HKU OUTSTANDING RESEARCH AWARDS

GUM DISEASE TREATMENT PROJECT

WORLD’S NO. 3 DENTAL SCHOOL

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DEAN’S MESSAGE

Access to Oral Healthcare
Faculty Plays a Key Role in Strengthening the Dental Workforce

There is a renewed discussion about access to oral healthcare in Hong Kong. Access to healthcare is generally defined as a timely use of personal health services to achieve the best possible health outcomes. Key elements are an adequate workforce of qualified providers, timeliness in the provision of healthcare, continuous healthcare, and affordability. Arguably, the main issues limiting access to oral healthcare in Hong Kong are a lack of dentists and affordability.

With 34 registered dentists in Hong Kong per 100,000 people, Hong Kong has more dentists than most Provinces in Mainland China, but lags behind other developed economies, e.g., an average of 61 dentists per 100,000 people in member counties of the Organisation for Economic Co-operation and Development (OECD). The then Food and Health Bureau’s latest Healthcare Manpower Projection reported only a minor shortage of dentists in Hong Kong until 2040. One, however, now realizes that the need for dentists may have been underestimated and in addition, more dental surgery assistants and dental hygienists are needed to further improve access to oral healthcare. Already in 2018, the Faculty, which educates 4 out of 5 newly registered dentists in Hong Kong, proposed to double the number of BDS students to further strengthen the workforce.

With limited publicly funded oral healthcare and dental insurance coverage, most oral healthcare in Hong Kong is paid for out-of-pocket. The out-of-pocket costs put even basic oral healthcare out of reach for many people. For example, a non-surgical treatment of mild to moderate periodontitis, which affects more than half of the adults in Hong Kong, is equivalent to what a household with a median income spends for food per month.

To further enhance the provision of publicly funded oral healthcare, among others, the Health Bureau has proposed to amend the Dentists Registration Ordinance. The legislative amendment proposal provides a pathway for admission of non-locally trained dentists who have passed the licensing examination to the public sector and introduces an internship for the Faculty’s BDS graduates in the Department of Health, Hospital Authority, and other institutions. Furthermore, the initiatives outlined in the Health Bureau’s Primary Healthcare Blueprint and the recently established Working Group on Oral Health and Dental Care hold promise to improve access to oral healthcare.

As the Faculty will play a key role in the internship, we look forward to working with the various stakeholders to ensure that the internship provides a valuable learning experience for our BDS graduates and dovetails with our undergraduate and postgraduate curricula.

PROFESSOR THOMAS FLEMMIG
Kingboard Professor in Advanced Dentistry
Dean of HKU Faculty of Dentistry
World’s No.3 Dental School

Ranked Among the Top 3 Globally in QS World University Rankings by Subject in 7 out of 9 Years

HKU Dentistry has been ranked No.3 at the QS World University Rankings by Subject 2023. It marks the 7th time in 9 years that HKU Dentistry has been ranked among the top 3 worldwide.

Professor Thomas Flemmig, Dean of the Faculty of Dentistry, is delighted to learn about the latest ranking of HKU Dentistry. He stated that the Faculty is honored to be ranked 3rd place among 523 dental institutions at the QS World University Rankings in Dentistry. “Our colleagues and students together with the staff from the Prince Philip Dental Hospital, have demonstrated resilience and dedication to teaching, research,
Our colleagues and students together with the staff from the Prince Philip Dental Hospital, have demonstrated resilience and dedication to teaching, research, and patient care over the past three years despite the challenges posed by COVID-19. The latest ranking is a testament to sustained academic excellence at HKU Dentistry and recognizes the achievements of our staff and students.

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On March 22, a happy gathering was joined by staff and students to celebrate the remarkable achievement of the Faculty’s sustained academic excellence. At the event, Professor Flemmig revealed the latest QS ranking and encouraged Faculty members to keep up the excellent work.

With the resumption of normality in Hong Kong and the continuous support by the University, HKU Dentistry continues to strive to be the global leader in oral health sciences, education, and professional care, delivering impact through innovation, interdisciplinary and internationalization.
HKU Faculty of Dentistry has recently received two grants for two cross-university research projects led by Dr. Wei Qiao, Clinical Assistant Professor in Applied Oral Sciences & Community Dental Care.

**CRF 2022/23 Young Collaborative Research Grant**

The research proposal titled “Development of a wireless-powered optoelectronic device for precise control of bone homeostasis through the modulation of the skeletal interoceptive circuit” is a collaborative project with molecular biologists from The Chinese University of Hong Kong and electrical engineers from the City University of Hong Kong. It won the CRF 2022/23 Young Collaborative Research Grant (YCRG), supported by the University Grants Committee (UGC).

The team is developing a wireless-powered implantable device that can activate the sensory nerves in bone tissue with light. As a result, it drives the nervous system to control new bone formation. “Bone insufficiency is one of the most challenging issues in implant dentistry. As an implant surgeon, I am passionate about exploring better therapeutic strategies using the most cutting-edge technologies to regenerate bone tissue,” Dr. Qiao elaborated.

With the UGC funding, the team’s next step is to test their prototype in animals to optimize the light stimulation scheme. They aspire to translate this product into clinical application. “I am grateful to receive this grant as it allows me to lead a multi-disciplinary and multi-institutional team to work on something big and crazy. We look forward to ‘shedding light on’ bones with our exciting findings!” Dr. Qiao concluded.

**Shenzhen-Hong Kong-Macau Technology Research Project**

The Faculty collaborates with Peking University and Shenzhen Hospital on the research project titled “The development of smart, responsive hybrid coating of titanium implant for immune-neural axis modulation”. This project aims at developing a near infrared-responsive coating on titanium implants that allows implant surgeons to combat peri-implantitis. The research team, led by Dr. Wei Qiao, received a grant of over HKD 3 million under the Shenzhen-Hong Kong-Macau Technology Research Programme (Type C) "深港澳科技計劃 (項目 C) ".

Peri-implant infection is one of the most significant challenges to overcome in dental implants. The rough surface of most clinically used dental implants, which was initially designed to promote osseointegration, makes infection control extremely difficult. “The innovative design of the coating transforms traditional titanium implants into smart biomaterials. Therefore, dentists can eliminate peri-implant biofilm and promote new bone formation in a non-invasive approach upon the detection of peri-implantitis,” said Dr. Qiao.

The research team will further test the effectiveness of the coating in animal models with peri-implantitis. Dr. Qiao expressed his gratitude for the generous grant and support provided by the Shenzhen Government, stating, “This further strengthens our confidence in collaborating with other researchers and institutions within the Greater Bay Area!”

