, tissue and bone, which are reconstructed in a computer model. The term “micro” refers to the micrometre-range pixel size used to produce high-resolution images.
"The biggest advantage of micro-CT is that you can image the same animal multiple times over the course of a study, so you can get a picture of a disease as it progresses, or monitor response to a therapy," says Ford. Not only is the technique reliable, it reduces the number of animals used in research and provides a direct link back to clinical diagnosis. "What we can discover in animals can easily be applied back to humans, because we diagnose using CT imaging in patients and animals."

Micro-CT has been used extensively to study bone, because of the large difference in attenuation—the absorption of X-ray photons—between bone and soft tissue. The technology has been crucial to the research by UBC dentistry and medical colleagues on regenerating craniofacial bone and periodontal tissue (see Impressions spring 2012 “Host-Grown Tissue and Bone—Using Stem Cells in Periodontal Regeneration” online at www.dentistry.ubc.ca/go/regen).

Take a Deep Breath—Hold It!

Air and soft tissue also exhibit large X-ray attenuation differences, making micro-CT well suited for imaging animal models of respiratory disease. Before Ford came to UBC, she and colleagues at the University of Western Ontario began a project, funded by the Canadian Lung Association and Ontario Thoracic Society, to study the respiratory patterns in normal, healthy rodents and how healthy lungs respond to mechanical ventilation. Although the goal of their research, which is still ongoing, is to provide information on how mechanical ventilation affects the lungs, the research has implications in dental sleep medicine as well.

Ford and colleagues are working to understand how different respiratory patterns can cause changes in lung structure and function, such as lung inflation and deflation, or how inhaled air spreads inside healthy lungs. Ford is using respiratory-gated micro-CT, where the scanner acquires images at specific phases or portions of the breathing cycle, to compare the respiratory function in free-breathing and mechanically ventilated rodents.

"In clinical CT the patient is asked to breathe in and hold, and the scanners are fast enough and the patients are compliant enough that we can get good images," Ford explains, "but mice and rats are not very compliant."

Traditionally, the animals are anesthetized and put on mechanical ventilation in order to control breathing and synchronize the images with the respirator. Proponents of mechanical ventilation say free-breathing animals breathe differently for each breath, so studies may not be capturing the exact same point in the respiratory cycle. Ford begs to differ.

"I have found that the respiratory waveform is fairly constant. What I think is going on with mechanical ventilation is that they are over-inflating the lungs. Ford images the same animal both ways—free-breathing and mechanically ventilated—to compare how much air is in the lungs at each point and then quantify the differences between methods. "This is important, because depending upon what disease symptoms you are looking at, you may not be able to see the symptoms if lungs are over-inflated," she says.

"I work mostly on free-breathing animals because I think it is better to look at how they actually breathe, as I believe it will be more relevant to the physiology of disease." — Dr. Nancy Ford

Ground Squirrel Serendipity

Ford’s respiratory research took an interesting turn when a biology colleague started studying the respiration and metabolic function of ground squirrels to determine surfactant levels and chemical composition inside the lungs during hibernation. “They were trying to understand how animals are able to not breathe for minutes at a time and be perfectly fine and happy,” says Ford. "The collaborators suggested we work together to get 3D images in order to correlate what is going on within the lungs to the chemical composition."

Since hibernation mimics apnea, where a series of breaths are followed by a long period with no respiration, the study of the ground squirrels will provide valuable insight into this prevalent sleeping disorder, which is known to damage the lungs. "The lungs are very sensitive, so we want to make sense of it all," she explains. "It also depends upon what part of the patient you are looking at, you may not be able to see the symptoms if lungs are over-inflated," she says.

A considerable challenge of working with high-throughput imaging is storing and analyzing massive amounts of data. The squirrels posed their own unique problems. "The data was a lot more complicated because there are large portions of the scan where there is no breath, and we were using automated codes to detect breathing," Ford explains. "We are now working on how to reconstruct the data to make sense of it all.

Determining Maximum Dose

Part of Dr. Nancy Ford’s research involves determining the maximum X-ray dose that can be administered to animals so that the disease model being studied isn’t affected. "The lungs are very sensitive, so we want to ensure that we aren’t causing changes in lung tissue that could be mistaken as a symptom of respiratory disease."

In comparison to clinical CT, the radiation dosage in micro-CT is greater due to higher image resolution and multiple scans in a single session. "If you add up all the scans an animal is receiving, you don’t want it to be higher than a single fraction of radiation therapy," says Ford. "If you are studying a tumour growing and you take an image every week, then the tumour could start to shrink and it is difficult to know whether this is because of your experimental parameters or the X-ray imaging."

