Healthy smiles, healthy lives

In this issue: 3 Dean’s Message • 5 Faculty Focus • 8 Meeting Reports • 10 Research Highlights, In the Chair • 11 Sound Bites • 13 Faculty Expressions • 14 Close Up • 15 Personalia, For the Record • 16 Student Expressions • 17 Alumni Expressions • 18 Patient Page
Sugarfree chewing gum with dissolving Microgranules

Gently cleans your teeth in a way you can really feel

Recommend chewing Extra Professional sugarfree gum in between twice daily brushing and after meals and snacks to help your teeth clean
In the last issue of Expressions, I reported that the HKU Faculty of Dentistry achieved a Research Index of 87.7% in the 2006 Research Assessment Exercise, reflecting the percentage of staff whose research output is at or beyond an international level of excellence. At the time of production of this issue, the latest World University Rankings published by the Times Higher Education Supplement revealed that The University of Hong Kong ranked 18th among the world’s top 200 universities in 2007, up from last year’s 33rd. This result places HKU ahead of all universities in China and Hong Kong, and second of only two Asian universities in the top 20, just after Tokyo University, Japan, which was ranked 17th.

Our faculty is very proud to have contributed to and to share in this great achievement, which is proof of our successful strategies to achieve our vision and mission, in turn helping HKU reach greater heights of academic excellence and reputation as one of the world’s leading institutions of higher learning as it approaches its centenary in 2011.

**Examining evidence**

Also at the time of this issue’s production, the faculty’s Silver Jubilee celebrations will be well under way, culminating in the Second International Conference on Evidence-based Advanced Dentistry. Our jubilee website <dent25.hku.hk> will contain coverage of all our jubilee events. In line with our congress, this issue focuses on the growing evidence for the oral-systemic health connection, and evidence-based periodontology.

Happy reading!
Not just another zirconia

Lava™
Crowns and Bridges

Get the facts

- Patented substructure shading system
- Zirconia provides proven high strength performance
- More than 25 years zirconia research and technology
- Precision CAD/CAM system for outstanding marginal fit
- Five years of clinical history and proven results
- Natural translucency and unmatched aesthetics
- Indicated for anterior and posterior crowns and bridges
- Conventional cementation
- Minimal removal of tooth structure

Natural Translucent – Just Like Your Own Teeth

Lava™ Crowns and Bridges are readily available from an Authorized Lava™ Milling Center in Hong Kong. For more information, call 9073 0843 for enquiry.

www.3M.com/hk/lava
Our newest family members

Our faculty family has grown considerably since the summer, with new staff members joining the Disciplines of Family Dentistry, Oral and Maxillofacial Surgery, Oral Biosciences, Orthodontics, Paediatric Dentistry, and Periodontology, as well as Dental Education and E-learning.

Planning for the future

The recent round of recruitment was partly made possible through a scheme initiated by The University of Hong Kong to celebrate its centenary in 2011 and to fulfil plans for internationalisation and expansion by its centenary year.

This “Centennial Recruitment Plan”, in parallel with the University’s ambitious building projects to create the Centennial Campus in Pokfulam, is designed to prepare HKU for the Government’s decision to increase the length of undergraduate education in Hong Kong in 2012. Students will attend university after 6 years of secondary schooling instead of 7 years, and university courses will be extended by 1 year. Our BDS degree will then last 6 years.

The new arrangements will mean 20% more students at our faculty. A special challenge in 2012 will be a double BDS intake from both the last batch of students with 7 years of secondary schooling and the first batch of younger students—something that the Faculty Executive Committee and, now larger, Faculty Board, Faculty Curriculum Development Committee, and Task Group on the 6-Year Dental Curriculum are working on.

“Our use of problem-based learning in the BDS programme puts the faculty in good stead for the scheduled curriculum reform,” says Dean Samaranayake. “Now, our strengthened staff will help us be even more prepared for the transition to the 6-year BDS curriculum”.

The newest cohort of academic staff also further increases the international diversity of the faculty and HKU, with some of the new recruits coming from China, Taiwan, Switzerland, Italy, England, and Australia.

“The recent additions to our faculty are a notable achievement, given the worldwide shortage of dental academics,” says the Dean. “Our ability to attract well-respected and talented academics from abroad is a clear testament to the faculty’s strength and international reputation.”

Welcome !

Dr Chun-hung Chu
BDS, MDS, PhD (HK), MSc., ABGD, FRACDS, FDSRCS (Edin)
Associate Professor in Family Dentistry

Dr Andrea Torroni
MDS (Italy)
Assistant Professor in Oral and Maxillofacial Surgery

Dr Roger A Zwahlen
MD (Bern), DMD (Zurich), FEBOMFS (Barcelona)
Associate Professor in Oral and Maxillofacial Surgery

Dr Louis C Ajonuma
BSc. MD, MMedSc (NK), PhD (CUHK), FRSH (UK), MIBiol, CBiol
Research Assistant Professor in Oral Biosciences

Dr Yan-qi Yang
BDS (Beijing Med), PhD (PKU), MOrthRCS (Edin)
Assistant Professor in Orthodontics

Dr Celine HL Cheong
BDS, MDS, ADip(DS), MPaedDent (Edin), FRACDS, FHKAM (Dent Surg), FCDSHK
Assistant Professor in Paediatric Dentistry

Dr Gloria HM Wong
BDS (TW), MSc (UK), PhD (HK)
Assistant Professor in Paediatric Dentistry

Dr Stanley ML Lai
BDS, MDS, AdvDip (HK), MRDRCS
Assistant Professor in Periodontology

Dr Susan Bridges
BA, DipEd (Qld), GradCertTESOL, MA(Applying), EdD (Glasgow)
Assistant Professor, Dental Education and E-Learning
Frederick Chu: one of Hong Kong’s Top 10

The faculty’s Assistant Dean for External Relations, Dr Frederick CS Chu, has been selected as one of Hong Kong’s “Ten Outstanding Young Persons”.