The Faculty extends warm congratulations to Dr. Qiao for his outstanding achievements and reiterates its commitment to fostering research collaboration and teamwork across regions.
Gum Disease Treatment Project

Supported by Azalea (1972) Endowment Fund

A gum disease treatment project proposed by Dr George Pelekos, Clinical Assistant Professor & Postgraduate Program Director in Periodontology and Implant Dentistry, and Dr Chris Fok, Honorary Clinical Assistant Professor, has received HKD 11 million support from the Azalea (1972) Endowment Fund (Azalea Fund).

According to the Oral Health Survey in 2011, the prevalence of severe periodontitis (gum disease with loss of bone) in Hong Kong was estimated to be affecting around 0.7-1.4 (between 10-20%) million adults. Among them around 0.5 million adults suffered from end-stage periodontitis, which often results in tooth loss. Tooth loss eventually leads to impaired chewing function compromising dietary intake, self-esteem and overall quality of life. Treatments for these patients often include comprehensive and multidisciplinary specialist treatment such as periodontal, followed by orthodontic and rehabilitation of the dentition. Often, the treatment is not easily affordable, especially for underserved populations.

With the generous support from the Azalea Fund, the Division of Periodontology and the Institute for Advanced Dentistry Multi-specialty Clinic (IAD-MSC) of HKU Faculty of Dentistry are able to provide free treatment to at least 100 underserved patients with end-stage periodontitis at IAD-MSC, a centre of excellence for the management of complex and severe oral conditions.

The project team is determined to improve the patients’ oral health, chewing function, speaking, socializing ability and confidence; and to educate the public by enhancing their own awareness of periodontitis, its treatment and prevention.

The project will benefit the community and facilitate the development, specialist training and continuing education of the dental profession, as well as create research opportunities for postgraduate students.

The Faculty will announce more details of this project in fall. Stay tuned!
KNOWLEDGE EXCHANGE

BDS Students Engaged with Community

Serving the Elderlies and Underprivileged in Tai O and Kwai Tsing District

The Faculty of Dentistry has been encouraging Bachelor of Dental Surgery (BDS) students to engage the community by providing dental outreach services and oral health talks to elders and the underprivileged in society.

TAI O DENTAL OUTREACH SERVICE
Tai O is a remote village where over 30% of its population is elderly and over 40% of households live below the poverty line. Isolated location and poverty have created significant barriers for the elderly in Tai O to access dental care.

In view of this, a team of 12 BDS Year 4 students, led by Dr Phoebe Lam, Clinical Assistant Professor in Paediatric Dentistry, went the extra mile to this remote village. The dental team has obtained the Gallant Ho Experiential Learning Fund to serve the elderly with limited dental access there.

“There is only one Jockey Club government dental clinic in our village, and the only treatment offered is extraction.” One elderly participant mentioned. “If we want other dental treatments, it will take a 45-minute bumpy bus journey to Tung Chung. It’s too much for the elderly and I don’t know how much it will cost me.”

As part of the project, BDS students stayed in Tai O for 2 days to provide dental examinations, dental scaling, preventive fluoride application, and simple restorative treatments to the participating elderly.

Another important aim was to promote oral health awareness in the Tai O community. In addition to organizing interactive oral health workshops for the elderly, the team also trained and empowered secondary and university students living in Tai O to lead in promoting self and community oral health.

The dental students also had the opportunity to interact with the local villagers, home-visiting their serving targets at their “shack houses”. The project has greatly increased their knowledge on how dental care can play a role in uplifting the lives of the underprivileged locally. The project also enhanced their sense of social responsibility and commitment to serve the community.

“I am very thankful for this precious opportunity for us to join the service. I enjoyed the service very much. I have been touched so much by the hospitality and generosity of the Tai O residents, it is a gem in HK that I have never found out. It was also a great time spent together. I wish these kinds of activities could be held more often in different years; I am sure students will enjoy the same as I did. It is a precious learning opportunity, fun, and meaningful service all in one,” reflected by one of the BDS participants.

KWAI TSING DISTRICT DENTAL OUTREACH SERVICE
Another dental outreach service was organised by the Faculty of Dentistry and the Society of Preventive Dentistry of Hong Kong on February 25, 2023. The team collaborated with Health in Action to serve the low-income families living in Kwai Tsing District.

Over 70 participants joined the event to learn more about tooth decay, gum diseases and proper oral care through a talk, an exhibition and interactive group teaching. Simple dental examination was also provided by BDS students under the supervision of a volunteer teacher in Restorative Dental Sciences, Dr Edwin Lee.

One of the participating students, Ms Mak Yuen Ying, Year 5, treasured this opportunity, “As a BDS student, I am honoured to be able to utilise my skills and knowledge to serve the community, especially for those with lower...
KNOWLEDGE EXCHANGE

As a BDS student, I am honoured to be able to utilise my skills and knowledge to serve the community, especially for those with lower income and usually could not afford dental visits.

MS MAK YUEN YING, BDS YEAR 5

Supports World No Tobacco Day

The World Health Organization designates May 31 each year as “World No Tobacco Day” (WNTD). This yearly event aims to raise public awareness about the harmful effects of tobacco consumption and promote healthy lifestyles to protect future generations.

Smoking increases the risk of oral health problems. To support WNTD and promote oral health, the Faculty of Dentistry has launched a “Love Teeth Quit Smoking” webpage with the objective to delivering information on the relationship of smoking and oral diseases such as oral cancer, tooth decay, periodontal disease, tooth loss and tooth discolouration. Through this platform, we hope to bring out the messages of “stay away from tobacco” and “quit smoking”, which not only would benefit our oral health, but also enhance our overall quality of life.

The Faculty launches a “Love Teeth Quit Smoking” website.

To learn more about Love Teeth Quit Smoking, please visit facdent.hku.hk/world-no-tobacco-day

From top: BDS students perform oral examination; BDS students are delighted to collaborate with Health in Action to serve the low-income families.

Love Teeth Quit Smoking Webpage

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RECOGNITION & AWARD

Faculty Members Won Outstanding Research Student Supervisor Award and Research Output Prize

HKU Outstanding Research

OUTSTANDING RESEARCH STUDENT SUPERVISOR AWARD (ORSSA) – PROFESSOR CH CHU

ORSSA is to recognise excellent and effective supervisory guidance and support to research postgraduate students. “As a good research supervisor, it’s important to build relationships with your students based on openness, honesty and respect. We should be supportive yet demanding,” shared Professor Chu.

A locally trained dentist who received all his dental degrees from HKU, Professor Chu’s academic career and research journey did not begin until he was 40. He discovered that he is passionate in preventive dentistry, community dentistry and fluoride research. “With God’s grace, I am honoured to be one of the top dental researchers, receiving grants of over HKD 72 million, and continuously getting general research funding awards in the last five years.”