Cone Beam CT—Quantifying Risks Versus Benefits

The days of the traditional dental bitewing X-ray are almost gone. Most dentists today have CT imaging technology. Cone beam computed tomography, or CBCT imaging, provides detailed information about the 3D structure of nerve paths, soft tissue and bone. Image data can be obtained for a complete dental or maxillofacial area or for a limited region of interest. Several software programs on the market allow dentists to segment and transform the digital images into models that are used in the course of surgical guidance.

We are told that radiation dosages in standard dental radiography are minimal—similar to an airplane trip across the country. Radiation exposure in CBCT is supposedly less. However, not all scanners use the same dosage, which can range from 8 to 250 mGy (www.conebeam.com/cbctchart).

Ford is concerned that CBCT manufacturers have understated radiation dosages, particularly since not all tests and machines are equal. "There are a lot of different ways to make an image, with many fields of view and parameters that can be changed," she explains. "It also depends upon what part of the patient you are scanning, and the size of area you are looking at. It is not a matter of pushing a button and each patient receives an equal low dose." She notes that there has been very little study of dose measurements, and these are not adequately described in either scientific or radiation protection literature. In her current study on CBCT image quality, Ford is aiming to compare and quantify measurements on a number of different machines in order that dentists can better assess potential radiation exposure. Ford is particularly concerned about overexposure in children, as several applications for CBCT, such as orthodontics, target children.

Customizing Algorithms to Fit the Patient

Ford became interested in medical imaging while working as a research assistant in digital mammography and detector technology at Toronto’s Sunnybrook Hospital. Today, she is working with radiologists at Toronto’s Hospital for Sick Kids to assess reconstruction algorithms for clinical CT imaging of pediatric patients. "In medicine everything is optimized for the average adult male," notes Ford. "Clearly, the imaging constraints are different for children because they are smaller, so what you are looking at is smaller, their tissues attenuate X-rays differently, and typically children have a lot less fat than adults."

Ford assessed the image parameters of the new algorithm to determine how it performs at the pediatric level. "You don’t want to add to the radiation load if you don’t have to—particularly in children. It is a load the patient will be carrying for the rest of their lives—and it’s cumulative."

ALARA—The Guiding Light

“A guiding principle for use of all X-rays, including CBCT, is to keep radiation exposure as low as is reasonably achievable (ALARA) . . . Importantly, clinicians should perform radiographic imaging, including CBCT, only after professional justification that the potential clinical benefits will outweigh the risks associated with exposure to ionizing radiation. However, ALARA may supplement or replace conventional dental X-rays when the conventional images will not adequately capture the needed information.” — American Dental Association, July 30, 2012.
The Faculty of Dentistry had long wanted students in the Doctor of Dental Medicine program to start clinical training earlier in their second year. When a review of the relevance of biomedical sciences courses resulted in significantly abbreviated reproduction content in second-year opportunity knocked for change to the curriculum—and Dr. Leandra Best, associate dean of Academic Affairs, knew how to seize it.

The enormous task of re-engineering the second-year curriculum could not have landed on a better desk. It was a dream come true for Best, who is fearless when it comes to change. She has years of experience in dental education and a passion for learning and for improving the learning of others. Her motto is collaboration.

In the first two years of dental school at UBC, students take biomedical science courses in the Faculty of Medicine, in addition to their longitudinal dentistry course, to build foundational knowledge on the medical management of diseases. Sharing resources and studying commonalities in both professions makes logistical sense. Strong connections between the biomedical sciences and the practice of dentistry are made for the dental students by adding oral health-related contexts to their problem-based learning cases in the biomedical science coursework.

However, many components of the medical curriculum—such as the reproduction course—go far deeper in medical knowledge than dental students need. In our "plug and play" modern world, words like component, module, section, block—commonly found in the language of curriculum—subtly suggest ease of re-order. But dental curricula are well-structured worlds; to make change takes immense planning and across-the-board collaboration—particularly when the Dentistry course timetable is enmeshed with Medicine’s timetable. Such change is usually incremental; rarely does it happen all at once.

