Dean’s Message

The UBC Faculty of Dentistry has an outstanding global reputation for being an innovative leader in dental education, service and research. We are thankful to have the support of our community partners and alumni base in this mission of excellence. This issue of Impressions focuses on examples of our innovation that are contributing to the strength of our academic, service and research programs.

Regarding the area of education, we feature an article about the restructuring and enhancement of the Faculty of Dentistry’s educational content in geriatrics. Our program continues to lead the way, addressing the oral health needs of seniors, who are now Canada’s fastest growing demographic. Drs. Leandra Best, Mario Brondani, Leeann Donnelly and Chris Wyatt, as well as program manager Shunhau To, discuss how their respective areas in education, research and service delivery have evolved to advance geriatric oral health at UBC Dentistry.

UBC Dentistry’s engagement in interprofessional education and service is highlighted in the article outlining the intersection of oral medicine and oral pathology with medicine. Since 2000, UBC has offered postgraduate residency training in oral medicine and oral pathology (OMOP); however, not all readers may know the depth and breadth of this specialty and how it plays a critical role in early diagnosis of oral lesions. Dr. Eli Whitney, program director for UBC’s OMOP residency training, provides a succinct...
snapshot of the program: who is involved, what they do, with whom, for whom and where they do it.

The Faculty of Dentistry is home to the state-of-the-art Centre for High-Throughput Phenogenomics, a research core facility that is an integral component of the UBC Imaging Core. Opened in 2013, this facility houses a high-tech, comprehensive suite of imaging technologies staffed by a noteworthy team of scientists: Drs. Nancy Ford (director), Shujun Lin, Gethin Owen and Guobin Sun. In this issue, you will learn more about how they have helped researchers from across campus, other academic institutions and industry to analyze their samples through various imaging modalities and produce data sets that resulted in publication in top journals.

This past year, a large cadre of our students and faculty members have been recognized and are featured in the “News” section. Their accomplishments in research and teaching are significant, and we are proud they have chosen UBC Dentistry for their studies and careers.

Through the generous support of the Sinclair Travel Fellowship Fund, again this year some of our dental and dental hygiene students participated in international volunteer rotations, travelling to Kenya and Vietnam. The experience of practising their respective professions in an environment of great need will have a lasting impact on their lives and careers.

Also, in the pages of this issue, we are fortunate to have several donors to UBC Dentistry share their values. They demonstrate to us that the motivations for philanthropy can be found in dedication to family, community, and in many cases, their alma mater. While each donor is unique, they all share an unmistakable quality: a conviction that they are making a difference. We are thankful for their support and trust.

I hope, as you read through this issue of Impressions, you appreciate the breadth and depth of the innovations associated with the education, service and research programs of UBC Faculty of Dentistry. The innovation of our programs, faculty, staff and students is the foundation for our excellence and global reputation.

Please enjoy this issue of Impressions.

Dr. Mary MacDougall
Dean and Professor, Faculty of Dentistry
The cover image for this issue of Impressions depicts a white-crowned sparrow, *Zonotrichia leucophrys*. The white-crowned sparrow can be found readily in most parts of the province. The photo was taken by Dr. Markus Haapasalo, professor and chair of the Division of Endodontics, in the Department of Oral Biological & Medical Sciences.

**About the Cover**

**Calling Alumni Photographers: Do You Have a Cover Image?**

Since 2008, Impressions magazine has featured magnificent images on its covers. Beautiful scenic shots of British Columbia, as well as photos of mammals, birds (a particular favourite among readers) and even fish, all native to this province, have illustrated the magazine cover to support a theme of “BC nature.”

If you are a UBC Dentistry alumnus and a photographer and would like to submit a nature photo to be considered for the cover of Impressions magazine, email or Dropbox it to communications@dentistry.ubc.ca. All photos should be 300 DPI at the size of 11 by 17 inches. Photos for consideration should support the BC nature theme. If the subject matter is scenic, it must be in British Columbia, or if flora and/or fauna, it must be indigenous to the province.

**Dr. Mona Hamoda**

Dr. Mona Hamoda, a year-three doctoral candidate in Craniofacial Science, is the recipient of two awards from the American Academy of Dental Sleep Medicine (AADSM). She was selected for the Graduate Student Research Excellence Award for most outstanding research project and placed first for a Graduate Student Research Award. The objectives of her work, titled “Long-Term Side Effects of Sleep Apnea Treatment with Oral Appliances,” were to determine the nature of the changes (whether dental and/or skeletal in nature) associated with long-term oral appliance treatment and to evaluate the magnitude and progression of these changes.

Her study represents the longest observational period to date examining oral appliance side effects, with up to 21 years of follow-up for some patients. Employing cephalometric analysis (using radiographs of the facial, dental and skeletal structures to assess relationships), Hamoda was able to characterize the nature, magnitude and progression of the oral appliance side effects—which is an important step toward mitigating these issues.

The AADSM also bestowed a Graduate Student Research Award on Dr. Yuuya Kohzuka, an international student at UBC from Showa University in Japan, for his research titled “Difference in Dental Arch Size Between Japanese and Caucasian Patients With Obstructive Sleep Apnea: An International Comparison Study.” Kohzuka found that Japanese people with obstructive sleep apnea (OSA) have a larger tongue and larger maxillary and mandibular dental arches compared to Caucasian people with OSA, but the degree of oropharyngeal crowding is the same between the two groups. His study is the first of its kind to focus on dental arch difference among races.

**AADSM Recognizes Innovative Obstructive Sleep Apnea Research at UBC**

Left photo: Dr. Mona Hamoda (R) with Dr. Olivier Vanderveken, AADSM research committee chair.

Right photo: Dr. Yuuya Kohzuka (R) with Dr. Olivier Vanderveken, AADSM research committee chair.

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Right photo: Dr. Yuuya Kohzuka (R) with Dr. Olivier Vanderveken, AADSM research committee chair.
Researchers Discover Proteolytic Enzymes in Bacterial Flagella

Researchers at the University of British Columbia Faculty of Dentistry and at the University of Waterloo have discovered a new class of enzymes in hundreds of bacterial species, including some that cause disease in humans and animals. The discovery provides new insights into how bacteria invade their hosts. The research appeared recently in the prestigious journal *Nature Communications*.†

Andrew Doxey, a professor of biology at the University of Waterloo, led the collaborative research team together with Christopher M. Overall, Canada Research Chair in Protease Proteomics and Systems Biology and professor in the Department of Oral Biological & Medical Sciences at UBC Dentistry. They found the enzymes in flagella located on the outside of bacteria cells. Flagella are whip-like appendages, and it has long been thought that bacteria use their flagella mostly just for movement. This newly discovered type of flagella, however, is capable of digesting proteins in the bacteria’s environment, including in tissues.

Doxey made the initial discovery through the use of bioinformatics, a growing scientific field that combines biology and computer science to study large biological datasets, such as genomes. “It is an exciting time for bioinformatics right now. We have thousands of genomes available to us and most of them are unexplored. It’s amazing that we can discover new biology by using a computer alone,” says Doxey.

His lab then teamed up with Overall, who specializes in both these enzymes and in proteomics, which is the study of proteomes. A proteome is the complete sets of proteins expressed by a genome, cell, tissue or organism. Proteomics includes looking at how enzymes break down proteins (proteolysis). (Overall Lab website: www.clip.ubc.ca)

Dr. Ulrich Eckhard, a postdoctoral scientist in the Overall Lab, modelled one of the flagella enzymes in 3D to better understand its properties, and then made the enzyme artificially. Using modern techniques of protein engineering and proteomics—proteomics techniques that were originally developed in the Overall Lab—Eckhard and Dr. Giada Marino, another postdoctoral scientist from the Overall Lab, then identified thousands of cut sites that these enzymes had made in proteins encountered by bacteria during the infection process.

Bacterial flagella are filaments, each composed of about 20,000 protein units (flagellins) that link together and form structures about 10 micrometres long—roughly one-tenth the width of a human hair. While flagella can differ structurally, most help with propulsion, and in some cases, they can attach bacteria to host cells. The discovery of flagella that function as enzyme scaffolds has revealed that some of them can also break down tough bonds in cells and tissues.

Overall says, “We found that many bacteria have repurposed their flagella to function as protein-degrading machines. There are thousands of these enzymes per individual flagellum, making each potentially the largest enzyme structure known. As they move the bacteria along, the flagella can also dissolve the proteinaceous material nearby. This may speed infection, or sometimes the breakdown products can be ‘eaten’ to nourish the invading bacteria.”

To test the action of these new enzymatic flagella, these scientists examined *Clostridium haemolyticum*, a pathogen that has numerous flagellum on one cell, and that is highly fatal in cows and sheep. They isolated the flagella and found that they are capable of breaking down proteins found in cow liver—precisely where the organism infects the animal.

The researchers also found the enzymes in other bacteria that inhabit the human gut. Further research is needed to determine whether they play a beneficial or a harmful role in humans.

Research to understand the role of flagella enzymes will improve understanding of how bacterial pathogens cause disease. This could lead to, for example, using these enzymes in biotechnology to degrade structures such as biofilms, which are sticky colonies of harmful bacteria associated with more than 80 percent of infections.

Villa Cathay Dental Clinic Opens

Residents of Villa Cathay Care Home will no longer need to travel off-site for dental treatment. Thanks to over $100,000 in donations, they now have access to a modern dental clinic on-site.

Moreover, the UBC Geriatric Dentistry Program (GDP) has the operatory it needs for students to provide specialized care to over 150 geriatric residents in the long-term-care facility. UBC students—dental, dental hygiene, and graduate prosthodontics and periodontics—began curricular rotations in the new clinic this past fall.

The UBC Geriatric Dentistry Oral Health Clinic opened on September 25, 2017, on the lower level of the care home. The room previously served as a dental clinic but was decommissioned years ago. While Villa Cathay undertook the renovations to make the space functional, the new equipment—an A-dec 511 dental chair, a delivery unit, dental instruments and a full range of dental supplies—as well as some necessary retrofitting expenses, were provided through support from generous donors. Under the aegis of the UBC GDP, Dr. Ken Chow, a long-time supporter of UBC Dentistry, was instrumental in garnering donor support for the new equipment. Read more about Dr. Chow’s connection to the project on page 22.

“Building on the success of the dental clinic at the Simon K.Y. Lee Seniors Care Home, UBC will implement the same proven infrastructure model at Villa Cathay Care Home, providing oral health care to geriatric residents in an environment that feels safe and is familiar to them,” says Dr. Chris Wyatt, professor and director of the Geriatric Dentistry Program.

The presence of a dental clinic in a geriatric facility also supports ongoing research in the fields of gerontology and oral health care. The Geriatric Dentistry Program has earned a reputation for excellence in education, research and provision of specialized geriatric oral health care and is poised to meet the needs of seniors—Canada’s fastest growing population. Read more about how UBC’s geriatric dentistry education is meeting this need on page 16.

Future expansion of the dental services offered by the GDP at Villa Cathay may include non-curriculum volunteer-based clinic days, as well as serving seniors who live in the neighbourhood. Villa Cathay also plans to bring in more adjunct health services and expand their health care facility, which may entail relocating the dental clinic.
Organizations Collaborate to Offer Free Oral Cancer Screening in Surrey

The Pacific Oral Health Centre (POHC) in Surrey hosted a free oral cancer screening camp on September 24, 2017. The Rotary Club of Surrey-Newton organized the event, with help from the BC Oral Cancer Prevention Program (BC OCPP) and POHC. UBC Dentistry faculty, students and alumni were among the more than 50 volunteers, which included dentists and dental hygienists from the local community.

More than 400 people were screened for oral cancer. Six people presented with highly suspicious lesions and were referred to the BC OCPP’s Next Gen Oral Prevention and Screening Community Clinic, which has clinic sites at UBC and at POHC. Another 35 people were identified for further assessment and possible follow-up. Those identified for further assessment and biopsies receive these services at no charge.

The screening camp also provided education and counselling on oral health best practices, as well as time for addressing individual concerns and questions.

Providing low-cost care to vulnerable and low-income individuals and families is a mandate of the POHC. Dr. Harinder Dhanju, president of the centre’s founding society, stresses the need to bring academic and research specialists to the doorstep of Fraser Valley communities and to the people who most need their expertise.

BC OCPP clinical scientist and UBC alumnus Dr. Ajit Auluck explains the importance of locating the camp in Surrey and serving the community directly: “We collected 40 years of data and information and found that South Asians in BC have the highest risk for oral cancer compared to other ethnic minorities and even the general population. We also did a location-based study that confirmed Surrey had the highest rates for oral cancer, which reinforced the results from the first study.”

Dr. Denise Laronde, UBC associate professor and BC OCPP acting director, organized clinical volunteers for the screening camp. They included four of her graduate students, two dental hygiene students, several UBC alumni dental hygienists, and a graduate from UBC’s Oral Medicine and Oral Pathology residency program. Laronde says this camp was an important step toward serving the South Asian community, which faces the province’s highest risk for oral cancer.

Laronde’s research at UBC with the BC OCPP follows people with precancer to determine risk factors of cancer progression.

Rotary Club of Surrey-Newton president Harbhajan Singh Parhar understands that oral cancer is a serious health issue for the South Asian community that does not get enough attention. “We wanted to rectify that and bring this important issue to the forefront,” he says, adding: “The club has always tried to address the needs of our local community by bringing together individuals and institutions that can best serve as catalysts for change.”