Professor CH Chu, Clinical Professor in Cariology received Outstanding Research Student Supervisor Award (ORSSA) and Professor May Wong, Professor in Dental Public Health won the Research Output Prize (ROP) at the HKU 2021-22 Outstanding Researcher Awards Scheme.

OUTSTANDING RESEARCH STUDENT SUPERVISOR AWARD (ORSSA) – PROFESSOR CH CHU

As a good research supervisor, it’s important to build relationships with your students based on openness, honesty and respect. We should be supportive yet demanding.

PROFESSOR CH CHU

His story shows that a person with a passion can pursue a PhD at any stage of their life and achieve success. With this belief, he wholeheartedly nurtures his research students regardless of their age and backgrounds. Along with his Christian faith, he has been sharing skills and knowledge, and passing on virtues and good values to the next generation of researchers and clinicians.

Professor Chu is grateful to receive the award. He extended his gratitude to God and those who have been on the journey with him. “Never forget why you started, for it will help you accomplish anything (不忘初心,方得始終)” he encouraged not only his students but everyone of us.

ABOUT PROFESSOR CH CHU AND HIS RESEARCH FOCUS

Professor Chu is a clinical professor and had served as a dentist in the HKU Health Service for 15 years before joining the HKU Faculty of Dentistry. He received his dental degrees (BDS, PgDipDS, MDS and PhD) from HKU. He is a diplomate of the American Board of General Dentistry, a Master of the Academy of General Dentistry (AAD) and he received the prestigious AAD Lifelong Learning & Service Recognition Award. He also possesses a Fellowship in Community Dentistry of the College of Dental Surgeons of Hong Kong and that of the Hong Kong Academy of Medicine (FHKAM).

Concerned about how tooth decay affects half of the preschoolers and almost all older adults in Hong Kong, Professor Chu’s research focuses on preventing tooth decay. He is the top-cited researcher in the dental use of silver diamine fluoride (SDF). SDF therapy is a simple, painless, and affordable non-restorative treatment.

Professor CH Chu (front row left third) enjoys breakfast with some of his students before they start their community service using SDF to prevent tooth decay.
to harden the tooth structure softened by decay. Since SDF is very effective in controlling tooth decay, the World Health Organization has recently added SDF to its list of essential medications for adults and children.

**RESEARCH OUTPUT PRIZE (ROP)**

The research project "Effectiveness of Family-Centered Oral Health Promotion on Toddler Oral Health in Hong Kong" won the Research Output Prize. The project aimed to improve pregnant women’s periodontal health, prevent vertical transmission of cariogenic bacteria such as Streptococcus Mutans (S. Mutans) from mothers to their infants, and establish proper toddler dietary habits and parental oral health practices.

ECC is one of the most prevalent health problems in preschool children and may profoundly affect their physical health and psychosocial status. However, parental practices on maintaining good oral health of their young children are far from satisfactory. Expectant mothers often receive only pamphlets on oral health during their antenatal visits. There is also no organized dental care for toddlers provided by the government.

Additionally, prenatal stages are the optimal time to provide relevant educational information. The dissemination of oral health education (OHE) would protect the oral health of pregnant women during pregnancy and their infants during the early years of life. Hence, the early establishment of proper dietary and feeding habits and parental toothbrushing practices would reduce the risk of Early Childhood Caries (ECC) in toddlers and have a lifelong impact.

**RESEARCH AND ITS OUTCOMES**

In view of the above mentioned, a research team led by Professor May Wong conducted a randomized controlled trial (RCT) of a family-centered oral health promotion program for first-time pregnant women, their husbands, and their infants. Individualized OHE via a behavioural and educational counselling approach was delivered to the parents in the test group compared to the delivery of OHE pamphlets in the control group. This RCT was the first clinical family-centered RCT in Hong Kong focusing on the oral health of new parents and their infants.

The novelty of the study was the evaluation of the association between oral health outcomes and S. Mutans quantification, beginning in the prenatal stage of the pregnant women and continuing through the first three years of childhood for their infants. The results were very encouraging, the ECC prevalence of 3-year-old in the test group was only one-fifth compared to the control group (4.4% vs 21.2%). Family-centered oral health promotion is more effective in establishing good feeding habits and parental tooth-brushing practices, and in decreasing the caries risk of their toddlers than the distribution of OHE pamphlets alone.

Notably, the prevalence of dental caries in 3-year-old in the control group, whose parents only received oral health pamphlets during the prenatal and their babies’ infancy stages, was significantly lower than the previously reported rates. Early oral health interventions assist parents and toddlers in developing proper oral health habits and brushing techniques, and they will continue to reap the benefits for the rest of their lives.

**MOVING FORWARD**

On top of the traditional way of disseminating oral health information to parents, the team is conducting another RCT using mobile messages to enhance the parents’ oral health awareness and encourage positive oral health habits for themselves and their children. Next, the team hopes to reach out to more disadvantaged groups that are most vulnerable to oral disease.

Alternatively, the oral cavity’s microbial diversity and evolution during tooth eruption, between the use of xylitol and fluoride toothpaste, and during dietary changes (breastfeeding VS formula feeding; liquid to solid food) are not well characterized. Hence, "we are identifying the dietary or other factors that alter the oral microbiota environment. This will tremendously help in the future adoption of oral health promotion strategies," said Professor Wong.

Being awarded, Professor Wong said, “It is a great honour and a recognition of our hard work, dedication, and perseverance in this well-executed research project. I am grateful to have an amazing team of colleagues, students, and support staff who contributed much to its success.”

The Faculty congratulates Professor Chu and Professor Wong for their remarkable work in research and teaching. The Faculty, in support of the mission of HKU to be a research-led university, strives to achieve excellence in research and the discovery of new knowledge. We will continue investing resources into nurturing research excellence among its staff and students.
RECOGNITION & AWARD

Faculty Outstanding Teaching Award 2022

Alumnus Nurture Students Wholeheartedly

Dr Elvis Tsang, Principal Clinical Dental Instructor in Periodontology, was awarded the Faculty Outstanding Teacher Award 2022, which acknowledged his outstanding contributions and excellence in teaching at the Faculty.

Being an alumnus of the Faculty of Dentistry, Dr Tsang obtained his Bachelor of Dental Surgery and Master of Dental Surgery (Periodontology) from HKU. He understands what dental students need. He practices what he preaches. “A teacher should be a role model to the students. One should teach the students by acting or behaving the same way s/he teaches,” Dr Tsang said.