When the fall term began for second-year UBC Dentistry students, it looked nothing like previous second-year terms. And neither did the students. They began to look and act like dentists. They were in the clinic, dressed in scrubs and masks, positioned over dental chairs, handpieces in hand. The acquisition of psychomotor skills in operative dentistry—the hands-on skills used to place a restoration in a tooth—started a whole lot sooner in the year, thanks to major changes in the curriculum.
“The opportunity to dive into clinical dentistry earlier than previous years is a welcomed change that benefits us due to the time it takes to develop proper psychomotor and clinical skills.” – Jordan Sanders, second-year DMD student

Biomedical Sciences—Assessing What Dentists Need to Know

Best gathered together feedback that had been collected over the years from both students and instructors. The consensus from students was that they didn’t understand the need for all the medical information and wondered why it took so long for them to learn technical dentistry skills. From faculty and tutors the chief concern was not having enough time for what they wanted to accomplish.

Possibly the strongest catalyst for re-examining the breadth and depth of medical content came from the Faculty’s last accreditation review in 2010, which suggested that the medical course content that is not relevant to dentistry be reduced. Since students wanted to do dentistry, to learn the tools of the trade, while faculty and tutors are challenged with the lack of time to teach it, doing an evaluation of the medical courses as suggested by the accreditation review was an obvious next step.

Best and a team of faculty members received a UBC Teaching and Learning Enhancement Fund (TLEF) grant to conduct the study to identify the foundational biomedical sciences learning objectives required for new graduates of the UBC Dentistry program. A panel of fourth-year UBC dental students and faculty (dental specialists, general dentists, basic scientists) was surveyed using the Delphi method (Kendall Project 1999) for decision-making. The aim was to reach a 75 percent consensus among panelists regarding each of the 13 year one and two medical course objectives.

From the 81 learning objectives in the medical reproduction course, there was a 95 percent consensus that 76 out of 81 learning objectives were not relevant to the practice of dentistry, while four learning objectives were “need for all the medical information and not receiving clinical dentistry training was taught at the end of year two in an intensive month often referred to as Boot Camp. Students were introduced to the handpiece, started to learn how to position themselves ergonomically, and in just four weeks they had to accomplish a number of skills that so that they could move on into third year. “That was an intense time,” Best remembers. “They needed more time to practice, to enjoy developing the skill sets and to become more confident.”

In 2007, the Faculty was able to move the Psychomotor Skills/Operative (DENT 420 PSO) module forward for a January start. With the time freed up in 2012 by greatly reducing the reproduction content and now delivering the 17 hours over several modules in the DENT 420 Introduction to Diagnostice Sciences module, the Psychomotor Skills/Operative module has been moved to the beginning of second year (in late August)—a monumental change. But that is not all that changed.

Revising the Whole Second Year: The Domino Effect

Removing the medical reproduction course from the second-year DMD program caused a chain of other changes and improvements, fostered by a commitment to collaboration, and with the approval of the Faculty’s Curriculum Effectiveness Teaching Committee. Best spent many hours consulting broadly with her Academic Advisor Team, faculty and students. One identified goal was to start clinical skills training sooner to increase practice repetition. “That was dead,” Best says, “and we achieved another goal in second year: to expose students to even more kinds of clinical activity that helps them understand why they are learning certain content in the curriculum. When you learn theory, it’s more meaningful to the learner if there are opportunities to apply it right away. Therefore, we sought opportunities for students to apply their knowledge.”

With the Psychomotor Skills/Operative (DENT 420 PSO) module underway a full four months earlier in second year, some of the skills sets that had been taught early in the third year have now been moved into second year, including the analysis of cephalometric component of the orthodontics module. And because second year is composed of integrated modules, pedatric dentistry and orthodontics were naturally blended and the module changed from Introduction to Pediatric Dentistry to Introduction to the Child Patient (DENT 420 ICP), which covers the introductions to both orthodontics and pediatric dentistry.

The second-year Introduction to Prothodontics (DENT 420 IPROS) module now starts earlier in the year, while the patient care associated with the Professionalism and Community Service (DENT 420 PACS) module comes later. This means that second-year students will have greater skills sets, so can do more out in the community. With the DENT 420 IPROS module under their belt, they will be able to fabricate a set of complete dentures for a patient. Introductory prosthodontics implant sessions from third year are now also integrated into the second-year prothodontic module.

The instrumentation component of periodontics—from the beginning of third year—was also repositioned into second year. This filled a gap that has existed in the application of periodontial skills offered between first year and third year. “We always knew we needed to find time for students to continue to practice skills they started to learn in first year and continue to practice in second year and beyond—we needed to bridge a gap in second year, and now we have improved it,” Best says. “We needed this kind of opportunity to enrich the second-year curriculum.”

What the Students Think?

And how is second year so far? Best says, “It’s going great!” The feedback she’s getting from second-year students is that they are really enjoying the clinical dentistry. “Students are excited, because they feel like they are in dental school.”

