

WINTER 2022

expressions

40th ANNIVERSARY CELEBRATION

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Faculty of Dentistry • The University of Hong Kong

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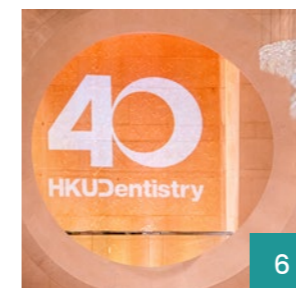
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40 Years & Going Strong

Nurture Talents, Advance Oral Health



Above: Professor Thomas Flemmig speaks at the 40th Anniversary Gala Dinner

We just celebrated the 40th anniversary of the Faculty of Dentistry. It was a great pleasure to see so many of you at the various events. I hope you had a great time, reconnected with your colleagues, and made many new friends.

It all started with a vision of the Legislative Council to enhance the access to oral healthcare for the people of Hong Kong. At the time in 1974, there were merely 11 dentists per 100,000 people. The Faculty of Dentistry was founded at The University of Hong Kong in 1982 and the Prince Philip Dental Hospital was built to "provide facilities for the training of dentists and other persons in professions supplementary to dentistry".

With the contribution of generations of accomplished academics, talented students, dedicated alumni, and outstanding administrators, HKU Dentistry has evolved into the comprehensive academic institution it is today. It now provides undergraduate and postgraduate education, conducts world-class biomedical research, and serves the society by providing healthcare and engaging in knowledge exchange.

HKU Dentistry is a world-leading academic dental institution as demonstrated, among others, by three No. 1 and two No. 2 positions at the QS World University Rankings by Subject. So far, no

With the contribution of generations of accomplished academics, talented students, dedicated alumni, and outstanding administrators, HKU Dentistry has evolved into the comprehensive academic institution it is today.

PROFESSOR THOMAS FLEMMIG

other dental institution has achieved that. It is a testament to academic excellence led by a shared vision of being the global leader in oral health science, education and professional care as well as driven by a team of dedicated and talented staff, students, and alumni. Such a remarkable success would not have been possible without the intellectually stimulating environment at The University of Hong Kong and the invaluable support of the members of the Prince Philip Dental Hospital.

Since the Legislative Council articulated its original vision for the development of oral healthcare in Hong Kong, the number of dentists per 100,000 people has tripled. Although major advances have been made, high-quality oral

healthcare remains out of reach for many people in Hong Kong. Now is the time to build on the collective achievements and develop a vision that makes Hong Kong a leader in the delivery of oral healthcare. The Government just started an initiative to review the existing delivery model and work on a long-term strategy for oral healthcare. Our Faculty is excited to contribute to the initiative and work with the various stakeholders to advance oral health and well-being of the people of Hong Kong and beyond.

PROFESSOR THOMAS FLEMMIG

Kingboard Professor in Advanced Dentistry
Dean of HKU Faculty of Dentistry



From left: Nurture generations of dentists and researchers; Advance oral health through discovery and innovation



40th Anniversary Gala Dinner

Finale Celebration





From left: Professor Thomas Flemmig, Dr Raymond Lee, Professor Xiang Zhang, Professor Chung Mau Lo, Ms Priscilla Wong, Dr David Lam, Ms Sabrina Ng and Dr Nicholas Sung

Celebrating the 40th Anniversary of the Faculty of Dentistry, The University of Hong Kong (HKU), a gala dinner was organised and attended by 240 guests. Government officials, dental professionals, generous benefactors, as well as alumni, staff and students shared the joyous moments of this important milestone on 23 November 2022 at the Harbour Grand Hong Kong Hotel.

Officiating guests were Professor Chung Mau Lo, BBS, JP, Secretary for Health of HKSAR Government; Ms Priscilla Pui Sze Wong, SBS, JP, Council Chairman, HKU; Professor Xiang Zhang, President and Vice-Chancellor, HKU; Dr Hon David Tzit Yuen Lam, Legislative Council Member

– Functional Constituency Medical and Health Services; Dr Raymond Kin Man Lee, JP, Chairman of the Dental Council of Hong Kong; and Professor Thomas Flemmig, Dean of the Faculty of Dentistry, HKU.

Professor Chung Mau Lo congratulated the Faculty on its achievement, “Faculty of Dentistry is young and strong. Established only 40 years ago in 1982, the Faculty has risen to the top 2 dental school in the world according to the recent QS ranking by subject. This international recognition is a testimony of the Faculty’s renowned reputation. As an alumnus, a member and supporter of the university, and as a Hong Kong citizen, I think we should all be very proud of this achievement.”



1. Professor Thomas Flemmig and Mr Wong Huen, Chairman of Board of Governors of Prince Philip Dental Hospital.
2. From left: Professor Max Shen, Vice-President and Pro-Vice-Chancellor (Research), HKU; Professor Chengfei Zhang, Associate Dean (Research and Innovation), Faculty of Dentistry; Professor Frederick Smales, former Dean of Faculty of Dentistry.
3. Professor Chung Mau Lo congratulates the Faculty of Dentistry on its achievement.
4. Alumni share the joyful moments.
5. Professor Xiang Zhang.
6. Gift from Faculty member.
7. MC of the event, Dr Nicholas Sung and Ms Sabrina Ng.





8. Professor Ian Holliday, Vice-President and Pro-Vice-Chancellor (Teaching and Learning), HKU. 9. Alumni are happy to meet each other. 10. Participants taking photo in front of the Faculty's 3D logo standee. 11. Alumni reading the 40th commemorative booklet. 12. Faculty academic staff cheers to the Faculty of Dentistry. 13. Photo backdrop of the event. 14. Mr Francis Yiu, BDS Year 6, elaborates how he re-arranges the Dental Song. 15. Mr Jacky Wong, BDS Year 4, dances on stage.

Established only 40 years ago in 1982, the Faculty has risen to the top 2 dental school in the world according to the recent QS ranking by subject. This international recognition is a testimony of the Faculty's renowned reputation.

PROFESSOR CHUNG MAU LO

Professor Xiang Zhang in his speech stated that "With the support of the University and the Prince Philip Dental Hospital, the Faculty will continue to pioneer innovative solutions and improve access to high-quality oral healthcare for everyone in Hong Kong and the world."

Professor Thomas Flemmig, Dean of Dentistry at his address welcomed all the guests, he said, "Today, our Faculty educated more than half of the PhD students in Oral Sciences enrolled in all dental schools in the United States combined. Our BDS (Bachelor of Dental Surgery) programme

is so competitive that the JUPAS admissions scores of our first-year students are the highest among all programmes in HKU. Our established dental colleagues are distinguished, but I can tell you that the next generation of dentists will be even more successful."

An all-star line-up of talents also helped make the night more special. Guests enjoyed the dance performance by Mr Jacky Wong, BDS Year 4; Dental Song performed by Mr Francis Yiu, BDS Year 6, with his impeccable violin skills, as well as piano and singing performance by

Dr Alfred Hui (BDS 2012) and Mr Wong Kei, BDS Year 4.

The Faculty is grateful to all of the guests who joined the event. In the past four decades, the Faculty of Dentistry has been nurturing dental professionals and serving the community by seeking discovery and innovation and providing dental services. In the future, the Faculty will continue "to be the global leader in oral health sciences, education and professional care, delivering impact through innovation, interdisciplinarity and internationalization."



Dr Ada Lo delivers her lecture

Scientific Symposium

Sharing of Latest Research and Clinically Relevant Findings

On the same day, a 40th Anniversary Scientific Symposium was organised at the Lecture Theatre 1 of the Prince Philip Dental Hospital, attracting over 200 attendees. The Faculty was honoured to have invited speakers from different oral health and dental fields to share their expertise.

Furthermore, the symposium also included the elaboration of "Role of HKDA in the development of dentistry in HK" by Dr Nelson Wong, President of Hong Kong Dental Association (HKDA). The event was concluded with laughter after Professor TW Chow shared "Days gone by (老餅講古)" – history, myths, and facts of the development of the Faculty of Dentistry in the past forty years.

SYMPOSIUM PROGRAMMES

Face Driven Orthodontics – How are invisible orthodontic appliances affected by this concept?

DR WILSON LEE

10 tips on how to make better looking anterior crowns

DR ADRIAN HON

Emergency pain diagnosis and management – A survival guide

DR ADA LO

Medicolegal aspects of trigeminal nerve injury from dental treatment: what are your responsibilities?

DR MIKE LEUNG

New frontiers in paediatric dentistry – 40 years review

DR EILLY LAU

Application of minimal invasive technique on periodontal therapy

DR DOMINIC HO

Role of HKDA in the development of dentistry in HK

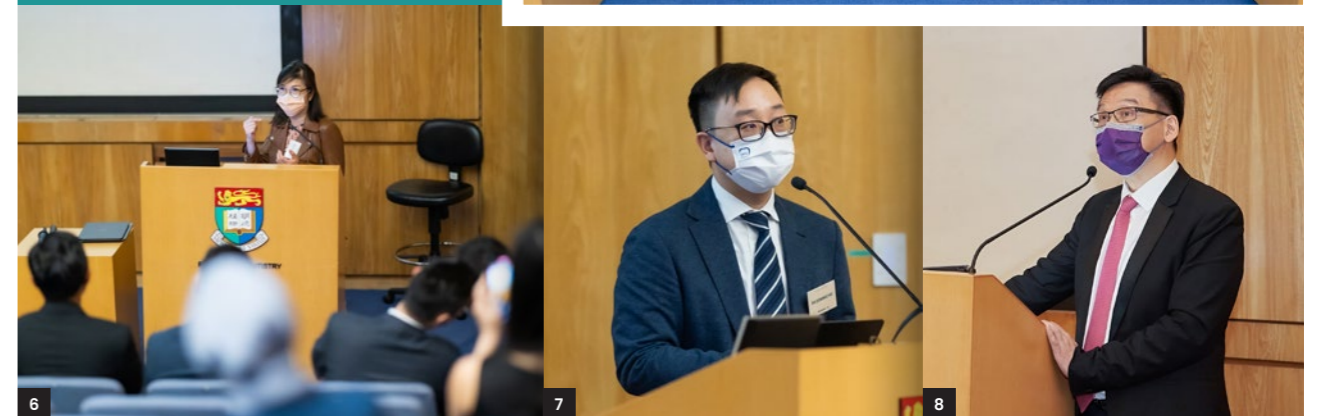
DR NELSON WONG

Days gone by (老餅講古)

PROFESSOR TW CHOW



1. Dr Wilson Lee shares his expertise in orthodontics.
2. Dr Adrian Hon shares the tips of making better crowns.
3. Dr Mike Leung delivers medicolegal aspects of nerve injury.
4. Professor TW Chow speaks of the history of the Faculty's development.
5. Professor Thomas Flemmig, Dean of the Faculty of Dentistry (right sixth) thanks the scientific symposium speakers.
6. Dr Eilly Lau gives a 40 years review in paediatric dentistry.
7. Dr Dominic Ho talks about the minimally invasive technique in periodontology treatment.
8. Dr Nelson Wong elaborates on how HKDA has been fostering the dental development.



COVER STORY

Tram (nicknamed 'ding ding') featuring the 40th Anniversary of the Faculty of Dentistry cruised around Hong Kong Island in November 2022.

On 4 November, Professor Thomas Flemmig, Dean of the Faculty of Dentistry, and several faculty members boarded the tram and rode across Hong Kong Island to celebrate the Faculty's 40 years of accomplishment. Busy staff and students had a chance to unwind on a two-hour tram ride not just to enjoy the breath-taking city scenes combining historic architecture, modern cityscapes and landmarks, but also share the pleasure of witnessing the development of the Faculty in the past forty years.

Hong Kong Tramways witnessed the development of the Faculty. Since 1904, trams have been travelling between Hong Kong Island's east and west to serve Hong Kong citizen. We, the Faculty of Dentistry which was founded in 1982 and is located at the Prince Philip Dental Hospital (close to Eastern Street tram stop), are passionate about making an impact on peoples' lives in Hong Kong and around the world by improving access to high-quality oral healthcare and enhancing clinical outcomes and lowering costs.



Getting Around HK Island

Dentistry 'Ding Ding'

Congratulation Messages

Loved by Academic Staff and Alumni



Professor Edward Lo (right third)

BDS 1985

Professor Edward Lo

Chair Professor in Dental Public Health & Alumnus

Great to see that our Faculty has grown and achieved so much in the past 40 years. It's an honour for me to have been in this world's top dental school. Hope it will continue to prosper in the many years to come.



Professor Gary Cheung (front row, right second)

BDS 1985

Professor Gary Cheung

Clinical Professor in Endodontics & Alumnus

As one of the two first – batch graduates who joined our alma mater and still is a Faculty member, I saw all changes and advancements of the Faculty in every dimension. A great deal has been achieved for the youngest Faculty of HKU. I saw challenging times in recent decades or so, but all its members have persevered and continued to strive for higher levels.



Professor Cynthia Yiu (middle)

MDS 1989

Professor Cynthia Yiu

Clinical Professor in Paediatric Dentistry & Alumnae

I would like to extend my warmest congratulations to the Faculty of Dentistry on its 40th anniversary. On this memorable occasion, I would like to express my deepest gratitude to the Faculty for nurturing me as an academic in Paediatric Dentistry. It is my great honour to have served my alma mater over the years and witnessed its remarkable growth to the world's best dental school that excels in dental education, research and oral health care delivery. I am confident that with the strong leadership and our devoted staff and students, the Faculty will scale new heights with continued success in the future.



PhD 2005

Professor May Wong

Professor in Dental Public Health & Alumnae

My heartiest congratulations to the Faculty of Dentistry as we celebrate our 40th anniversary. A fantastic world-class school filled with dedicated staff and brilliant students. A place that has nurtured me and packed with plentiful fond memories. May we continue to walk together to bring the Faculty to an exciting and meaningful new chapter.



BDS 1992

Dr Edmond Pow

Clinical Associate Professor in Prosthodontics & Alumnus

Time flies and it is just like a snap of fingers after serving the Faculty as full-time academic staff for 27 years. There have been a lot of changes in the Faculty over the past few decades which started from a group of enthusiastic teachers to now a team of world-class staff excelled in research, teaching and clinical areas. The good old days are always sweet, but I do hope the Faculty can continue to shine for another 40 years or more.

BDS 1994

Dr Katherine Leung

Clinical Associate Professor in Prosthodontics & Alumnae

Happy 40th Anniversary! Heartiest congratulations to the Faculty of Dentistry for reaching this significant milestone! Looking forward to working together to bring our Faculty to the next level with more accomplishments for the next 40 years to come.