UBC Health Honours Associate Dean for Outstanding Leadership in Interprofessional Professional Development

UBC Health has selected Dr. Leandra Best, Dentistry senior associate dean, as the 2017 winner of the Award for Outstanding Leadership in Advancing Interprofessional Professional Development. This award honours an outstanding individual or health care team that promotes professional development in the areas of collaborative teaching among different health care professionals and/or collaborative patient-centred practice.

In the Faculty of Dentistry, Best oversees the Doctor of Dental Medicine (DMD) curriculum and leads a significant curriculum renewal project. She has initiated and facilitated the development and scheduling of numerous interprofessional education (IPE) activities by engaging faculty and staff. These IPE learning experiences for students have been designed to meet accreditation and competency requirements and to fulfill the Faculty’s and the university’s strategic plans.

Best has co-authored numerous cases to engage students’ interest in the oral health relevancy of the biomedical, clinical and behavioural sciences. She has served as Dentistry’s representative on the UBC Health Curriculum Committee and on the iEthics Curriculum Working Group, which developed an ethics curriculum that serves as a model template for other IPE topics common to UBC’s various health sciences programs. She also arranged protected time in the DMD program to incrementally implement IPE sessions in iEthics, eHealth, Indigenous Health Cultural Competency, and Resiliency. Recently, Best joined the new UBC Health Integrated Professionalism Curriculum Working Group, with the intent to augment interprofessional professionalism content in the UBC Dentistry curriculum and other health disciplines curricula.

Best and colleagues in Dentistry, Pharmaceutical Sciences, Medicine and Physical Therapy collaborated to implement additional IPE learning activities for their respective students, including inquiry-based cases and hands-on neuroscience laboratory activities. Moreover, Best played a key leadership role to successfully integrate dental and dental hygiene students in learning and clinically applying head and neck anatomy, local anaesthesia, patient assessment and periodontal examinations/management, thereby enhancing students’ mutual respect for, and understanding of, their professions.

Read more about IPE at UBC Dentistry in the Impressions magazine article “Interprofessional Education at UBC—Strengthening Collaboration Among Health and Human Services Professions” at bit.ly/2E68kHw
Five graduate students from UBC Dentistry were among the 17 winners of the CADR-NCOHR Student Research Awards for 2017–2018.

These awards are sponsored by the Canadian Association for Dental Research (CADR) and by the Network for Canadian Oral Health Research (NCOHR). Awards are presented to winners at the Annual General Meeting of the CADR, which will be held in conjunction with the American Association for Dental Research (AADR) annual meeting in Fort Lauderdale, Florida, in March 2018.

The following students from UBC Dentistry received travel awards to present their research at the March 2018 AADR/CADR meeting:

**Senior—Basic Science Category**

Jiarui Bi, PhD candidate (year 3)
Research title: Suppression of $\alpha_\beta_6$ Integrin Expression by Polymicrobial Oral Biofilms
Supervisor: Dr. Hannu Larjava

Adrian Danescu, PhD/Dip Ortho candidate (year 2)
Research title: Directed Mesenchymal Cell Movements Contribute to Midfacial Narrowing
Supervisor: Dr. Joy Richman

David (Xian Jun) Lu, MSc candidate (year 3)
Research title: Assessing Quality and Quantity of FFPE DNA Samples Using ddPCR
Supervisor: Dr. Catherine Poh

**Senior—Clinical Science Category**

Kelly Liu, PhD candidate (year 2)
Research title: Deregulated Immune-Related Gene Expression Indicates Nodal Metastasis in Oral Cancer
Supervisor: Dr. Catherine Poh

Iben Lucsanszky, MSc/Dip Pros candidate (year 2)
Research title: Fracture Toughness, Flexural Strength and Modulus of CAD/CAM Blocks
Supervisor: Dr. N. Dorin Ruse

Previous UBC Dentistry students who have won an award in CADR/NCOHR student research competitions in either junior, senior basic science or senior clinical categories since 2007 are:

- Muizz Wahid, DMD candidate (Nancy Ford supervisor), 2016
- Hai-Sle Moon, MSc candidate (Don Brunette supervisor), 2015
- Sara Hosseini-Farahabadi, PhD 2014 (Joy Richman supervisor), 2013
- Leila Mohazab, DMD 2014 (Hannu Larjava supervisor), 2011
- Darlene Tam, BDSc 2008, MSc 2014 (Catherine Poh supervisor), 2010
- Angela Wong, MSc/Dip Pros 2013 (Chris Wyatt supervisor), 2010
- Heather Szabo-Rogers, PhD 2007 (Joy Richman supervisor), 2008
- Maryam Sharifzadeh-Amin, MSc 2002, PhD 2007 (Rosamund Harrison supervisor), 2007
- Mario Brondani, PhD 2008, MPH 2012 (Michael MacEntee supervisor), 2007
Dr. Christopher Overall, professor and Canada Research Chair in Protease Proteomics and Systems Biology, was twice honoured by international research communities in 2017. Overall has UBC appointments in the Faculty of Dentistry Department of Oral Biological & Medical Sciences, and in the Department of Biochemistry and Molecular Biology and the Centre for Blood Research, both in the Faculty of Medicine.

**Proteomass Scientific Society Award**

Overall received a Proteomass Scientific Society Award during the 5th International Congress on Analytical Proteomics, which took place in Costa de Caparica, Portugal, from July 3 to 6, 2017. He was also a plenary speaker, presenting the talk titled “Quantitative Proteomics and Systems Biology Analysis of Proteolytic Networks In Vivo. Deciphering Human Disease Mechanisms.”

A statement from the society cites Overall’s “outstanding contribution in pioneering the understanding of the processes that explain the architecture of living organisms.”

An international leader in proteomics, Overall is recognized for his seminal contributions to the field of degradomics (the term he coined for the systems-level investigation of protein turnover by proteolysis) and in developing polymers for proteomics. His focus has been on understanding the role of key proteases, including matrix metalloproteinases, cathepsins and immune cell proteases in various diseases and pathologies, particularly in infection, inflammation and cancer.

The Proteomass Scientific Society, administrated by the Bioscope Group at the New University of Lisbon in Portugal, is a research collaboration whose article contributions are accrued to participating partner institutions (35) across Europe, North and South America, and Australia.

**HUPO Discovery in Proteomic Sciences Award**

The Human Proteome Organization (HUPO) presented the Discovery in Proteomic Sciences Award to Dr. Christopher Overall at the 16th HUPO World Congress, held in Dublin, Ireland, from September 17 to 21, 2017. HUPO is an international scientific organization that represents and promotes proteomics, the large-scale study of proteins, particularly their structures and functions.

Overall gave his award lecture, titled “Protein TAILS Tell Remarkable Tales,” at the general assembly of the meeting to 1,321 delegates from over 30 countries.

“Proteomics is the ‘human genome project of proteins,’” Overall says. “Proteins are what make all cells, tissues and organisms grow, have shape, form and function. The human proteome is the product of the human genome that gives us life and makes us human. By understanding and identifying all proteins expressed in humans, much will be learned of how we grow, develop, maintain life and respond to disease and illness throughout our lives.”

Overall, with his team of researchers at UBC, has pioneered a suite of proteomic techniques known as degradomics and terminomics. Using terminomics has opened new doors toward understanding many diseases and the body’s responses in fighting illness.

"Having learned about the ends of proteins, known as termini, we now know that the function of many key proteins in the immune system and in growth factors is to switch between ‘on’ and ‘off’ states,” Overall says. The switching features of a protein make for accurate biomarkers of disease, which aids in diagnosis and monitoring treatment.

Recently, the Overall Lab has applied terminomics to human dental pulp in the centre of teeth (the “nerve” of teeth) and to dentin-producing odontoblast cells on the periphery of pulp. This research is currently at press in the *Journal of Dental Research*.

Other forthcoming research includes new insights into the processes underlying chronic inflammatory diseases, including periodontitis, rheumatoid diseases and lupus, as well as rare immunodeficiency disorders.
### Faculty of Dentistry External Awards and Recognition in 2016 – 2017

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<tr>
<th>RECIPIENT</th>
<th>AWARD/RECOGNITION</th>
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<tr>
<td>Dr. Leandra Best, Clinical Professor; Senior Associate Dean</td>
<td>Award for Outstanding Leadership in Advancing Interprofessional Professional Development, UBC Health</td>
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<td>Dr. Greg Chang (DMD 1986), SuperChef Cookery for Kids; Dr. Leanne Donnelly, Assistant Professor, UBC Faculty of Dentistry; Dr. Gail Hammond, Instructor, Faculty of Land and Food Systems</td>
<td>Practice Education Team Award (2016), UBC Health</td>
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<tr>
<td>Dr. Georgios (George) Gannrels, Assistant Professor; Director, Graduate Periodontics Program</td>
<td>Award for Outstanding Teaching and Mentoring in Periodontics, American Academy of Periodontology</td>
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<tr>
<td>Dr. Rosamund Harrison OBC, Professor Emerita</td>
<td>Order of British Columbia, Lieutenant Governor of British Columbia</td>
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<tr>
<td>Zul Kari, Director, Dental Hygiene Degree Program; Jessica Morris, BDSc 2016</td>
<td>CDJH Research Award for best literature review, Canadian Dental Hygienists Association</td>
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<tr>
<td>Dr. Christopher Overall, Professor; Canada Research Chair in Protease Proteomics and Systems Biology</td>
<td>Discovery in Proteomic Sciences Award, Human Proteome Organization</td>
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<td>Proteomeast Scientific Society Award, Proteomeast Scientific Society</td>
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<tr>
<td>Dr. Charles Shuler, Professor; former Dean, Faculty of Dentistry</td>
<td>Award of recognition, Indo-Canadian Dental Association</td>
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<tr>
<td>Dr. Waka Ahmed, PhD/Dip Pros candidate</td>
<td>Research Fellowship Grant (2016), American College of Prosthodontists</td>
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<td>Dr. Jiana Bi, PhD candidate</td>
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<td>Leigha Rock, PhD candidate</td>
<td>Frederick Banting and Charles Best Canada Graduate Scholarships Doctoral Award, Canadian Institutes of Health Research</td>
</tr>
<tr>
<td>Dr. Peter Walker, MSc/Dip Pros 2017</td>
<td>First Place, Postdoctoral (Resident) Competition (2016) for “CAD-on’ Crowns—A Fracture Mechanics Characterization” (Walker P, N Dorin Ruse supervisor), American College of Prosthodontists</td>
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<tr>
<td>Dr. Rash Rasturwedi, MSc/Dip Perio candidate</td>
<td>Ranked in the top four percent of all graduate periodontics residents in North America, In-Service Examination, American Academy of Periodontology</td>
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<td>Dr. Charis Luk, MSc/Dip Pros candidate</td>
<td>Sunstar/AAP Postgraduate Research Fellowship, American Academy of Pediatric Dentistry</td>
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<td>Dr. Vincent Senini, MSc/Dip Perio candidate</td>
<td>First Place poster award, Clinical Category, for “Photodynamic Therapy in the Treatment of Periodontal and Peri-Implant Disease” (Senini V, Hatizmanolakis P, Putrins E), American Academy of Esthetic Dentistry</td>
</tr>
<tr>
<td>Dr. Zhejun Wang, MSc/Dip Endo candidate</td>
<td>Nobel Biocare Student Member Annual Meeting Scholarship, American Academy of Periodontology</td>
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<tr>
<td>Dr. Yuuya Kohzuka, international student, Showa University, Japan</td>
<td>First-ever recipient, STAR Network Academy Fellowship, International Association for Dental Research</td>
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<td>Iris Feng, then BDSc candidate, now MSc candidate</td>
<td>Graduate Student Research Award for “Difference in Dental Arch Size Between Japanese and Caucasian Patients With Obstructive Sleep Apnea: An International Comparison Study” (Kohzuka Y, Taga H, Almeida F, Tsuiki S), American Academy of Dental Sleep Medicine</td>
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<td>Emily Thong, DMD 2017</td>
<td>First-place, Student Clinician Research Program, for “Effectiveness of Cryotherapy for Oral Precancers—A Pilot Study,” Canadian Dental Association/Dentsply Sirona</td>
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<tr>
<td>Allison Clark, DMD 2019 candidate</td>
<td>Professor Jesse Gordon MacCarthy Memorial Scholarship (2016). UBC Health</td>
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<tr>
<td>Brett Livingstone, DMD 2019 candidate</td>
<td>Dr. Bud Sipko Family Fund Scholarship, Richmond Community Foundation</td>
</tr>
<tr>
<td>John Sharp, DMD 2019 candidate; UBC Thunderbirds Men’s Field Hockey Team</td>
<td>Academic All-Canadian (2016). UBC President and Vice-Chancellor Santa Ono</td>
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Keep up-to-date on all awards and achievements—including the annual Dean’s Night, graduation and teaching awards—at dentistry.ubc.ca/awards

Allison Clark and Brett Livingstone, both third-year DMD students, each received a Dr. Bud Sipko Family Fund Scholarship, administered by the Richmond Community Foundation. This recognizes their dedication to the community through involvement in a variety of work and volunteer experiences in Richmond, BC, as well as commitment to their studies.
Dr. Vincent Senini won first place in the clinical category for his poster presentation at the 2017 Interdisciplinary Summit of the American Academy of Esthetic Dentistry (AAED). The summit took place in San Diego, California, from August 3 to 5, 2017.

Senini’s research poster is titled “Photodynamic Therapy in the Treatment of Periodontal and Peri-Implant Disease.” Photodynamic therapy (PDT) is an adjunctive treatment in which bactericidal agents are produced in the treatment area through light application. The aims of the project were to review existing literature to determine the degree to which adjunctive PDT benefits periodontal debridement, and to provide clinical recommendations for using this therapy.