“Amazing,” says second-year student Jordan Sanders. “The opportunity to dive into clinical dentistry earlier than previous years is a welcomed change that benefits us due to the time it takes to develop proper psychomotor and clinical skills.” While acknowledging that the workload might be heavier, Sanders says he loves the hands-on dental experience. Likewise, classmate Carmen Hanford is a big fan of the recent curriculum changes: “Working on our psychomotor skills and learning clinical armamentarium earlier in our education provides more balance between the clinical aspect of dentistry and the biomedical sciences of medical school in the first two years.”

These high appraisals come as no surprise to Best. When she presented a template of the “new” second year to senior students, they were very enthusiastic—they saw that their feedback over the years had been addressed. This enthusiasm spread quickly among students in all years.

The 12th fall of the University of British Columbia Dental School was held October 12 and 13. This year’s fall featured the Dental School’s first online learning platform, as well as new courses and revised curricula. (Photos by Martin De Girolamo)
Dental Hygiene Students—Filling a Need, Enriching Their Learning

For two and a half days, a community health unit bustled with people. In the front hall, patients were triaged and volunteer dental students and supervising dentists treated patients’ oral health needs.

And, in an office, with one dental chair, two volunteer dental hygiene students were stationed. For Kim Nguyen and Sayena Faraji, second- and third-year dental hygiene students respectively, this was the highlight of their school year.

“We were perhaps the busiest volunteers,” says Sayena, a second-time volunteer on the annual trip to serve west-coast First Nation communities. “After triage and assessment, the dental students and supervising dentists treated patients’ oral health needs.”

In 2010 and 2011, UBC Dentistry alumni, student volunteers and faculty members volunteered at a clinic for the Penelakut First Nation on Penelakut Island, located east of Chemainus. This past July, the volunteer clinic moved to Chemainus, on Vancouver Island. The change of location allowed the clinic to support a greater number of First Nations groups through UBC’s H‘al-ul’t-yan Health Society. Not only the Penelakut, but also the Halalt, Ixickock and Malahat First Nations were able to access the clinic’s basic restorative and preventive dentistry services, including simple endodontic work, extractions and scaling.

“It was my first time,” says Kim, “and the pace picked up fast.” At first she found it nerve-wracking to have to complete a patient’s care every hour. She also worried about her skill level, but quickly credits Cathy Chatten, a volunteer dental hygienist, with providing excellent guidance.

Both Kim and Sayena had “wow” moments. Sayena gained insight into changing the way education of the patient is done—basically, adapting the information and how it is given, within a holistic context, to suit the individual patient. “You take into account their history and you gain a sensitivity to delivering information so it’s not so top-down. You deliver it in a way that can be processed by the patient.”

Along with doing actual procedures, Kim found the experience “really eye opening” because of the range of patients, from nine-year-olds to 60-year-olds. Hearing patients’ life stories significantly broadened her outlook on the uniqueness of each and every patient. The patients were also very appreciative of her work, which made the experience particularly rewarding.

On campus, the focus is on the protocols of the clinic, but valuable perspectives that continue after graduation are learned through working in the community. “It makes you a well-rounded future health professional—you know what’s out there beyond a clinical practice setting,” says Sayena, who would like to pursue a master’s degree in public health.

“People think that once you graduate all you do is go into clinical practice, but there are so many more opportunities in the community.” Likewise, Kim has enjoyed working with people who do not have access to primary care and seen herself branching off from her regular clinic work. And she plans to continue volunteering at clinics during her next two years of school.

Both agree that all dental hygiene students would benefit from this volunteer experience—especially from working with dental students, observing and assisting with treatments. “We saw a lot of procedures like restorations and endodontics, and they needed us to perform local anesthetics,” says Sayena. She notes that there is a lot of need for primary care during a volunteer clinic, so more dental hygiene volunteers would be very welcome.

Kim and Sayena have encouraging advice for future volunteer dental hygiene students: step out of your comfort zone, try new things, don’t be scared to ask questions because there is always help at hand, don’t worry about your skill level, and above all, enjoy the experience.

The Chemainus volunteer clinic is made possible with support of the Rotary Club of Chemainus, the Rotary Club of Stevenson and the Dental Mission Project Society. “Adoptive Rotary parents” hosted volunteers in their homes. For a full list of volunteers, please see the “Thank You” page in this issue of Impressions.