Dr Chu was selected for the top-10 award in recognition of his professional contributions to the community and is the first ever HKU dental graduate to win this accolade since the Hong Kong-wide competition began in 1970.

“I wouldn’t have got this award without the continuous support and encouragement from certain people,” says Dr Chu. “These include Prof Lakshman Samaranayake, my PhD supervisor; Prof Tak-wah Chow, my clinical trainer; and Prof John Chai, my research collaborator.” Dr Chu’s nominator was Prof Kai-ming Cheng, SBS, JP, and referees were Dr Leo TH Lee, GBM, GBS, OBE, LLB, JP, and Mr Sydney Lowcock, MBE, JP.

The winners of “The 35th Ten Outstanding Young Persons Selection” were announced on 6 October 2007 by the contest organiser, the Junior Chamber International Hong Kong (JCIHK). The awards ceremony will take place on 2 December 2007 at the Hong Kong Convention and Exhibition Centre.

JCIHK is a non-profit group that is dedicated to developing leadership potential among young people in Hong Kong. Their top-10 awards are given to 10 Hong Kong residents aged between 21 and 40 who excel in professional endeavours and show commitment to the community (for more information, see <http://toyp.jcihk.org>).

Teaming up with Tufts

A delegation from the School of Dental Medicine, Tufts University, Boston, Massachusetts, USA, paid a visit to the faculty on 6 June 2007. The two dental schools discussed topics ranging from e-learning and distance education to opportunities for collaboration in higher dental education and possible exchange programmes.

The Tufts University School of Dental Medicine is a private dental school that educates pre- and post-doctoral students, and has strong experience in delivering distance dental education. The school’s website is <www.tufts.edu/dental>.

Dean Samaranayake also recently signed an Agreement for Exchange Programs with Dr Marjorie K Jeffcoat, Dean of the University of Pennsylvania School of Dental Medicine, USA.
Summer school report

The HKU Faculty of Dentistry held its first summer school for local and international secondary school students from 22 to 28 July 2007, as part of the HKU Summer Programme 2007. The organisers, Dr Thomas Li, Miss Anson Chau, and Dr Edmond Pow, give their report below on the programme.

Last summer saw the faculty’s first summer school for secondary school students with an interest in dental education. The Faculty of Dentistry designed a week of activities to give the students an overview of the faculty’s different Disciplines, the BDS course, and career pathways in the profession. The participants also had a chance to live in student halls and sample life as a student at HKU.

Thirty students joined the programme; some were interested in dentistry because their parents are dentists. The programme was multidisciplinary and used an interactive and student-oriented approach. We also included a library session to give the students a taste of problem-based learning. There were hands-on sessions in Oral Radiology, Dental Hygiene, and Dental Technology, in addition to a session in the faculty’s modern Simulation Laboratory. The students especially found that a lot of fun. In the evenings, social activities such as barbeques and campus walks helped us all wind down.

Our summer school provided an opportunity for the youngsters to really get to know our faculty and get even more interested in dentistry and oral health. We thank all the faculty Disciplines that took part, as well as the student helpers, Dental Society 2006/07, and all those who lent administrative and technical support. Without the assistance of these many individuals, we would not have been able to hold such a successful and historic event.

Many happy returns

Dr Peter Wat, Honorary Clinical Associate Professor, celebrated his 60th birthday in August at the Grand Hyatt Hotel, Wanchai.

Not only is Dr Wat one of the longest-serving staff members of the faculty (more than 25 years), but he also demonstrated his loyalty and philanthropy by turning his birthday party into a fund-raising drive for the faculty!

Together with friends, family, and relatives, Dr Wat raised HK$200,000 during the evening, especially for the faculty’s “Implant Project for the Elderly” charity campaign, which aims to provide implant therapy to impoverished elderly people without any teeth.

“The turnout and amount raised was encouraging,” says Dr Wat. “People were happy to make donations while having fun; the sponsored karaoke was very popular.”

Prof Tak-wah Chow, Associate Dean for External Relations, attended the birthday party and thanked Dr Wat on behalf of the faculty. Cheers to Dr Wat!

Radio activity

Dr Thomas KL Li and Prof Lim K Cheung (pictured left, L and R) were among faculty staff who took part in a public education radio campaign from August to October, which was organised as part of the faculty’s Silver Jubilee celebrations.

Broadcast in Cantonese on RTHK Radio 1 at Friday lunchtimes, the Oral and Dental Care Series consisted of nine 1-hour presentations on topics including the faculty’s achievements over the past 25 years, the connection between oral and systemic health, oral and dental health advancements, oral effects of smoking, and oral care for children.

Other faculty speakers were Prof Tak-wah Chow, Dr Cynthia KY Yiu, Dr Frederick CS Chu, Dr Edmond HN Pow, Dr Gary SP Cheung, Dr Ricky WK Wong, Dr W Keung Leung, Ms Cordelia KP Chan, and Prof Edward CM Lo. The broadcasts can be heard again at: <www.rthk.org.hk>. 
Universitas 21 dental meeting

The HKU Faculty of Dentistry hosted the 2007 Universitas 21 (U21) Dentistry Meeting on the afternoons of 27 and 28 September 2007.

Organised by Prof Li-jian Jin (the faculty’s Associate Dean for Mainland and Global Affairs) and Ms Lorraine Devitt (Secretariat of the U21 Health Sciences Group), the meeting allowed deans or their representatives from six U21 university dental institutions to share and discuss a wide range of current topics in dental education, academic collaboration, and development.

Presentations from the faculty were delivered by Prof Urban Hägg (on taught postgraduate programmes), Prof Tak-wah Chow and Prof Jin (on the newly launched Master of Science in Implant Dentistry and the HKU–Peking University Conjoint International Postgraduate Programme in Periodontology, respectively), Dean Samaranayake (on the faculty’s plans for further development of postgraduate dentistry), Prof Esmonde Corbet and Dr John Dyson (on BDS assessment in a problem-based learning curriculum), and Prof Lim K Cheung (on benchmarking across U21 dental institutions).