Co-investigators on the project include professor Dr. Edward Putnins and clinical associate professor Penny Hatzimanolakis, both in the Department of Oral Biological & Medical Sciences. Senini was also selected by the American Academy of Periodontology (AAP) for a 2017 Nobel Biocare Annual Meeting Scholarship. It was awarded for his involvement in periodontal research.
Assignments: Full-Time Faculty

Since last summer, there have been several changes in administrative roles at the Faculty of Dentistry. A new senior associate dean has been appointed, and two interim positions related to DMD Admissions and to Student Services were filled after Dr. David Sweet OC stepped down as director of Students. A new associate dean for Admissions and Student Affairs will be appointed once a search has been conducted. Also, Dr. Edward Putnins has announced he will be stepping down as director of Research, Graduate & Postgraduate Studies.

W. Leandra Best, DMD

W. Leandra Best was appointed senior associate dean for the Faculty of Dentistry, effective July 1, 2017.

Since joining the Faculty in 1999, Best has taught extensively in all four years of the DMD program, worked closely with the Faculty of Medicine as year one and two DMD coordinator, co-authored numerous problem-based learning (PBL) cases and facilitated many faculty development workshops. She has received numerous dental education research-related grants and has presented posters and workshops at national and international conferences.

Best has received a number of awards: Dentistry Teaching Award (2004), Killam University Excellence in Teaching Award (2006), 3M ESPE ACFD National Teaching Award (2007) and Award for Outstanding Leadership in Advancing Interprofessional Professional Development (2017).

She oversees the DMD curriculum, its extensive renewal project and students’ academic progress. She is faculty liaison for the American Dental Education Association Commission on Change and Innovation in Dental Education, a UBC representative with the Association of Canadian Faculties of Dentistry’s Academic Affairs Committee, and a chair or member on numerous UBC and Dentistry committees.

And, Best was elected an American College of Dentists Fellow (2013) and an International College of Dentists Fellow (2014).

As senior associate dean, Best will be working on strategic planning and special projects within the Faculty of Dentistry.

Ingrid Emanuels, BSc, DMD

Ingrid Emanuels has been serving as interim acting director of Student Services. Emanuels began her career at the Faculty of Dentistry in 2005. She is a clinical associate professor, the DENT 410 Restorative Dentistry I module coordinator, and coordinator of the Student Mentor Team.

Karen Gardner, DMD, MEd, FCP

Karen Gardner has been serving as interim acting chair of DMD Admissions. She started teaching in the Faculty of Dentistry in 1998. Gardner is a clinical professor and DENT 430 Integrated General Practice III module coordinator.

Edward Putnins, DMD, MRCDC(C), MSc, PhD, Dip Perio

Edward Putnins will be stepping down as director of Research, Graduate & Postgraduate Studies on April 1, 2018. He will take an administrative leave for 12 months and return as a faculty member.

David Sweet OC, DMD, PhD, DABFO

David Sweet OC stepped down as director of Students on June 30, 2017. He is currently on an administrative leave for 12 months and will return as a faculty member.

Promotions: Full-Time Faculty

Nancy L. Ford, BSc, PhD

Nancy L. Ford has been promoted to the rank of associate professor with tenure in the Department of Oral Biological & Medical Sciences.

Lari Hakkinen, DDS, PhD

Lari Hakkinen has been promoted to the rank of professor with tenure in the Department of Oral Biological & Medical Sciences.

David MacDonald, BDS, BSc(Hons), LLB(Hons), MSc, DDS(Edin), FDSRCPs(Glasg), DDRCR(UK), FRCDC

David MacDonald has been promoted to the rank of professor with tenure, retroactively effective July 1, 2013, in the Department of Oral Biological & Medical Sciences.
 Significant Grant From the Vancouver Foundation to UBC Dentistry Principal Investigator

The Elizabeth Fry Society of Greater Vancouver (EFry), UBC’s School of Population and Public Health (SPPH) and the Faculty of Dentistry share a deep commitment to reducing health inequities for women, girls and children who are at risk and involved in or affected by the justice system. For these individuals, there is a clear gradient in health, which closely relates health status to social and economic factors such as early childhood experiences, access to education and income. There is also compelling evidence that early mother-infant bonding supports positive future outcomes for the child.

Dr. Leann Donnelly, assistant professor in the Department of Oral Biological & Medical Sciences, together with co-investigators at EFry and the SPPH garnered close to $250 thousand in a Vancouver Foundation Field of Interest Test Grant. This grant will fund enhancement of the Growing Great Kids (GGK) Out of Homelessness program at EFry: past participants in GGK will be trained and employed as peer support staff, to work alongside trained GGK facilitators. This initiative will support women and children to restore their health and well-being while sharing their invaluable lived experience and insights toward developing innovative approaches that have the potential to shift the paradigm of mother-child separation within correctional settings and beyond.

Donnelly explains that this project will provide a better understanding of how the health and oral health of these women and children are impacted, so that future strategies can be meaningfully developed and incorporated into the initiative.

Two project objectives are of significant interest to Donnelly. One is to identify systemic barriers that continue to leave women at the margins of society. The other is to assess how the opportunity to interact with peers effects a variety of social and well-being outcomes, including social isolation, connection in community, sense of self-agency and ability to attach to children.

Donnelly is an expert in the development and evaluation of community-engaged programs that are designed to further understanding and improvement of the oral health—and overall systemic health—of special-care populations.

Best Published Dental Hygiene Literature Review Goes to Student and Prof.

Jessica Morris, BDSc 2016, and Prof. Zul Kanji, director of the UBC Dentistry Dental Hygiene Degree Program, won the 2017 Canadian Journal of Dental Hygiene (CJDH) Research Award for best literature review published in the Canadian Journal of Dental Hygiene. The article is titled “Exploring How the Quality of the Client-Dental Hygienist Relationship Affects Client Compliance.”†

Morris was a degree-completion student at the time she and Kanji co-authored the paper. She contributed to the paper as part of her degree requirement within Kanji’s fourth-year academic writing course, DHYG 462 Literature Review II.

The award was given on October 21, 2017, at the Canadian Dental Hygienists Association (CDHA) Global Dental Hygiene Conference in Ottawa, Ontario.


CIHR Funds Perio Researchers to Advance Scarless Wound Healing

The Canadian Institutes of Health Research (CIHR) has awarded Drs. Lari Häkkinen and Hannu Larjava, both professors in the Department of Oral Biology & Medical Sciences, funding of just over $852,000 over five years. Häkkinen and Larjava will investigate oral mucosa as a source of cells with regenerative potential in skin.

The investigators explain that scar formation following injury to skin is a common, unwanted outcome of the wound healing process. Clinically, scars can range from fine lines to expansive, disfiguring hypertrophic or keloid scars. Regardless of the type of scar, they can have considerable psychosocial impact and/or lead to physical complications for the individual involved. At least 45 million patients in the United States alone undergo procedures that could benefit from therapies that reduce scar formation.

Häkkinen notes that steady progress has been made during the past decades to identify factors that may reduce scar formation. “In spite of these advances,” he says, “no effective therapy to predictably prevent scar formation exists today.” He also points out that “studies from several laboratories have indicated significantly faster wound healing in oral mucosa than in skin.”

“Our findings at UBC,” explains Larjava, “have provided the first systematic evidence that oral mucosal wound healing also results in significantly reduced scar formation as compared to skin wounds. Importantly, connective tissue cells, called fibroblasts, in skin and in oral mucosa have different properties that may contribute to the different wound-healing outcomes.”

In the proposed preclinical study, Häkkinen and Larjava will develop novel bioengineered skin substitutes carrying oral mucosal fibroblasts to test whether the fibroblasts can be used to promote wound healing and prevent scar formation in skin. “This study will pave the way for the development of novel clinical applications using oral mucosal fibroblasts to promote fast and scarless wound healing in skin,” Häkkinen says.

Oral mucosal gingival fibroblasts may have potential to promote skin wound healing.
On January 24, 2018, a total of $372 million was awarded by the Canadian Institutes of Health Research (CIHR) nationally to support Canadian researchers to study the full spectrum of health issues affecting the lives of Canadians. Fifty-nine projects at UBC and its affiliated health authority research centres received $42.4 million in research grant funding, of which close to $2.7 million will go to several researchers at the Faculty of Dentistry. Another Faculty researcher will benefit from a $495,000 grant to a multi-centre project led by McGill University.

Dr. Dieter Brömme, professor and Canada Research Chair in Proteases and Diseases, and his team will receive $956,250 over five years to develop new drug strategies for preventing osteoporotic fractures. Current osteoporosis treatments have various shortcomings such as poor bone quality and several skeletal and non-skeletal side effects. His team will build on previous research to examine the shortcomings of promising inhibitors targeted at cathepsin K—a bone-degrading yet multifunctional enzyme that when totally blocked leads to undesirable side effects. They aim to develop potent, efficacious and side-effect-free osteoporosis drugs.

Dr. Hugh Kim, assistant professor and principal investigator at the UBC Centre for Blood Research, received $856,800 over five years to advance understanding of the role of platelets in inflammation, with a view to developing improved and less-invasive treatments for periodontal (gum) disease. His study will investigate platelet-specific molecules (cytokines) and determine whether shutting down the function of these molecules might help to prevent tissue damage caused by gum disease. This is a unique approach to studying this very common condition and will potentially benefit dental patients in Canada and worldwide.

Drs. Hannu Larjava and Lari Häkkinen, both professors and periodontal disease researchers, received $879,750 over five years to study the function of epithelial alpha-v-beta-6 integrin in periodontal disease. Humans with this protein mutated and mice that are deficient in this molecule both develop periodontal disease. This integrin functions in the epithelial cells to reduce inflammation. However, there is a loss of this integrin in periodontal disease tissue, which is believed to promote inflammation and bone loss; thus, periodontal disease presents as acquired integrin deficiency. The investigators propose to determine the mechanisms through which the expression of this integrin is down-regulated in periodontal disease tissue. Furthermore, they hope to develop new therapies to restore this integrin in diseased tissue, thus reducing inflammation and bone loss. Preliminary data obtained in the lab of these investigators have already shown that blocking one pathway that down-regulates alpha-v-beta-6 integrin expression leads to significant reduction of periodontal inflammation and bone loss in an experimental model.

Dr. Mario Brondani, associate professor and director of Dental Public Health, is part of a multi-centre project involving five Canadian universities to examine access to oral health care for those who are marginalized or have difficulties in accessing dental offices freely, specifically those who use wheelchairs. The project, led by Dr. Christophe Bedos from McGill University, received $495,000 over five years. Brondani will be part of a national research strategy focused on a few dental clinics previously identified across Canada as having a champion dental team with special interests and skills to meet the specific needs of people in wheelchairs. For the 4.4 million Canadians with disabilities, dental health is presently an almost unsolvable problem: although vulnerable to dental disease, these individuals often encounter insurmountable obstacles to receiving dental care. The project will involve participation with dentists, dental hygienists, dental assistants and patients.
Additionally, for a study†† published in May 2017 in *PLOS ONE*, Brondani and Donnelly conducted interviews with 25 people with mental illness and addiction issues who reported feeling stigmatized when trying to access dental services.

Soon after the fall publication, *UBC News* asked the investigators about their studies. Read below for their responses.

**What barriers do people face in accessing dental care in BC?**

**MB:** The main barrier is affordability as almost one third of Canadians do not have dental insurance.

**LD:** We found that those who are marginalized due to their mental health status and substance use face additional barriers related to how they are treated at the dentist office. Feeling stigmatized in this setting, as well as in other health care settings, was a strong deterrent to seeking care, even when finances were not an issue.

**Why are people ending up in ER for tooth problems?**

**LD:** If people don’t get access to preventive or timely dental care for problems like gum disease and tooth decay, it often results in minor and treatable dental issues becoming a much larger problem. These problems are often accompanied by excruciating pain and lead people to seek care in an ER.

**MB:** Once people go into the ER, they are often treated for pain and infection; that is, they are prescribed painkillers and antibiotics. And they are told to go see a dentist, as hospitals do not have the expertise or proper equipment. Although these visits are infrequent and covered by the medical care system, they don’t address the issue that caused the problem in the first place: common toothaches and abscesses caused by dental cavities. The ER visits do little to stop the problem; they just put a Band-Aid on it.

**What is the cost of emergency dental care and how could we better address this problem?**

**MB:** ERs are an important part of the health care system, but they should not be a place for dental care. In our study, we found that people were visiting the ER with dental problems throughout the day, not just at night or on weekends when dental offices may be closed. This indicates that people may be relying on ERs for the consequences of preventable diseases, and these visits cost unnecessary health care dollars. We found that ER visits for preventable dental conditions cost BC about $1.5 to $3 million annually. The operational costs of maintaining an ER do not justify their use for non-traumatic dental problems. Going to a dentist should not hinge upon your ability to afford the care. The mouth is part of the body, and oral health should be part of our overall health care.

**LD:** Approaching the problem through a health equity lens might be a place to start. Patients need to feel welcome; they should not feel shunned or stigmatized for their current situation, because this might compel them to avoid care and ultimately end up with an emergency.