When he exchanges and shares his knowledge and experience, he ensures his students absorb and understand the information. He is also open to different perspectives. “I learned using Problem-Based Learning when I was a Bachelor of Dental Surgery student, hence I am open to all ideas or comments from my students when they respond to my questions. We would then discuss their rationales behind them. This process allows us to understand each other’s thinking, and from there, the students could truly learn from my sharing.”

Dentistry is a very “hands-on” profession. A teacher must demonstrate and explain different procedures in details during clinical practice. Nevertheless, each patient and treatment are different, students have to acquire the techniques and skills by themselves. “One of the biggest challenges as teachers is that we cannot directly transfer skillsets to students,” he said. Additionally, students may suggest some “creative” ways of treatment which may be impractical or impossible to carry out.

In view of this, Dr Tsang shares not only his knowledge and success stories, but also his failing experiences. “It is important for them to realize that most people have gone through more or less the same journey when learning and it is fine to make mistakes.” He teaches his juniors by exploring the journey with them. “I used to teach 9 to 10 clinical sessions per week and have debriefing and discussion sessions until 7 pm in the clinic. Although those days were hectic, they were also the most memorable moments of my teaching career. I am very proud of them,” he expressed.

His enthusiasm and dedication to teaching paid off. He is honoured to receive the Faculty Outstanding Teaching Award. “It’s a recognition,” he said. Looking into the future, he hopes to continue contributing to the dental teaching and learning of undergraduates and postgraduates. He looks forward to achieving a good balance of teaching and research for the teaching staff.

Each year, the Faculty presents the Faculty Outstanding Teacher Award to a staff who has made a major contribution in advancing teaching and learning of the Faculty by maintaining an exceptional record of sustained teaching and learning activity within the last five years in undergraduate and/or postgraduate education. The winner of the Award will receive a Teaching and Learning Support Grant which may be used by the individual to further his/her teaching and learning activities and/or professional development.
RECOGNITION & AWARD

Graduate School Award Presentation

PhD Student Received Outstanding Research Postgraduate Student Award

“Don’t be afraid of the difficulties you encountered. Just keep on going. They will make you a better person,” shared by Dr Linlu Dai, PhD Student who received HKU Foundation Award for Outstanding Research Postgraduate Students from the Graduate School of The University of Hong Kong. Aspired to be a great clinician-scientist, Dr Dai’s “Study on a new strontium-doped bioactive glass-ceramic for caries management” won her the award. The project involves a new type of bioactive material that can be included in various oral care products. “This award will be a booster that encourages me to continue working on this type of new biomaterial and translate our research from bench-top to chair-side,” she said.

She also expressed her deepest gratitude to her supervisors, Professor Edward Lo, Chair Professor in Dental Public Health, for his supervision and encouragement; Professor CH Chu, Clinical Professor in Cariology, for his advice; and Dr ML Mei, Associate Professor in Restorative Dentistry of the University of Otago, for helping her overcome obstacles when conducting lab works during her PhD study. “I cannot achieve this without their guidance and support.”

The Faculty congratulates Dr Dai for her achievement. The Faculty is dedicated to attract and nurture talents, promote a culture of excellence, innovation, and integrity, and enhance the environment to excel in science, education, and professional care.

Web Accessibility Recognition Scheme

Faculty Webpage Receives Gold Award

Professor CH Chu, Associate Dean (External Relations), on behalf of the Faculty of Dentistry, received the Gold Award in Website Stream at the Awards Presentation Ceremony of Web Accessibility Recognition Scheme (WARS) 2022 – 2023 on April 24, 2023 at the Hong Kong Convention and Exhibition Centre.

Professor Chu was delighted to learn that the Faculty Webpage had received recognition from WARS. “We have been working hard to update and enrich the Faculty’s Webpage, as well as webpages for our various projects, with the goal of making them as user-friendly as possible. We hope that our webpage can contribute to the building of a caring and inclusive society.”

The Faculty takes social responsibilities seriously. In addition to providing excellent patient care and spearheading impactful community projects, we are dedicated to delivering easy-to-use and easy-to-search online services that comply with legal requirements for protecting against disability discrimination.

To learn more about Web Accessibility Recognition Scheme, please visit: www.ogcio.gov.hk

To learn more about Faculty Webpage, please visit: www.hkumd.com

On behalf of Dr Linlu Dai, her supervisor Professor Edward Lo received the award from Professor Rosie Young at the Award Presentation Ceremony organized by the Graduate School on March 7, 2023 at Lecture Hall II, Centennial Campus, HKU.

Professor CH Chu (left) and representatives of other HKU Departments/Units, including Centre of Development and Resource for Students, Communications and Public Affairs Office, Equal Opportunity Unit and HKU Libraries.
Cross Disciplinary Collaboration

DMS Team Uses Generative AI in Smart Manufacturing of Dental Crowns

The Faculty has made significant strides in the field of dental crown manufacturing. The Faculty’s team of leading researchers has devised a cutting-edge smart manufacturing technique that utilizes generative artificial intelligence (AI) in tandem with advanced dental manufacturing technology. This novel approach promises to revolutionize the way dental crowns are made, paving the way for more efficient and effective dental procedures.

The team, led by Dr. James Tsoi, Associate Professor in Dental Materials Science, collaborated with colleagues from HKU Faculty of Engineering’s Department of Computer Science to take a big leap forward for the next-generation AI-designed dental prosthesis production workflow.

The research team has devised a highly sophisticated generative AI algorithm that employs a true three-dimensional (3D) deep learning approach to create dental crowns that are personalised and highly accurate. These crowns closely mimic the morphology of natural teeth and are made from materials that match the biomechanics of natural teeth. Through biomechanical finite element analysis, the team has demonstrated that crowns designed using this AI algorithm and made from lithium silicate can come very close to achieving the expected lifespan of natural teeth. On the other hand, the two existing methods of designing dental crowns often result in crowns that are either too large or too thin, and they fall short of matching the same lifespan as natural teeth.

The results of this ground-breaking research have been published in the esteemed academic journal Dental Materials, in an article titled ‘Morphology and mechanical performance of dental crown designed by 3D-DCGAN’. Currently, the Computer-Aided Design and Manufacturing (CAD/CAM) digital workflow has significantly improved dentistry, but it still presents its fair of challenges. From the design to the manufacture of dental prostheses, the process remains labour-intensive and time-consuming. Additionally, the 3D printing and milling processes generate health and environmental hazards. The software currently used in this process relies on a ‘tooth library’ that contains predefined crown templates to assist in generating prosthetic designs and further adjustments by the operator are still needed to meet individual conditions.