In addition, updates were given by Prof AD Walmsley from the University of Birmingham (on the 2007 Global Congress on Dental Education), and Dr C Zed, Dr K Gardner, and Prof D Sweet from the University of British Columbia (on international programme outreach and service learning models, e-learning-based portfolios, and forensic odontology, respectively). The meetings were chaired by Prof E Reynolds from the University of Melbourne on the first day and by Prof Jin and Dr Dyson on the second day, which ended with a relaxing evening on Lamma Island.

U21 is an international network of 20 leading research-intensive universities in 12 countries. The U21 Dentistry Meeting was part of the 2007 U21 Health Sciences Annual General Meeting hosted by the HKU Li Ka Shing Faculty of Medicine. Next year’s U21 meeting will be hosted by the University of Virginia, USA.

International Symposium on Forensic Odontology

After the U21 Dental Meeting, the faculty and U21 Dentistry Group jointly hosted a 2-day International Symposium on Forensic Odontology and Disaster Victim Identification. Expert speakers from more than 10 countries and INTERPOL shared their experiences on topics such as updates on forensic dentistry; crime investigation and disaster victim identification; international collaboration; new technologies; and postgraduate education and professional training in forensic odontology.

The symposium was organised by Prof Li-jian Jin, Dr Carl Leung (Forensic Odontology Group, Hong Kong), Prof John Clement (University of Melbourne), and Prof David Sweet (University of British Columbia).

21st IAPD Congress 2007

The International Association of Paediatric Dentistry (IAPD) held its 21st Congress at the Hong Kong Convention and Exhibition Centre, Wanchai, from 14 to 17 June 2007. Faculty members who helped organise the congress were Prof Nigel King and Dr Cynthia KY Yiu, who were the Scientific Committee Chair and Vice-Chair, respectively, as well as Dean Samaranayake and Emeritus Prof Stephen HY Wei, who were Honorary Advisors. A first for the IAPD was a new type of symposium called “My Practice”, where speakers from England, Germany, China, Australia, Greece, Korea, and India provided entertaining and informative insights into paediatric dentistry in the private sector.
HKU-PKU periodontology training centre opened

On 9 October 2007, The University of Hong Kong (HKU) and Peking University (PKU) officially opened the Beijing training centre that will be the home of the new Conjoint International Postgraduate Programme in Periodontology.

The recently launched HKU-PKU Conjoint International Postgraduate Programme in Periodontology is the first ever international postgraduate programme in clinical dentistry or medicine in mainland China. Occupying a whole floor of 14,000 square feet, the Advanced Training Centre in Periodontology, where the course will be conducted, has fully equipped dental units that have been designed for four-handed dentistry. The centre has in-house radiographic facilities, dental laboratories, seminar rooms with video-conferencing, and study areas. Furthermore, the training centre is situated close to the 2008 Olympic Games National Stadium and has convenient access to the metro and other transportation.

Officiants at the Unveiling Ceremony of the training centre included Dean Samaranayake, HKU Vice-Chancellor Prof Lap-chee Tsui, HKU Pro-Vice-Chancellor Prof CF Lee, PKU Vice-President Prof Jian-hua Lin (on behalf of PKU President Prof Zhi-hong Xu), and Dean of the PKU School of Stomatology Prof Guang-yan Yu. In his address, Dean Samaranayake thanked all those at the two sister universities and the Ministry of Education of the People’s Republic of China who worked hard to bring the project to fruition—in particular, Prof CF Cao at PKU, and Prof Li-jian Jin, Dr Gordon KC Chiu, and Prof Esmonde Corbet at HKU.

The 2008 programme (delivered in English) starts in February 2008 and is open to applicants from both mainland China and overseas. The 2-year full-time course leads to the HKU MDS Perio and a PKU Certificate. The world-class faculty team comes from HKU, PKU, and seven top dental schools in the USA, Europe, and Australia. For more information, please visit the website: <www.facdenthk.org/postgraduate_prospectus.htm>.

The 7th Asian Pacific Society of Periodontology Meeting

The Asian Pacific Society of Periodontology—a platform for collaboration and exchange in periodontal research and practice in the Asia-Pacific region—kicked off its 7th biannual meeting in Beijing on 21 September 2007, the day after National Tooth-Loving Day. The theme of the meeting was Periodontal Medicine. On the Organising Committee of this 2-day event was Co-Chair Prof Esmonde Corbet. In addition, he and Prof Li-jian Jin were on the conference’s Scientific Committee. During the conference, Prof Jin delivered a talk titled “Periodontal infections, systemic inflammation, and cardiovascular disease: current evidence and perspectives” and was re-elected as a Councillor of the Asian Pacific Society of Periodontology.
Research Highlights

Zooming in on biofilms

Two recent journal publications by faculty members have focused on oral biofilms. In the first paper, an artificial mouth system was used to study the effect of root restoratives on bacterial biofilm formation. After 3 weeks, a protective effect was conferred by glass-ionomer cement but not by resin-modified glass-ionomer cement or by resin composite. In the second paper, Candida albicans ultrastructure in biofilms was shown to depend on the environment. More extracellular polymeric matrix was formed under aerobic or dynamic conditions than under anaerobic or static conditions, respectively. In addition, tentacle-like (hyphal) elements were seen in biofilms that were cultured anaerobically.