We have been running a project between UBC Dental Hygiene and a community-based mental health organization in Burnaby for seven years. A mobile dentistry clinic is set up weekly, all year long, so that residents can get free preventive care from fourth-year hygiene students and referrals for needed dental treatment. Due to their mental health conditions, this population tends to be suspicious, anxious and apathetic toward dental professionals. We’ve found that with this program patients are more willing to access dental care, and some patients are now seeking care from the students and from dentists in private practice. Much of this has to do with being ‘comfortable’ with dental professionals.


facilities on the Lower Mainland. Consider how this aging population and its oral care needs have increased in just one decade, from 2002 to 2012:

- the number of long-term-care residents accessing dental care almost tripled, from 894 to 2,668
- dental exams increased by half, from 996 to 1,504
- five times as many treatments were provided, from 201 to 1,073

In response to these changes, UBC Dentistry recently restructured and enhanced its dental geriatric content. Thanks to a new dedicated curriculum and recent research at UBC on geriatric care (see sidebar on page 19), the Faculty of Dentistry stands at the educational forefront of Canada’s response to the dental needs of a frail, elderly population.

In September 2017, the Faculty introduced the first of two new curriculum modules that focus solely on an elderly patient group; this is part of a two-year rollout. The new Dentistry 430 Dental Geriatrics I for third-year undergraduates began in September 2017. A new fourth-year companion course, Dentistry 440 Dental Geriatrics II, will follow in the fall of 2018.

Also for the first time, UBC Dentistry has integrated geriatrics curriculum into its graduate students’ periodontics and prosthetics clinical courses; this, too, started in September 2017. For graduate periodontics students, geriatric clinical and didactic courses began in 2011. But now, knowledge gained from research and from GDP clinical work has been integrated more deeply into the curriculum of both specialty areas, says Wyatt.

Current and future dentistry and dental hygiene students will now have thorough, concentrated training in care for vulnerable seniors. Shunhau To, program manager of UBC’s geriatric clinic, says: “We have graduates who are interested in geriatrics and want to serve that population. That didn’t happen before.”

Mention “geriatric dental care” and negative stereotypes can abound: feeble seniors in wheelchairs, with full dentures, wasting away in an institution with no dental care. But in today’s world where “80 is the new 60,” baby boomers are living longer and better, thanks to advanced care and improved oral health. They are aging with at least 70 percent of their natural teeth—and they need knowledgeable dental professionals who will treat their probable complex dental needs over the long haul.

For the first time, our country has more seniors than people under the age of 15, according to a 2016 Statistics Canada census. As part of this tidal “grey wave,” the nation’s fastest-growing group is people 100 years or older. The mean age of seniors in a Providence Health Care facility in BC is 83 to 86, says Chris Wyatt, UBC Dentistry professor and prosthodontics program director.

UBC’s Geriatric Dentistry Program (GDP) provides dental services for more than 2,700 geriatric residents in 27 long-term-care facilities on the Lower Mainland. Consider how this aging population and its oral care needs have increased in just one decade, from 2002 to 2012:

- the number of long-term-care residents accessing dental care almost tripled, from 894 to 2,668
- dental exams increased by half, from 996 to 1,504
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For decades, UBC Dentistry covered geriatric dental care only in bits and pieces as a small component of different courses. No dedicated training or clinical and didactic content addressed this patient group until 2010. Now the new Dentistry 430 Geriatrics I module teaches third-year students a team-based, compassionate approach to patient-centred elder care, says To.

Both UBC dentistry and dental hygiene students are learning to spend time with elderly patients, to build caring relationships with them, and to view them as more than just an oral health challenge. Students are learning to feel at ease with frail seniors’ complex dental and medical conditions, including missing teeth, limited mobility, anxiety, dementia and Parkinson’s disease.

In 2015, UBC Dentistry served 40 patients over age 100; their five most frequent medical conditions were hypertension, dementia, osteoarthritis, osteoporosis and fractures. Each of these patients has at least two medical conditions and is taking at least three or four prescribed medications.

“The more we expose students to clinical experiences, the greater their awareness and comfort level in providing care for seniors,” says Leandra Best, clinical professor and senior associate dean.

Students learn to understand and deliver collaborative interprofessional oral care to geriatric patients in both long-term-care settings and private practice. In third year, they observe how a dentist works with family members to decide on treatment. By fourth year, they understand how treatment can become a team effort involving a dentist, dental hygienist, nutritionist and nurse or doctor working together with the family.

Fourth-year students perform hands-on geriatric patient care in community settings, supervised by UBC faculty and other dentists. “We’re making a difference by training students and exposing them to years of commitment to community service and outreach,” says To.

As a key part of community outreach, both dentistry and dental hygiene students are doing rotations at free clinics in two Vancouver seniors’ facilities: Villa Cathay Care Home and Simon K.Y. Lee Seniors Care Home. The students also rotate once a week to observe and assist with patient care at UBC’s Nobel Biocare Oral Health Centre.

The dental team overseeing these new undergraduates in clinical rotations has reported, according to To: “Students are much more respectful [to patients] than they’ve ever been. They’re aware of the issues and can see and appreciate the differences and the challenges [in geriatric care].”

Assistant professor Leeann Donnelly says: “They [students] might go in thinking that someone with a mental illness is crazy and come out wanting to advocate for that individual.”
Fourth-year dental hygiene students do clinical work and preventive oral health care education for the elderly in the long-term-care home Broadway Lodge. Dental hygienists at UBC Dentistry have long had a strong focus on geriatric patients, having had geriatric course and clinical care requirements since 2001, says Donnelly.

The aim of the new Geriatrics I is to give dentistry students a clinical, social and psychological view on aging. They learn in small groups, blending both didactic and in-class activities with workshops and guest lectures. “We’re quite excited about this geriatric dentistry content being restructured and enhanced and giving it an actual focused presence in the curriculum,” says Best. “We have passionate faculty members who are promoting it.”

The modules are designed around five core competency areas: patient-centred care (holistic understanding of the patient, and appropriate assessment, diagnostic and treatment-planning skills); professionalism (best practices, high ethical standards and a personal commitment to health and well-being); communication and collaboration (e.g., establishing a therapeutic relationship with patients and their families); practice and information management (e.g., evidence-based decision-making); and health promotion (addressing social factors that affect the patient’s health).

“This focused curriculum is important for us,” says Wyatt. “No other dental school in Canada has such a broadly integrated, geriatric-focused curriculum.”

He adds: “We think our students should be prepared to treat the geriatric population. It’s where we need to go. It’s something we want to build upon.”

Mario Brondani, UBC Dentistry associate professor who coordinates the geriatrics modules, says that for the first time, students are discussing issues such as palliative care, informed consent and interprofessional care in a geriatrics-specific course. Previously, second-year students received some of the content now in Dentistry 430, but Brondani augmented the material and moved it to third year. By then, he says, students are more mature and have more medical knowledge and clinical experience to apply to what they’re learning. He adds, “By then, it’s not just theoretical. Keen students also get involved in research.”

A required text for Geriatrics I is the 2011 book *Oral Healthcare for the Frail Elder: A Clinical Perspective*, which is edited by Chris Wyatt, Frauke Müller and retired UBC Dentistry professor Michael MacEntee, and includes content written by Mario Brondani and Leeann Donnelly. Reading assigned chapters, students learn about issues from oral pain to dry mouth and medications, and how body image impacts social interactions.

“We are still developing content for Dental Geriatrics II,” says Brondani. Fourth-year students will visit long-term-care facilities and continue with the integrated, multidisciplinary approach of dental geriatrics, as well as discuss more advanced knowledge and clinical practice.

Wyatt says: “We’ve had a really good response from facilities and students. Students are now better prepared to deliver appropriate care to an aging population.”
Geriatric Dentistry Research

Cutting-edge research bolsters UBC’s commitment to provide the best dental care possible for our aging population. Why do specific dental challenges and outcomes occur in a frail, aging population? How do medical, social, financial and family factors influence dental care decisions for the elderly? What are successful dental treatments for geriatric patients?

Using scientific evidence from recent studies, UBC’s Geriatric Dentistry Program (GDP) is answering some of these questions while further exploring others. Research results will not only enhance UBC’s geriatric dentistry curriculum, but will deepen students’ knowledge applied in clinical rotations.

In the late 1990s, UBC Dentistry geriatric research focused on oral disease and prevention, such as caries in older patients, examining the links between oral health and a patient’s overall health. Today, the GDP is researching dental challenges and outcomes, trying to document and understand variable conditions that will determine which treatments will best serve a frail geriatric patient, says UBC Dentistry professor Chris Wyatt.

Wyatt directs the GDP at 27 long-term-care facilities. Some of their elderly residents were the subjects of a 2017 pilot study that examined the survival rate of dental restorations in frail older adults. Wyatt and Chayanee Chatvanichkul, a visiting scientist from Thailand, wanted to know: How long do dental restorations last in frail older adults? If they last longer than average in a very challenging geriatric dental situation, why is that? What successes can GDP document?

In their small patient group, Wyatt and Chatvanichkul found that 64 percent of dental restorations had survived over a six-year period. They now plan to add their 2003-to-2016 data to draw conclusions from broader statistical analysis. The resulting knowledge will help justify specific treatments of patients. Wyatt says: “That’s where the future is on the research end: [to determine] what treatment is best based on the longevity of a restoration.”

In another 2017 study, Wyatt and Diego Ardenghi, an MSc graduate student in prosthodontics, conducted semi-structured interviews with 12 family members of frail, elderly patients. They wanted to explore the impact of UBC’s Geriatric Dentistry Program on patients’ relatives. They discovered that although patients’ relatives were worried about their loved one’s oral health, families reported that the GDP reduced their stress by providing easily accessible dental care.

UBC Dentistry associate professor Mario Brondani is a core member of a new team whose research results will enhance how geriatric research is conducted at UBC and both provincially and nationally. Representing Dentistry, he’ll join UBC researchers from Nursing, Family Practice, Sociology, Social Work, Kinesiology, Occupational Science, Health and Exercise Sciences, and other specialists to examine the topic: “Re-Imagine Aging: Creating Interdisciplinary Connections for Research Collaboration and Training.”

Their goal is to create a virtual, supportive, interdisciplinary environment that elevates aging research beyond what is possible within only a single discipline. This will likely involve online shared resources and a planning meeting over the next year to include other UBC researchers, says Brondani. They will apply their research results to help develop a healthy aging strategy for BC and to give input into Canada’s national seniors strategy.

As part of his PhD completed in 2007, Brondani wanted to understand the impact of oral disorders on the life of elders. He explored what values, beliefs and behaviours older adults held in relation to their oral health. He held focus group discussions among 42 residents, ages 64 to 93, at retirement homes and seniors’ centres. Based on data analysis, he concluded that participants had their own views on what a healthy mouth entails and adjusted their expectations and sought social support to accept some oral impairment and disability. For example, patients found that missing teeth did not always disrupt daily functioning; therefore, a full set of new dentures might not always be an ultimate goal.

A 2002-2007 study by the GDP followed 139 older patients in long-term-care facilities (i.e., 17 percent of residents) for five years. Treatment was recommended for 97 percent of them, but only 60 percent consented to receive care. Wyatt wonders to know, simply: why? What factors influence whether families will consent to complex dental treatment for their elderly relative? Economic pressures could be at play, but sometimes the family simply concludes that getting a bridge, for example, is not appropriate for someone who’s 90. “There’s something other than money at stake there,” he says.

In the same five-year study, the GDP found that 40 percent of caries-free patients developed caries over the five years. During the same period, 43 percent of patients developed periodontal disease. Future research studies will explore this, Wyatt says. “This [research] is something that we want to build upon.”

UBC Dentistry’s ongoing research will continue to enrich new geriatrics curricula and students’ clinical rotations. Alumni will be well equipped to provide the best oral care for all generations.
At the Intersection of Medicine and Dentistry—UBC ORAL MEDICINE AND ORAL PATHOLOGY (OMOP) SPECIALTY

OMOP SPECIALISTS WORK IN HOSPITAL LABORATORIES AND RESEARCH INSTITUTIONS:

- VGH Department of Pathology and Laboratory Medicine
  - Interpreting 5,500+ specimens per year submitted by dentists and physicians from across the province to the BC Oral Biopsy Service
  - Consulting with BC’s anatomic pathologists on jaw specimens

- BC Cancer Research Centre (BCCRC) and Simon Fraser University (SFU)
  - Leading clinical research in early detection and treatment
  - Conducting basic science research in genetics and population health

UBC’s OMOP specialists publish world-renowned research results.

OMOP HOSPITAL-BASED CLINICS IN BC SAW, IN 2016:

- 434 new cases of oropharyngeal cancer
- 300 new cases of oral dysplasia (precancerous changes)
- 250 new cases of oral squamous cell carcinoma

OMOP specialists also develop new technologies for early detection of oral cancer (e.g., the VELscope®) and assist in surgical treatment.

OMOP SPECIALISTS WORK IN THE COMMUNITY:

- Screening for oral cancer at outreach clinics

OMOP specialists are champions of the mantra: Early detection saves lives. (An 80 percent survival rate at five years compared to 20 percent for late-stage diagnosis.)

OMOP TRAINING:

- Four-year UBC Dentistry program delivered through hospital-based services at Vancouver General Hospital, BC Cancer Agency (BCCA), Vancouver Cancer Centre Department of Oral Oncology, and St. Paul’s Hospital.

The OMOP program at UBC is one of three in Canada.
What Other Medical Specialists Say About OMOP Specialists and the UBC Program

“OMOP specialists possess a unique body of knowledge. Patients are referred by dentists/dental specialists and physicians/physician specialists. OMOP AREAS OF EDUCATION AND APPLICATION:

- Anatomic Pathology
- bone and soft tissue pathology
- dermatopathology
- head and neck pathology
- lymphoma pathology
- Dermatology
- Hospital Dentistry
- Internal Medicine
- Leukemia/Bone Marrow Transplantation
- Rheumatology

OMOP specialists treat:

- Oral mucosal diseases (e.g., mucosal lesions)
- Salivary gland disorders (e.g., dry mouth)
- Temporomandibular disorders (e.g., jaw joint pain)
- Orofacial pain (e.g., trigeminal neuralgia; burning mouth syndrome)
- Neurosensory disorders (e.g., altered taste sensations)

Patients may also be medically complex and need dental management due to complications related to conditions like diabetes mellitus, HIV or rheumatoid arthritis.