BDS 2004

Dr Mike Leung

Clinical Associate Professor in Oral & Maxillofacial Surgery & Alumnus

Congratulations to the Faculty's 40th Anniversary! It is an honour for me to serve my alma mater as a teacher and contribute to the education of dentistry in Hong Kong.



Dr James Tsoi (left second)

PhD 2007

Dr James Tsoi

Associate Professor in Dental Materials Science & Alumnus

Confucian Analects Wei Zhang (論語·為政) mentioned "At forty, I had no doubts. (四十而不惑)" As an alumnus and staff here, I am very pleased that HKU Faculty of Dentistry has reached its forty and has in no doubt established its ideologies, principles, and philosophies in dentistry from local to global levels. I believe HKU Dentistry will be confident and continue to focus and lead the future dentistry without set back and rejection. Congratulations to the Faculty!



Dr Dominic Ho (front row, right)

BDS 2005

Dr Dominic Ho

Clinical Assistant Professor in Periodontology & Alumnus

Congratulations to HKU Faculty of Dentistry's 40 years of success on her research, academic and clinical care. Wish everyone healthy gum and great quality of life!

BDS 2006

Dr Walter Lam

Clinical Assistant Professor in Prosthodontics & Alumnus

Being one of the top and youngest dental schools in the World, the Faculty of Dentistry has made an enormous contribution to the research as well as the education and training of dental professionals. I am proud to be trained here and I am glad to become a Faculty member to pass the wisdom to the next generation.
屹立香港四十年 攜手同行創明天



Dr Walter Lam (right third)

BDS 2009

Dr Amelia Cheung

Senior Clinical Practitioner in Endodontics & Alumnae

To climb to the top of the world and remain there for many years is no ordinary feat for a dental school. I am honoured to be an alumnus of this phenomenal school and now an educator in my alma mater. Glorious 40 years and many many more centuries of education to go!



PhD 1996

Dr Henry Luk

Tutor in Dental Technology & Alumnus

It has been my pleasure to work in this Faculty for 40 years. It has changed from a Unit to a Faculty and ranked several times the world No.1 Dental Faculty. I wish the Faculty every success and be world No.1 at all times.
與你同行四十載，喜見功成漸漸來，祝你永遠站前端，願你昂首進百代。



Olden Days

History of BDS Admissions and Programme Development

Students' clinical training



BDS Admissions in the Past

IQ, eye, and stereopsis tests – are some of the admissions assessments during the early stage of the Bachelor of Dental Surgery (BDS) programme. To recruit outstanding students, the Faculty required applicants to have good exam results and pass the admissions test during the early days.

DENTISTS REQUIRE ALL-ROUNDED DEVELOPMENT

Faculty Admissions Committee set several entry requirements for the BDS programme in 1982. The Faculty believes that selecting candidates is challenging, as becoming a successful dentist is not solely about academic merits but all-rounded development. It includes clinical skills, psychological well-being and interpersonal skills.

Dentistry is an intense and demanding subject. The Faculty makes careful decisions on student

recruitment and hopes candidates could get to know the BDS programme and basic concepts of dental learning through the admissions test.

HURDLES TO OVERCOME

“In the early days, applicants had to take the admissions test a year before taking the public exams,” Professor Gary Cheung said. Professor Cheung is one of the first BDS graduates in the Faculty. He shared that he participated in three rounds of assessments, including an aptitude test, handcraft skills and IQ test, and a personal interview. Questions and puzzles in the admissions test were related to dental learning and allowed candidates to identify whether they have the potential to become a dentist.

A public exam shall not seal a student's fate. The Faculty set up the admissions test to create

a list of preferred candidates a year before the exams. The exam result, therefore, was not the sole criterion in student admissions. This attempt could give relatively fair consideration to the students who performed below par under the circumstances. Additionally, recruiting local talent, fostering Cantonese-speaking dentists and achieving gender balance (female recruitment) were other criteria for admissions to the Faculty.

IN RESPONSE TO CHANGES

The admissions requirements have been changing and evolving according the reform of the education system over the years. What

always remains constant is the Faculty's pursuit of a holistic admissions process, as a good dentist needs to be versatile to look after varied patients and provide the best treatments. The Faculty also considers the talent of the students, such as sport or music, and other outstanding performances besides academic merit.

It is worth noting that there were only around 50 places for the BDS programme in the 1990s. Meeting the social development and medical need, the Faculty raised the number of places to 73 and 80 in recent years. The Faculty recruits 90 students in response to the growing need for dental services in Hong Kong.

The Evolution of the BDS Programme

The foundation of HKU Faculty of Dentistry pioneered dental education in Hong Kong. Being the first-ever dental programme in Hong Kong and an extremely demanding academic discipline, HKU took careful consideration in curriculum planning.

PLAN AHEAD

In 1980, 2 years before the establishment of the Faculty, HKU held Curriculum Conference to map out the dental curricula in detail. The first BDS programme last for 4 years and 1 term, and each year contained three nominal 10-week terms of rostered teaching.

In the curriculum, preventive dentistry was one of the main themes. Thus, first-year students had to take the individual and an environment course, which allowed them to learn comprehensive knowledge about preventive dentistry at the beginning of the programme. It was taught jointly by teachers from the medical department, such as Community Medicine or Paediatric Medicine.

For clinical teaching, HKU decided to run as groups to ensure every student could learn clinical skills. Each clinical group consisted of eight students with an academic staff being the teacher-in-charge. Besides, an additional teacher/tutor was assigned to each clinical group to meet students' diverse learning needs.

Tutors worked with the teacher-in-charge and assisted in students' assessment and overall evaluation.

BDS LEARNING OVER THE YEARS

Following the development over the years, students needed to learn advanced knowledge about dentistry, dental treatments, and newly developed dental technologies. Consequently, the BDS curriculum changed to a full 5-year programme and raised the number of clinical sessions for students to accumulate more experience in patient care. Later in 2012, the curriculum turned into a 6-year programme to support the New Senior Secondary Academic Structure.

Besides, the Faculty has been adopting problem-based learning pedagogy since 1998. It is a student-centred approach that allows students to plan their studies, develop problem-solving and communication skills, and combine their knowledge across different subjects.

In the beginning, dental students spent most of their time learning at the Prince Philip Dental Hospital. With the advancement of the curriculum, students now have more opportunities for clinical enrichment at the HKU Department of Medicine, Oral Maxillofacial Surgery & Dental Unit of Queen Mary Hospital, and in dental clinics in Hong Kong and overseas.

40 Years of Dedication

JOURNEY WITH FACULTY OF DENTISTRY

In August 1981, Mrs Annie Kwan embarked on a memorable journey with the Faculty of Dentistry. She joined the Faculty as a secretary for the Oral and Maxillofacial Surgery (OMFS) Division. In a blink of an eye, she had served the Faculty for 40 years and retired in June 2022. "I grew up with the Faculty. My workplace and I were inseparable," Annie said.

"When I was a greenhorn, I set up my mode of operation from scratch," she shared. "Oral and Maxillofacial Surgery division is a vibrant and busy workplace where clinicians often have to deal with critical emergencies. With time, I have been trained to respond swiftly to urgent matters," she added. When the digital age began, Mrs Kwan was compelled to pick up every little thing about computer, for instance, burning data disks, scanning documents and saving photos. "Though learning new skills was challenging for me, the key to success was to continue practising," she said. The harmonious and delightful working environment was Annie's motivation to tackle every work obstacle.

Mrs Annie Kwan embarked on a memorable journey with the Faculty of Dentistry



CHANGES FOR BETTER

Mrs Kwan has learned more than just the routine administrative tasks from her 40 years working with the Faculty. She has also acquired the knowledge of oral care and orthognathic surgery in the workplace. She knew a number of dental jargons and understood the concepts of several common surgeries and treatments. Over time, she gained confidence in what she learnt here.

Years of experiences has brought Mrs Kwan transformation and wisdom. Within 40 years, she believed that the Faculty had also undergone significant transformation, achieving leadership position and attracting more international students.

"It's so touching to see everybody work diligently and passionately," she expressed. She had bittersweet memories of her work life. "You win some, you lose some. Don't be hindered by any obstacles. As long as you devote time and attention to your job, you can accomplish anything," she spoke. She wishes the Faculty every success on future endeavors and continue to shine in the dentistry world!



Photo Exhibition at Dental Library

40 Years Highlight Photos Showcased the Development of the Faculty



A Photo Exhibition at Dental Library was organised in November 2022. The exhibition showcased how the Faculty has risen from humble beginnings to one of the premier dental institutions in the world within less than four decades. It also included the messages from academic staff cum alumni.

To learn more about the 40th Anniversary and its celebratory events, please visit: www.dentistry40.hku.hk



Congratulations to Class of 2022

208th Congregation Concluded Successfully



Above: The 208th Congregation Class of 2022, HKU Faculty of Dentistry

The Faculty of Dentistry's 208th Congregation cum Prize Presentation Ceremony was held on 7 December 2022 at Grand Hall, Lee Shau Kee Lecture Centre, Centennial Campus of The University of Hong Kong.

This year, we had 127 graduates, with 15 graduating with a doctoral degree; 34 with a master's degree; 75 with a bachelor's degree; and 3 with an advanced diploma. Their outstanding achievements were recognized and celebrated.

2022 is a special year for Bachelor of Dental Surgery (BDS) Graduates. The size of BDS 2022 is the largest since the implementation of the

6-year curriculum. Quoted from the Graduate Representative Dr Li Kit Man, "diversity" and "unity" well represented the Class of 2022. "As each of the 75 individuals in our class is informed by different sets of perspectives, it is the diversified and supportive personality of the class that creates an ideal dynamic that brings us together" she stated.

The Faculty was grateful that parents could attend the ceremony and share this special moment with our graduates. The Faculty congratulates our graduates on their academic milestone and wishes them a bright future ahead.



1. Graduates of Bachelor of Dental Surgery take the Hippocratic Oath.
2. Professor Thomas Flemmig delivers his speech at the event.
3. Conferment of Degrees by Professor Richard Wong, Provost and Deputy Vice-Chancellor, HKU.
4. Graduates of Doctor of Philosophy.
5. Graduates of Bachelor of Dental Surgery.
6. Graduates of Master of Dental Surgery and Master of Science.
7. Valedictory by Graduate Representative Dr Li Kit Man with the speech prepared by Dr Sham Wing Yin.



Prize Presentation Ceremony



Hong Kong Dental Association Continuing Education Prize

AWARDEE
Dr Wong Yeuk Ying

PRESENTER
Dr Nelson Wong, President of Hong Kong Dental Association

Rebecca Ho Prize for Dental Students of the Year

AWARDEE
Dr Wong Yeuk Ying

PRESENTER
Dr Rebecca Ho



Hong Kong Dental Association Scholarship

AWARDEE
Dr Lau Xin Wai

PRESENTER
Dr Nelson Wong, President of Hong Kong Dental Association

The PPDH Board of Governors Prize

AWARDEE
Dr Wong Yeuk Ying

PRESENTER
Mr Huen Wong, Chairman of the Board of Governors of the Prince Philip Dental Hospital



Hong Kong Dental Association Scholarship

AWARDEE
Dr Wu Songying

PRESENTER
Dr Nelson Wong, President of Hong Kong Dental Association

The Royal Australasian College of Dental Surgeons Prize

AWARDEE
Dr Liu Ho Yi

PRESENTER
Dr Jerome Yu, Chair of the Hong Kong Regional Committee, The Royal Australasian College of Dental Surgeons



Name A Simulator Supporters Visit SimLab

Inspire Generation of Dental Professionals



From top: Supporters of "Name a Dental Simulator" visit Simulation Laboratory; Professor Thomas Flemmig explains to Dr Patrick Poon on how the simulator units can assist in enhancing students' clinical skills

In 2018, the Faculty of Dentistry launched "Name A Dental Simulator" fundraising campaign and has received positive responses. To extend the Faculty's greatest gratitude to our supporters' contribution to our development and celebrate the 40th Anniversary of the Faculty, a Simulation Laboratory (SimLab) visit was organised on 16 August 2022.

Professor Thomas Flemmig, Dean; Professor CH Chu, Association Dean (External Relations) and Dr Mike Leung, Assistant Dean (External Relations) of the Faculty of Dentistry welcomed the visitors. Professor Flemmig said, "The

Faculty is grateful to donors' generosity which contribute to the development of the Simulation Laboratory." The dental simulators in the laboratory are vital to the training of dental students and serve a wide variety of purposes, from teaching and learning to assessing patients. With the patronage of supporters, these simulators bring the Faculty equipment up to the leading edge of technology which assists in enhancing the students' clinical skills.

At the event, donors toured around the SimLab, chit-chatted with Bachelor of Dental Surgery Year 6 students, as well as mixed and mingled with each other. Some supporters cum alumni were delighted to meet their teachers and friends. The visit ended with appreciation and joy.

CALL FOR GENEROSITY

The Faculty is introducing 10 to 20 new simulator units to cope with the increased intake of Bachelor of Dental Surgery and related teaching. We call for your generosity. With a donation of HK\$50,000, supporters will be able to select the simulator that will bear a plaque engraved with your name or the name of your chosen person. By supporting the Faculty's development, your name and words will become part of an enduring legacy, visible and inspiring to many generations of dental professionals.

Learn more about Name A Simulator, please visit: dentsim.facdent.hku.hk



WHY SUPPORTING NAME A DENTAL SIMULATOR - MESSAGES FROM DONORS



'It only takes a spark to get a fire going, and soon all those around can warm up in its glowing.' The legacy of our Faculty carries on with the continuous support from the alumni, and it is our honour to be part of them.

DR STEPHANIE FONG (LEFT)

Dental Simulation Laboratory is a symbolic origin where our professional life and friendship begin. Operational and surgical skills are acquired among peers in a virtual environment, with every effort to enhance clinical safety and high-quality treatment. Forty years of perseverance in dental education bloomed from Prince Philip Dental Hospital, and the excellence of HKU Dentistry is now world recognized.

DR TOMMY FUNG (RIGHT)

FACULTY HIGHLIGHT



I love my Faculty as they nourished me with the knowledge and skills to become a competent dentist. The SimLab and the strong pedagogy of all the professors and tutors enhanced and helped me learn the necessary clinical skills for daily dental practice. It is my turn to give back to the Faculty by participating in the advancement of the Faculty's equipment and training.

DR MICHAEL MUI



Supporting the campaign gives me immense pleasure and honour to give to my alma mater. I would like to thank the Faculty of Dentistry, especially during my post-graduate training where I obtained the specialist in Paediatric Dentistry and good friendships with other colleagues.