We used a 3D-DCGAN approach to ‘teach’ the AI algorithm ‘good’ designs by feeding it with over 600 cases of natural and healthy dentition. The algorithm improves the quality of the design through internal competition between a generator and a discriminator.

DR HAO DING

The HKU Dental Materials Science research team: (from left) co-investigator postdoctoral fellow Dr Hao Ding, principal investigator Dr James Kit Hon Tsoi and PhD candidate Ms Yanning Chen.
The revolutionary smart manufacturing method developed by the research team presents a solution to the challenge posed by the conventional approach to designing personalised dental crowns. “We used a 3D-DCGAN (3D-Deep Convolutional Generative Adversarial Network) approach to ‘teach’ the AI algorithm ‘good’ designs by feeding it with over 600 cases of natural and healthy dentition. The algorithm improves the quality of the design through internal competition between a generator and a discriminator,” explained Dr Hao Ding, a co-investigator on the project.

“During the training process, the algorithm learned natural tooth morphological features, enabling it to design dental crowns that are comparable to a natural tooth both morphologically and functionally.” Dr Ding added.

The 3D-DCGAN AI-designed crowns were compared with natural teeth and with two other conventional CAD methods of crown design. The findings revealed that the generative AI-designed crowns had the lowest 3D discrepancy, the closest cusp angle (morphological feature), and similar occlusal contacts (functional feature) when compared to natural teeth.

“This demonstrates that 3D-DCGAN could be utilised to design personalised dental crowns with high accuracy that can not only mimic both the morphology and biomechanics of natural teeth but also operate without any additional human fine-tuning, thus saving additional costs in the production process,” said principal investigator Dr James Tsoi. “Many AI approaches design a ‘look alike’ product, but I believe this is the first project that functionalises data-driven AI into real dental applications. We hope this smart manufacturing technology will serve as a stepping-stone for driving Industry 4.0 in dentistry, which is vital to meet the challenges of an ageing society and lack of dental personnel in Hong Kong.” He added.

Dr Tsoi said the breakthrough marks an important step towards leveraging the dental industry in the Greater Bay Area, which sees an annual USD 3.3 billion revenue for producing 25-30% dental prostheses globally. It also aligns with the National 14th Five-year plan in developing new forms of industrialisation and informatisation, viz. smart intelligent manufacturing.

Clinical trials for using this generative AI for dental crowns are underway. The team is also exploring the applicability of this tool in other dental prostheses, such as bridges and dentures.

The study was supported by the General Research Fund (GRF), the Innovation and Technology Fund Mainland-Hong Kong Joint Funding Scheme (ITF-MHKJFS), and the Health and Medical Research Fund (HMRF). Its preliminary results were presented by Dr Hao Ding at the 35th Annual Scientific Meeting of the International Association of Dental Research (IADR) Southeast Asia (SEA). The study was awarded the leading IADR-SEA Research Category Award (Dental Materials and Biomaterials Category) in 2021.

The AI-generated tooth crown closely mimics the morphology of natural tooth.
Correction of Mandibular Prognathism

OMFS Study Compares Two Surgeries Link in Patients’ Quality of Life

With a normal bite, the upper jaw and teeth are sitting slightly in front of the lower jaw. However, when people are described as having a long face or a prominent jaw, they may have a condition called mandibular prognathism which refers to the overdevelopment of the lower jaw. The condition is a facial deformity and affects the chewing function, facial aesthetic, and self-esteem of the individual, as well as causing jaw joint pain.

Mandibular prognathism is a common facial deformity in Hong Kong and Southern China when compared to Western countries. The correction of mandibular prognathism requires orthognathic surgery, which involves creating a split in the jawbone(s) and fix in a planned position. Intraoral vertical ramus osteotomy (IVRO) and sagittal split ramus osteotomy (SSRO) are the two common surgical techniques of the lower jaw to setback the elongated lower jaw. IVRO is an older technique that requires intermaxillary fixation to achieve bone fixation, i.e. locking the upper and lower jaws with wire, for 6 weeks. During this period, the patient can only take fluid diets. SSRO, in contrast, allows internal fixation using titanium plates and screws, which enables immediate jaw function after the surgery. Both techniques are commonly used in Hong Kong and East Asia in treating patients with mandibular prognathism.

Previous studies showed IVRO carried less risk of injury to nerve that supplies the lower lip sensation when compared to SSRO which may also require a second small operation to remove the titanium plates and screws if they are exposed or infected. However, the need of intermaxillary fixation is a concern but was not evaluated from the patients’ perspective.

A study led by Dr Mike Leung, Clinical Associate Professor in Oral and Maxillofacial Surgery, Faculty of Dentistry The University of Hong Kong, compared the changes of patients’ quality of life (QoL) after receiving IVRO or SSRO as the treatment for mandibular prognathism. A total of 98 patients were randomized to receive IVRO (49 patients) or SSRO (49 patients) as the mandibular setback procedure of their orthognathic surgery. The patients’ QoL were assessed by two self-administered questionnaires, namely 14-item Short-Form Oral Health Impact Profile (OHIP-14) to evaluate the oral-health related QoL, and 36-item Short-Form Health Survey (SF-36), to evaluate the physical and mental health-related quality of life. The longitudinal changes of the patients’ QoL were analyzed and compared up to two post-operative years.

The study found that patients who underwent the surgery at younger ages had a better oral health-related QoL during the postoperative period.

For the physical and mental health-related QoL, it was found that the burden of physical impact was bigger than the psychological impact in both groups in the early postoperative period.
Social functioning, emotion, and mental health specifically affected patients in the IVRO group. These findings suggested that mental health was continuously affected during the intermaxillary fixation period. Eventually, physical and mental health–related QoL of patients in both groups were able to return to baseline level or even better at 2 years after the surgery. The study showed that IVRO and SSRO could both improve patients’ physical and mental health in the long term.

When comparing the two surgical procedures, it was found that the patients who had SSRO had earlier improvement than those who had IVRO in the oral health-related QoL and the physical and mental health–related QoL, which showed signs of improvement as earlier as 2 weeks after the surgery. The research team concluded that this could be relating to the earlier mobilization and function like mastication and speech in the SSRO group without the need of intermaxillary fixation.

“It is encouraging to see that the correction of mandibular prognathism improves the patients’ quality of life,” Dr Leung explained. “The study confirms that SSRO appears to offer earlier improvement of the patients’ quality of life after orthognathic surgery because of better function.”

A groundbreaking study led by researchers at the Faculty of Dentistry of The University of Hong Kong (HKU), in collaboration with multiple international institutions, has successfully demonstrated the use of artificial intelligence (AI) in detecting gum inflammation, also known as gingivitis, from intraoral photographs with over 90% accuracy, matching the visual examination of a dentist. This innovative technology enables population-wide monitoring of gum health and paves the way for more personalised dental care.