OMOP areas of education and application:

- Hospital Dentistry
- Internal Medicine
- Leukemia/Bone Marrow Transplantation
- Rheumatology

An Oral Medicine Specialist in Private Practice Shares Some Case Results

A patient, who had been on acyclovir for years, finally learned that she actually had angina bullosa hemorrhagica, which did not require medication.

A 24-year-old man with a four-year history of recurrent major and herpetiform aphthous ulcers, who suffered for three to four weeks with each recurrence, finally found a quick and effective treatment.

A 60-year-old female from the BC Interior, with an 18-month history of oral pain, had seen rheumatology, ENT (ear, nose and throat) and family medicine specialists on numerous occasions with no improvement. She travelled four hours to see an oral medicine specialist and within a week her pain was gone.

A young woman in her 20s, who had been in a motor vehicle accident and suffered for two years unable to open her mouth to eat, felt hopeless. She is finally able to open her mouth fully, eat and smile.

Conditions as simple as oral candidiasis and as complex as trigeminal neuralgia are being missed by medical doctors. Oral medicine identifies and treats them.

– Dr. Maryam Taleghani, Certified Specialist in Oral Medicine, in private practice, Vancouver, BC

An Oral Medicine Specialist in Private Practice Shares Some Case Results

At the BC Cancer Agency (BCCA) we provide oral cancer screening, cancer therapy, surveillance and management of pre- and post-radiotherapy complications. With improvements in cancer care and outcomes, survivors are living longer, thus requiring longer-term surveillance and management. Furthermore, there is an increasing incidence of oral and oropharyngeal cancers, which means more clinicians are required. The OMOP training program [at UBC] has not only provided clinical services for our patients, but trainees have also been involved in multidisciplinary research projects. Many have participated in an ongoing salivary hyposalivation project that has had local and international impact on improved quality of life for patients receiving head and neck radiotherapy.”

– Dr. Jonn S. Wu, Radiation Oncologist, Chief Medical Informatics Officer, and Provincial Head and Neck Tumour Group Chair at the BC Cancer Agency

Content courtesy of Dr. Eli Whitney, program director, Oral Medicine-Oral Pathology Residency.
Donors to UBC Dentistry—Sharing Their Values, Making a Difference

Dr. Ken and Mrs. Susan Chow Contribute to the Needs of the Geriatric Community

Seniors are the fastest-growing age group in British Columbia. While life expectancies are increasing, functional health still decreases. Deteriorating oral health poses a serious risk to the overall health and well-being of vulnerable seniors. A new initiative at the Villa Cathay Care Home features an on-site dental clinic that allows frail residents to access care in an environment that feels safe and familiar. The Chinese Canadian Dental Society of British Columbia, a long-standing partner of UBC Dentistry, named the new project as the beneficiary of their 2017 annual gala, with proceeds supporting the Geriatric Dentistry Program and the new dental operatory at Villa Cathay. Contributing to the community has been a central mandate of the society’s efforts, and providing care to geriatric patients is a responsibility that stirs the passion of many of its members.

Dr. Ken Chow was instrumental in garnering additional support for the project. Other passionate benefactors included Mr. Ken and Mrs. Julie Park, Mr. William P. J. McCarthy, Peterson Group Foundation, Adamson Family Private Giving Foundation, Timothy C. Kerr Family Foundation, the Koo Family, and business sponsors David Mitchell Company, A-dec and Sinclair Dental. Chow felt an immediate affinity.

He says, “I chose to be part of the initiative as both a personal and professional commitment. The financial support from my wife Susan and me is dedicated to our respective grandmothers, who had a tremendous impact on our lives.”

The modern on-site dental clinic provides crucial care, but also engages the dental profession at large. Chow explains: “As an active member in the dental community, I want to bring awareness to our responsibility in providing the very best education experience and teaching environment to dental students while nurturing their sense of social responsibility.”

Curricular rotations through the clinic give UBC Dentistry students an opportunity to provide care for patients who are too frail to be treated at either the Nobel Biocare Oral Health Centre or the graduate specialty clinic. Exposure to treating geriatric patients is an important learning experience, with a rippling effect into the future. Chow says, “Oral health care for seniors is critical as they become more physically and mentally dependent. Seniors deserve the same level of care, with dignity. That is what we would hope for as we get older. The UBC Geriatric Dental Program provides treatment to this vulnerable population and a specialized education rotation to dental students—our future oral health care professionals. Ultimately, having our dentists feel comfortable in treating our seniors with the utmost compassion will have a lasting effect on our society.”

Al Heaps & Associates Supports Students and Alumni Connections

A sense of community is what draws Al Heaps & Associates to UBC Dentistry. Al Heaps & Associates has become a trusted name in Canada for the transition and valuation of professional dental practices. For company president Henry Doyle, supporting all aspects of the dental profession is a crucial part of giving back to the community.

“At Al Heaps & Associates, our business is centred on dentists from graduation to retirement,” Doyle explains. Providing financial assistance and recognition to dental students helps set the foundation for a productive and satisfying career in dentistry. Ongoing support of student learning helps to advance the practice of dentistry in British Columbia to the cutting edge of the discipline.

The Al Heaps & Associates Research Award in Dentistry was established to forward these notions. The company also participates in the UBC Dentistry Alumni Partnership Program, which gives alumni more opportunities to connect back with their alma mater. And in April 2017, Al Heaps & Associates furthered their commitment to education by naming an open operatory in the Nobel Biocare Oral Health Centre.

Doyle says, “It is our pleasure to be involved in giving back to the community and enhancing the clinical experience of students.”
The goal of the fund is to develop a long-term strategy to promote oral health education while delivering dental professional care to children in BC. The families of children treated with assistance from the Monarch Instar Fund are unable to bear the cost of dental anomalies that are not covered by existing funding programs. The fund also provides financial assistance for educational and research opportunities in the pediatric dentistry field to undergraduate students and postgraduate residents at UBC Dentistry.

Dr. Marc Casafrancisco elaborates: “The Monarch Pediatric Dental Centre team is committed to student learning and service to the community. We believe in the winning combination of providing no-cost treatment for children in need and mentorship to dental students. Our partnership with UBC Dentistry throughout the years has become a source of great inspiration and motivation to support the next generation of dentists. Establishing the Monarch Instar Fund is a sustainable initiative that promotes student clinical education and dental care to children with challenging pediatric cases. Our goal is to enrich the UBC Dentistry student and postgraduate educational experience and the lives of children and families in need.”

Monarch Instar Fund Sustains Education and Care for Children

Monarch Pediatric Dental Centre has generously supported UBC Dentistry since 2005. The team’s passion for mentorship, student learning and providing care to pediatric patients is evident through their legacy of philanthropy. Recently, Drs. John Hung, Elsa Hui-Derksen, Mark Casafrancisco (DMD 2005), Peter Chan, Jennifer Yee, Jonathan Hung (DMD 2012) and Frederick Cheung of the Monarch team partnered with UBC Dentistry to establish the Monarch Instar Fund.

Synergy Business Lawyers LLP Recognizes Leadership With Dental Student Award

Synergy Business Lawyers LLP established a new award that was presented this past Dean’s Night to Kerri-Lyn Chong, DMD 2018 candidate. The Synergy Business Lawyers LLP Student Leadership Award recognizes a fourth-year dental student who possesses outstanding leadership qualities and a generous spirit of mentorship, collaboration and friendship while maintaining high academic performance. The philosophy of these values is one that Synergy Business Lawyers LLP sees as a driving force.

Founding partner Brian Rudy believes that “recognizing outstanding contribution to one’s peers and profession is important. Selfless contributions by student leaders cultivate the important attributes of our future business and professional leaders. Student leaders sacrifice their free time without reward, and while we know that dividends will be paid in the future, our Synergy Business Lawyers LLP Student Leadership Award provides important recognition to student leaders, and highlights the importance of leader-type behaviour in the profession and in our community.”

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Rings of Success: Imaging Scientists at the Core of the CHTP

UBC’s Centre for High-Throughput Phenogenomics (CHTP), under the aegis of UBC Dentistry, is home to not only a comprehensive suite of imaging technologies, but also a team of expert imaging scientists. Here is a look at how some recent studies benefited from their expertise.

**MICRO-CT (MICRO-COMPUTED TOMOGRAPHY) IN VIVO SCANNER**

TriFoil eXplore CT 120

**Researchers**
Dr. James Johnson Lab; Dr. Søs Skovsø, postdoctoral fellow; UBC Department of Cellular and Physiological Sciences, Faculty of Medicine

**Summary**
The study found that reducing insulin production and secretion in mice made obese by a high-fat diet caused significant weight loss within five weeks. The data obtained through in vivo micro-CT scanning of soft tissues provided the first genetic evidence that obesity can be reversed by acutely and modestly reducing insulin production.

**Value add of CHTP**
Dr. Skovsø worked closely with a CHTP imaging scientist on both the micro-CT imaging and data analysis, and the project was able to use a pre-approved protocol for micro-CT scanning of soft tissues like fat and muscle. For Dr. Skovsø and other researchers in Dr. Johnson’s lab, using micro-CT at CHTP provided greater accuracy and specificity compared to other methods such as micro-DEXA. It allowed the researchers to look at changes in fat distribution in the same mice over time. This enabled them to accurately visualize and measure changes, in both the harmful and less harmful types of abdominal fat, that resulted from lowering insulin levels. It also showed that lowering insulin production to normal levels reverses weight gain in adult mice fed a high-fat diet.
Publication

Publication

Publication

Micro-CT (MICRO-COMPUTED TOMOGRAPHY) SPECIMEN SCANNER
SCANCO Medical µCT100

Researcher
Dr. Nesrine Mostafa, then MSc candidate, now assistant professor in prosthodontics, UBC Department of Oral Health Sciences, Faculty of Dentistry

Summary
Dr. Mostafa’s study used micro-CT scanning to systematically assess and compare the marginal fit of crowns using digital technology vs. crowns formed using a conventional lab approach. The study found digitally fabricated crowns showed better fit as compared to conventionally fabricated crowns. (Mostafa continues to access the CHTP for her current research.)

Value add of CHTP
This is one of the first studies to assess the marginal fit of ceramic crowns using a micro-CT scanner and a systematic 2D and 3D analysis. Micro-CT allows a thorough evaluation of crown margins at multiple locations without destroying the samples. It produces 2D and 3D data sets that can be used for quantitative analysis and for visualization by specifying cement thickness. It also allows assessment of the same sample before and after using differing testing variables.

OPT (OPTICAL PROJECTION TOMOGRAPHY) SCANNER
Bioptonics 3001 M

Researchers
Dr. Don Sin Lab, UBC Centre for Heart Lung Innovation; Dr. Jen-erh Jaw, postdoctoral fellow, UBC Experimental Medicine Program, Faculty of Medicine

Summary
A mouse model of plaque rupture was established in which lung exposure to lipopolysaccharide (LPS) leads to lung inflammation and causes acute plaque destabilization. The study also showed that, in this model, circulating neutrophils play an important role in both lung inflammation and plaque rupture. This model could be useful for screening therapeutic targets to prevent acute vascular events related to lung inflammation.

Value Add of CHTP
A CHTP imaging scientist advised Dr. Jaw that OPT would be the best equipment to use for measuring the size and vulnerability of plaques at different stages after exposure to LPS. Technical support for carrying out the experiment was also provided. OPT is an ex vivo micro-imaging tool that doesn’t require tissue sectioning and thus preserves the architecture of the blood vessel. By combining the OPT technique with histological findings, the researchers provided convincing evidence that acute lung inflammation induces plaque rupture.

MALDI (MATRIX-ASSISTED LASER DESORPTION/IonIZATION) MASS SPECTROMETER (MS)
Thermo Scientific LTQ Orbitrap XL

Researchers
Helen Burt Lab; Dr. David Plackett, research associate; UBC Faculty of Pharmaceutical Sciences

Summary
A promising new treatment for superficial bladder cancer has been developed by UBC Pharmaceutical Sciences, the Centre for Drug Research and Development (CDRD) and CDRD Ventures Inc. (CVI). The treatment uses a chemically modified hyperbranched polyglycerol (HPG) as a drug carrier to achieve higher concentrations of the anti-cancer drug docetaxel (DTX) in the bladder wall than when this drug is administered alone in solution. MALDI-MS imaging showed the distribution and concentrations of DTX in surface layers of pig bladder tissue were higher when using an HPG formulation. The findings were comparable with results obtained previously using an established radiolabelled drug method, providing a useful and complementary alternative to the use of radiolabelled or other quantitative methods for measuring drug distribution and concentrations.
Value add of CHTP

MALDI-MS imaging offered a convenient way to visually map and compare the distribution of the new and commercial drug formulations that couldn’t be provided by other methods. The imaging scientist’s expertise in MALDI-MS also provided a detailed quantitative analysis of the concentrations of the various drug formulations at different tissue depths and locations to complement the qualitative analysis from visual mapping. MALDI-MS imaging is label-free, so it could be used to study drug distribution in the human body in clinical trials.