DR MICHELLE CHEUNG



LEAVE YOUR MARK IN OUR WORLD-CLASS SIMULATION LABORATORY

NAME A DENTAL SIMULATOR

With a donation of **HK\$50,000**, you will be able to select the simulator that will bear a plaque engraved with your name or the name of your chosen person.



HKU Dentistry
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香港大學牙醫學院

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General Research Fund

Academic Staff Project Benefit Mankind Being Supported

The Research Grants Council announced the results for the General Research Fund (GRF) exercises for 2022/2023. In the latest competitive exercise, five academic staff received the GRF. The list of successful GRF is as follows:



PRINCIPAL INVESTIGATOR

Professor CH Chu

Clinical Professor in Cariology

PROJECT TITLE

Arresting dental caries with a novel silver complex fluoride

ABOUT THE PROJECT

To evaluate the effects of the SCF solution on 1) the architecture, viability, and kinetics of a multispecies cariogenic biofilm and 2) the mineral and organic content and colour change in carious teeth.



PRINCIPAL INVESTIGATOR

Professor Richard Su

Clinical Professor in Oral and Maxillofacial Surgery

PROJECT TITLE

Comprehensive validation of an Artificial Intelligence-enabled skull CT segmentation for computer-assisted head and neck reconstruction

ABOUT THE PROJECT

To validate the AI-enabled skull CT segmentation with dry human skulls anatomical ground truth; to validate the AI-enabled skull CT segmentation with a surgical database of computer-assisted head and neck reconstruction; and to verify the impact of the AI-enabled skull CT segmentation on the performance of computer-assisted head and neck reconstruction.

Learn more about General Research Fund, please visit:
www.ugc.edu.hk/eng/rgc/funding_opport/grf



PRINCIPAL INVESTIGATOR

Dr Yanqi Yang

Clinical Associate Professor in Orthodontics

PROJECT TITLE

Identifying the role of Fto in modulating the transition of pro-inflammatory periodontium towards recovery in mechanical microenvironment

ABOUT THE PROJECT

To investigate the function of m6 A “eraser” Fto in the recovery of periodontium and the mechanism by which it regulates Socs1 m6 A methylation. This study may provide opportunities to develop novel therapeutic strategies for safe and effective orthodontic treatments for patients with periodontitis.



PRINCIPAL INVESTIGATOR

Professor Cynthia Yiu

Clinical Professor in Paediatric Dentistry

PROJECT TITLE

A novel calcium strontium silicate cement for dentin-pulp complex regeneration

ABOUT THE PROJECT

Results of this project will provide new insights into the mechanisms underlying the odontogenic and immunomodulatory effects of CSR cement. Successful dentin-pulp regeneration via CSR cement will revolutionize endodontic therapy by reversing diseased tooth back to a healthy state, delivering a promising solution to endodontic diseases.



PRINCIPAL INVESTIGATOR

Professor Chengfei Zhang

Clinical Professor in Endodontics

PROJECT TITLE

EphrinB2 activation modulates the actions of TGF- β /Smad and Ang-1/Tie2 signaling in regulating DPSC-induced vascular formation

ABOUT THE PROJECT

This study will be the first to unravel the associations of EphrinB2/EphB4, TGF- β /Smad, and Ang-1/Tie2 signaling on the vascular maturation process by DPSCs. The new knowledge may bring much needed insight on dentin/pulp regeneration.

Faculty Scholar Received China's NSFC Young Scientists Fund

Stimulate Cell with Biomaterials to Promote Tissue Regeneration



Above:
Dr Wei Qiao,
Clinical Assistant
Professor in
Applied Oral
Sciences &
Community
Dental Care

Dr Wei Qiao, Clinical Assistant Professor in Applied Oral Sciences & Community Dental Care received the National Natural Science Foundation of China's (NSFC) Young Scientists Fund 2022. This is the first time the Fund is open to researchers in Hong Kong.

Dr Qiao and his team have been exploring the development of novel orthopaedic/dental biomaterials and investigating the host tissue response to said biomaterials. Under the project "Construction of biomimetic piezoelectric biomaterial for bone regeneration through

bioelectrical modulation of immune-neural axis", his team aims to establish a novel extracellular matrix material capable of generating bioelectric signals to "talk with" immune cells and sensory neurons.

Their recent finding showed the innate immune system and the peripheral nervous system work collaboratively to regulate tissue regeneration. This discovery and their most recent proposal for bioactive materials led the team to this Fund. "I am honored to be awarded NSFC Young Scientists Fund, as it is one of the most competitive awards for young researchers in mainland China. I am also very grateful because the fund will be distributed in the form of cross-border remittance to directly support my research at the HKU Faculty of Dentistry. I look forward to the implementation of this project very soon," said Dr Qiao.

Through this cell-material "conversation", Dr Qiao's team hopes to offer clinicians more flexibility to control bone regeneration. It is also their expectation that the research findings will enable them to secure other local research support or attract industrial partners to commercialize the new biomaterial in Hong Kong to benefit both patients and clinicians in the near future.

The NSFC Young Scientists Fund supports young researchers to conduct scientific research on their preferred topics.

Learn more about NSFC Young Scientists Fund, please visit: www.nsf.gov.cn/publish/portal0/tab910/



Inno-Tech Project Received ITF-PRP

Faculty Aims to Develop Smart Dentistry

"Smart Oral Jet ProCleaning System" an inno-tech project coordinated by Dr James Tsoi, Associate Professor in Dental Materials Science, together with Professor Lijian Jin, Modern Dental Laboratory Professor in Clinical Dental Science and Clinical Professor in Periodontology, and Dr TC Ng, world-renowned inventor and explorer, obtained Innovation Technology Fund-Partnership Research Programme (ITF-PRP) Funding. The funding aims to support applied research and development projects undertaken by local public research institutes in collaboration with companies.

The Project team received an amount of \$1.5 million from Innovation and Technology Commission (ITC) and another \$1.5 million from Industry Sponsorship. "We strive to build Hong Kong into a world class smart city, and we have to embrace innovation and technology to build Smart Dentistry in Hong Kong" said Dr Tsoi. "Maintaining good oral health is significant to

general health. With the industrial support, we work towards transferring our research to daily life application directly and immediately", he continued.

The Faculty of Dentistry is committed to providing high quality of living and oral care to the Hong Kong society. ITF-PRP was launched in January 2019 and administered by ITC with the objective to promote Hong Kong's innovation and technology via upgrading in manufacturing and service industries which contributes to increased productivity and enhanced competitiveness that is translatable into long-term economic development of Hong Kong.

From left:
Dr James Tsoi
and Professor
Lijian Jin

Learn more about Innovation Technology Fund-Partnership Research Programme Funding, please visit: www.itf.gov.hk/1-eng/PRP.asp



HKU Dental Materials Science Shines in Athens

PhD Students Received International Awards



From left: Dr Rosalind Chan, Dr James Tsoi and Dr Crystal Chen

Dr Crystal Chen and Dr Rosalind Chan, both PhD students in Applied Oral Science and Community Dental Care under the supervision of Dr James Tsoi, Associate Professor in Dental Materials Science, won Student Travel Awards in recognition of their excellence in dental biomaterials research at the recent 2022 annual meeting of Academy of Dental Materials (ADM) in Athens, Greece.

We have had a total of three students won this prestigious and dental materials specific award since the establishment of the travel award in 2017. Let's keep up to continue the good standing of Dental Materials Science research.

DR JAMES TSOI

Dr Chen's research topic is about the development and reliability of dentine analogue materials for evaluating ceramic crowns under fatigue, while Dr Chan studied on hybrid micro-/ nano- structured titanium surfaces under a microfluidic model.

Both Dr Chen and Dr Chan feel honoured to receive the award. They are grateful for the guidance and support from the HKU Faculty of Dentistry and Dr James Tsoi, who was also elected as a Members-At-Large (2022-2026) in the ADM Executive Office during the annual meeting.

"We have had a total of three students won this prestigious and dental materials specific award since the establishment of the travel award in 2017. Let's keep up to continue the good standing of Dental Materials Science research," stated Dr James Tsoi.



From left: Dr Jane Pu (left) presents the case to the judges of the competition in the 26th Congress of EACMFS, Madrid, Spain; Case presented by Dr Pu, a young man with benign tumour at the right lower jaw (left) and advanced jaw reconstruction with fibula free flap and immediate dental implant placement after tumour resection (right).

Advanced Jaw Reconstruction Case Impressed International Experts

OMFS MDS Graduate Won Second in Best-Case Competition in Spain

During the 26th Congress of European Association for Cranio-Maxillofacial Surgery (EACMFS), 26-30 September 2022, in Madrid, Master of Dental Surgery in Oral and Maxillofacial Surgery (OMFS) graduate Dr Jane Pu received runner-up in the Best-Case Competition organized by AO CMF, AO Foundation. The case presentation was supervised by Dr Winnie Choi and Professor Richard Su of OMFS, Faculty of Dentistry, HKU.

The Best-Case Competition was open to all members of AOCMF worldwide with three cases short-listed to be presented during the face-to-face congress of EACMFS. The submitted cases covered a wide clinical spectrum in OMFS, which included trauma, implant, orthognathic surgery, oncology and reconstruction.

Dr Pu presented an advanced jaw reconstruction case and immediate dental implant replacement for treating a large benign jaw tumour on a 20-year-old young man. The case utilized the 3D virtual planning, in-house surgical guide and reconstruction plate design, and 3D titanium printing. The cutting-edge technology allowed accurate tumour resection and jaw reconstruction with immediate restoration of facial contour and eating function of the patient.

This case received overwhelmingly positive comments from the judges who are world-leading experts in OMFS. "The achievement showcased the excellent work of the Division of Oral and Maxillofacial Surgery of our Faculty as one of the world-leading centers for computer-assisted jaw surgery", Dr Pu said.

Internationally Acclaimed

Faculty Members Received Prestigious IADR Awards

Six members from the Faculty received awards or fellowships at the 2022 International Association for Dental Research (IADR) / Asia Pacific Region (APR) General Session & Exhibition Virtual Experience.



IADR Awardees

Neal Garrett Clinical Research Prize of IADR Prosthodontics Research Group & First Runner-up in IADR Southeast Asian Division Hatton Award Competition

DR REINHARD CHAU

Student of MSc in Community Dentistry cum Research Assistant in Restorative Dental Sciences and Applied Oral Sciences & Community Dental Care

One project, two awards! Research project titled: Accuracy of Artificial Intelligence-designed Single-molar Dental Prostheses: A Feasibility Study won Neal Garrett Clinical Research Prize of IADR Prosthodontics Research Group and 2nd Place of IADR Southeast Asian Division Hatton Award Competition.

"The winning study aimed to assess the accuracy of our AI-designed single-tooth dental prostheses in terms of biomimetics. The AI was previously developed by our research team to automate the design process of single-tooth prostheses," said Dr Chau.

When a patient suffers from a missing tooth or missing parts of a tooth, dentists would restore the patient's intra-oral defects by installing dental prostheses such as dental bridges, crowns, veneers and dentures. Conventional restoration is time-consuming for dentists, lab technicians and patients. Dentists need to operate chairside for a long period of time to get the right data to produce prostheses that fit the patients; lab technicians are required to create the prosthesis and sometimes modify templates from Computer-Aided-Design libraries. For installation and adjustment of the prosthesis, patients may need to visit their dentists multiple times, which is hardly enjoyable.

In view of this, the research team seeks a solution that enhances the efficiency of prosthesis design as well as improves the patient experience. They hypothesized that AI may provide an answer, and thus took a deep dive into it. With a positive research result, the team wishes to study further with other teeth and hopes to translate it into practice.



Being awarded, Dr Chau is grateful for the guidance and support from the members of HKU Faculty of Dentistry – Professor Colman McGrath, Clinical Professor in Dental Public Health; Dr Walter Lam, Clinical Assistant Professor in Prosthodontics and Dr Khaing Myat Thu, Senior Research Assistant in Restorative Dental Sciences, as well as Professor Richard Hsung, Honorary Associate Professor in Oral and Maxillofacial Surgery of HKU Faculty of Dentistry, who is also Associate Professor in Department of Computer Science of Chu Hai College of Higher Education and Professor of School of Information Engineering of Guangdong University of Technology. "It is a team effort! Without them, I would not be able to do this research project. I am also thankful to my family and friends who have been supporting me."

Above: Dr Reinhard Chau is grateful for the guidance and support from the Faculty

IADR MeiraGTX Salivary Research Award

DR QIANYI DENG

PhD student in Paediatric Dentistry



Dr Deng's outstanding research project, Salivary Profile and its Correlation with Dental Caries and/or Obesity, won the IADR MeiraGTX Salivary Research Award. The research aims to present findings that could form the basis of future studies on the underlying mechanisms of the association between dental caries and obesity.

"I am surprised and honoured to receive this award," Dr Deng said. She deeply appreciates her supervisors, Dr Hai Ming Wong and Dr Simin Peng, Clinical Associate and Assistant Professor in Paediatric Dentistry respectively, for their support and guidance.

From left: Dr Hai Ming Wong, Dr Qianyi Deng and Dr Simin Peng

IADR John Clarkson Fellowship & President-elect of IADR Paediatric Oral Health Research Group

DR DUANGPORN DUANGTHIP

Senior Clinical Practitioner in Cariology



Above: Dr Duangthip will continue to enhance her research capability in the area of caries management

Recognising her active engagement in child oral health research and caries management, Dr Duangthip was given the IADR John Clarkson Fellowship 2022.

The Fellowship allows the awarded investigator to obtain training and experience in dental public health at a centre of excellence outside the home institution or country. Dr Duangthip feels very honoured to receive this award.

Besides, she has been appointed as a President-elect of the IADR Paediatric Oral Health Research. "I will promote and encourage research in caries prevention and management and child oral health to benefit the people in Hong Kong and beyond," she said.