Research in brief

- Two inhibitors of cholesterol production could be useful as bone graft materials, a rabbit bone-healing study has concluded. When applied with collagen, simvastatin and naringin led to 298% and 490% more bone formation, respectively, than collagen alone. [Wong MKK, Rabie AIBM. Bone induction using hydroxymethylglycinate coenzyme A (HMG-CoA) reductase inhibitors. Hong Kong Dent J 2007;4:15-21]
- Patterns of tooth loss among 20- to 25-year-olds in Hong Kong have been changing, according to a review of panoramic X-rays at the Prince Philip Dental Hospital. Tooth loss decreased for all tooth types, except for premolars, between 1984 and 2004. [Liang BMH, Li TKL, Lo ECM, Mok WH, Ma ECY. Patterns of tooth loss in young Hong Kong adults: a preliminary study based on Prince Philip Dental Hospital patients in 1984, 1998 and 2004. Hong Kong Dent J 2007;4:23-7]
- Fluoride gum could be "an effective component of caries prevention regimens". In an in-situ study of 18 volunteers, chewing fluoride gum was three times as effective as using fluoride toothpaste in remineralising caries-like lesions in tooth enamel sections. [Anthonappa RP, Athgaran A, King NM. Re-mineralization potential of a fluoride chewing gum versus fluoride dentrifice: preliminary results of an in-situ study. Hong Kong Dent J 2007;4:26-35]

In the Chair

“Grüezi” and “Benvenuti”!

The faculty wishes a warm welcome to two new staff in the Discipline of Oral and Maxillofacial Surgery: Dr Dr Roger Zwahlen (Associate Professor) and Dr Andrea Torroni (Assistant Professor). Before joining HKU, Dr Zwahlen worked as a Consultant for 5 years at the Department of Cranio-Maxillofacial Surgery of the University Hospital of Zurich, Switzerland, and Dr Torroni was a Research Assistant and practising surgeon at the Maxillofacial Department of the University of Rome “La Sapienza”, Italy.

What inspired you to enter a career in oral and maxillofacial surgery?
Dr Zwahlen: While studying dentistry at Berne, Switzerland, I developed a strong interest in oral and maxillofacial surgery, so I decided to study medicine immediately after the dental degree to become an oral and maxillofacial surgeon.
Dr Torroni: Oral and maxillofacial surgery is a relatively new field and one in which the University of Rome excels. I was attracted by the challenges that a developing field poses and also by the technical expertise of the department in Rome.

How did you decide to move to Hong Kong and join our faculty?
Dr Zwahlen: I was at a stage of my career when I was ready to leave my home country to gather experience abroad. I had several available options, among which the position in Hong Kong offered me the biggest challenge and greatest possibility to fully expand my capacities.
Dr Torroni: I chose to move to Hong Kong because the HKU Faculty of Dentistry offers a more structured teaching environment and clearly desires growth in terms of both research and technical practice. I think that it is important for every academic to have a broad perspective and try new experiences.

What do you hope to accomplish at HKU?
Dr Zwahlen: I want to contribute to the strengths of the dental faculty and HKU. My research interests include heterotrophic bone formation and quality of life in tumour patients. I am also very interested in orthognathic and craniofacial surgery. My personal aim is to excel in the international field of oral and maxillofacial surgery.
Dr Torroni: At HKU, I hope to be a successful teacher, one who attracts students to the field. I also plan to conduct research in alternative modes of facial reconstruction—in particular, the use of prefabricated bone flaps.
Dr Susan Bridges, the faculty’s first Assistant Professor in Dental Education and E-Learning, is helping to further develop the faculty’s problem-based learning (PBL) curriculum and e-learning activities. Before joining the faculty, she was a Research Fellow with the Faculty of Education at Griffith University, Australia. Expressions asked Dr Bridges about her new appointment.

What’s your field, and what brought you to the faculty?
I’ve been an educator for nearly 25 years and I’ve worked in a range of roles and settings in both Australia and Hong Kong. These have included classroom teaching, curriculum design and management, teacher education, and educational research. My interest in policy development in higher education brought me to the HKU Faculty of Dentistry. Although the leap from my previous post in a faculty of education to one in a dental faculty seems great, there are commonalities in terms of policy, curriculum development, and educational research. An added attraction was the opportunity to work with colleagues operating in a fully integrated PBL curriculum. I also have a growing curiosity about learning in clinical settings.

Next year is the 10th anniversary of PBL at the faculty. How is our PBL course performing?
“Performing” is a good word here, because PBL tutorials are like performance art! To support students’ collaborative learning, your facilitators have developed finely tuned, intuitive skills in timing, sequencing, participation, and improvisation. As a teaching method, PBL is beautifully simple in that it is clearly structured and sequenced from Tutorial 1’s initial, phased introduction of aspects of a problem to the final “product” development after Tutorial 2.

The complexity that comes with curriculum planning, content integration, staff development, and student induction into the process is a real challenge for curriculum designers. However, as this faculty is so well ahead, with nearly 10 years of PBL, I recognise that I’ve joined a really experienced and committed team. Our work is now to refine and enhance a successful programme, especially in preparation for the upcoming changes due to what is now commonly referred to in Hong Kong as the “3+3+4” curriculum.

What’s in store for the faculty?
The faculty is in a good position to meet targets for the new 6-year BDS degree starting in 2012. The University has established institutional aims of enabling students to develop capabilities in:
1. Critical intellectual inquiry and life-long learning;
2. Tackling novel situations and ill-defined problems;
3. Critical self-reflection and greater understanding of others;
4. Intercultural communication, multicultural understanding and global citizenship;
5. Collaboration and communication; and

The current PBL curriculum is clearly attuned to these intentions and we are working with the University both to align outcomes and to plan for the additional BDS year.

Another aspect of my portfolio is e-learning and we are focusing on capitalising on the strong start made with the WebCT (Blackboard) platform to build up more digital learning resources and increase interactivity. A future faculty initiative is the hosting of an international conference on PBL in dentistry in early 2009, and I was pleased to join the organising committee on my arrival. It promises to be an important forum for exchange in PBL research and practice in dentistry.