In April 2012, then DMD 2012 candidates Melissa Milligan and Kathryn Hunter travelled to South America, where they joined students and dentists from the University of Southern California Faculty of Dentistry. The USC faculty offers a volunteer dental program in collaboration with Ayuda Inc., a not-for-profit organization focused on providing free dental care to underserved communities. This was the second year that the Sinclair Travel Fellowship Program supported the UBC Dentistry fourth-year travel elective.

The team travelled to Cartagena, Colombia, where they treated 845 patients in a local barrio of 13,000 people. The high level of organization and teamwork, and the special focus on young patients and their dental problems, were particularly meaningful for the USC students. “After screening 50 children under the age of five in one morning, you start understanding what to look for, what’s normal, what’s not,” says Kathryn, who shared that during her training at UBC “she was uncomfortable with having a young child cry in the chair. “It just wasn’t something that I thought was a part of dentistry, and my first instinct was to have someone else take over,” she says, and noted that at the USC clinic child patients are usually five and older.

For four hours on one day in Cartagena, Kathryn gave children needles to anesthetize them before starting their dental treatment. “I don’t think I’ve ever seen so many crying children. At first I thought they’d all hate me.” However, Kathryn learned a valuable lesson that day: even when kids are crying, they still need help to clear their mouths of disease, and in the end, no matter how much they dislike it at the time, they are grateful. Her most touching moment, among many hugs, kisses and articulations of gracias, was a huge smile and a wave from a boy she was convinced hated her because he had screamed during his treatment. “I was ecstatic!” she recalls.

“The triage system developed by the group allowed for patients to be seen in a timely and orderly manner,” says Melissa. She and Kathryn worked triage on their last day, and Melissa credits this system for their efficiency. Another highlight for her was working with radiology and learning how to use the NOMAD hand-held, portable X-ray machine. Melissa also gained more experience with traumatic restorative treatment (ART) and extractions.

“Working with the Ayuda team was an outstanding experience. Everyone had a key role to play and felt supported by their colleagues. This meant we all had the opportunity to enhance and expand our dental skills and comfort zones in the clinic.”

For Melissa, a passion for combining humanitarian acts and travel has been percolating throughout dental school. Her experience in Colombia could be just the tip of the iceberg—she hopes to work with the Ayuda group again. She is excited, she says, by having such a large group of people could organize themselves into an efficient, temporary dental clinic to support a community in need.

In Colombia, Kathryn gave children needles to anesthetize them before starting their dental treatment. “I don’t think I’ve ever seen so many crying children. At first I thought they’d all hate me.” However, Kathryn learned a valuable lesson that day: even when kids are crying, they still need help to clear their mouths of disease, and in the end, no matter how much they dislike it at the time, they are grateful. Her most touching moment, among many hugs, kisses and articulations of gracias, was a huge smile and a wave from a boy she was convinced hated her because he had screamed during his treatment. “I was ecstatic!” she recalls.

“The triage system developed by the group allowed for patients to be seen in a timely and orderly manner,” says Melissa. She and Kathryn worked triage on their last day, and Melissa credits this system for their efficiency. Another highlight for her was working with radiology and learning how to use the NOMAD hand-held, portable X-ray machine. Melissa also gained more experience with traumatic restorative treatment (ART) and extractions.

“Working with the Ayuda team was an outstanding experience. Everyone had a key role to play and felt supported by their colleagues. This meant we all had the opportunity to enhance and expand our dental skills and comfort zones in the clinic.”

For Melissa, a passion for combining humanitarian acts and travel has been percolating throughout dental school. Her experience in Colombia could be just the tip of the iceberg—she hopes to work with the Ayuda group again. She is excited, she says, by having such a large group of people could organize themselves into an efficient, temporary dental clinic to support a community in need.

“In Colombia, Kathryn gave children needles to anesthetize them before starting their dental treatment. “I don’t think I’ve ever seen so many crying children. At first I thought they’d all hate me.” However, Kathryn learned a valuable lesson that day: even when kids are crying, they still need help to clear their mouths of disease, and in the end, no matter how much they dislike it at the time, they are grateful. Her most touching moment, among many hugs, kisses and
In the summer of 1968, Dr. Russell Yamada received a telegram that for all intents and purposes changed the direction of his life. This was during the height of the Vietnam War. Yamada had just graduated from Oregon State University and had applied to their Faculty of Dentistry. In refocusing his energy on a naval career, former US presidential candidate John Kerry. Yamada wishes that he had expressed his gratitude more when former Dentistry dean Leung was alive. So now, in Leung’s honour, Yamada would like to thank UBC Dentistry. “I am grateful for all that this profession has offered me, and the UBC Faculty of Dentistry had a great deal to do with this. I was inspired to make a gift for the new graduate clinic and for ongoing dental education because of the gift dean S. Wah Leung and the Faculty of Dentistry gave to me an opportunity to study dentistry at UBC.”