Publication

FIB-SEM (Focused Ion Beam Scanning Electron Microscope)
FEI Helios NanoLab 650 DualBeam

Researchers
Dr. Brian Leander Lab; Dr. Gregory Gavelis, postdoctoral fellow; UBC Departments of Botany and Zoology, Faculty of Science

Summary
Single-celled marine plankton, called warnowiid dinoglagellates, evolved a miniature version of a multicellular eye, possibly to help see prey better. The study showed this planktonic predator has an eye-like ocelloid structure, which contains a collection of subcellular organelles that look very much like the lens, cornea, iris and retina of multicellular eyes found in humans and other larger animals.

Publication

Value add of CHTP
A CHTP imaging scientist advised Dr. Gavelis that FIB-SEM could provide extremely high resolution images of a unicellular organism in its natural state and that cryofixation of samples would provide the most accurate and detailed reconstruction of a 3D model. The use of FIB-SEM enabled 3D reconstruction of the ocelloid structure and its component parts, including the mitochondrial corneal-like layer, vesicular lens and retinal body. The imaging scientist provided the technical support for the FIB-SEM imaging and 3D reconstruction.

Publication

FIB-SEM image of pig bladder tissue.

3D reconstruction and modelling representation of the eye-like ocelloid structure of a marine plankton from FIB-SEM data.

Value add of CHTP

It can be a challenge to measure the thickness of nanometre-scale thin films of low-conductance materials. Cross-sectional SEM...
accurately determined the thickness of a series of films at the nanometre level on iridium-coated glass samples, which would be impossible to measure with other methods. The CHTP imaging scientist recommended dealing with conductance issues by sandwiching the films between two iridium layers. Using the high resolution SEM, the film thicknesses were imaged and measured, and the backscattered electron imaging capabilities of the machine easily distinguished the thin layer from the iridium layers. This method, which allowed the researchers to get accurate thickness measurements rapidly, can be applied to a wide variety of thin film materials.

Publication

Value add at CHTP
FIB-SEM provided the extremely high resolution scanning needed to visualize and explore the surface morphologies of these TiO₂ hollow microsphere catalyst samples in the nanoscale range. SEM allowed the researchers to look at the newly created catalyst structures with various magnifications and to confirm that TiO₂ hollow microspheres formed and performed as predicted.

Publication

Summary
Photocatalytic conversion of CO₂ into a clean energy fuel is a promising avenue for sustainable development. In this study, a one-pot template-free synthesis strategy was used to fabricate CuO-incorporated TiO₂ hollow microspheres in large scale. These were explored for the first time as a catalyst for photodriven conversion with the aid of H₂O, of CO₂ to CH₄ fuels. Because of its unique structural characteristics, the catalyst demonstrates much higher photocatalytic activity toward CO₂ reduction with H₂O into CH₄, compared with a current state-of-the-art photocatalyst. Also, the simple synthesis strategy would enable large-scale production of the hollow microspheres.
Meet the Imaging Scientists at the CHTP

Dr. Ford is the director of the CHTP, where her work involves optimizing images, minimizing X-ray exposure and navigating massive data sets. Her research areas and specializations include micro-computed tomography (micro-CT), X-ray imaging, physiological gating, small animal imaging, image quality and cone beam CT. Her research focuses on optimizing and accessing imaging protocols for preclinical and clinical computed tomography. Her previous research experience includes working as a research assistant in a digital mammography research group at Sunnybrook Hospital in Toronto, a postdoctoral fellowship in the Imaging Research Labs at the Robarts Research Institute in London, Ontario, and a position, from 2006 to 2011, as assistant professor in the Department of Physics at Ryerson University.

“The centre,” says Ford, “has a whole variety of sophisticated imaging instruments available in the same place, including the only MALDI mass spectrometer, the only focused ion beam scanning electron microscope and the only micro-computed tomography specimen and in vivo scanners on the UBC campus. We have a team of imaging scientists with specialized expertise and knowledge. They are dedicated full-time to supporting and training users, and optimizing the techniques to help researchers get the best-quality images and data. The limits of science are pushing forward to visualize smaller and smaller structures. Researchers need to use these more sophisticated and challenging techniques and equipment to solve today’s and tomorrow’s research problems.”

Dr. Owen manages the electron microscopy imaging facility and provides specialist imaging services, consulting, user training, project design and novel technique development. He has more than 20 years of experience using scanning and transmission electron microscopy in basic research investigations for both biological and material samples. His previous research experience includes postgraduate work at AO Research Institute, Davos, Switzerland, and postdoctoral fellowships at the New York Structural Biology Center, New York, USA, and the UBC Department of Oral Biological & Medical Sciences, Faculty of Dentistry.

“All of us working at CHTP have an interest in the research users are doing and with our research background can understand the concepts pretty easily. We can advise on the best sample preparation and imaging methods to collect the best-quality data. This is a collaborative kind of work. For example, we often provide technical assistance to prepare and image samples that are difficult, or almost impossible, to image at high resolution because of their constitution. When the researchers agree to use an alternative method that we propose, they not only benefit by getting reliable, high-quality data, but results that would otherwise be impossible to obtain,” says Owen.

Local Implant Symposium Supports Oral Cancer Research at UBC

Protec Dental Laboratories and Canadian Dental Implant Training Centre Inc., organizers of the 2018 Implant Symposium on the latest implant technologies and philosophies, came up with a win-win way to support oral cancer research. All proceeds from the symposium, held on February 17, were donated to the UBC Oral Cancer Prediction Fund.

The Oral Cancer Prediction Fund supports the work of UBC researchers, including Dr. Denise Laronde, associate professor at UBC Dentistry, who are part of a team of scientists at the BC Oral Cancer Prevention Program.
Dr. Sun has been managing the light microscopy section at CHTP since 2013, and he also manages the micro-CT and optical projection tomography (OPT) imaging equipment and services. Sun provides full-service technical support, training and consultation to users on Zeiss PALM, Olympus LEXT confocal, Nikon Eclipse Ci and Leica SPS X microscope systems, micro-CT specimen and in vivo scanners, and the OPT scanner. He gained five years of fluorescent imaging experience as a graduate research assistant and research advisor in the cell biology lab of Dr. Catherine Pallen, professor and associate member, UBC Department of Pathology and Laboratory Medicine. “We’re a core facility with many different imaging modalities and diverse users. When researchers come here, they want to get data. We have the equipment and expertise to help them get the best-quality data as quickly as possible, which facilitates and accelerates their research. We can advise users on which imaging method will provide the best measurements of samples and get the highest quality imaging for their purpose,” explains Sun. He notes that researchers can use different imaging instruments at the CHTP for the same project, to obtain more data and strengthen their results.

Shujun Lin operates and maintains the Thermo Scientific LTQ Orbitrap XL mass spectrometer, which she set up at the CHTP in 2014. Lin has more than a decade of experience using MALDI mass spectrometry methods to detect peptides, hormones, lipids and drug metabolites in biological specimens, and to determine their relative abundance and distribution in various tissue sections. She has over 20 years of experience using mass spectrometry at the CHTP; the UBC Biomedical Research Centre, Biovail Contract Research (Toronto) and Louisiana State University. “Users bring us tissue samples and we do the full service,” says Lin. “I do everything from setting up protocols, sample preparation, data acquisition, imaging data processing and interpretation of results. Our service is fast, and users appreciate that.”

Their research has taken a giant step toward understanding the complex stages of malignant transformation, giving clinicians and their patients better information for treatment options.

This world-renowned research team has created the only validated method for predicting oral cancer risk. Not all patients with oral lesions showing dysplasia (cell abnormality) will progress to oral cancer; however, predicting which low-grade dysplasias (mild or moderate) are at risk is still challenging. Further understanding of molecular changes associated with progression is needed, as is an effective and efficient test to predict oral cancer progression.

Dr. William Liang, director of the Canadian Dental Implant Training Centre, was honoured to present two cheques to Dr. Denise Laronde, associate professor at UBC Dentistry: one for $13,000, from symposium proceeds, and the other a $30,000 contribution from the Canadian Dental Implant Training Centre, which offers the AAID (American Academy of Implant Dentistry) Vancouver MaxiCourse. “I chose to support Dr. Laronde’s project this year simply because it is much needed,” Liang says. “It is a topic of research that garners very little commercial interest and support, and any contribution, big or small, may be pivotal to discovering new knowledge and saving someone’s life.”

Liang expressed gratitude to the distinguished speakers at the symposium, who [in addition to Liang] donated their time and expertise: Drs. Sonia Leziy, Edward Lowe, Jonathan Ng and Samson Ng—all UBC Dentistry alumni. He also thanked symposium attendees for their support and acknowledged cash donations from Protec, BioHorizons, Henry Schein, Velscope and Orbit Imaging.
Dr. Derek Decloux: From Military Boot Camp to Special Needs Dentistry

In 2011, when then Canadian Armed Forces captain Derek Decloux graduated from UBC Dentistry with his Doctor of Dental Medicine degree, he shed his student scrubs, as did all his classmates. Instead of donning a fresh set of professional clothes to enter a dental practice, however, Derek reached for his military garb and jumped back into boot camp. That summer he needed to complete the final segment of Basic Military Officer Qualification (BMOQ) with the Canadian Armed Forces (CAF).

Derek took the BMOQ training in his home province of Ontario, with other recently graduated students from across the country. “I was slotted in with infantry, pilots, nurses, pharmacists and dentists, all from other schools, and it was fun to meet them—but the training was not cushy,” he says.

Morning physical training started at 5:10 a.m. The day was further filled with weapons training, hand-to-hand combat exercises and leadership skills sessions. Participants learned how to take orders and how to give orders. At the end of seven weeks, there was a final challenge that involved rescuing someone, in the field or from a firefight.

As gruelling as it may sound, Derek approached the BMOQ as an adventure. And he had known his path to dentistry would be in the military: “My grandfather was also a dental officer with the military, so for me, it was a natural choice.”

Once he had become a commissioned officer, Capt. Derek Decloux had one more step to complete before he could practise dentistry in the military: the four-week Basic Dental Officer’s Course. This course, which was taught by senior dental officers in different ranks and specialties, covered policies and procedures. In short, Derek explains, he learned “how to ensure your treatment plan will be successful in the military.”

He served for four years at a Canadian Forces Base in the Toronto area. Then, soon after marrying Kristyn in the summer of 2014, he retired from the military, and in fall 2015, started the University of Toronto’s graduate Dental Anaesthesia program. His interest in this specialty was piqued during dental school at UBC. He recalls, “I enjoyed learning local anaesthesia and sedation from Dr. Brian Chanpong and knew then that I wanted to do advanced training.” He also pursued externships at the University of Toronto and Ohio State University.

Derek is drawn to the patient population for the anaesthesiology specialty: half are children, a quarter are adults with dental anxiety, and the remainder require special needs dentistry. For Derek, it is an opportunity to help people who otherwise may not see a dentist. To illustrate, he gives an example of a child with autism whose behaviour changed notably because of dental pain: “After treatment,” he says, “the child is back at baseline and happiness is restored to the whole family.”

In January 2018, Derek visited UBC to work on his graduate research project. His research grant was tied to UBC, so it worked well logistically to collect his data in Vancouver rather than in Toronto. His study involves using an ultrasound-guided technique to see the nerve of the lower jaw, to more accurately determine the target for freezing.

After graduating from the University of Toronto, Derek plans a combination of teaching, hospital-based dental anaesthesia and private practice dental anaesthesia. He stays connected with many alumni in the Toronto area—there are about half a dozen former classmates he sees regularly. This summer he plans to take a continuing education course in Edmonton with many of his former classmates.

Derek and Kristyn bought a house in Hamilton, Ontario, last year and will soon celebrate their son Remy’s one-year birthday.
Leanne Olson and Jenny Jamen, both 2011 baccalaureate graduates from UBC’s Dental Hygiene Degree Program, are passionate about their calling, and when opportunity struck, they ‘hit the road’ with their profession.

Together they operate Strictly Prevention Inc., a mobile dental hygiene service. Strictly Prevention specializes in delivering oral care to those who experience difficulty accessing conventional preventive dental care due to cognitive or physical barriers. The philosophy of care is to provide comprehensive, gentle dental hygiene services for elders and those with special needs in the comfort and surroundings of the patient’s own home.

The two entrepreneurs keep a busy Monday-to-Saturday schedule serving people throughout the Metro Vancouver area. On their precious downtime, each enjoys outdoor activities and spending time with friends and family.

We asked Leanne and Jenny a few questions about their time in school and their nascent career paths:

**What advice would you give your younger self if you could go back in time and provide counselling?**

Leanne: Be selective in what you spend time stressing out about. Even in those moments where you can’t imagine getting through—whether your worry is about a huge work/school load, finances, family or just life—it will be OK!

Jenny: Take care of yourself. Eat well and exercise. This sounds simple, but it is all too often forgotten. We cannot expect to provide exceptional care to individuals if we are not taking care of ourselves. Make the time for personal health and wellness.

**What advice would you give a new graduate entering the dental hygiene profession?**

Leanne: Visualize where you will be post-graduation and start practising behaviours that will set you up to succeed in your final months pre-grad and well into your career. It may be increasing your efficiency, becoming more independent in your community practice or focusing on improving your personal health and wellness, to be at your best in whichever avenue you choose.

Jenny: If you have an opportunity to be a temporary hygienist, take the opportunity. You will build connections and learn how different offices operate. This will allow you to understand which office settings work best for you. Being exposed to a wide variety of settings will make a positive impact on job security and longevity.

**How did you meet and become business partners in Strictly Prevention?**

Leanne: We met our first day at UBC. We had an instant connection and have been close friends since. By our fourth year we both knew that we would embark on an entrepreneurial venture together, but we didn’t know exactly what that would look like, or when it would happen. However, we both had a keen interest in working with geriatric patients.