International research excellence
Dr Susan Bridges was recently selected by the editors of the International Journal of Diversity in Organisations, Communities and Nations as winner of its International Award for Excellence. The winning article, “Investigating multiculturalism as policy and practice in the middle years of schooling: an Australian study”, was co-authored with Dr Cristina Poyatos Matas while Dr Bridges was Research Fellow at the Centre for Applied Language, Literacy and Communications Studies at Griffith University, Australia.

By conducting focus-group interviews with principals, curriculum leaders, and teachers from five Queensland primary schools, the researchers explored the meaning of “multiculturalism” and “multicultural education” in Australia. The results were enlightening and contrasted with findings of studies from the USA. “While current, international theories of ‘multicultural education’ were identifiable, there was an additional influence from the Australian ‘productive diversity’ movement,” says Dr Bridges. ‘Productive diversity’ attempts to link cultural diversity to social and economic capacity building in Australia, and its influence can be seen in the school system. Our paper has implications for conceptualising ‘multicultural education’ in Australia.”
Periodontal health and general health

By Li-jian Jin

The eyes are said to be the window to the soul, but many scientists are now realising that the mouth is the window to the body. Emerging scientific evidence shows that periodontal (gum) infections are associated with serious systemic diseases and conditions.

Periodontal diseases, including gingivitis and periodontitis, are the most common infections in humans. Periodontitis is an advanced form of periodontal disease that is induced by pathogenic plaque biofilm. It is characterised by inflammatory destruction of tooth-supporting connective tissue and alveolar bone, and is the most common cause of tooth loss in adults. Scientists suspect that periodontal diseases have profound effects on general health.

♦ Coronary heart disease and stroke—Chronic inflammation has been implicated in the cause and pathogenesis of atherosclerosis and cardiovascular disease. Periodontal inflammation could have a role in the initiation and progression of coronary heart disease and stroke. Several studies have documented an association between periodontal diseases and cardiovascular disease after adjustment for common confounding factors, although a causal association remains to be proven. It is also evident that periodontal treatment to control periodontal inflammation may reduce systemic inflammatory levels and improve endothelial function, thereby contributing to the reduction of risk of cardiovascular disease.

♦ Diabetes mellitus—Two-way relationships have been found between periodontal health and diabetes. Periodontitis is potentially a complication of diabetes, whereas periodontal infection may adversely influence glycaemic control in diabetes, and the induced production of pro-inflammatory mediators in periodontal disease may mediate insulin resistance and reduce insulin action, thereby putting some diabetic patients at a higher risk of complications. Emerging evidence shows that treatment of periodontal infections in patients with diabetes could improve glycaemic control.

♦ Preterm birth and low birth weight—Maternal periodontal disease has been associated with an increased risk of preterm birth and low birth weight, especially in high-risk groups, such as African-Americans or Hispanic-Americans. Some studies have shown that treatment of periodontitis in pregnant women improves periodontal disease and might reduce their risk of preterm birth and low birth weight.

♦ Pulmonary disease—Various pulmonary infections may be associated with periodontal infections. Oral bacteria have been implicated in the pathogenesis of pulmonary disease, and dental plaque might be an important reservoir of respiratory pathogens, especially among high-risk patients in intensive care units. Bacteria that grow in the mouth and throat can be breathed into the lower respiratory tract and contribute to respiratory diseases such as pneumonia or worsening lung conditions. Periodontal diseases may also increase the risk of pulmonary infection.

♦ Rheumatoid arthritis—Rheumatoid arthritis and periodontitis have similar pathobiology, which is characterised by inflammatory destruction of bone and soft tissues. Emerging evidence shows that rheumatoid arthritis and periodontitis appear to be inter-related, by sharing common host susceptibility factors related to an underlying dysfunctional inflammatory response. Recent studies suggest a significant relationship between periodontitis and rheumatoid arthritis. Patients with severe periodontitis are more likely to have advanced rheumatoid arthritis, although a causal association remains unproven.

♦ Early death—Recent longitudinal studies have suggested that young adults who have severe periodontitis with missing molars might be at increased risk of early death (before the age of 50 years) due to certain life-threatening diseases, such as cardiovascular disease and neoplasms.

♦ Implications for health—Research is ongoing to understand better how periodontal health and general health relate to each other. In the mean time, the public should be well informed of the associations between periodontal infections and systemic diseases, as well as the potential health implications. Dental and medical professionals should be aware of this mouth-body connection and collaborate with each other in the management of affected patients, with the aim of improving both oral health and general health.
Evidence-based periodontal practice

By Esmonde Corbet

Periodontology is the branch of dentistry that studies and deals with the supporting structures around teeth (the periodontium) and related diseases and conditions. Evidence-based periodontal practice is the integration of the best evidence available in periodontology into clinical practice and decision-making.

Periodontology, of all the dental disciplines, should have the largest evidence base for guiding practice. Since the mid-1960s, World Workshops have been held to review available evidence to guide periodontal practice. Initially, these “World” Workshops were arranged by and for the United States, but five workshops have since been held in Europe to review systematically what clinical trials can tell us about the prevention and management of periodontal disease. Further resources for practitioners include the journal Periodontology 2000 and the Cochrane Oral Health Group Reviews (available online at <www.ohg.cochrane.org/reviews.html>), which are named to honour the late Prof Archibald (Archie) Cochrane, who was a Professor at the Welsh National School of Medicine. He was a personal hero of mine when I worked in the British National Health Service in the 1970s, because of his contrarian views and for his 1972 book, *Effectiveness and Efficiency: Random Reflections on Health Services*.

Weighing the evidence

Surprisingly, the evidence for much of what periodontists hold dear, such as the importance of clean teeth, is not as strong as we would like. Studies largely report on only short-term, not long-term, improvements, which is a by-product of the need for dental academics to publish rather than to research and answer questions. Even when reading a very recent Cochrane oral review summary, one is struck by the lack of evidence for the effectiveness of the routine scale (and polish) in promoting periodontal health.