IADR Colgate Research in Prevention Travel Awards

DR YUANYUAN HAN

PhD student in Applied Oral Sciences & Community Dental Care

Working in the laboratory all the time is challenging, but I wish I can solve clinical problems through research to improve patients' quality of life

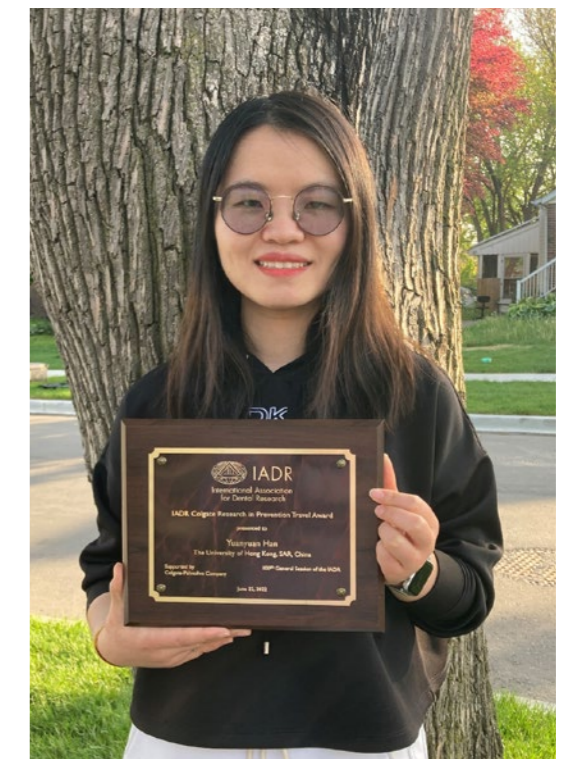
DR YUANYUAN HAN

With the project on dental stem cell-based pulp regeneration supervised by Dr Waruna Dissanayaka, Assistant Professor in Oral Biosciences, Dr Han won the IADR Colgate Research in Prevention Travel Award.

The project is about stabilizing the expression of hypoxia-induced factor 1 α (HIF-1 α) of stem cells from human exfoliated deciduous teeth (SHED) to enhance the cell viability and vascularization after implantation of SHED into the root canal.

Dr Han is excited to receive this award. "I felt that all my effort, diligence, and the time I have spent on my research paid off," she smiled. Dr Han expresses her greatest gratitude to her supervisors, Professor Chengfei Zhang, Clinical Professor in Endodontics, and Dr Waruna, for their guidance and inspiration. Besides, she is thankful to her husband, family, and friends for their endless support and encouragement.

Inspired by her supervisors, she aspires to be an ingenious, diligent and perseverant researcher and scientist. "Working in the laboratory all the time is challenging, but I wish I can solve clinical problems through research to improve patients' quality of life," Dr Han said.



Dr YuanYuan Han, on an exchange program in the USA, is glad to receive the IADR Award

IADR GC Centennial Research Grants

DR YIFAN LIN

Clinical Assistant Professor in Orthodontics



From left:
Dr Yifan Lin and
Dr Yanqi Yang

In the project, we have isolated periodontal ligament cells from periodontally healthy, inflammatory periodontitis. We treated stable periodontitis patients, and examined their regenerative capacities and responses to bacterial challenge.

DR YIFAN LIN

Dr Yifan Lin received the IADR GC Centennial Research Grants for her project on periodontal ligament cells. Periodontium is essential for bone haemostasis and orthodontic tooth movement. The periodontal ligament cells of periodontitis patients have impaired regenerative capacities. However, it is uncertain whether these capacities can be recovered when periodontitis is treated and the periodontal condition stabilizes.

Dr Lin's project identifies how *P. gingivalis* differentially modulates the osteogenic

differentiation of periodontal ligament cells. "In the project, we have isolated periodontal ligament cells from periodontally healthy, inflammatory periodontitis. We treated stable periodontitis patients, and examined their regenerative capacities and responses to bacterial challenge," she explained.

Dr Lin feels honoured to receive this award and extends her sincere gratitude to Professor Lijian Jin, Clinical Professor in Periodontology, and Dr Yanqi Yang, Clinical Associate Professor in Orthodontics, for their guidance and support. "I am thankful to all my collaborators and colleagues. The award gave us an excellent opportunity to showcase our research and make professional connections with global scholars at the international conference," she expressed.

This award is a remarkable achievement for Dr Lin, and she aspires to explore more in the periodontium. "I believe conducting impactful research is a lifelong endeavour. The award motivates me to carry out research that achieves demonstrable benefits to the broad society," she said.

IADR Giddon Award for Distinguished Research in the Behavioral Sciences

PROFESSOR COLMAN MCGRATH

Clinical Professor, Dental Public Health

Division Coordinator of Applied Oral Sciences & Community Dental Care

Professor McGrath received the annual IADR Giddon Award for Distinguished Research in the Behavioral Sciences as part of his team. The award recognizes a single research paper in the fields of social and cultural anthropology, education, psychology, psychiatry, sociology, and social work applied in dentistry.

He co-wrote the awarded paper, *Consensus Statement on Future Directions for the Behavioral and Social Sciences in Oral Health*, which was published in a dentistry's leading journal, the *Journal of Dental Research*. The paper reflects the current knowledge in the behavioral and social oral health sciences and identifies future directions for the field.

The behavioral and social sciences are central to understanding and addressing dental, oral, and craniofacial health, diseases, and

conditions and are relevant to every discipline in dentistry. "The awarded paper is a consensus statement that arose from the 2020 Behavioral and Social Oral Health Sciences Summit. It provides an international consensus outlining the action needed to advance and further integrate and translate behavioral and social sciences into oral health research, oral health promotion and health care, and the training of those working to ensure oral health for all," Professor McGrath explained.

Professor McGrath is delighted to receive this award. "It was truly an honour to be part of the international team of leading scientists in the field and particularly so being the only dental scientist clinician on the team," he said. In the future, he plans to continue to promote oral health globally by advancing the robust application of behavioral and social sciences.



Professor Colman McGrath devotes to oral health promotion globally

Faculty KE Awards 2022

Oral Health Promotion in Older Adults

Project “Promoting Oral Health of Non-institutionalised Older Adults with A Non-governmental Organisation in Hong Kong” led by Dr Amy Wong, Senior Clinical Practitioner in Cariology won the latest Faculty KE Awards 2022.

In Hong Kong, most older adults are non-institutionalised with limited subsidies from the government. As a result, a lot of them could not afford oral health care services. In response to this and to promote the oral health of non-institutionalised older adults, HKU Dentistry has worked with an NGO in Hong Kong, Project Concern to empower the community since 2014. The Faculty and Project Concern

dedicated themselves to promoting oral health in 17 districts, providing free dental check-up, pain relieve by emergency tooth extraction, preventive treatment of fluoride application and oral health talks in local community centres and mobile dental vehicle units. In the past decade, over 2000 older adults have benefited from the services.

“It feels great to help people in need, particularly older adults in the community. This is not an honour for myself but all my team members,” said Dr Amy Wong. She extended appreciation to other team members: Professor CH Chu, Clinical Professor in Cariology; Dr Duangporn Duangthip,



From left: Dr Walter Lam, Dr Ollie Yu, Professor CH Chu, Dr Amy Wong, Dr Katherine Leung, Dr Conson Yeung, Dr Duangporn Duangthip and Dr Iris Yin



Through the project, Dr Amy Wong (front row left fourth) wishes to provide oral health services for the elderly and help dental students and volunteers develop a sense of social responsibility

Senior Clinical Practitioner in Restorative Dental Sciences; Dr Walter Lam, Clinical Assistant Professors in Prosthodontics; Dr Katherine Leung, Clinical Associate Professor in Prosthodontics; Dr Conson Yeung, Clinical Practitioner in Cariology; Dr Iris Yin, Clinical Practitioner in Restorative Dental Sciences and Dr Ollie Yu, Clinical Assistant Professor in Cariology.

The team is delighted to receive the KE Award, but what gratified them the most was the knowledge transferred from the Faculty to a local NGO, allowing the latter to apply and get grants from Hong Kong Jockey Club Charities Trust Fund during 2014-2022. The grants have been used to promote oral health and provide free dental services to underprivileged groups in Hong Kong.

“The winning project enhances oral health awareness to the public, empowers NGOs to provide related services and benefit those in need. It also engages dental students and volunteers and help them develop a sense of social responsibility and willingness to give back to the community in life,” concluded Dr Wong.

Learn more about Faculty Knowledge Exchange Awards, please visit: www.ke.hku.hk



The winning project enhances oral health awareness to the public, empowers NGOs to provide related services and benefit those in need. It also engages dental students and volunteers and help them develop a sense of social responsibility and willingness to give back to the community in life.

DR AMY WONG



The Faculty of Dentistry has been empowering a non-governmental organization - Project Concern Hong Kong to promote oral health in local community centres

Shining in the InnoTech Sector

BDS student was awarded Innovation and Technology Scholarship

Bachelor of Dental Surgery (BDS) Year 5 student, Ms Annette Ng, was given the Innovation and Technology Scholarship 2022 during the Innovation and Technology Scholarship Award Presentation Ceremony 2022.

The Innovation and Technology Commission (ITC), HSBC and The Hong Kong Federation of Youth Groups (HKFYG) jointly organise the Innovation and Technology Scholarship (the Scholarship) which offers outstanding undergraduates of Hong Kong the opportunities to widen their international exposure, gain industry experience, and nurture their passion and commitment toward science and technology. In its 12th year, the Awardee Selection Committee selects

25 awardees from different universities and disciplines. Each awardee receives a scholarship of HK\$150,000 to participate in a series of initiatives to fulfill their potential.

INNOVATION AND TECHNOLOGY BRINGING EASE AND EFFICIENCY TO MEDICAL TREATMENT

Ms Ng cares about her patients deeply. She presented her ideas on applying technology to minimize discomfort caused by dental problems and reduce treatment cost to the scholarship panel. "Through technology, Artificial Intelligence and remote consultation can bring efficiency to dental treatment," she said. She especially pays attention to the latest technology which can help



Ms Annette Ng explains her ideas on applying technology to minimize discomfort caused by dental problems

solve clinical problems. "The advanced learning facilities in the Faculty always inspire me on how to transform theory into practice by combining innovation and technology," she mentioned. The Scholarship not only gives her a chance to present innovative ideas, but also provides a platform for her to meet like-minded people from various disciplines to exchange InnoTech knowledge and skills.

The advanced learning facilities in the Faculty always inspire me on how to transform theory into practice by combining innovation and technology.

MS ANNETTE NG

REACHING OUT TO THE COMMUNITY

Apart from providing clinical service for patients, Ms Ng wishes to apply innovation and technology to public health for better dental treatment. With the support of the scholarship, she is going to design a science workshop for primary students to arouse their interest in science and technology. "I hope the students will enjoy the workshop and fall in love with science," she said.

our HKU Faculty of Dentistry's students over the years. Our Faculty is missioned to support and nurture undergraduate and postgraduate students not only in providing excellent quality of patient-care, but also innovating the society, dentistry, and the world by changing the global landscape of dentistry with disruptive technologies and innovative solutions of Artificial Intelligence, New Materials and Smart Health. Ultimately, we should keep ourselves creative, imaginative, curious and resilience, and ready to be the 'game changer' in dentistry," elaborated Dr Tsoi.

SCHOLARSHIP HELPS NURTURE DENTAL INNOVATION

Dr James Tsoi, Assistant Dean (Innovation) is pleased to learn about the achievement of Ms Ng. He stated that endorsing Hong Kong's status as an internationally leading innovation and technology hub for high-quality social and economic development, nurturing and incubating innovative minds is of the utmost importance. "We are grateful to see the scholarship has been continuously supporting

Dr James Tsoi, Assistant Dean (Innovation) congratulates Ms Annette Ng for receiving the Innovation and Technology Scholarship 2022



Learn more about Innovation and Technology Scholarship, please visit: innotechscholarship.hkfyg.org.hk



Leading IAD-MSC

New Director on Board



Above: Mr Gerhard Zielinski, new Director of Institute for Advanced Dentistry - Multi-specialty Clinic

IN LOVE WITH HONG KONG

Mr Gerhard Zielinski, new Director of Institute for Advanced Dentistry - Multi-specialty Clinic (IAD-MSC), comes from a beautiful country, The Netherlands. Hong Kong won his heart when he did an internship here while he was studying international business management in 1997. After returning to The Netherlands, he kept seeking opportunities to return to Hong Kong. He finally had the chance to come back in 2006 and has been here ever since. "Hong Kong is a city full of energy. There is lots of business going on here. It is an excellent place to work because it is close to China and in the middle of Asia," he said.

Mr Zielinski loves anything related to the sea such as scuba diving, swimming, boating, fishing and many more. He enjoys having quality time with

his wife and two sons during leisure time. "We take pleasure in visiting some of Hong Kong's many fantastic beaches when the weather is nice," he shared.

MOVING FORWARD BY CHALLENGES

Prior to joining IAD-MSC, Mr Zielinski worked at Bupa Hong Kong (Bupa), an international healthcare company, and its healthcare provision arm, Quality HealthCare Medical Services (Quality Healthcare) for over 10 years in various senior management roles. He was primarily in charge of leading Bupa's market entry into China and built a flagship medical centre in Guangzhou. His last role was the Business Development Director for both Hong Kong and Mainland China. He mentioned, "My prior work experiences taught me how to be

Being the director of IAD-MSC, our vision is to become a world-renowned centre of excellence in advanced dentistry. We want to contribute to the oral health and wellbeing of people in Hong Kong; and be the leading centre for postgraduate education, training, and innovation.

MR GERHARD ZIELINSKI

flexible in my profession and respond swiftly to changing circumstances."

His first commercial experience to the dental industry came from Quality Healthcare, which owns a respectable dental practice. "The medical centre in Guangzhou was equipped with dental chairs, so that got me some insights into how dentistry works in China. I developed the Bupa-branded dental centres here in Hong Kong finally," he said. "Despite not being a dentist, I am confident my commercial awareness and business knowledge would allow me to contribute to the Faculty."

Mr Zielinski is eager to take on the challenge of moving from the healthcare sector to the field

of education. He wants to make a difference in the city since he is aware that there is a huge shortage of dentists, especially specialists in Hong Kong. He expressed, "Being the director of IAD-MSC, our vision is to become a world-renowned centre of excellence in advanced dentistry. We want to contribute to the oral health and wellbeing of people in Hong Kong; and be the leading centre for postgraduate education, training, and innovation."

HIGH-QUALITY PATIENT CARE AS IMPORTANT AS HIGH-LEVEL POSTGRADUATE EDUCATION

According to Mr Zielinski, balancing clinical quality and the patient experience and business goals is the biggest challenge in managing



IAD-MSC equipped with 45 dental chairs and state-of-the-art technology facilities

From right:
Mr Gerhard Zielinski, Professor Thomas Flemmig, Dean, as well as Dr Katherine Leung, Associate Dean and Dr Angeline Lee, Assistant Dean in Taught Postgraduate Education of the Faculty of Dentistry



healthcare related business. Adopting a patient-centric approach at all times will win your patients' trust, which is the key to achieving business goals. He emphasised, "I am a firm believer in patient-centricity in healthcare related industry. That means everything we do must be designed with the patient at the centre. When looking at IAD-MSC's patient journey, it often starts before the patient decides to come to IAD-MSC with a referral letter. Once inside the clinic, the journey continues, and once the patient leaves, the long-term patient engagement process begins. At every stage of the patient journey, we must provide the best possible patient experience, along with the highest quality care and outcomes, with the help of our reception team, students, supervisors, and clinical support staff."