The study, published in the prestigious International Dental Journal, an official journal of the World Dental Federation (FDI), shows that AI algorithms can analyse patients’ intraoral photographs to detect signs of inflammation like redness, swelling, and bleeding along the gum margin with over 90% accuracy, matching the visual examination of a dentist. This cutting-edge technology can revolutionise early detection and prevention of oral and systemic diseases linked to gum inflammation, such as tooth loss, cardiovascular diseases, and diabetes.

The study is published in the Clinical Oral Investigations, please visit: pubmed.ncbi.nlm.nih.gov/36881158

**RESEARCH TEAM**

**PRINCIPAL INVESTIGATOR**
- Dr Mike Leung, Clinical Associate Professor

**CO-INVESTIGATOR**
- Ms Natalie Wong, Research Assistant cum PhD Candidate

**RESEARCHER**
- Dr Walter Yu-Hang Lam (left), the study’s leading HKU researcher and co-investigator Dr Reinhard Chun-Wong Chau“
The study was conducted by researchers from the HKU Faculty of Dentistry, the Department of Computer Science at Hong Kong Chu Hai College, the School of Information Engineering at Guangdong University of Technology, and the Faculty of Dentistry at The National University of Malaysia. It involved developing and testing an AI model using a dataset of over 567 images of gums with varying degrees of inflammation and is one of the first to explore the use of AI in detecting gum inflammation.

Dr Walter Yu-Hang Lam, the study’s leading HKU researcher, emphasises the significance of the findings for the early detection and management of gum disease. “Many patients do not attend regular dental check-ups, and they only seek dentists to alleviate pain when their teeth are at the end stage of dental diseases, in which tooth loss is inevitable, and only expensive rehabilitative treatments are available. Our study shows that AI can be a valuable screening tool in detecting and diagnosing gum disease, one of the key indicators of periodontal disease, allowing earlier intervention and better health outcomes for the population,” he said.

The use of AI in dentistry has been gaining momentum in recent years, with researchers exploring various applications of the technology, from detecting cavities to predicting treatment outcomes to biomimetic design of artificial teeth. The use of AI in gum inflammation detection is a promising development that could revolutionize how gum disease is detected, treated, and even prevented.

Dr Reinhard Chun-Wang Chau, an HKU co-investigator of the team, pointed out the benefits of using intraoral photographs in conjunction with AI technology and said, “Based on these intraoral photographs, patients can address the area that they did not clean well and seek dentists’ help at an earlier stage.”

The collaborative nature of this study is a testament to the power of interdisciplinary research and knowledge exchange. By bringing together experts from different fields and regions, the researchers can develop an AI model that could accurately detect gum inflammation, with important implications for public health and wellbeing.

For the project’s next stage, Dr Lam plans to utilize the AI system for community services, making the technology more accessible to elderly and underserved communities, with the aim of improving oral health outcomes and reducing health disparities.

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DMS Team Invented Substitute to Replace Human Teeth for Dental Research

EXPRESSIONS SUMMER 2023
FACULTY OF DENTISTRY
THE UNIVERSITY OF HONG KONG

Fibre-reinforced Composite Materials Proven Comparable to Human Dentine

Extracted human teeth have long been used in conducting dental research, such as evaluating dental ceramic materials as a crown restoration on tooth. It is an inexpensive and straightforward process that simulates clinical situations. However, the collection and use of extracted human teeth is becoming increasingly difficult given the concerns about COVID-19, size-standardisation issues, and time constraints. All these factors have prompted a need for dentine analogue materials that could potentially substitute extracted human teeth in laboratory-based mechanical and fatigue tests.

A research team led by Dr James Tsoi, Associate Professor in Dental Materials Science from the Faculty of Dentistry at The University of Hong Kong, together with colleagues from Wuhan University, China, and Drexel University, USA, investigated new elliptical frustums of fibre-reinforced composite materials and compared their properties to that of human dentine. The materials were tested for their mechanical strength, elastic modulus, indentation hardness and fatigue behaviour. Fatigue behaviour indicates the tenacity of materials under varying loads. The positive results showed that the dentine analogue materials analysed can be used as a replacement for human-extracted teeth.

The study titled “Which dentine analogue material can replace human dentine for crown fatigue test?” was published online in Dental Materials. Based on this study, a dental company contracted the Faculty of Dentistry to test commercial ceramic products using the same methodology.

The researchers uniformly fabricated the new dentine analogue materials with specific size and shape mimicking natural teeth, adhesively bonded to lithium disilicate crowns, and subjected to fatigue loading – the restorations showed comparable fatigue failure load and lifetime (durability) to those based on extracted human teeth. This implies that the materials can be well used in lieu of human-extracted teeth.

Finite element analysis, an important method to simulate a physical phenomenon using a numerical technique, also showed promising results. Similar stress levels and distributions between dentine analogue materials and extracted human teeth were observed. Notably, it is pivotal that the new materials have similar elastic properties and fatigue performance to

This study evaluated the mechanical properties and fatigue behaviour of dentine analogue materials experimentally, analytically and numerically, and found a material with spectacular size and shape that can reliably replace human dentine as the substrate in a ceramic crown fatigue test.

DR JAMES TSOI

Top: Research team members (from left), Dr James Tsoi, PhD students Ms Yanning Chen and Ms Xuedong Bai.

Fibre-reinforced composite elliptical frustums - dentine analogue material (substrate) in ceramic crown fatigue test.
human dentine if researchers want to use them for laboratory fatigue tests.

“This study evaluated the mechanical properties and fatigue behaviour of dentine analogue materials experimentally, analytically and numerically, and found a material with spectacular size and shape that can reliably replace human dentine as the substrate in a ceramic crown fatigue test,” said principal investigator Dr James Tsoi.

“We hope this study can help researchers who are facing the problem of inadequate extracted human teeth and facilitate predictable laboratory research with the aid of dentine analogue materials,” he added.

The study was supported by the General Research Fund (GRF). Its preliminary results were presented by Ms Yanning Chen, a co-investigator, at the Academy of Dental Materials Annual Meeting 2022 and awarded with the Student Travel Award.

Dentine analogue material substrate compared with extracted human teeth (right side of photo) in ceramic crown.
New Jaw Surgery Concept to Treat Obstructive Sleep Apnea
OMFS Team’s Study Shows Over 50% Moderate-to-severe Cases Cured

Obstructive sleep apnea (OSA) is a condition in which the airway is blocked during sleep. It may cause multiple occurrences of shallow breathing (hypopnea) or a temporary pause in breathing (apnea) during sleep. If left untreated, patients with OSA may experience reduced quality of life and health problems in more serious cases.