Some treatment approaches are evidence-based. Non-surgical periodontal therapy is supported conclusively by the highest possible evidence as being effective and efficacious in the management of periodontal disease. Still, operator skills, patient (and operator) preferences, and other dental treatment needs often lead to treatment decisions that disregard that particular evidence base.

Surgical periodontal therapy can certainly lead to shallower periodontal pockets around periodontally affected teeth and provide greater resistance to periodontal probing. These “surrogate” outcomes, however, only stand in for, or in place of, the real desired outcome of importance to patients, which is whether they can keep periodontally affected teeth in comfortable function for longer after one form of treatment compared with another. Sadly, despite all the research efforts of the past five decades, we do not as yet have evidence to allow us to present to patients which form of periodontal treatment will realise a better real and desired outcome.

Adjuncts to surgery

In terms of enhancing the surrogate outcome measures of shallower periodontal pockets and greater resistance to periodontal probing, two types of adjunctive regenerative procedures applied along with a surgical approach have been shown to be equally effective as each other. According to the Cochrane Review, the approach that is simpler to use and results in fewer complications should be chosen. But in my personal experience, despite evidence of equality of outcomes and one approach having been shown to be simpler to use (and coincidentally having fewer complications) than the other, periodontists and teachers of Periodontology are still reluctant to abandon, for whatever reasons, the older, more technique-sensitive approach that causes greater patient discomfort and results in more complications.

Jury still out

Not all those who systematically review the available evidence come to the same conclusions. European and American reviews have concluded that a range of grafting materials can provide added benefit when used in periodontal surgery to treat some types of chronic periodontitis defects. In contrast, Swedish reviews of methods used to treat chronic periodontitis in Sweden have concluded that evidence for the efficacy of most graft materials is insufficient.

European and American systematic reviews have also concluded that some systemic antibiotics taken orally during non-surgical periodontal treatment can improve clinical outcomes over those achieved by non-surgical treatment alone. Swedish reviews have found no evidence of benefit. Although one might agree that antibiotics should not be used adjunctively with routine non-surgical periodontal treatment, it is hard to appreciate how systematic reviews of available evidence can lead to two opposite conclusions; it is probably to do with thresholds and standards applied.

Thus, while arguing for an evidence base for periodontal care, we must realise that for some clinical decisions, there is no, or insufficient, evidence. Furthermore, good and reliable evidence is often overlooked and, sometimes, what evidence there is can be used in more ways than one. Notwithstanding these caveats, Periodontology probably has the most robust evidence base in dentistry. Now, if only patients would clean their teeth effectively andatraumatically, all would be well.

Prof Esmonde Corbet (e-mail: <efcorbet@hkusua.hku.hk>) is Professor in Periodontology at the HKU Faculty of Dentistry.
Prof Ron Fearnhead—forensic dental anatomist

It is with great sadness that Expressions announces the passing of Prof Ron Fearnhead, Foundation Chair Professor in Oral Anatomy at the faculty and founder of the Hong Kong Forensic Odontology Group.

Prof Ronald William Fearnhead, universally referred to as Ron, joined Dental Studies (as it was then) in 1980. He spent the first 2 years in the Medical Faculty’s Li Shu Fan building in Sassoon Road, engaged in the massive task of setting up both gross and dental anatomy, as well as histology, for dental students. This in part involved finding and hiring technicians versed in hard tissue sectioning and processing. Ron had decided that this was an essential part of the work of the Oral Anatomy Unit, which he set up at the Prince Philip Dental Hospital on his eagerly awaited move in late 1981. In this endeavour, he was heavily influenced by his early London contacts, having become himself an extremely accomplished dental histologist. He was, for example, the first to demonstrate nerve endings in dental enamel. Ron also maintained a variety of other interests in hard tissue biology, in particular from an evolutionary perspective—rather unusual at the time. Even when he retired (for the second time!) in 1986, he went to Japan for further study of enamel morphogenesis. He was one of HKU’s savviest scientific heads and a man noted for his erudition, creativity, and vigour. He was also a general mentor and widely respected, giving advice to many people, especially to those embarking on their careers.

Ron has left a huge legacy. He made a positive contribution to dental curriculum development and infrastructure, some of which still persists. He was an anchor in times of trouble, and a voice of reason. He knew the value of working diligently at what inspired one: “Never work for recognition. Do what you love to do to the best of your ability, and recognition will flow to you.”

From recollections by Prof Nina Jablonski, Head of Department of Anthropology, Pennsylvania State University, as told to Prof Brian Darvell. The full version, and an obituary by Prof Alan Boyle, can be read online at <www.facdenthk.org/news00.htm>.

Personalia

For the Record

♦ Prof Lakshman Samaranyake was bestowed with Honorary Membership to the American Dental Association in October 2007 (pictured, second from left).


♦ Prof Nabil Samman has been elected President of the International Association of Oral and Maxillofacial Surgeons and awarded an Honorary Fellowship by the American Association of Oral and Maxillofacial Surgeons. In addition, he was awarded an Honorary Higher Doctorate by the Prince of Songkla University, Thailand, and received the degree in September 2007 from Her Royal Highness Princess Chulabhorn of Thailand (pictured right).

♦ Prof Edward CM Lo, Dr Cynthia KY Yiu, and Dr May CM Wong have been awarded Competitive Earmarked Research Grants by the Hong Kong Research Grants Council for studies on two caries treatments, the resin-dentine interface in restored teeth, and oral health trends from childhood to early adulthood, respectively. Dr Cynthia Yiu has also won the Outstanding Research Postgraduate Student Award of the HKU Graduate School, as well as the HKU Faculty of Dentistry Research Output Prize.

♦ Prof Li-jian Jin with three collaborators from the USA and UK, has been awarded a grant for US$800,000 from the US National Institutes of Health for a 4-year study on bacterial modulation during the periodontal innate host response.

♦ Prof Urban Hägg has been made a member of the Angle Society, North Atlantic Component.