Jenny: We started working with Strictly Prevention, which was run by Ashifa Dharamsi, one of our clinical instructors at UBC. Ashifa was planning a sabbatical and looking for help to manage her client pool. Leanne and I started working together and quickly realized that we had a similar approach to care, our values and work ethic aligned, and this area of care was our calling. Soon after we became partners and bought the mobile practice from Ashifa.

In September 1968, the first dental hygiene students began studying at the UBC Faculty of Dentistry. Learn more about the 50-year history of dental hygiene education at UBC in the fall 2018 issue of Impressions magazine.

If you are a dental hygiene graduate from UBC and have memories or photos you’d like to share, send them to alumni@dentistry.ubc.ca, and if sharing on social media, use the hashtag #ubcdentalhygiene50

To ensure you receive alumni announcements, including more information about celebrating 50 years of dental hygiene education at UBC, sign up for UBC Dentistry’s Alumni eNews at dentistry.ubc.ca/subscribe- cnw-news
Off the Campus in Kenya and Vietnam


Since 2011, the Sinclair Dental Travel Fellowship Program has supported 39 UBC Dentistry students and their participation in travel clinics. Student participants learn that dentistry is a valuable skill transferable to almost anywhere in the world and that helping those less fortunate can bring satisfaction back home—on the job and in their own communities.

These international rotations expose students to front-line dentistry in impoverished communities, and create significant memories. Not only do these placements enhance the students’ all-round experience, but they provide intense clinical experience in a global setting and nurture an ethos of philanthropy.

In June 2017, a group of DMD 2018 candidates—Amir Asghari, Andrew Dawn, Sarah Hutchinson, Kimberly Paterson and Alex Radu—travelled to Kakamega County, in western Kenya, as part of an international volunteer elective.

They joined the Semiahmoo Dental Outreach (SDO) team, a group of volunteer dental professionals, many of whom are International College of Dentists Fellows. The group, which provided mentorship and direct supervision to the then-third-year dental students, included Dr. Ken Stones and DMD Class of 1987 alumni Les Ennis, Janis Boyd, David Larsen and Joan Eaton, as well as soon-to-be Fellows Drs. Nancy Vertel (MSc/Ped 2013), Melanie Mattson, Grant Rawstron and Robert Wolanski. A mobile clinic was set up in Ihonje Primary School, located in the town of Mumias, where 532 children were treated over a five-day period.

The SDO team partnered with the African Canadian Continuing Education Society (ACCES), a Canadian registered charity committed to education and community development programs in Kenya. Education
and prevention are an integral part of the outreach team’s mission.

The children who were treated ranged in age from five to 16, and none had ever seen a dentist. The children did not have prior knowledge of dental disease prevention and many were in constant dental pain.

Read on for some insight from each of the volunteers’ post-trip reflections:

**Kimberly Paterson**
This dental mission trip enhanced my clinical skills in both pediatric dental care and extractions. I am now better able to communicate, manage and provide quality dental care for my child patients in clinic. The dentists were also wonderful in teaching me how to extract teeth using minimally invasive procedures and how to provide excellent wound care.

Leaving the children on the final day was both the highlight and greatest challenge of the trip. Despite a week of dental checkups and extractions, the children remained so excited and thankful. The most difficult part was not being able to follow up with any of them after their treatment. Although we left pain medications and antibiotics, it was hard knowing that if anyone developed a post-operative complication I would not be there to help them. This was a heartbreaking realization.

**Amir Asghari**
Going to Kenya for the summer of 2017 has been the highlight of my dental school experience. It was the best feeling to offer something we had been practising and studying for three years to the Kenyan people, a majority of whom had never seen a dentist before. Working long days with many great mentors really added to our dentistry skills. There are a lot of experiences and a lot of knowledge gained from this trip that we can use in the future. The cases we encountered in Kenya for treatment, though, may be cases we will never encounter here in Canada or at UBC.

**Sarah Hutchinson**
I have known for some time that, following dental school, I would like to help those less fortunate by volunteering both locally and abroad. My time in Kenya has solidified this view; I saw that it is indeed possible to help others despite not having an established dental clinic. Bringing all the supplies and instruments with us was challenging and involved a lot of organization, but was very much worth the effort. The biggest challenge our group encountered was our limited ability to treat the vast number of people in need. Hundreds of people came each day hoping to receive treatment, but we could only see about a hundred patients each day. Another challenge we faced on a daily basis was the equipment bought locally: there were considerable issues with the required compressors, and we often had to perform treatment without using suction or handpieces.

**Andrew Dawn**
The learning experience went far beyond the clinical experience. Seeing children without any evidence of past dental care was a reminder of the poverty that is in our world. The work we did may have to last them for the rest of their lives. The one-on-one mentorship and professional coaching we received from the volunteer dentists was an invaluable opportunity. We performed more extractions in one week than we will in all four years of dental school!

**Alex Radu**
The volunteer rotation demonstrated that dentistry can be taken across borders. The dentists that accompanied us are outstanding clinicians who want to create positive change in the world. I witnessed and learned first-hand that dentistry is so much more than just fixing teeth. This experience was an amazing bridge to connect me with people from another culture while providing a vital service to them. I was tremendously inspired by the children, who walked for hours to visit our clinic. Countless children, with jigger-infected feet, walk miles and miles on a daily basis to get to school. I can only imagine the hardships some of these children face.

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**KENYA TRIP STATISTICS**

**EXAMINATIONS** 532

**EXTRCTIONS** 485

**RESTORATIONS** 156

**SILVER DIAMINE FLUORIDE** 102

**SEALANTS** 14

**FLUORIDE TREATMENTS IN THE CLINIC** 70

**FLUORIDE TREATMENTS OUTSIDE THE CLINIC** 600

**TOOTHBRUSHES GIVEN OUT** 500

*Statistics provided by Dr. Les Ennis.*
For close to two weeks during the winter holiday break in December 2017, Yolanda Lan and Rebecca Piccolo found themselves on a trip that would change their lives. The two fourth-year students in the Dental Hygiene Degree Program were participating in the UBC Dental Hygiene International Service Learning Initiative in Vietnam. The volunteer rotation in Ho Chi Minh City was made possible by the Sinclair Dental Travel Fellowship Program. The students were accompanied by Sherry Priebe, BDSc (DH) 2003, MSc 2009, and professor Zul Kanji, MSc, EdD (candidate), RDH, and director of the UBC Dental Hygiene Degree Program.

The students engaged enthusiastically in the ongoing collaborations between the University of British Columbia and several institutions in Ho Chi Minh City. They provided instruction and preventive care for oral cancer patients, presented seminars and demonstrations to students at a university, conducted oral cancer screenings, and provided oral hygiene care to children at orphanages.

There were many moments of revelation for our two students. These included witnessing advanced stages of cancer and its crippling impact on the patients’ quality of life, and providing care for young children living with disabilities who have been affected by Agent Orange exposure. These experiences will have a lasting effect on Rebecca and Yolanda’s professional careers.

Read on for a view into how the trip impacted the volunteers:

Yolanda Lan
Prior to this service learning trip, I had not been exposed to cancer cases in real life. Seeing and palpating late-stage malignant lesions during our visit at the Oncology Hospital allowed me to appreciate the cancer screening that dental hygienists participate in. I also learned that the best care strategy includes advocating for the patients. During our visits to the orphanages and shelters, instead of trying to provide clinical therapy for everyone, we triaged for emergency treatments but used most of our time to educate the facility residents and caregivers. Communication with the staff and residency clients built rapport and gave residents the opportunity to ask questions and raise awareness of their own oral health. As a long-term outcome, research has shown that this strategy provides greater continuation of oral health care when compared to clinical therapy alone.

Rebecca Piccolo
The entire trip was an eye-opening experience, but what resonated with me most was the first orphanage we attended, the Francis Shelter. The poor conditions of the residence and the lack of staff at this orphanage, which was filled with children and adults living with disability, were difficult to take in upon first arriving. This was something I had never been exposed to, but I was prepared to begin care and attempt to make some difference. Our main functions of care were to triage, for restorative dentistry and dental hygiene care, the residents who were confined to their beds, and to provide education to the orphanage staff that supported us. A fast-paced, intensive delivery of care allowed us to treat every resident in the orphanage.

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CLASS NOTES AND EVENTS

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

1960s

Imre (on the left) and Jeffery are photographed with Dr. Mary MacDougall, the new dean of UBC Dentistry, as they arrive at the alumni wine reception following the TODS meeting in Kelowna last October.

1970s

Debra (on the left) and Kimberly (on the right) attended the second annual Dental Hygiene Alumni CE & Reception at the Nobel Biocare Oral Health Centre last November. Both enjoyed the evening and cheered Brenda Currie Dip DH 1976, BDSc 2004, MSc 2007, who received an Alumni Builder Award at the event. Debra and Brenda were classmates in 1976.

Ed presented Sarah Berkey DMD 2018 (candidate) with the International College of Dentists Plaque commemorating her UBC Dean’s Night award “in recognition of scholarship attainment and general character in third-year dentistry.”

1980s

John welcomed his son, Janson Lee DMD 2017, to practice.

Angie, Angelique and Ray (in the photo from left to right) were guests at the UBC Lunar New Year Dinner on January 23, 2018.

Tony (right) and Dr. Jonathan Hung, along with other guests, enjoyed UBC’s Lunar New Year Dinner on January 23, 2018.

Greg and his SuperChefs Cookery for Kids program were recognized with a Canada 150 Community Award for Outstanding Service. Greg writes: “Special Day yesterday, with my ‘quarterback’ Nicole accepting the Canada 150 Community Award from MP Randeep Sarai for our SuperChefs Cookery efforts in Surrey Centre riding. This award is shared with the entire SuperChefs team: sponsors, donors, counsellors, volunteers, partners, advisory board, children and parents. I’m ecstatic for the success of the program, now in its 10th-anniversary year, to inspire health and wellness in Surrey and beyond. Thanks to Nicole and my SuperChefs family for the support and for stepping in when I have other commitments. Thanks to all of you for your help over the years!”

FOLLOW ALUMNI ENGAGEMENT ON TWITTER

Follow UBC Dentistry Alumni @ubcdentalumni

www.twitter.com/ubcdentalumni

Debra MacNeil Dip DH 1976 Kimberley Laing BDSc 2004

Ed O’Brien DMD 1978

David Chang DMD 1986

Greg Chang DMD 1986

Imre Rokus DMD 1968 Jeffery Williams DMD 1976

Tony Li DMD 1979

Tony (on the left) and Dr. Jonathan Hung, along with other guests, enjoyed UBC’s Lunar New Year Dinner on January 23, 2018.

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www.twitter.com/ubcdentalumni
Jeff and Deborah Szabo MSc/Dip Endo 2018 (candidate) enjoyed fishing in Haida Gwaii last July. They were on rotation performing endodontic treatments.

Ivy Yu
DMD 1996

Ivy stopped by the UBC Dentistry booth at the UBC Homecoming event in September to see the new cargo van for community outreach programs and try out one of the portable chairs.

Colin Wiebe
MSc/Dip Perio 1997

Colin shared a photo of his participation in the Lost Soul Ultra Marathon—his first 100-miler!—this past September. “I did my first 100-mile trail ultra-marathon run (Lost Soul Ultra) in the coulees of Lethbridge, Alberta, and got third place in my age category.” The following month, on October 5, 2017, he met the president of UBC, Santa Ono, at a Calgary alumni event.

PLANNING A REUNION?
For great ideas about reunion dinners, themes, locations and class gifts, contact Rosemary Casson, manager, Alumni Engagement, at 604-822-6751 or alumni@dentistry.ubc.ca

Jessica Dube
Dip DH 1985, BDSc 2004, MSc 2009

Jessica visited with student Leo Lee DMD 2018 (candidate) and UBC Dentistry dean Dr. Mary MacDougall at the UBC Dentistry Volunteer Recognition event this past November.

Arv hosted Spaghetti for Six in January for five DMD students. Lots of spirited discussion surrounding “life after school” took place, with Arv offering to stay connected with the students going forward.

Diana Lin
MSc 2008

Diane and third-year dental hygiene students participated with the Vancouver Coastal Health (VCH) Healthy Living Program in the Live Well with Diabetes Conference on November 19, 2017. At this interprofessional event, spearheaded by Diabetes Canada and the BC Podiatric Medical Association, the group promoted awareness of the two-way relationship between oral health and diabetes, and offered mouth screening. Pictured from left to right: Diana Lin and students Janelle Rumball, Jamie Jiang, Leanne Lee and Shivalika Katyal.

Nicole Chien
BDSc 2012

Nicole married Moses Tang last July. The group photo shows Nicole’s classmates from 2012 in attendance (from left to right): Jaclyn Lui, Trish Morales, Sharon Leung, Nancy Nguyen and Jhustine Tolentino. Jason Tao DMD 2013, standing beside Trish, also helped the couple celebrate.

Jessica Dube
Dip DH 1985, BDSc 2004, MSc 2009

Jessica visited with student Leo Lee DMD 2018 (candidate) and UBC Dentistry dean Dr. Mary MacDougall at the UBC Dentistry Volunteer Recognition event this past November.

Arv Sooch
DMD 2000

Allison Skrenes
DMD 2011

Allison and her husband Arsham have a baby boy named Makalu, born on August 8, 2017, in Calgary. Also pictured are Makalu’s brother Tyrian and sister Nyala.