He asserts that for IAD-MSC, achieving a high-level of postgraduate education is equally crucial to offering high-quality patient care. IAD-MSC is situated at a brand-new building of 19,000 square feet, equipped with 45 dental chairs and other state-of-the-art technology facilities, where students from seven different dental disciplines can receive education and training in advanced dentistry and interact with real patients. He said, "We are providing postgraduate students with an optimal setting to advance their study. Together with a team

of highly experienced program directors, supervisors and clinical staff, these factors all contribute to the HKU Faculty of Dentistry's second-place global ranking in its field."

CRITERIA OF A SUCCESSFUL LEADER

When asking Mr Zielinski about the criteria for becoming a successful leader, he answered, "Firstly, you have to bring out the best in the people that you work with by inspiring, empowering and supporting them. Secondly, you have to acquire the ability to execute your vision. Coming up with the vision alone is not enough. You must be able to champion your vision, engage with key stakeholders and enable your team to work towards that vision. Last but not least, you have to stay humble, curious and always remain open to learning new things." He obtains a clear vision and a patient-centric mindset in his role as IAD-MSC leader and is willing to take on challenges and guide the team throughout the journey. "I very much look forward to working with the colleagues and students at HKU Faculty of Dentistry and learning more about dentistry," concluded Mr Zielinski.

Learn more about Advanced Dentistry - Multi-specialty Clinic, please visit: iad.facdent.hku.hk



2023-2024

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IADlab Opening

Providing One-Stop Dental Solutions

A state-of-the-art dental laboratory was opened at Institute for Advanced Dentistry Multi-Specialty Clinic (IAD-MSC) on 30 June 2022. The IADlab is operated by Modern Dental Laboratory Hong Kong. It provides dental laboratory support with a wide range of services ranging from restorations, dentures and orthodontic appliances and offers training opportunities for our postgraduate students.

Professor Thomas Flemmig, Dean of the Faculty of Dentistry said, "The new in-house IADlab is able to enhance treatment efficiency for both dentists and patients. We believe that the collaboration can lead to success in improving excellence in oral health sciences, education and professional care."

IADlab is equipped with advance technology, ranging from digital scanners, dental milling machines and 3D printing. Furthermore, accurate impressions are essential in fabricating dental restorations. By using intraoral scanners, dentists can simply scan their patients' oral condition and transmit the data instantly to IADlab for processing. Clinicians and patients can then preview and discuss the clinical outcomes of the tailor-made dental prostheses as well as refine the desired restoration.

Dr Ronald Chan, Chairman and Executive Director of Modern Dental Group, stated "Modern Dental first started as a one-man dental laboratory in Hong Kong and over the past 35+ years, it has grown to be the leading global dental prosthetic



The ribbon-cutting ceremony for the opening of the IADlab. **From left:** Mr Dennis Wong, GP Professionals & Equipment and Ms Ivy Yip, General Manager of Modern Dental Laboratory Hong Kong; Mr Eric Tsui, former Director and Ms Puttie So, Assistant Operations Manager of IAD-MSC; Professor Thomas Flemmig, Dean and Dr Angeline Lee, Assistant Dean in Taught Postgraduate Education of the Faculty of Dentistry.



From top: Ms Ivy Yip introduces IADlab to Professor Thomas Flemmig; Advanced CERC Milling Machine is used in IADlab to enhance efficiency for dental restorations

device provider. Having its origins in Hong Kong, the cooperation with the HKU Faculty of Dentistry, one of the top dental education institutions in the world, has a special significance to us. We will ensure to introduce the newest dental prosthetic solutions and workflows which will further foster dental education, care and service to the local community."

IAD-MSC is a centre of excellence for the management of complex and severe oral conditions. It provides postgraduate dental education, fosters clinical innovation and research, as well as supports continuing dental and professional education to practicing dentists and specialists.

Modern Dental Group is a leading global dental prosthetic device provider, distributor and consultant with a focus on providing custom-made prostheses to customers in the growing prosthetics industry.

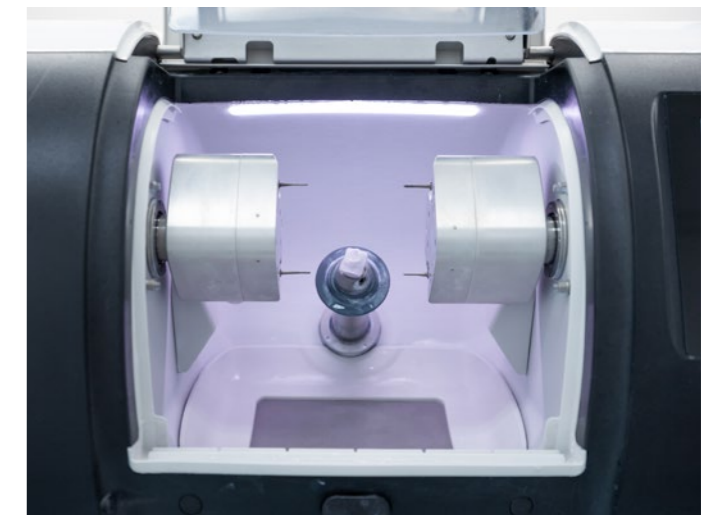
The new in-house IADlab is able to enhance treatment efficiency for both dentists and patients. We believe that the collaboration can lead to success in improving excellence in oral health sciences, education and professional care.

PROFESSOR THOMAS FLEMMIG

Learn more about Institute for Advanced Dentistry – Multi-specialty Clinic, please visit: iad.facdent.hku.hk



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Positive Stress to Boost Tooth Tissue Regeneration

New Strategies to Enhance Therapeutic Potential of Tooth Stem Cells

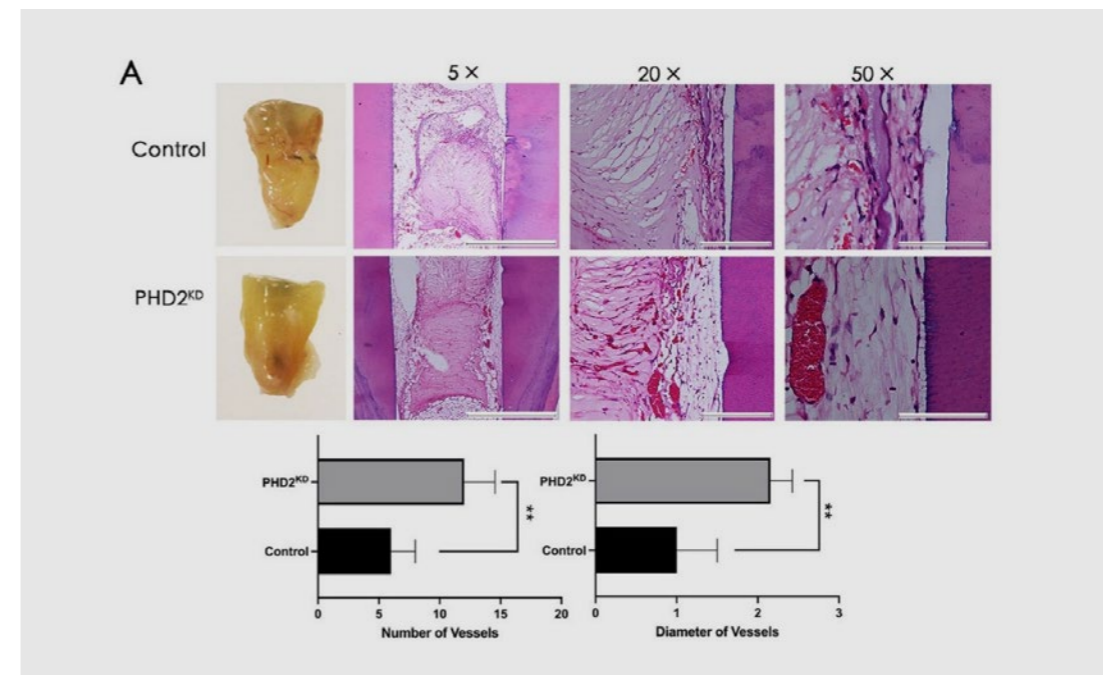
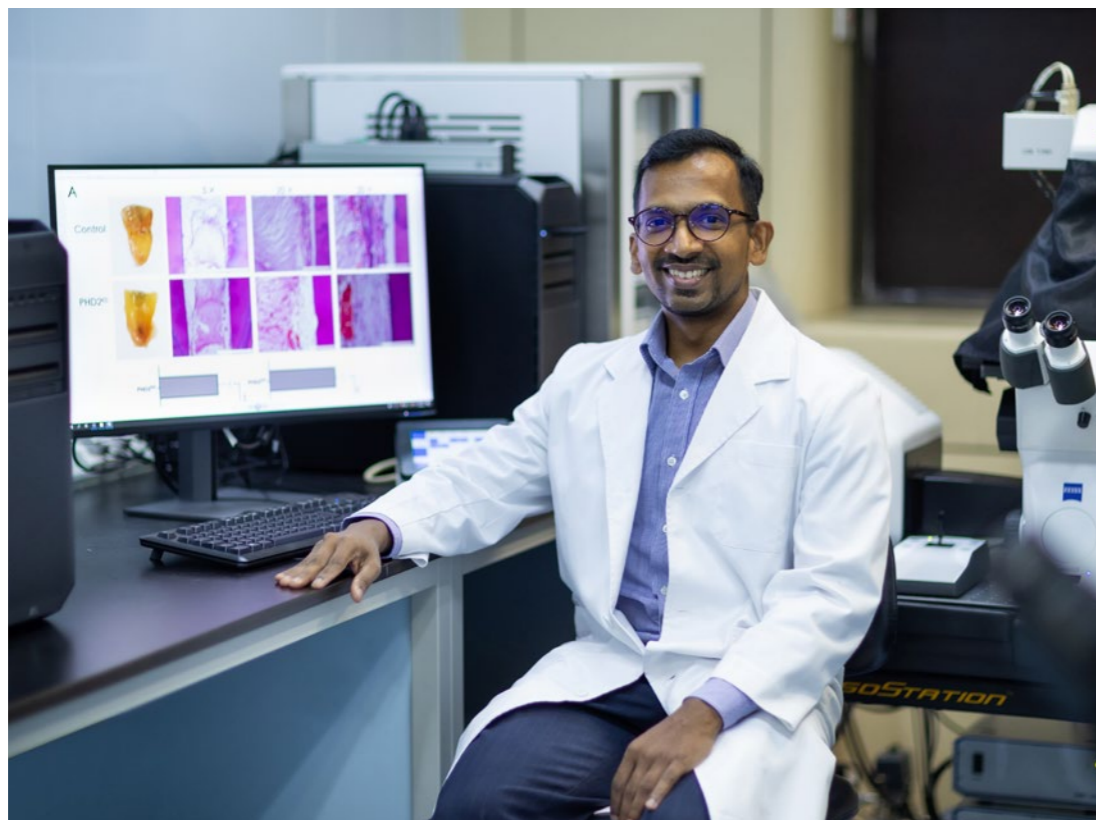
Stress is typically considered to be a negative phenomenon, but researchers at HKU Dentistry found that “positive stress” can induce good changes in tooth stem cells to make them more resilient to injury and disease.

The study, published online in the *Journal of Dental Research*, is the first to show that adaptive mechanisms in tooth stem cells induced by preconditioning to stress can boost the tooth pulp tissue regeneration. The researchers found

that oxidative stress caused by low-oxygen environment can elicit a protective response to make tooth stem cells less vulnerable to harm.

When a tooth is damaged, either by serious decay or injury, the living tissue inside becomes exposed to harmful bacteria and vulnerable to infection. Once the tooth pulp tissue is fully infected, current treatment options are limited to either removing the diseased pulp and filling the emptied canal with artificial materials

Dr Waruna Dissanayaka and his research team believe these new findings will promote the development of new strategies to enhance the therapeutic potential of tooth stem cells



Tooth stem cells modified to mimic a cellular state similar to that under low oxygen (PHD2KD) gave rise to tooth pulp tissue with a significantly increased amount of blood vessels.

such as rubber and cement or extracting the tooth. When a tooth core is filled with artificial inert materials, the pulp-less tooth dries out over time, becomes brittle and more prone to cracking and re-infection. This could eventually lead to extraction of the tooth and replacement with a prosthesis.

The research team led by Dr Waruna Dissanayaka, Assistant Professor in Oral Biosciences, aims to develop an approach to regenerate the lost tooth pulp which could revitalize the tooth and enable it to function like a normal tooth.

Stem cell-based therapeutics has been considered a promising strategy in dental pulp regeneration. However, as the tooth root canal is surrounded by hard dental tissue with a limited blood supply, which creates a harsh environment for the cells with low-oxygen and nutrients, low cell viability after transplantation in vivo remains a critical challenge to researchers.

The research team developed a preconditioning protocol that modified the cells genetically

to mimic a responsive state for low oxygen conditions in order to activate a protein that induce adaptive changes in the cells.

Dr Yuanyuan Han, co-investigator of the team pointed out, “As this protein was reported to activate several key adaptive mechanisms, we wondered whether this phenomenon can be applied to improve cell survival following transplantation until sufficient blood supply is achieved.”

“In our study, we found that these cells activate a metabolic mechanism to produce energy under low oxygen conditions and scavenge harmful metabolites produced in stress conditions.” Dr Han explained.

“Interestingly, we also found that preconditioned cells significantly enhanced the dental hard tissue formation within the regenerated pulp tissue.” Dr Dissanayaka stated further.

“Former research has revealed that our cells possess a number of adaptive mechanisms for stress, which are regulated by several key genes

RESEARCH

encoded in our DNA that are normally inactive," Dr Dissanayaka said. "If we can activate these genes, downstream expression of specific proteins can prime the cells less vulnerable to injury."

With the help of Dr Koohi-Moghadam Mohamad, Research Assistant Professor in Clinical Artificial Intelligence, the team investigated which genes are activated or repressed during preconditioning and is further working on to characterize the upregulated downstream proteins that make cells resistant to damage.

"Tooth stem cells have an inherent capacity to survive under stress" Dr Dissanayaka emphasized. "Our aim is to find ways to take advantage of this capacity and use positive stress to help regenerate the dental tissues."

Dr Dissanayaka plans to utilize the knowledge of specific genes and proteins responsible for inducing cell survival to identify drugs that can be used in clinical tissue regeneration. He believes these new findings will promote the development of new strategies to enhance the therapeutic potential of tooth stem cells.