Patients with moderate-to-severe OSA, i.e., AHI (apnoea-hypopnoea index) of 15 events or above per hour, may require surgery to enlarge their airway. If non-surgical treatment such as the use of continuous positive air pressure ventilator fails, surgical treatment of OSA involves the removal or repositioning of soft tissues (e.g. tonsils) or advancing the jaw to expand the upper airway, since patients with OSA often have smaller or recessed jaws.

Jaw advancement surgery is an effective treatment for OSA. However, it may change the facial appearance and the ‘bite’, especially among East Asians who usually have more protrusive lips than Caucasians. This makes it harder to perform jaw advancement surgery without compromising on their facial aesthetics.

The research team in the Oral and Maxillofacial Surgery (OMFS) of the Faculty of Dentistry at The University of Hong Kong recently conducted a pilot study to measure if a newly conceptualised jaw surgery technique could help improve moderate-to-severe OSA.

The findings, now published in the International Journal of Oral and Maxillofacial Surgery, indicate that this surgery can significantly alleviate sleep apnea, and maintain or even improve the patient’s appearance. All the patients involved in the study with moderate-to-severe OSA showed a 50% or more reduction in breathing disturbances at night after the surgery, and 58% of the patients were considered to be cured, showing no signs of sleep apnea.

The jaw surgery technique involves a multi-segment ostectomy (cutting and reshaping bones) of the lower jaw called segmental mandibular advancement (SMA). It is a combination of a procedure to upright the anterior jaw segment to create space and a procedure to advance the whole lower jaw. The surgery results in significant enlargement of the skeletal airway at the base of the tongue, as well as an appealing aesthetic of the face and functional outcome in the bite.

The lead researcher of the team, Dr Mike Leung, Clinical Associate Professor in Oral and Maxillofacial Surgery, expressed that this multi-segment jaw correction surgery as adopted in SMA has been used to correct facial deformities in Hong Kong for many years, but their study takes it several steps forward. “It was the first-ever study to prove that SMA could also effectively bring improvement in OSA. The unique facial features among the East Asian population were the reason to use this method. It takes into consideration the aesthetics and jaw function on top of the significant airway expansion,” he said.

12 patients in Hong Kong with moderate-to-severe OSA, referred by different dentists, general practitioners, and Ear, Nose & Throat (ENT) specialists were evaluated for this study. They received SMA as a major part of their jaw

From left: Research team members Dr Keira Chen, Dr Joanne Chung, Dr Mike Leung, Dr Joan Wan and Dr Isla Fu.

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DR MIKE LEUNG
RESEARCH

advancement surgery. AHI, the diagnostic tool used for measuring the presence and severity of OSA, can be classified into three categories. Mild AHI usually entails 5 to 15 apneic or hypopneic events per hour. Moderate AHI sees 16 to 30 events per hour, while severe AHI records more than 30 events per hour.

The study found that the surgery helped improve pre-operative AHI from 42.4 events per hour to 9 events per hour on average one year post operation. Surgical success, as defined by a reduction of the initial AHI by 50% or more, was observed in 11 out of 12 patients, who showed a 50% or more reduction in breathing disturbances at night. Surgical cure, as defined by an AHI of less than 5 events per hour— was also observed in 7 out of 12 patients. Thus, 58% of the patients were cured after the surgery, showing no signs of sleep apnea.

On average, the airway volume was also found to have increased by 2.8 times after the surgery, allowing patients to breathe better. These figures remained constant during the 1-year study period. There was no incidence of any major complications in the surgery, thus showing that SMA is potentially a safe and effective procedure for patients with severe OSA.

Dr. Joan Wan, co-investigator of the project, said the findings of the study are encouraging since they show significant improvement even in severe OSA cases as well as consistent results. “We believe the pilot study has laid a cornerstone for a larger scale study that can observe the long-term effects of this technique. We also wish to compare this new option to the other treatment methods for OSA.” Dr. Wan said.

Dr. Mike Leung, Clinical Associate Professor
Dr. Joan Wan, Part Time Clinical Lecturer
Dr. Isla Fu, Master of Dental Surgery (OMFS) Graduate
Dr. Keira Chen, Junior Hospital Dental Officer
Dr. Jasmine Chung, Junior Hospital Dental Officer

The paper is published in the International Journal of Oral and Maxillofacial Surgery, please visit: www.ijoms.com/article/S0901-5027(22)00459-3/fulltext

PRE-OPERATIVE
POST-OPERATIVE

The pre-operative and post-operative airway images show a significant increase in airway volume after SMA.

RESEARCH TEAM
Faculty of Dentistry, The University of Hong Kong

PRINCIPAL INVESTIGATOR
• Dr. Mike Leung, Clinical Associate Professor

CO-INVESTIGATOR
• Dr. Joan Wan, Part Time Clinical Lecturer
• Dr. Isla Fu, Master of Dental Surgery (OMFS) Graduate

Prince Philip Dental Hospital

CO-INVESTIGATOR
• Dr. Keira Chen, Junior Hospital Dental Officer
• Dr. Jasmine Chung, Junior Hospital Dental Officer

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Mentorship Programme for Class 2024 / 2025 / 2026
Strengthening Bond between Dental Students and Alumni

The University of Hong Kong Dental Alumni Association (HKUDAA) and Faculty of Dentistry have organised three joint Mentorship Programmes for Bachelor of Dental Surgery (BDS) students recently. Inauguration ceremonies were held for Year 5 (Class of 2024), Year 4 students (Class of 2025) and Year 3 students (Class of 2026) on April 25, February 17, and March 3, 2023 respectively at the Hotel ibis (Sheung Wan).

The programme aims to provide a platform for BDS students and dental alumni to bond, engage in meaningful dialogues and exchange ideas. Graduates can contribute to their alma mater by being mentors and sharing their knowledge and experience with BDS students. At the same time, students could benefit from being part of the network of former graduates.

The events kicked off with a welcome speech delivered by Professor Thomas Flemmig, Dean. He was grateful that many dentists and specialists participated in the programme to nurture a new generation of dental professionals amid their busy schedules. Dr Dave Chan, President of HKUDAA, invited students to seize this opportunity to proactively exchange ideas with their mentors.

Three events were all concluded in success. Special thanks to Haleon (GSK) for supporting the mentorship programmes.
STUDENT & ALUMNI CORNER

We had the opportunity to connect with experienced mentors and gain valuable insights into navigating our own careers.