The new graduate clinic will be completed in early 2013 and will house 20 new operatories, rooms and seminar space. There are several naming opportunities in support of the new clinic. To find out more, contact the UBC Dentistry Development team at dentistry.development@ubc.ca.

At first, Yamada was wary, not sure he could believe the telegram. But when his admission was verified, he went into shock—suddenly a completely different life path than the one he was about to assume with the US Navy had opened up. The impact of that one short telegram on Yamada’s life was far-reaching. Not only did UBC Dentistry provide him with the education for a profession that he still practices 41 years later, but while at UBC he also made several lifelong friends and met his wife Sylvia.

Yamada wishes that he had expressed his gratitude more when former Dentistry dean Leung was alive. So now, in Leung’s honour, Yamada would like to thank UBC Dentistry. “I am grateful for all that this profession has offered me, and the UBC Faculty of Dentistry had a great deal to do with this. I was inspired to make a gift for the new graduate clinic and for ongoing dental education because of the gift dean S. Wah Leung and the Faculty of Dentistry gave to me an opportunity to study dentistry at UBC.”

The new graduate clinic will be completed in early 2013 and will house 20 new operatories, rooms and seminar space. There are several naming opportunities in support of the new clinic. To find out more, contact the UBC Dentistry Development team at dentistry.development@ubc.ca.

Recognition can be given in many different ways. Drs. Rokshana and Khozema Chherawala—known for their generosity and kindness, not only with their patients, but also with their staff—stepped forward this past year to generously support the extensive renovation project in the John B. Macdonald Building (JBM)—and to honour their hard-working staff members. In addition to supporting the naming of one of the new conference rooms, the Chherawalas decided to make a secondary gift, “adopting an op” (operator) in the Nobel Biocare Oral Health Centre. And they decided to recognize the people who directly contribute to the operation and day-to-day success of their busy practices in Maple Ridge and Port Coquitlam by putting their names on the dedication plaque located in Operatory 10.8.

In October, the Chherawalas invited their staff members, each was handed a pair of gold scissors with which to cut the ribbon of the new Chherawala Conference Room in the JBM—but then, to the surprise of the invited staff members, each was handed a pair of gold scissors with which to cut the ribbon on their newly dedicated operator. “I felt extremely proud and was so touched to be included on this dedication,” says Julie Parkes, who has been the JBM part-time faculty member or volunteer for the Volunteer Community Clinic Program, contact Jane Merling at 604-822-5886 or merling@dentistry.ubc.ca.

Recognition can be given in many different ways. Drs. Rokshana and Khozema Chherawala—known for their generosity and kindness, not only with their patients, but also with their staff—stepped forward this past year to generously support the extensive renovation project in the John B. Macdonald Building (JBM)—and to honour their hard-working staff members. In addition to supporting the naming of one of the new conference rooms, the Chherawalas decided to make a secondary gift, “adopting an op” (operator) in the Nobel Biocare Oral Health Centre. And they decided to recognize the people who directly contribute to the operation and day-to-day success of their busy practices in Maple Ridge and Port Coquitlam by putting their names on the dedication plaque located in Operatory 10.8.

In October, the Chherawalas invited their staff members, each was handed a pair of gold scissors with which to cut the ribbon of the new Chherawala Conference Room in the JBM—but then, to the surprise of the invited staff members, each was handed a pair of gold scissors with which to cut the ribbon on their newly dedicated operator. “I felt extremely proud and was so touched to be included on this dedication,” says Julie Parkes, who has been the Chherawala’s office manager for 11 years.

Recognition can be given in many different ways. Drs. Rokshana and Khozema Chherawala—known for their generosity and kindness, not only with their patients, but also with their staff—stepped forward this past year to generously support the extensive renovation project in the John B. Macdonald Building (JBM)—and to honour their hard-working staff members. In addition to supporting the naming of one of the new conference rooms, the Chherawalas decided to make a secondary gift, “adopting an op” (operator) in the Nobel Biocare Oral Health Centre. And they decided to recognize the people who directly contribute to the operation and day-to-day success of their busy practices in Maple Ridge and Port Coquitlam by putting their names on the dedication plaque located in Operatory 10.8.