The study won the IADR Colgate Research in Prevention Award at the 2022 IADR General Session. This project was funded by the General Research Fund of the Research Grants Council, Hong Kong.

Learn more about Journal Article, please visit: pubmed.ncbi.nlm.nih.gov/35798352



Interestingly, we found that preconditioned cells significantly enhanced the dental hard tissue formation within the regenerated pulp tissue.

DR WARUNA DISSANAYAKA

RESEARCH TEAM

Faculty of Dentistry, The University of Hong Kong

PRINCIPAL INVESTIGATOR

- Dr Waruna Dissanayaka, Assistant Professor in Oral Biosciences

CO-INVESTIGATORS

- Dr Yuanyuan Han, PhD student in Applied Oral Sciences & Community Dental Care
- Dr Mohamad Koohi-Moghadam, Research Assistant Professor in Clinical Artificial Intelligence
- Dr Qixin Chen, PhD student in Applied Oral Sciences & Community Dental Care
- Dr Lili Zhang, PhD student in Applied Oral Sciences & Community Dental Care

Periodontics and Oral Medicine, School of Dentistry, University of Michigan

CO-INVESTIGATOR

- Dr Hitesh Chopra, Postdoctoral Research Fellow

Department of Orthodontics, School and Hospital of Stomatology, Cheeloo College of Medicine, Shandong University

CO-INVESTIGATOR

- Professor Jun Zhang

Colgate

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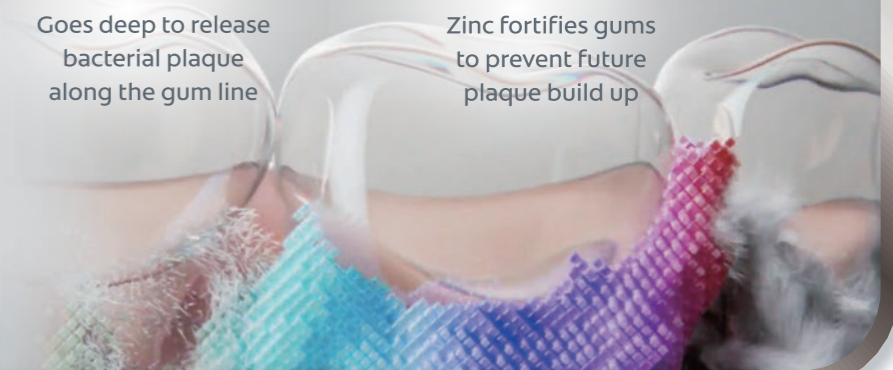
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AI Technology to Automate the Process of Denture Design

Enhance Treatment Efficiency & Improve Patient Experience

From left:
Professor Richard Hsung, Professor Colman McGrath, Dr Reinhard Chau, Dr Khaing Myat Thu and Dr Walter Lam



Loss of permanent teeth is usually caused by dental diseases or trauma and is common in the global population, especially among the elderly due to aging and relatively poorer oral health.

Failure to replace a missing tooth not only affects facial aesthetic and chewing function, but may also lead to jawbone loss and shifting to teeth. The later may cause malocclusion and bite irregularities that could have a significant impact on the health of the remaining teeth, gums, jaw muscles and jaw points.

Artificial teeth, also known as bridges and dentures, are prosthetic devices used to replace missing teeth. It is essential for the

false teeth to resemble the patient's original tooth so that the patient can retain his or her original appearance, chewing function, oral and physical health.

Currently, the process of designing and creating dentures is highly time-consuming as the existing computerised design process requires tedious manual inputs, teeth occlusion information collection as well as multiple denture fitting procedures due to limited accuracy of existing technologies.

Researchers from the Faculty of Dentistry at The University of Hong Kong (HKU) and the Department of Computer Science of Chu Hai College of

Higher Education, collaborated to develop a new approach using artificial intelligence to automate the design of individualised dentures, in order to enhance the treatment efficiency and improve patient experience.

The AI technology used in the process was based on 3D Generative Adversarial Network (3D-GAN) algorithm and tested on 175 participants recruited at HKU. The study shows that AI technology could reconstruct the shape of a natural healthy tooth and automate the process of false teeth design with high accuracy.

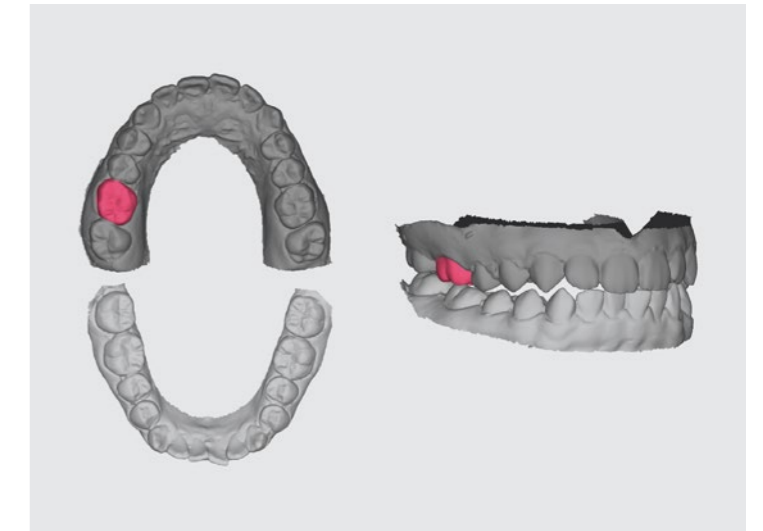
"The 3D GAN algorithm was selected due to its superior performance on 3D object reconstruction compared to other AI algorithms. In the preliminary study, 3D GAN was able to rebuild similar shapes to the original teeth for 60% of the cases. It is expected to mature with more AI training data," co-investigator, Dr Reinhard Chau explained.

The new approach only requires the digital model of a patient's dentition to function. It can learn the features of an individual's teeth from the rest of the dentition and generate a false tooth that looks like the missing tooth.

"This will facilitate the treatment workflow for dentists in replacing a missing tooth, as the preparation and fitting process will require minimal time, and a patient will not need to stay at the clinic for long hours," said Principal Investigator Dr Walter Lam.

The study entitled "Artificial intelligence-designed single molar dental prostheses: A protocol of prospective experimental study" was published in the journal PLoS ONE. The preliminary results of the study were presented in the recent International Association of Dental Research (IADR) General Session. The study won the IADR Neal Garrett Clinical Research Prize and First runner-up in the 2022 IADR-SEA Hatton Award - Senior Category.

Learn more about Journal Article, please visit: journals.plos.org/plosone/article?id=10.1371/journal.pone.0268535



The research team uses 3D GAN to learn the relationship of teeth in a dental arch on the 175 student participants. After training, 3D GAN is able to generate a tooth (red) based on the feature of remaining teeth (dark grey). Research team proposes to further investigate the presence of opposing teeth to help the AI to generate a more natural tooth (red)

RESEARCH TEAM

HKU Faculty of Dentistry

PRINCIPAL INVESTIGATOR

- Dr Walter Lam, Clinical Assistant Professor in Prosthodontics and Founding Member of HKU Musketeers Foundation Institute of Data Science

CO-INVESTIGATORS

- Dr Reinhard Chau, Research Assistant in Restorative Dental Sciences and Applied Oral Sciences & Community Dental Care
- Professor Colman McGrath, Clinical Professor in Dental Public Health
- Dr Khaing Myat Thu, Senior Research Assistant in Restorative Dental Sciences

Chu Hai College of Higher Education

CO-INVESTIGATOR

- Professor Richard Hsung, Associate Professor in Department of Computer Science

AI Web Tool to Prevent Oral Cancer in Nigeria

OMFS Team Received KE Strategic Impact Scheme Fund

From left:
Dr John Adeoye,
Professor Richard
Su and Dr Jane Pu



Knowledge exchange team led by Professor Richard Su, Division Head and Clinical Professor in Oral and Maxillofacial Surgery (OMFS) initiates a project with the objective to detect oral cancer at early stages in Nigeria by using artificial intelligence (AI)-based web tool among dentists and patients, as well as to promote oral cancer prevention. His project won supports from KE Strategic Impact Scheme Fund (HKD 500,000) by The University of Hong Kong.

FROM HONG KONG TO NIGERIA

In 2021, the research team developed and launched an AI-based web tool to predict oral cancer risk among patients that have white patches clinically known as oral leukoplakia (OL) and oral lichenoid mucositis (OLM). These conditions have an inherent disposition to develop oral cancer. The intelligent platform has

the potential to improve the selection of patients for surgical excision and close monitoring.

The web tool with clinical and pathological features are believed to be easily obtained even in resource-limited settings to encourage consensus application in dental practice. In Nigeria, many patients are seen by general dental practitioners that may have limited experience in determining which OL or OLM disease is likely to develop oral cancer and which OL or OLM disease will require surgery and close follow-up.

Moreover, many patients are ignorant of the signs of OL, OLM, and early oral cancer which has resulted in the commencement of treatment in advanced stages of oral cancer in Nigeria. "In view of this, we partner with and train two volunteer organizations in Lagos and Abuja,

Nigeria, on using and interpreting intelligent web tool for oral cancer risk prediction. We believe the web tool may be impactful in regions with finite resources like Nigeria," said Professor Su.

The partnered organizations will then train local dental practitioners, allied dental workers, and patients encountered in various outreaches in Nigeria to use the AI web tool with our support. Moreover, this project will include awareness programs among Lagos and Abuja Nigerian communities on risk factors and early clinical appearances of oral cancer. "We will also emphasize the need for routine dental visitation and monitoring among patients predicted or perceived to have a high risk of oral cancer to encourage early diagnosis," added Dr Jane Pu, Honorary Clinical Tutor.

BENEFITING THE COMMUNITY WITHIN AND BEYOND HONG KONG

The web tool is impactful, not just in Hong Kong but also for those medically underserved areas

We partner with and train two volunteer organizations in Lagos and Abuja, Nigeria, on using and interpreting intelligent web tool for oral cancer risk prediction. We believe the web tool may be impactful in regions with finite resources like Nigeria.

PROFESSOR RICHARD SU

like Nigeria. It assists dentists in understanding patients' malignant transformation risks and better stratifying them for optimal treatment selection and planning.

Additionally, it enables prompt intervention or referral for high-risk patients to aid in secondary prevention and early diagnosis of oral cancer. With the support of the KE Fund, the team has the opportunity to actualize the development of the web tool as it relates to providing decision support in Nigeria. "It will be exciting to see the impact that our tool and awareness programs have as it relates to the prevention and early diagnosis of oral cancer among these Nigerian communities in the future," said Dr Adeoye, PhD Student.

RESEARCH TEAM

Oral and Maxillofacial Surgery, HKU Faculty of Dentistry

PRINCIPAL INVESTIGATOR

- Professor Richard Su, Division Coordinator and Clinical Professor

CO-INVESTIGATORS

- Dr John Adeoye, PhD Student
- Dr Jane Pu, Honorary Clinical Tutor

Cleft and Facial Deformity Foundation

CO-INVESTIGATOR

- Dr Seidu Adebayo Bello, Director and Founder

Department of Oral and Maxillofacial Pathology/Biology, College of Medicine of the University of Lagos, Lagos, Nigeria

CO-INVESTIGATORS

- Dr Abuja Nigeria and Dr Abdulwarith Akinshipo, Senior Lecturers and Consultant Pathologists

LOOKING FORWARD

The team believes that the increased utilization of this tool will refine the planning of treatment strategies for patients with OL and OLM in the Nigerian setting. "We believe this will motivate them to adhere to dentists' recommendations and will improve their healthcare-seeking behaviour as it relates to oral cancer and oral potentially malignant disorders. Overall, we hope that the project will foster more collaboration between institutions in Hong Kong and Nigeria," concluded Professor Su.

Learn more about Yearly KE Funding Scheme for Impact Projects, please visit:
www.ke.hku.hk



Engaging Secondary School Students

AI for Medical Image Analyses of Oral Cancer Prognosis Prediction

A collaboration has formed between The University of Hong Kong (HKU) and PLK Tong Nai Kan Junior Secondary College to enable early exposure of secondary school students to a university-led project. The project involves the use of artificial intelligence to analyse medical images for oral cancer prognosis prediction. This KE project is led by Dr Liwu Zheng, Clinical Associate Professor in Division of Oral Maxillofacial Surgery, Faculty of Dentistry (HKU). Team members included Dr Zheng's PhD student, Miss Cu Chui Shan and Dr Nikki Lee from Department of Surgery, Li Ka Shing Faculty of Medicine (HKU).

This KE program involves a series of training workshops for analysing medical images followed by a competition. The workshops are co-conducted by HKU team and Dr Alice Chan, lecturer of PLK Tong Kan Junior Secondary School with the objective to provide guidance and training on medical image analyses to about 500 students from different grades. Ten best learners will be chosen to enter a competition based on the preliminary assessment of their performance on image analyses. So far, about one-eighth of the students have received the first phase of training on using a computer tool to extract



Students including Mr Ho Chun Yin (front row left) and Mr Fan To Ming (front row right) participate in the KE project. **Back row from right:** Dr Alice Chan; Mr Kwan Siu Ming, Assistant Vice-Principal of PLK Tong Nai Kan Junior Secondary College and Dr Li Wu Zheng.

and digitalize the prognostic features from the provided medical images. This first phase of training is satisfactory as we have already identified several students with special talents on performing the medical image analyses. In the next phase, more workshops will be arranged.

Dr Alice Chan is delighted to run the project, "Some students are not sure if they like science because they don't know much about the real life application of this subject. Through this collaboration, the students learnt about research, application of science and the latest trend of science technology."

Form 4 student, Mr Fan To Ming said that before joining the project, he expected it to be very difficult. However, after participation, he gained interest to engage in medical studies, "I learned that medical research is not just about using medicine to help the patients, it also needs someone to utilise computers and technology. It needs good computer skill and good eye sights. As I like to play video games, it is fun for me."

Dr Chan added that medical research nowadays is not just about laboratory work or experiments. "The image analysis requires students who possess excellent computer skills rather than just traditional laboratory or complicated science concept. This is very suitable for our new generation who is good at computer skills."

Form 3 student, Mr Ho Chun Yin engaged in the project as he has a strong interest in medical science. He shared that he was given 5 folders to analyse during summer holiday. At first, he believed that it was an easy task but ended up rushing through 10 files each day in order to complete the project. "It is a valuable experience. I now understand that research requires more hard work than I thought. I now have better time management and will put more effort into pursuing my goals."