MISS TSOI HOI MEI, BDS YEAR 5

As we enter our final year as undergraduate students and transition into the initial stages of our career, their insight is invaluable.

MISS NAVYA KAPOOR, BDS YEAR 5

We can seek advice on our future path, possible clinic attachments in dentists’ clinics and know more about the dentistry world outside the Faculty.

MR JACKY WONG, BDS YEAR 4

It is imperative that the Faculty and HKUDAA continue this tradition of kindness and mentorship.

DR HON KL ALUMNI

All mentors were extremely enthusiastic. The programme embraces the idea of dentistry as a small but close family.

MS SABRINA NG, BDS YEAR 3

I have seen quite a number of successful pairs of mentors and mentees during my service in HKUDAA. They became good friends or even business partners. As the Immediate Past President of HKUDAA, I am happy to see more and more fruitful relationships developed through this programme.

DR ADA LO, IMMEDIATE PAST PRESIDENT OF HKUDAA
Ms Sadia Manzoor, a PhD student in Dental Materials Science (DMS), represented HKU to attend the “Belt and Road Forum – Brave New World” organized by Silk Road Economic Development Research Centre on April 14, 2023 at the Hong Kong Ocean Park Marriott Hotel.

During the event, Ms Manzoor participated in a Panel Discussion “Brain-drain issue in Hong Kong – Talents for Hong Kong from Belt & Road Countries” which was moderated by Mr Edward Liu from the International Chamber of Shipping (China) Liaison Office. Ms Manzoor spoke about her tremendous experience at HKU and commended the facilities and work environment. She highlighted that she encountered little to no difficulties in adjusting to the university’s system as the Faculty and students have all been supportive.

Additionally, she shared her research on 3D dental materials under the supervision of Dr James Tsoi, Associate Professor in DMS. She was confident that her research work will create a breakthrough in this field. In response to a question, she suggested that a dedicated scheme might be devised and exclusive scholarships could be offered to attract more students from Belt & Road member states to come to Hong Kong. This could enable them to play their role in the development of the region after their studies.

The Forum was well attended by a range of Government leaders, Consuls General, important business figures and prominent community members from different countries, including Turkey, Philippines, Pakistan, Russia and Tajikistan. All attendees had a great interest in the Belt & Road Initiative and the future it holds.

Ms Sadia Manzoor

Sharing 3D Dental Materials Research at Panel Discussion

Rewarding Journey to the Global Young Scientists Summit

Ms Regina Huang, a third-year PhD student (Periodontology and Implant) under the primary supervision of Professor Lijian Jin, Modern Dental Laboratory Professorship in Clinical Dental Science and Clinical Professor in Periodontology, had been selected as an on-site participant at the 11th edition of the Global Young Scientists Summit (GYSS) that took place from January 17-20, 2023 in Singapore.

The Global Young Scientists Summit (GYSS) provides a multi-disciplinary platform to tackle a broad spectrum of issues and seeks to spark discussions on science and research to address today’s global challenges. The summit unites some of the brightest minds in science and technology, including recipients of prestigious awards such as the Nobel Prize, Millennium Technology Prize, Fields Medal, and Turing Award. These distinguished individuals share their inspiring personal journeys and offer invaluable insights into their successful academic careers. By bringing together such accomplished professionals, the GYSS aims to foster collaboration and innovation, and encourages the next generation of young scientists to pursue their research ambitions.

During session breaks, Ms Huang’s recent publication in Materials Today Bio, titled “Rapid synthesis of bismuth-organic frameworks as selective antimicrobial materials against microbial biofilms”, generated much interest from other young scientists. She also received valuable insights into various career pathways available to scientists from Dr John Mather (2006 Nobel Prize in Physics), Dr Lihan Zhou (CEO of MiRXES), Dr Xu Shi (Founder of Nanofilms) and Dr Lim Jui (CEO of 50Hertz) in the panel discussion session.

Overall, Ms Huang’s participation in GYSS was a transformative experience that helped her gain a better understanding of what it takes to be an innovative researcher and remarkable scientist. Herein, she made a concluding remark about this exciting event by quoting Professor Sir David Klenerman (the winner of the 2020 Millennium Technology Prize): “If you are at the frontier, you need to expect a lot of failures... you just have to get used to [that] experiments often do not work, and you just have to pick yourself up to try again.”

Ms Huang’s supervisor, Professor Jin encouraged his colleagues and students to pursue their research and scholarship with passion and dedication, “Always try to maximize your potential and you just have to pick yourself up to try again.”

Ms Regina Huang (Left) attending GYSS 2023 held at the Singapore University of Technology and Design.
BDS Students Joined HKDA to Compete in Table Tennis Match

Strengthen the Bond of Dentist Community

Four Bachelor of Dental Surgery (BDS) students, Mr Gordon Cheng, Year 3, Mr Kelvin Lau, Year 3, Ms Lucy Lu, Year 5 and Mr Jacky Wong, Year 4, joined the Hong Kong Dental Association (HKDA) and formed a team to take part in a friendly table tennis team competition. The event was held at Lei Yue Mun Sports Center and organized by The Hong Kong Institute of Certified Public Accountants. Five societies with over 50 members participated in the matches on February 5, 2023.

The competition was set up in a round-robin format, with each team playing against the other four societies. The team matches were divided into seven games – four singles and three doubles – with the highest score determining the winner. The most intense and memorable match of HKDA was the one against the accountants’ team. HKDA started strong, winning the first four single matches. Despite narrowly losing the following doubles game, the match was full of energy and excitement.

In the end, HKDA emerged victorious with a score of 5-2 against the accountants. “Winning was an incredible feeling, and we were overjoyed to receive the trophy. I was thrilled to be invited to compete alongside my fellow alumni and students, and the excitement was palpable. Many familiar faces were present, and it was heart-warming to see old friends who had played table tennis in their youth,” said Mr Jacky Wong, who was also a sports scholar in table tennis when he was admitted to the Faculty of Dentistry Undergraduate Programme.

“The friendly competition not only allowed us to showcase our table tennis skills, but also strengthened the bond between BDS student and alumni. We wish to organise more similar activities,” expressed Dr Adrian Hon, BDS alumni and member of HKDA.

“The event was a great success, and we were proud to represent HKDA. The competition reminded us of the power of teamwork and camaraderie. We were excited to continue to bring the dentist community together through future events,” Mr Wong concluded. To celebrate the victory and to further develop their bonding, the team members enjoyed a hotpot dinner!
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A Based on a study of over 1,800 dental professionals (dentists and hygienists) conducted in United States, Germany, Japan, China, Canada, Netherlands, Australia, Switzerland, Italy, Czech Republic, Slovakia.