In October, the Chherawalas invited their staff members, each was handed a pair of gold scissors with which to cut the ribbon of the new Chherawala Conference Room in the JBM—but then, to the surprise of the invited staff members, each was handed a pair of gold scissors with which to cut the ribbon on their newly dedicated operator. “I felt extremely proud and was so touched to be included on this dedication,” says Julie Parkes, who has been the Chherawala’s office manager for 11 years.
DMD 1973 REUNION
Wayne Peace DMD 1973 is organizing something a little more exotic for next year’s class reunion in celebration of 40 years since graduation. He is thinking of either an Alaska cruise or a European river cruise. To find out more and to vote for your choice, contact him at waynelance@gmail.com or at Alumni@dentistry.ubc.ca

1970s

- Jill Moore Dip DH 1976
  - Recently Jill (pictured here on the left with Susan Wacker DMD 1986) volunteered her time on Open Wide Community Clinic Day to deliver free dental hygiene, at the CDI College in Burnaby, BC, to clients of the Salvation Army and the YWCA. Other dental hygiene alumni volunteers included Nicole Chien BDSc 2012 and Cathy Jackson Dip DH 1979. See the “Thank You” page for all the volunteers.

- Chris Hacker DMD 1981
  - Chris has joined the College of Dental Surgeons as a part-time complaint investigator. Prior to joining CDSCBC, he served on various college committees. Chris is a founding member of the Study Club Alliance of BC, an active member of the American Academy of Gold Foil Operators and the Academy of R.V. Tucker Study Clubs, and is a fellow of the American College of Dentists. Chris also serves as secretary for the Associated Ferrier Study Clubs and has practised general dentistry for over 30 years. He lives in Vancouver with his wife and two children.

DMD 1978 REUNION
The DMD 35-year reunion will be at the home of Ed O’Brien following the class photo at the Annual Alumni Reception at the Pacific Dental Conference on Friday, March 8, 2013. For more information, contact Ed at edobrien@telus.net or alumni@dentistry.ubc.ca

- Hank Klein DMD 1978
  - 1970s grads Hank Klein and Wendy Rondereau attended Dean’s Night at the Italian Cultural Centre on September 26, 2012. At the event, Hank was given a special thank you for his volunteer service on the UBC Dentistry Board of Counsellors, and Wendy attended for her service to the Volunteer Community Clinic Program. Volunteers at the Faculty of Dentistry continue to grow each year. To volunteer, contact alumni@dentistry.ubc.ca

1980s

- Jill Moore Dip DH 1976
  - Patrick Manders DMD 1990
    - Patrick and his wife Janice enjoyed a trip to Las Vegas, compliments of Naedan Builders Associates. They won the trip at the Annual Alumni Reception at the Pacific Dental Conference last year.

- Chris Hacker DMD 1981
  - Members of the DMD Class of 1982 enjoyed their 30-year reunion at the Cove Lakeside Resort in West Kelowna, BC, from June 22 to 24, 2012. The weekend activities included dinners at the Bonfire Grill and the Quail’s Gate Old Vines Restaurant, as well as wine tasting and long walks together along the lake. Everyone agreed that it felt just like old times and like dental school was just yesterday.

DMD 1983 REUNION
In celebration of 30 postgraduation years, Bill Liang and the DMD Class of 1983 are planning a dinner following the Annual Alumni Reception at the Pacific Dental Conference on March 8, 2013. To find out more, email either wilang@implant.ca or alumni@dentistry.ubc.ca

- Dip DH 1983 REUNION
  - For information on the Dip DH 30-year reunion, contact Maria Taylor (née Nibberink) by email at taylorfree@telus.ca or alumni@dentistry.ubc.ca

1990s

- Anita Gartner-Makawane DMD 1993
  - Anita (pictured here on the left with Agnes Yungson from CDI College) led a team of 14 alumni, both dentists and hygienists, who provided free dentistry and dental hygiene to clients of the Salvation Army and YWCA in Burnaby, BC. She wishes to thank the following for their volunteer time and support: Wendy Rondereau DMD 1979, Laura Caylor DMD 2010, Susan Wacker DMD 1986, Stephanie Cheng DMD 2011, Tian Yu DMD 1989, Hanah Tiao DMD 2011, Jimmy Loo DMD 2003, Jill Moore Dip DH 1976, Cathy Jackson Dip DH 1979, Nicole Chien BDSc 2012 and Mark Norris DMD 1979; pediatric dentistry graduate students Drs. Andrew Wong, Jennifer Park and Shan Sun; and the staff of CDI College, Burnaby, as well as Patterson Dental, the BCDA and the YWCA. Without such committed cooperation, the day would not have been such a success—39 people were treated, nearly half of them children. Many, many thanks!
Almost Alumni