Dr Chan stated that the school would like to build an AI system to let students assist the oral cancer patient diagnosis in the future and acquire new

The Faculty of Dentistry has been committing to Knowledge Exchange with the public. Through this project, we wish to provide information, discussion and education on oral cancer, its diagnosis by AI application and related research.

DR LIWU ZHENG



knowledge, "The world is changing, and we must keep up with it."

Dr Zheng is pleased to learn this KE programme enhanced secondary school students' interest and awareness in oral cancer and medical science as well as inspired the school to develop AI teaching and learning. "The Faculty of Dentistry has been committing to Knowledge Exchange with the public. Through this project, we wish to provide information, discussion and education on oral cancer, its diagnosis by AI application and related research."

Above: Mr Fan To Ming shows image analysis to Dr Alice Chan and Dr Liwu Zheng

Love Your Teeth Colouring Campaign

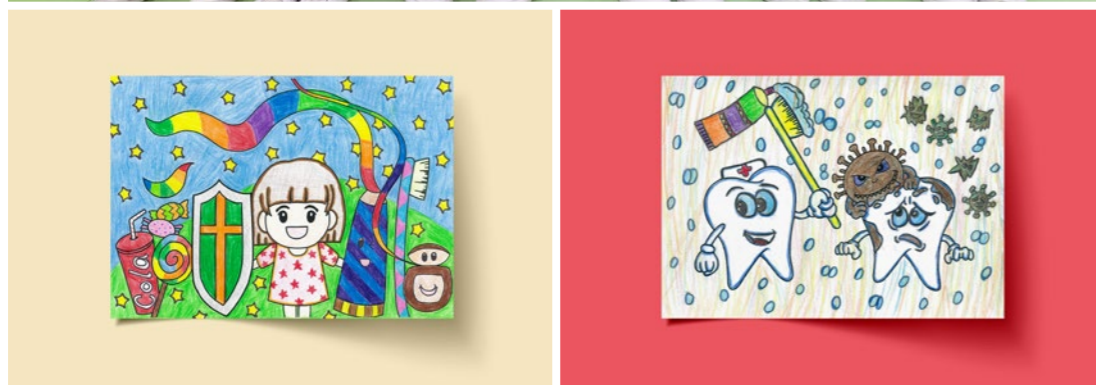
Over 4500 Entries from Primary Schools and Kindergartens

The Faculty of Dentistry organised the Love Your Teeth Colouring Campaign in June 2022. The activity received positive feedback attracting 4500 participants aged from 3 to 12. The Faculty is thankful to schools and students and the sponsor who provided oral health gifts. We hope the activity can enhance children's oral health knowledge and help them establish good oral health habits. Let's keep children's teeth healthy!

Learn more about Love Your Teeth Colouring Campaign, please visit: facdent.hku.hk/teeth-colouring

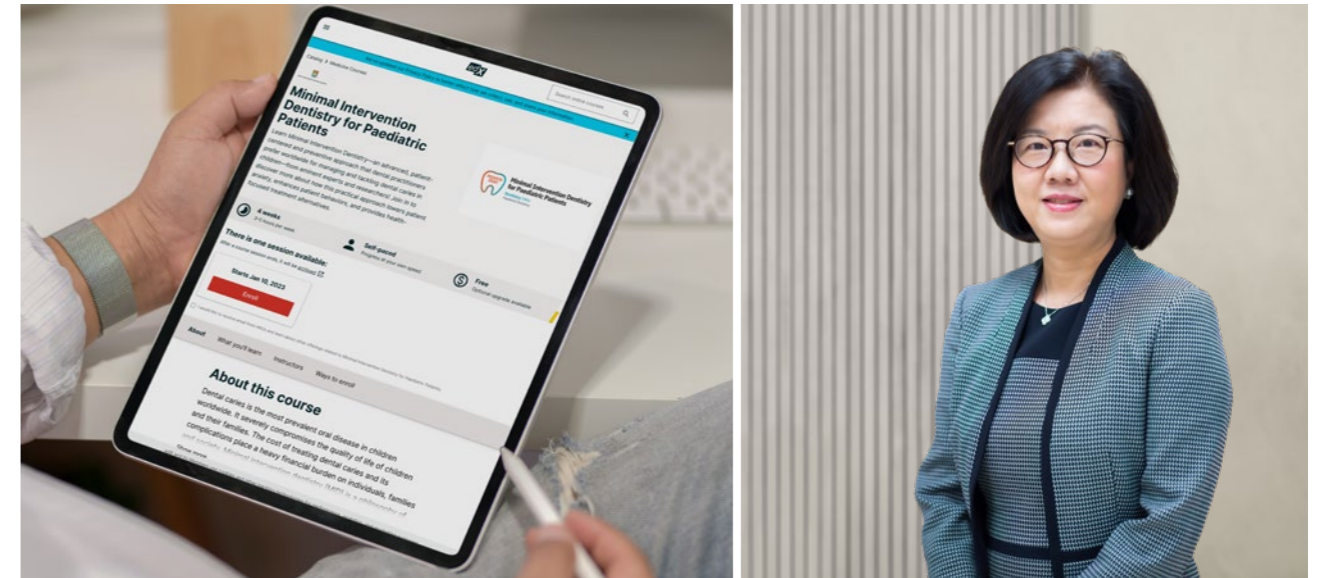


Clockwise from top: For the kindergarten group, the Faculty of Dentistry received over 3800 entries; Colouring from primary school group; Entries from kindergarten group



Continuing Professional Education

MOOC on Paediatric Dentistry



The 2nd Paediatric Dentistry MOOC "Minimal Intervention Dentistry for Paediatric Patients" delivered by multinational dental specialists, eminent researchers and expert practitioners from HKU Faculty of Dentistry, as well as from other universities in various countries, launched on 10 January 2023 on edX.

This course is a valuable resource for dental practitioners, dental students, paediatricians, family physicians, child health workers, nursing officers, registered nurses and kindergarten teachers. It is led by the Course Director, Professor Cynthia Yiu, Clinical Professor in Paediatric Dentistry and another 12 instructors from the HKU Faculty of Dentistry, as well as from various other universities.

Instructors from HKU are Professor CH Chu, Clinical Professor in Cariology, Professor Edward Chin Man Lo, Chair Professor in Dental Public Health, and academic staff from Paediatric Dentistry including Professor Gloria Wong, Clinical Professor; Dr Simin Peng and Dr Phoebe Lam,

Clinical Assistant Professors; Dr Sarah Fong and Dr Gillian Lee, Senior Clinical Practitioners and Dr Sheetal Manchanda, Research Postgraduate.

Instructors from other universities are Dr Manikandan Ekambaram, Associate Professor of Paediatric Dentistry at the University of Otago, New Zealand; Dr Xiaoli Gao, Associate Professor, Faculty of Dentistry & Saw Swee Hock School of Public Health at the National University of Singapore, Singapore; Dr Mohammed Nadeem Bijle, Assistant Professor in Paediatric Dentistry at Ajman University, United Arab Emirates; and Dr Divesh Sardana, Clinical Assistant Professor in the Division of Pediatric Dentistry at the University of Oklahoma College of Dentistry, the United States.

From left: Paediatric Dentistry MOOC launches in January 2023; Course Director, Professor Cynthia Yiu

Registration of Minimal Intervention Dentistry for Paediatric Patients, please visit: www.edx.org/course/minimal-intervention-dentistry-for-paediatric-patients



Annual Scientific Meeting 2022

Presentation Competition Concluded with Applause



Above: Presentation participants, judges and ASM organising committee members

The 2022 Faculty Annual Scientific Meeting (ASM) was successfully held on 14 December 2022 at the Prince Philip Dental Hospital Lecture Theatre 1. In the welcoming address, Professor Thomas Flemmig, Dean of the Faculty of Dentistry, welcomed all the attendees and thanked Professor Michael Huen, Jessie Ho Professor in Neuroscience, HKU School of Biomedical Sciences, for making a keynote presentation on Molecular Regulation of DNA Repair Control.

Professor Flemmig further stated that the Faculty has expanded the research capacity significantly in the last couple of years along with the establishment of the Institute for Advanced Dentistry comprises the Multi-Specialty Clinic, Central Research Laboratories, Clinical Research Centre which support postgraduate programmes and research areas.

Professor Huen in his keynote presentation, showed us his research team has identified key molecular players that coordinate double-strand break (DSB) repair with local transcriptional activities, and are also starting to unveil how nuclear actin dynamics support DSB metabolism to safeguard genome integrity.

The Annual Scientific Meeting provides a forum for students and staff to showcase their recent works. It is also a great opportunity to strengthen our community, stimulate critical thinking and foster innovation.

There were over 20 oral presentations by Faculty staff and postgraduate students. Four presentation awards were given to the best two presenters in the student category and the best two presenters in the staff category. Each awardee shall receive a prize of HK\$5,000 which can be claimed on a reimbursement basis for research-related expenses or conference attendance.

At the conclusion of the ASM, a post-meeting reception was organised at the Lounge on 7/F where ASM participants could further exchange their ideas, mix and mingle to strengthen the bonds and sense of belongings.

To learn more about Annual Scientific Meeting 2022, please visit: asm.facdent.hku.hk



Award Presentation

STAFF CATEGORY



TOPIC
Systematic analysis of site-specific biosynthetic gene clusters (BGCs) of oral microbiome in healthy and periodontitis

PRESENTER
Dr Mohamad Koohi-Moghadam



TOPIC
Calcium strontium silicate promotes the odontogenic differentiation of human dental pulp stem cells

PRESENTER
Dr Mohamed Mahmoud Ahmed Abdalla

STUDENT CATEGORY



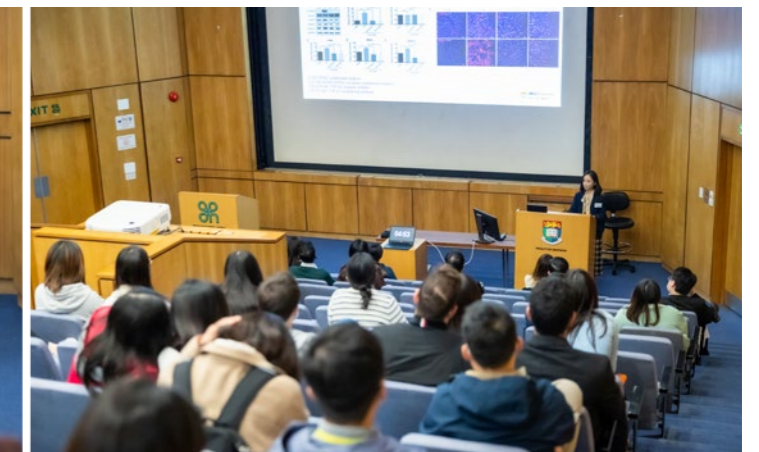
TOPIC
Formation of three-dimensional spheres enhances the neurogenic potential of stem cells from apical papilla

PRESENTER
Dr Mohammed Basabrain



TOPIC
Association between craniofacial features and upper airway obstruction in adolescents with obstructive sleep apnoea

PRESENTER
Dr Pamela Ching



From left: Professor Michael Huen speaks of "Molecular Regulation of DNA Repair Control"; Participants attentively listen to student's presentation

HKIDEAS 2022 Supported by Faculty Members

Staff and Students Won Poster Presentation



Above: Professor Thomas Flemmig (second right) visits the Faculty of Dentistry booth

FACULTY MEMBERS PRESENTED IN THE EXPO

The 11th Hong Kong International Dental Expo and Symposium (HKIDEAS) with the theme of "Driving Innovation in Dentistry", hosted by the Hong Kong Dental Association, took place at the Hong Kong Convention and Exhibition Centre from 2 to 4 December, 2022.

A total of 14 honorable guests, including Professor Chung Mau Lo, Secretary for Health; Dr Dustin Wai, Chairman of HKIDEAS organizing committee and Professor Thomas Flemmig, Dean of Faculty of Dentistry, officiated at the opening ceremony. Many faculty members attended the ceremony to support this yearly dental occasion.

In addition, Professor CH Chu, Clinical Professor in Cariology and Dr Walter Lam, Clinical Assistant Professor in Prosthodontics, delivered their public oral health talk on "How to deal with common oral diseases among Hong Kong preschool children" and "How the technology revolute dentistry?" respectively.

POSTER PRESENTATION AWARDS & PROJECT SUPPORTED BY URP

The 2nd runner-up project is supported by the Faculty's Undergraduate Research Programme (URP) which is an animal study that investigates the effect of the potential pharmaceutical in promoting nerve regeneration and functional healing of nerve.



The team included Dr Matthew Lam (Bachelor of Dental Surgery (BDS) 2022), Dr Christophe Tsui (BDS 2022) and Karvis Chan (BDS Year 5) under the supervision of Dr Mike Leung, Clinical Associate Professor in Oral and Maxillofacial Surgery.

"Our study involved chemical reactions in synthesis of our target drug, and applied in standardized rats' nerve injury model, in order to investigate the effect of the target drug on both physiological and histological healing of the neural tissues" said Dr Matthew Lam. The team hoped that the project is transferable in the application of dental surgery in the future.

The opportunity to participate in a year-long scientific research as a dental student, from planning to executing, working as a team with supervisor and teammates, and eventually generating a poster to share with other dental colleagues is indeed remarkable and precious.

DR MATTHEW LAM



From top: Professor CH Chu (third right) and Dr Walter Lam (third left) receive certificate of appreciation from Dr Dustin Wai (second right), Chairman of HKIDEAS 2022; Professor Thomas Flemmig at the opening ceremony of the HKIDEAS 2022



Above: Group photo of winners of poster presentation and HKIDEAS organising committee members

Furthermore, they would like to encourage other BDS students to participate in the URP as it is a great platform for students to explore and develop their interest in dentistry from different perspectives.

“The opportunity to participate in a year-long scientific research as a dental student, from planning to executing, working as a team with supervisor and teammates, and eventually generating a poster to share with other dental colleagues is indeed remarkable and precious. It has allowed me to gain not only knowledge, experiences, but also more importantly, a deeper insight into dentistry, which is crucial in my dental study and even career planning after graduation”, Dr Lam concluded.

40TH ANNIVERSARY PHOTO BOOTH

A booth with the theme of 40th Anniversary was put up by the Faculty. Professor Thomas Flemmig, Dean, Professor CH Chu, Associate Dean (External Relations), Mr Gerhard Zielinski, Director of Institute for Advanced Dentistry – Multi-specialty Clinic, Dr Mike Leung, Assistant Dean (External Relations), alumni, staff and students were drawn to the booth by photos from “scratch to hatch” that illustrated the development of the Faculty. Visitors had the chance to take pictures with friends and colleagues at the backdrop of significant milestones of the Faculty.