Vince Lee
MSc/Dip Pros 2016

Vince was the UBC Dentistry alumni representative at the November graduation ceremony at the Chan Centre. In the photo, he is with Dr. Mary MacDougall, dean of Dentistry, who also participated in the ceremony.
I am the oral health promotion specialist for the Government of Nunavut Department of Health dental division situated in the territory’s capital, Iqaluit. I am thrilled and honoured to be part of an amazing team promoting oral health for the territory’s 25 Inuit communities. I work directly with the territory’s chief dental officer and collaborate closely with the population health team.

Nunavut is Canada’s newest territory, with a population of 38,243 people spread over two million square kilometres of land and water. Living in the far North has its challenges, as communities are totally reliant on air and/or freighter ships (only in the summer months) for food and supplies. The temperature can be as cold as -70 °F with the wind chill factor (yes, you read correctly!), and such frigid temperatures with snow blizzards can delay flights from delivering cargo. My first week here, there was no milk in any of the stores. However, the land and the people are extremely beautiful and the sky is endless, with breathtaking northern lights. I hope to spot (from afar) a polar bear hunting for seal!

**Alumni Builder Awards**

Several UBC Dentistry alumni have been awarded the Alumni Builder Award, which was created to commemorate the 100th year of alumni UBC. The award recognizes a cross-section of alumni, from all UBC faculties, who have significantly contributed to the university and have enriched the lives of others.

The recipients from the Faculty of Dentistry are: Brenda Currie Dip DH 1976, BDSc 2004, MSc 2007; David Hemerling DMD 1993; Liz Johnson-Lee DMD 1992; Angelique Leung DMD 1988; Doug Nielsen DMD 1972; Sherry Priebe BDSc 2003, MSc 2009; David Sweet OC DMD 1978; and Andrew Tsang DMD 1997.

Andrew Tsang was recognized with an Alumni Builder Award by UBC president Santa Ono and Dentistry dean Mary MacDougall at an alumni UBC 100 event in Hong Kong on December 9, 2017.

Angelique Leung will receive her award on March 10, 2018, at the Tooth Fairy Gala hosted by the British Columbia Dental Association.

**Almost Alumni**

Kerri-Lyn, Dental Undergraduate Society president, and Dustin, vice-president, were invited to UBC’s Lunar New Year Dinner on January 23, 2018. UBC president Santa Ono highlighted UBC Dentistry’s Villa Cathay Care Home project in his remarks, and the students were pleased to meet him.

Alison and Yolanda volunteered at the UBC Dentistry booth at UBC Homecoming last September 16, 2017.

**SHARE**

Send an alumni story or update for “Class Notes” to alumni@dentistry.ubc.ca
Kartik travelled to India this past winter through the Global Health Initiative (GHI), a student-led program supported by the UBC Faculty of Medicine. The GHI invites students from a wide variety of faculties to improve health outcomes in rural communities around the world. Kartik was the sole dental student among five medical students on this team. The GHI team contributed to the ongoing Spiti Health Project, begun in 2006, in the village of Rangrik. The project serves children at the Munsel-Ling School, a boarding school run by a local non-governmental organization and supported by charities abroad. Rangrik is in the Spiti Valley, a remote, high-altitude desert area in the Indian Himalaya, near the border with Tibet. Though geopolitically part of India, it is culturally Tibetan.

“We were at 3,700 metres, with about 17 percent oxygen. You walk for about a minute and begin gasping for air—a very different experience from home,” Kartik reports. For seven to eight months of the year the community is closed off to the rest of the world because of snow. The closest sizeable centre is 12 hours away across rocky terrain on a packed-dirt road. “We travelled at night in complete darkness. It was a bittersweet experience—scared for our lives, but the Himalayan terrain lit by moonlight was enchanting.”

Each visiting GHI team builds upon the work of previous teams. Earlier teams provided urgent dental care, but Kartik was aware that caries prevalence remains high. His goal on the five-week trip was to change local oral health practices through community-engagement strategies—collecting data on caries prevalence and conducting surveys to gauge existing oral health views and practices. On the ground, he worked with the principals, directors, wardens, teachers and students to design sustainable programs around oral health education, toothbrush storage and distribution systems, and tooth-brushing routines.

“I left knowing that, in a very short period of time, I had made an impact,” Kartik says. “Even though my role was to empower the community to drive change, they empowered me. I gained immeasurable confidence working with the children, community members and other UBC students. I encourage future UBC dental students to be part of continuing the oral health work at the school through the GHI initiative, or to seek similar opportunities. As clichéd as it may sound, they taught me that with a little bit of passion, motivation and hard work, you can make a lasting impact on the lives of people around you.”
Dental Hygiene Alumni CE & Reception

Over 120 dental hygiene alumni gathered on November 17, 2017, for CDE presentations on oral cancer by Dr. Denise Laronde (on the right) and Leigha Rock PhD (candidate), pictured in the photo with Zul Kanji, director of the Dental Hygiene Degree Program. Also, the Class of 2018 was invited to explore their career options while enjoying quality networking time.

VDSS Midwinter Clinic

On November 24, 2017, faculty and staff from UBC Dentistry visited with alumni and other members of the dental community at the Vancouver & District Dental Society Midwinter Clinic annual conference and trade show. The 2017 theme was “Pearls of Peak Performance,” and ‘Captain Morgan’ (a swashbuckling fictitious figure named after a 17th-century Welsh privateer of the Caribbean) was invited to hand out pearl beads to visitors at the UBC Dentistry trade-show booth. Pictured with Captain Morgan is Brian Standerwick BSc 1983, DMD 1988. (Fun fact: Brian is the infamous pirate’s dentist in real life!) More fun photos can be seen at bit.ly/2GwIIVG

Events for Alumni

Adventure & Learn Hawaii 2018

Attendees of UBC Dentistry’s Continuing Dental Education event, January 29 to February 2, 2018, gather outside the Fairmont Kea Lani in Maui for a group photo. Many attending the CE courses were from the DMD Class of 1988, who were also celebrating 30 years since graduating from UBC.

BUILD BUY SELL (ABBOTSFORD)

Thursday, April 12, 2018 · 6 – 8:30 pm
Best Western Plus Regency Inn & Conference Centre, Abbotsford, BC
Take advantage of a panel of business experts in the field of buying, building, renovating or selling a dental practice at this unique one-stop-shop event. For more information and to register, visit dentistry.ubc/bbsabbotsford

MEDTALKS—EMERGENCY: DRUG USE AND ADDICTION IN THE 21ST CENTURY

Thursday, April 19, 2018 · Time TBA
UBC Robson Square, Vancouver, BC
Join experts from UBC, including Dr. Leeann Donnelly, an alumna and assistant professor from the Faculty of Dentistry, for a multidisciplinary panel discussion. For more information and to register, email alumni@dentistry.ubc.ca

Stay in Touch

The alumni office at UBC Dentistry can help you stay connected with your fellow graduates, plan and promote reunions, and keep you informed of upcoming educational opportunities. To learn more, contact Rosemary Casson, manager, Alumni Engagement, at 604-822-6751 or alumni@dentistry.ubc.ca

Stay connected to more than 3,000 alumni. Share your news, thoughts or comments. Visit dentistry.ubc.ca/alumni

ALUMNI PARTNERS

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THE AURUM GROUP
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CONTINUING DENTAL EDUCATION
2018 – 2019

MARCH 2018
26 – 30 (MONDAY – FRIDAY)
UBC Orthodontic Symposium 2018
Clear Aligners: The Evolution of Future Orthodontics
Interdisciplinary Treatment, Orthognathic Surgery
and the Role of TADs in Clear Aligner Therapy
Dr. Sandra Tai
Rationale for 3D Imaging in Our Practices: How Can It Improve Patient Care?
Dr. Lucia Cevidanes
Bruised, Broken and Bedeviled Teeth: Managing the Unexpected Dental Injury (Parts 1 and 2)
Dr. Anthony DiAngelis
Location: Fairmont Orchid, Kohala Coast on the “Big Island,” Hawaii

APRIL 2018
13 – 15 (FRIDAY – SATURDAY)
Mastering Adult Minimal Sedation: Inhalation and Oral Sedation in Dentistry
Dr. Scott Dickinson, Dr. Mark Donaldson, Dr. Jason Goodchild
14 – 15 (SATURDAY – SUNDAY)
Bone Grafting: Ridge Augmentation and Socket Preservation With Bone Grafting for Future Implant Placement
Dr. Tassos Innikis, Dr. AliSadeghi, of the West Coast Institute

MAY – NOVEMBER 2018
The Complete Clinician: Comprehensive Treatment Planning and Surgical Placement for Implants via Computer Guided Technology
Didactic Session: May 24 – 27 (Thursday – Sunday)
or September 20 – 23 (Thursday – Sunday)
Clinical Session: October 20 – 21 (Saturday – Sunday)
or November 3 – 4 (Saturday – Sunday)
Dr. Kevin Aminzadeh, Dr. Tassos Innikis, Dr. Ali Sadeghi, of the West Coast Institute

JUNE 2018
4 – 8 (MONDAY – FRIDAY)
Cast Gold Restoration
Dr. Margaret Webb

FALL 2018
Date TBA
Managing a Successful Dental Practice—Developing a Business Worth Smiling About
Speakers TBA

SEPTEMBER 2018
29 (SATURDAY)
The Three Endodontic Skills You Need to Know to Grow Your Practice
Dr. John West

SEPTEMBER – OCTOBER 2018
September 28 – 29 (FRIDAY – SATURDAY)
Smile Design Excellence 2018
Live Patient Program
Dr. Wilson Kwong, Vancouver Dental Education Centre

NOVEMBER 2018
17 (SATURDAY)
Application of Autologous Growth Factors (PRF and CGF) in Implant Dentistry
Dr. Paul Jang

STUDY CLUBS
2018 – 2019
September 2018 – July 2019
Basic Orthodontics for the General Practitioner
Dr. Paul Witt
September 2018 – August 2019
Advanced Orthodontics for the General Practitioner
Dr. Benjamin Pliska
September 2018 – July 2019
UBC-Radiant Advanced Orthodontics for the General Practitioner
Dr. Paul Witt
October 2018 – May 2019
Advanced Fixed Prosthodontics for the General Practitioner (Part II)
Dr. Chris Wyatt
For dates, times and locations of study clubs, visit www.dentistry.ubc.ca/cde

FOR REGISTERED DENTAL HYGIENISTS AND CERTIFIED DENTAL ASSISTANTS

MAY 2018
5 (SATURDAY)
Fundamental Principles of Periodontal Instrumentation
Ms. Penny Hatzimanolakis
12 (SATURDAY)
Surgical Assisting and Sterile Set-up for Implants and Grafting Procedures
Ms. Penny Anderson, Ms. Teena Dhensaw, Ms. Jody Field
23 – 25 (WEDNESDAY – FRIDAY)
2018 Orthodontic Module Update for Certified Dental Assistants and Registered Dental Hygienists
Dr. Paul Witt

MAY – JUNE 2018
Orthodontic Module for Certified Dental Assistants and Registered Dental Hygienists
May 23 – 25 (WEDNESDAY – FRIDAY)
Lecture sessions
May 26 – 30 (SATURDAY – WEDNESDAY)
Clinical session A
June 9 – 13 (SATURDAY – WEDNESDAY)
Clinical session B

SEPTEMBER 2018
22 – 23 (SATURDAY – SUNDAY)
A Comprehensive Review of Local Anaesthesia for Dental Hygienists
Speakers TBA

CDE PARTNERSHIP
September 2018 – June 2019
The AAD (American Academy of Implant Dentistry) Vancouver Maxicourse is a structured program consisting of 30 days of education over 10 months. For more information, visit www.vancouvermaxicourse.com

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

This calendar is subject to change.
For updates to course offerings, visit www.dentistry.ubc.ca/cde
MARK YOUR CALENDARS!

CONTINUING DENTAL EDUCATION 2018

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-centred business.

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

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

Open to dentists and their staff. For fall dates and more details, visit dentistry.ubc.ca/cde

TRAVEL AND LEARN 2019

Adventure & Learn: Hawaii 2019
February 4 – 8 (Monday – Friday)

Annual AI Heaps & Associates Inc. Palm Springs Dental Practice Transition Seminar and Golf Weekend 2019
February dates TBA

Annual Ski Seminar at Whistler 2019
February 28 – March 2 (Thursday – Saturday)

For more details, visit dentistry.ubc.ca/cde/travel-and-learn

EVENTS FOR ALUMNI

Build Buy Sell (Abbotsford)
April 12, 2018 (Thursday)

MEDTalks—Emergency: Drug Use and Addiction in the 21st Century
April 19, 2018 (Thursday)

Alumni Reception at the Ontario Dental Conference
April 27, 2018 (Friday)

Dinner With the Dean in the Big Apple
April 28, 2018 (Saturday)

Build Buy Sell (Kelowna)
May 10, 2018 (Thursday)

For more information about these events, visit dentistry.ubc.ca/alumni or email alumni@dentistry.ubc.ca

IMPRESSIONS

204 – 2199 Wesbrook Mall
Vancouver BC Canada
V6T 1Z3

Update your address at www.dentistry.ubc.ca/alumni or email alumni@dentistry.ubc.ca

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UBC Dentistry (Impressions)
204 – 2199 Wesbrook Mall
Vancouver BC Canada V6T 1Z3

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Editor-in-chief Terry Wintonyk
Writers Stephanie Chou, Heather Conn, Terry Wintonyk, Mark Witten

Contributors Rosemary Casson, Stephanie Chou, Nancy Ford, Jane Merling, Gethin Owen, Ed Putnins, Eli Whitney
Stylistic/copy editor Vicki McCullough
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