♦ Dr Gary Cheung has been appointed to the Editorial Board of Dental Tribune International, which publishes an international magazine of endodontics, Roots.

♦ Dr Daisy You (MDS student) won the Best Paper Award in the category of Cariology and Mineralized Tissues at the 21st Scientific Meeting of the International Association for Dental Research Southeast Asian Division, which was held in Bali, Indonesia, in September 2007.

♦ Mr Dustin Wai (BDS V student) won the third prize in the Student Prevention Table Clinician Programme, organised jointly by the South-East Asia Association for Dental Education (SEAADE) and GC Dental Asia at the 18th SEADDE Scientific Meeting in Bali, Indonesia, in September 2007.

Staff movements

The faculty bids a grateful and fond farewell to:

♦ Dr Margareta Bendeus, Assistant Professor
♦ Dr Raymond LK Chow, Assistant Professor
♦ Dr Richie WK Yeung, Lecturer
♦ Ms Regina Fung, Executive Officer

And a warm welcome to:

♦ New academic staff listed on page 5
♦ Ms Betty Lo, Executive Officer
♦ Ms Anson Chan, Executive Officer
♦ Miss Janet Chan, Executive Assistant
♦ Miss Victoria M Gatioan, Community Lounge steward
Discovering dentistry down under

Dr Jancy CS Lo (BDS 2007) [pictured, far right] was awarded the Dental ’85 Prize in Elective Studies this year for her report of her BDS V elective, which took her to the School of Dental Science at the University of Melbourne, Australia.

My elective placement was at the School of Dental Science at the University of Melbourne, and I was very grateful that I could visit its affiliated teaching facility, the Royal Dental Hospital of Melbourne.

During the elective course, I watched how postgraduate students carried out dental treatments in specialty clinics, and I had the nice surprise of being able to observe a few periodontal surgical cases. The dentists were very kind to share their knowledge and clinical experience with me.

I also attended laboratory lessons with dental students. It was a good opportunity to learn more about the curriculum and the teaching aids of the Dental School. I got to know about dental equipment and teaching tools that we do not have at the Prince Philip Dental Hospital.

At a visit to a private dental clinic, which was arranged by the course coordinator, I observed how a prosthodontist communicated with his patients. It was interesting to see how demanding his patients were, and I learnt more about the possible complications of implant-supported prostheses.

The elective course allowed me to gain more knowledge in clinical dentistry, as well as practice management. And through my home-stay family, I got to know about some customs and living styles in Australia. Overall, this elective placement was a fruitful experience for me. I think every dental student should treasure the chance of visiting foreign dental institutes in the future.

Herbal researcher reaps rewards

Dr Jayampath Seneviratne (left), from Sri Lanka, is a third-year PhD student in the Discipline of Oral Biosciences. Expressions asked him about his recent successes in research using traditional Chinese medicine herbs to fight Candida fungi.

What herbs have you been using, and do any possess anticandidal activity?
I’ve been screening some well-known herbs in traditional Chinese medicine to see if they can inhibit growth of candidal cultures using an agar plate assay.

Two of them—Rhizoma coptidis and Cortex phellodendri Chinensis—are able to inhibit the growth of several Candida species, but not C albicans.

What could this mean for treating candidal infections?
Candida is the most common human fungal pathogen. Although C albicans is the major species in human infections, non-albicans species are becoming more prevalent and have been reported to be resistant to common antifungal agents. In the future, we will need new antifungals to fight these species, and natural herbal products could be useful for that purpose.

Has this research been published?
A paper I wrote with my supervisor, Prof Lakshman Samaranayake, and our collaborator from the faculty’s Biomedical and Tissue Engineering Research Group, Dr Ricky WK Wong, has recently been published in the journal Mycoses online, ahead of print (doi:10.1111/j.1439-0507.2007.01431.x).

I also presented the work on 16 August 2007 at this year’s Hong Kong–Macau Postgraduate Symposium on Chinese Medicine, held at the Hong Kong Convention and Exhibition Centre, and my presentation was reported by the local newspaper Oriental Daily the next day.

What’s next?
I’m doing further tests to confirm the usefulness of the two herbs. I’ve also been busy doing biofilm research, co-supervised by Dr Yu Wang, Prof Li-jian Jin, and Prof Lakshman Samaranayake. At the Hiroshima Conference on Education and Science in Dentistry, Japan, 6-7 October 2007, my poster presentation “Current developments in Candida biofilm proteomics, cellular imaging, and drug resistance” won the Hiroshima University Award.

…Congratulations!

Herbal research takes root: Rhizoma coptidis can inhibit growth of some Candida species.
Amalgamating music and dentistry

Dental student and singer-songwriter Luke Chow (BDS IV) has released a pop CD, called Inspired by People.

Self-funded, the CD contains eight tracks of acoustic pop, sung with heartfelt lyricism by a uniquely rich and powerful baritone voice. Luke’s mellow sound is influenced by artists such as Morrissey, Dave Matthews, John Mayer, and Elliot Smith.

“My music isn’t heavy, but it’s still band music,” Luke told the South China Morning Post in a recent interview about his debut album release. “Most of my songs are about…my own life. The title of the album is a reflection of that.”

A well-known figure on the Hong Kong Indie music scene, Luke regularly performs in local venues and has been interviewed by local magazines, radio, and television. He has his dental studies firmly at heart though (his father is an Associate Dean of the faculty), and “Becoming a dentist” is even one of the CD’s songs, deemed as the album’s highlight by a fan on Luke’s MySpace page!

Check out the CD on <www.lukechow.com> and be inspired.

Alumni Expressions

Dental ’87 Reunion

Congratulations to Class of 1987, who celebrated their 20th anniversary in July 2007. Dr Pinky WP Fung (BDS 1987), reports on their reunion dinner.

It was an unforgettable night on 7.7.07, when 44 Dental ’87 classmates and five spouses attended our 20th Anniversary Reunion at Moon Koon Restaurant in Happy Valley.