Vancouver Homeless Connect 2012 took place on Friday, October 12, 2012, at the Aboriginal Friendship Centre on East Hastings Street in Vancouver as part of Homelessness Action Week 2012. The event was hosted by the City of Vancouver, with support from the Regional Steering Committee on Homelessness and the Aboriginal Homelessness Steering Committee. Representing UBC Dentistry, our group of students provided toothbrushes, toothpaste and basic oral hygiene instruction to the event attendees. We enjoyed the opportunity and noticed that this community demonstrated great dental knowledge and general awareness of health, but lacked the ability to access care. We established a good rapport with the attendees and the organizers of the event, and look forward to continuing our involvement by expanding the dental services next year. Thank you to the students who volunteered: Tamara Edinger (holding child), Michelle Foster (to the right of Tamara), Kim Nguyen (with a client), and Kelsey Singer, all BDS 2014.

This summer, 20 volunteer dentists, hygienists, students and friends went to Chemainus to volunteer with the H‘als-‘otun Health Society. This volunteer clinic was by far the most rewarding and humbling experience I have been a part of during my dental education. It was great to meet and interact with so many unique people from that area over our three days. In addition, getting to work with, and learn from, past UBC Dentistry graduates was rewarding and an inspiration for all us students. Hearing the stories of the local people, meeting their families and seeing the smiles on their faces after we were able to provide them with dental treatment made this trip one that I will never forget. We were grateful for all participants and especially the alumni—check them out on the “Thank You” page in this issue of Impressions.

DMD 1998 REUNION
The DMD Class of 1998 is planning a 15-year reunion dinner to follow the Annual Alumni Reception at the Pacific Dental Conference. For more information, email alumni@dentistry.ubc.ca

Almost Alumni

DMD 2008 REUNION

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni

Almost Alumni
Welcome Weekend: BZZR Garden, Sports Day, Alumni & Friends Golf Tournament

Welcome Weekend, September 14 to 16, 2012, opened with a Friday night BZZR Garden, hosted by the Dental Undergraduate Society, and a Sports Day on McInnes Field on Saturday. Over 150 students and faculty participated, with the Class of 2015 taking the winning trophy. Thank you to Tony Bae DMD 2013 and the Class of 2015 taking part in. Congratulations to Brian Sully-Daniels Burkett & Associates, and the Sinclair tent, Aurum Ceramic longest drive contest, rubber ducky chipping contest, Advil massage the “Flapper Girls” arrived in full force, I knew a.m., however, when the “Teenage Mutant Ninja I hadn’t seen for a few years. The reception dean, Dr. Charles Shuler) that I hadn’t met Sam Heron BDSc 2012, pictured here with the grads (dental and dental hygiene—including alumni, as well as the dean and our alumni staff, at a reception here in Edmonton. I had the opportunity to meet some fellow UBC grads (dental and dental hygiene—including Sam Herson RDHSC 2012, pictured here with the dean, Dr. Charles Shuler) that I hadn’t met before, as well as to chat with some people I hadn’t seen for a few years. The reception reminded me of the fun events we had while attending UBC—a fan of BZZR Garden, if you will. I hope I can ride my new Harley-Davidson motorcycle to the next event!

Alumni Wine Reception at TODS Meeting, Kelowna

Thompson Okanagan Dental Society alumni joined Dr. Charles Shuler, dean of UBC Dentistry, at the annual alumni wine reception following the TODS meeting in Kelowna this past October. Pictured here at the event is Dan Rootes DMD 2006. More Events for Students and Alumni

It was a pleasure to meet with UBC Dentistry alumni, as well as the dean and our alumni staff, at a reception in Edmonton. I had the opportunity to meet some fellow UBC grads (dental and dental hygiene—including Sam Herson RDHSC 2012, pictured here with the dean, Dr. Charles Shuler) that I hadn’t met before, as well as to chat with some people I hadn’t seen for a few years. The reception reminded me of the fun events we had while attending UBC—a fan of BZZR Garden, if you will. I hope I can ride my new Harley-Davidson motorcycle to the next event!

Alumni Wine Reception at TODS Meeting, Kelowna

Thompson Okanagan Dental Society alumni joined Dr. Charles Shuler, dean of UBC Dentistry, at the annual alumni wine reception following the TODS meeting in Kelowna this past October. Pictured here at the event is Dan Rootes DMD 2006.