Among the attendees were Dr Stephan and Theresa Yao from the USA and Dr Wallace Lam from the UK. Gordon Lam talked to us in a video taken in his cosy home in Canada. Those who could not attend, such as Abigail, Carmen, Chammy, Eveline, and Corrie, sent in some photographs. It was amazing to note how much, and at the same time how little, we had all changed in 20 years.

Thanks to the organisers and group coordinators, more than 100 photographs taken at various occasions—at the Prince Philip Dental Hospital, graduation, weddings, openings of clinics—had been collected from classmates’ photo albums. Dr Cherry Wong compiled the photos into a video show. We were able to savour the warm memories of the good old days and chitchatted on the past, present, and future throughout the night.

Next came the evening’s games. Dr Alex Lee and Dr Frankie So challenged our classmates’ memories by asking about the photos. For example: “Where were we in this photo on Sports Day?” and “What was in this bag for the Tai O community project?” The “Whose kid is this?” game was a truly head-scratching time for many but a lot of fun nevertheless.

The night ended with group and class photo-taking. Our photographer, Dr William Lee, also worked hard all night to record the event’s cherished moments. All his photos and videos will be made into a DVD by Dr Cherry Wong, and Dr Raymond Lee has volunteered to distribute it to participants of the reunion.

Our special night was the result of the dedicated work of the Organising Committee: Drs Wai-ping Fung, Chi-shing Lee, Chunki Lee, Kin-man Lee, Wai-keung Leung, Hung-wai Poon, Hon-ching So, Cherry CY Wong, and Kai-yuen Yeung. We look forward to many more reunions in the years to come!
Plaque is the clear sticky film on teeth, which is made up of masses of harmful germs. Some types of plaque cause tooth decay, while others cause gum diseases. Gum diseases can be “silent”: they may not cause any pain, but they are progressive and, left untreated, can be serious. For example, periodontitis is a gum disease in which gums gradually shrink away from teeth and ligament attachment and bone are lost; without treatment, this can lead to tooth loss. Brushing teeth on all sides and along the gumline removes most food residue and plaque, but it cannot effectively remove plaque on adjacent tooth surfaces where neighbouring teeth face each other and meet the gums. Flossing is an important part of the daily oral hygiene routine and helps us properly clean those areas of our teeth. Some fast facts:
- Only 24% of adults in Hong Kong floss their teeth every day, but not always effectively.
- In a 2001 Hong Kong study, more than 99% of adults had varying degrees of gum disease.
- The Hong Kong Department of Health has launched the Love Teeth Campaign 2007-2008 to encourage the community to clean adjacent tooth surfaces to improve oral health.

Flossing technique
(a) Wrap a length of floss (30-35 cm) around each middle finger and (b) gently slide the floss between teeth; do not snap it into place. Some people may prefer to use a double-knot to tie the floss into a circle first (c, d).

With the floss forming a C-shape around the side of the tooth, move the floss gently in an up-down motion, against the side of the tooth. Make sure to reach below the gum line. After flossing, rinse your mouth and wash your hands. For demonstration videos, see <www.toothclub.gov.hk>.

Note: Ordinary toothpicks cannot clean teeth like floss does, and may injure gums if used improperly.

Oral care tips
- Do not smoke or use tobacco. If you smoke, call the Hong Kong Department of Health Smoking Cessation Hotline (2961 8883) or visit <www.tobaccocontrol.gov.hk> for advice on quitting.
- Have a balanced diet and be sure to eat fruits and vegetables every day, all year round.
- Brush your teeth twice a day with a fluoride toothpaste and clean between teeth every day by flossing.
- See your dentist regularly, and especially if your gums persistently bleed when brushing teeth; if they are red, swollen, or tender; or if they have pulled away from the teeth.


Written by Trevor Lane, DPhil; edited by Esmonde Corbet, FHKAM (Dent Surg), FCDHK (Perio), and Li-jian Jin, PhD, Odont Dr. This Patient Page is for general informational use and is not a substitute for diagnosis; for specific advice, please consult a dentist, who may in turn ask you to see a dental hygienist.
Get Drenched in Great Taste

NEW ALL Solutions Fluoride Rinse—Undeniably great fluoride protection, Incredible taste.

Now it’s easy to show both pediatric and adult patients what great protection tastes like:

- Comes in 4 mouthwatering flavors:
  - Peach, Berry Cherry, Tropical, and Mint
- 8 out of 10 dental offices rated ALL Solutions Fluoride Rinse as very good or excellent.

- New delivery system: 1-part neutral sodium fluoride rinse for two 30-second treatments
  - Fluoride uptake is equivalent to gels and 2-part rinses — yet takes half the time
  - No mixing, no mess
  - Premixed doses for your convenience
  - No tray means less gagging

- Safe enough to use on any patient:
  - Great for pediatric and adult patients
  - Restoratives, postsealant, and xerostomia

For better dentistry

DENTSPLY

Reference: 1 Data on file

Dentsply Asia
23/F., Pacific Place, Harbour City, 1 Harcourt Road, Central, Hong Kong
Tel: 852-28570188 Fax: 852-28570190
Email: asiainfo@dentsply-asia.com www.dentsply-asia.com
Listerine Teeth & Gum Defence

All the clinically proven benefits of Listerine:
- Prevent & reduce gingivitis
- Reduce plaque
- Fight malodor
- Kill germs

Now with Fluoride
- Prevent dental caries
- Reverse early tooth decay
- Remineralize tooth enamel

• Improve gingival health by up to 34%¹
• Reduce plaque by up to 56%²
• Kill 99.9% of bacteria within 30 seconds³
• Increase surface microhardness recovery by 26%⁴
• Deliver 20% more fluoride than conventional fluoride rinse⁵
• Strengthen and remineralize tooth enamel in only 2 weeks⁶


www.listerine.com.hk