Faculty members won poster presentation at HKIDEAS. Below is the list of awardees:

MOST-POPULAR POSTER

TITLE
Oral Health Care Services for Older Adults in Hong Kong

PRESENTER
Professor CH Chu and Dr Alice Chan

CHAMPION

TITLE
A bibliometric Analysis to Assess the Global Research Interest in Antimicrobial Peptides for Caries Management

PRESENTER
Dr Olivia Zhang

1ST RUNNER-UP

TITLE
Segmental Mandibular Advancement for Moderate-to-Severe Obstructive Sleep Apnea

PRESENTER
Dr Joan Wan

2ND RUNNER-UP

TITLE
Localised Delivery of Carbamylate Erythropoietin (CEPO) from Fibrin Glue in Promotion of Functional Recovery and Regeneration of Nerve in Peripheral Nerve Injury

PRESENTER
Dr Matthew Lam

Welcome Freshmen

A New Journey Begins



Professor Thomas Flemmig, welcomes freshmen on Orientation Day 2022

The Faculty held an Orientation Day for the freshmen at the Prince Philip Dental Hospital on 1 September 2022. Faces of exciting freshmen filled the lecture hall with excellent energy.

Professor Thomas Flemmig, Dean of the Faculty of Dentistry, commenced the event with a welcome speech. “In the six-year program, the Faculty’s teachings will lead students to learn and know how to deliver what’s best to patients. Students will be steered in the right direction,” he shared. Professor Michael Burrow, Associate Dean (Undergraduate Education), then elaborated on the new six year BDS curriculum and shared the necessary learning skills.

Dr Mike Leung, Admissions Tutor, said, “No matter how much you have achieved in the public exam, all BDS Year 1 students stand on the same ground. You should be passionate about your learning, love your career and earn your patients’ trust.”

Professor Edward Lo, then spoke of HKU anti-plagiarism policies. Dr Waruna Dissanayaka introduced freshmen the Faculty’s learning environment with Miss Jessica Wong, E-Learning officer. Best of luck to all freshmen! We wish you an enjoyable life with the Faculty of Dentistry and HKU!



Professor Michael Burrow



Professor Edward Lo



Dr Mike Leung



Dr Waruna Dissanayaka

Clinical Pledging Ceremony

BDS Year 3 Students Committed to Provide Professional and Ethical Patient Care

"Today marks a milestone in our lives. It symbolises our professionalism, the trust that defines the dentist-patient relationship, and our commitment to serve patients. No longer are we merely students, but dentists-in-training," said Mr Euson Hui, representative of Bachelor of Dental Surgery (BDS) Year 3, during the Clinical Pledging Ceremony 2022 of HKU Faculty of Dentistry on 8 September 2022 at the Prince Philip Dental Hospital.

Seventy BDS Year 3 students committed themselves to taking on the responsibilities of providing clinical treatments, meeting both professional and ethical standards to their patients at the event. This is the fifteenth time that such a ceremony has been held. Attendees of the event were Guest of Honour, Dr Raymond Lee, JP, Chairman, the Dental Council of Hong Kong;

Professor Thomas Flemmig, Dean of the Faculty of Dentistry; teachers and parents of the students. In their testimony, the students took an oath that also marked an important milestone for them.

Professor Flemmig in his opening remarks, emphasised that patients always come first, "Patient contact will be enormously enriching. You will be in touch with people who come from different walks of life. However, there is one common thing among them – they trust your professionalism. You should cherish every patient contact."

Sharing at the ceremony, Dr Lee, JP, stressed that it is crucial for dentists to adhere to the regulations for dental professionals in order to protect patients, foster ethical conduct, develop and maintain the ethical standards of the profession.

Below:
70 Bachelor of Dental Surgery Year 3 students take the oath



1. Professor Thomas Flemmig stresses that patients always come first. 2. Students receive silver badges engraved with their names. Faculty members and parents witness the important milestone of the students. 3. Bachelor of Dental Surgery Year 3 students are committed to providing professional and ethical patient care under the testimony of parents and teachers. 4. Dr Raymond Lee, JP, shares that it is crucial for dentist to adhere to the regulations for dental professionals.

Patient contact will be enormously enriching. You will be in touch with people who come from different walks of life. However, there is one common thing among them – they trust your professionalism. You should cherish every patient contact.

PROFESSOR THOMAS FLEMMIG

During the Vote of Thanks, another student representative, Ms Renee Fok extended gratitude to their tutors for their guidance. In addition to allowing students to acquire knowledge and experience, it nurtures students' empathy and sense of responsibility which is of the utmost importance: "We learn about the right attitude and values as a dentist. Apart from providing professional dental treatment to patients, we must 'stay gold' in the days to come, fulfil today's vows, and strive to care for

and serve all walks of life in the society." The students are also grateful to their parents who have been supporting them unconditionally and constantly.

Before the end of the ceremony, students received silver badges engraved with their names after taking the oath. The badge is not just a symbol of the embarkment of their clinical training, but also their aspiration, passion and commitment as represents dentists-to-be.

InfoDay 2022

Participants to Explore and Experience at Faculty of Dentistry



From left:
Dr Matthew Lam,
Ms Gwendolen
Wong, Ms Vicky
Lam, Ms Manda
Yip, Ms Tiffany
Lui and Dr Mike
Leung at sharing
session

Information Day 2022 – Faculty of Dentistry was held on 29 October, 2022. The Faculty arranged guided tours, admission talks and students’ sharing sessions for participants to better understand the studies of dentistry in HKU.

PREMIER DENTAL SCHOOL

Two in-depth admission talks, hosted by Dr Mike Leung, Admissions Tutor cum Assistant Dean (External Relations), were arranged for audience to understand the six-year Bachelor of Dental Surgery curriculum. It also covered admission tips for both Jupas and Non-Jupas students, career path in Hong Kong and the fun study life. Dr Leung was proud to share, “We were ranked No. 2 last year in the QS ranking. This subject has the highest ranking in Hong Kong out of all subjects. In fact, we have ranked first for three

times and placed in the top two for five times. This incredible ranking had never been attained by any other dentistry school. If you want to be in one of the top dental schools, HKU is your choice.” In the academic year 2023/24, number of intake of Bachelor of Dental Surgery (BDS) will be 90.

PROMISING CAREER

Followed by the talks, five student representatives shared with the audience their motivations for study dentistry and university life. Ms Tiffany Lui, BDS Year 1, spoke, “Dentistry is a profession in which work-life balance is always possible. I consequently made the decision to study here.” Ms Manda Yip, BDS Year 1, talked, “I want my future to be predictable, so I pursue a steady career to become a dentist.”

Ms Vicky Lam, BDS Year 3, revealed, “Hand-eye coordination is necessary for a dentist. I decided to pursue a career in dentistry since I am skilled in handcrafting and want to enhance people’s quality of life. Ms Gwendolen Wong, BDS Year 6, mentioned, “I have always wished to work in the healthcare industry since a long time ago. Becoming a dentist means I could have a successful and promising career path.”

Dr Matthew Lam (BDS 2022) expressed, “My first degree is in biochemistry, giving me the scientific knowledge I need to conduct research on nerve regeneration while I was in Year 4. I will continue with my research work.”

COMPREHENSIVE PROGRAMME

As the moderator of this session, Dr Leung told the audience, “Our four-year clinical training program is possibly the longest program in the world. After the six-year BDS program is finished, students will be well-trained and registered as dentists in Hong Kong straight after graduation”.

EXCELLENT LEARNING FACILITIES

A number of guided tours to various clinics, laboratories, and dental library were organised for visitors with the assistance of BDS student volunteers. Visitors had the opportunity to experience being BDS students by using the equipment on a “dummy head” in the Simulation Laboratory and scaling by vanishing coins at the Comprehensive Dental Clinic. The Faculty is dedicated to nurturing students by fostering advanced lifelong oral health learning and professional care for the community. We hope to meet these familiar faces at HKU soon.

From bottom left:
Participant simulates scaling by vanishing coins; Participant “treats” the dummy head in the Simulation Laboratory

HKU Taster @ Easter 2023

Date: 14 April 2023
Time: 10:00 – 12:30
For more information, please visit:
admissions.hku.hk/experience/youth



HKU Dental Academy for the Talented 2023

Date: 7-8 August 2023
For more information, please visit:
talented.hku.hk



We were ranked No. 2 last year in the QS ranking. In fact, we have ranked first for three times and placed in the top two for five times. This incredible ranking had never been attained by any other dentistry school. If you want to be in one of the top dental schools, HKU is your choice.

DR MIKE LEUNG



Welcome to HKU

Academic Staff Joins the Dental Family

Dr Abeer Alhadidi

Senior Clinical Practitioner in Applied Oral Sciences & Community Dental Care
BDS (Jordan), MSc (USA), PhD (England), Diplomate

Despite the 7,667-kilometer distance between Jordan and Hong Kong, Dr Alhadidi, an Oral and Maxillofacial radiologist, travelled here to accept the position as Senior Clinical Practitioner in Applied Oral Sciences & Community Dental Care because "HKU Faculty of Dentistry provides a vibrant mix of stellar researchers, excellent clinicians, and passionate educators creating great opportunities for collaboration and teamwork."

Before joining HKU Faculty of Dentistry, Dr Alhadidi was an Associate Professor of Oral and Maxillofacial Radiology as well as the head of the Department of Oral Surgery, Oral Medicine, Oral Pathology, and Periodontology at the School of Dentistry, the University of Jordan. She is excited to share with us her current research. "I have been lucky to start working with multiple teams in Restorative Dental Sciences and Oral and Maxillofacial Surgery on research projects that aims to employ AI and image analysis

techniques in detection of disease processes and to increase the efficiency of dental implant digital dentistry workflow", she says. Additionally, with the support of the Oral and Maxillofacial Radiology team, we are modifying the teaching and learning activities of the undergraduate and the graduate Oral and Maxillofacial Radiology courses to further integrate three-dimensional imaging into the curriculum.

Outside of her busy professional life, Dr Alhadidi is studying an MBA at the HKU Business School, which offers her the experience she needs to be an effective leader. "The curriculum gave insight and a comprehensive approach to establishing effective teams, making decisions, and fostering innovation", she said.

When it comes to pastimes, she enjoys travelling as every part of the world has a special blend of people, culture, music, scenery, and cuisine. Florence, Paris, Cape Town, and San Diego are amongst the places she enjoyed most.

PLACE OF ORIGIN

- Jordan

PROFESSIONAL INTEREST

- Medical image analysis, Medical decision making and Digital dentistry work flow

HOBBIES

- Travelling and hiking



Dr Phoebe Lam

Clinical Assistant Professor in Paediatric Dentistry
BDS (HK), MDS (HK), MPaed Dent RCSEd

Dr Lam obtained her BDS and MDS at the HKU Faculty of Dentistry. She joined the Faculty recently and has been working as a Clinical Assistant Professor in Paediatric Dentistry. "I have fond feelings for my alma mater, I aspire to work with my dental family here in HKU Faculty of Dentistry," Dr Lam expressed.

"Joining my alma mater feels like receiving a Kinder Surprise Egg. It can fulfil my three wishes in one go," she said. Her three wishes, coming from a big-heart, not only include helping the local community but also go beyond. "Firstly, I can pass on the knowledge I gained here to educate and train the future local dentists. Secondly, I get to collaborate with renowned researchers here in the Faculty and advance my own research. Last but not the least, I love to serve the HK community and around the globe through knowledge exchange and community service." she elaborated.

Dr Lam is particularly interested in children's health and special care dentistry. "When I carried out my service projects during my training time in Hong Kong, it was really upsetting to encounter a lot of local children and special-needs patients with unmet dental needs," she shared. Dr Lam will contribute in improving children's oral health, making dental treatments cost-effective and affordable to all in her research.

PLACE OF ORIGIN

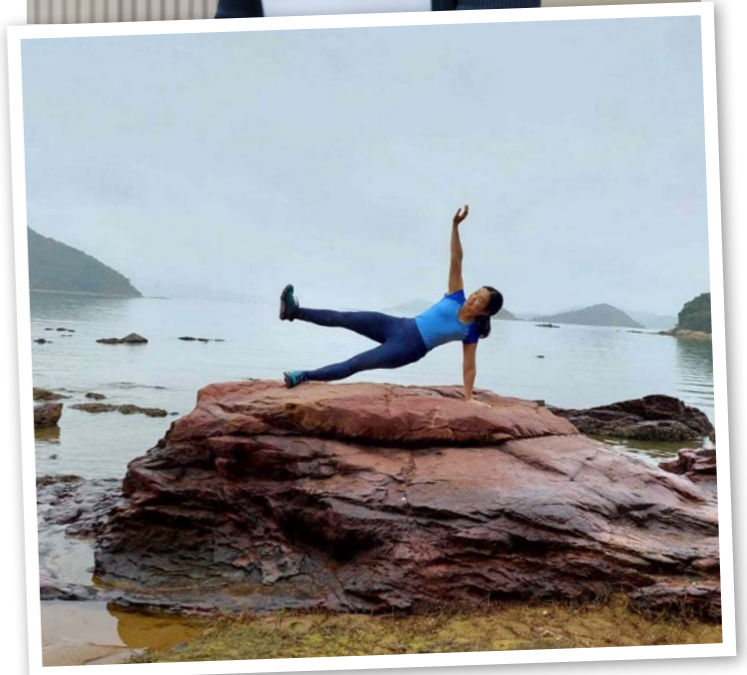
- Hong Kong

PROFESSIONAL INTEREST

- Children's health and special care dentistry

HOBBIES

- Reading, flower arrangement, hitting the gym, swimming, Muay Thai and hiking





Dr Sang Jin Lee

Assistant Professor in Biofunctional Materials
BSc (KR), MSc (KR), PhD(KR)

Dr Lee obtained a Bachelor of Science degree in Dental Laboratory Science from Catholic University of Pusan, Korea in 2012; a Master of Science degree in Maxillofacial Biomedical Engineering and a PhD degree in Dental Materials from Kyung Hee University, Korea in 2014 and 2017 respectively. Before joining the Applied Oral Sciences and Community Dental Care of our Faculty, he was a Postdoctoral Research Associate in the University of Illinois at Chicago.

"I set off my dentistry journey from being a dental laboratory scientist. It led me to being an oral scientist now," Dr Lee said. He got all-round experience in dentistry including technical issue, clinical problems and applying knowledge to improve patients' health. "I'm currently investigating an oral science to promote damaged oral tissue regeneration for the benefit of patients' oral health," he added.

"It is an amazing opportunity to work in HKU Faculty of Dentistry. I adore the fantastic staff and supportive workplace environment here," Dr Lee expressed. He looks for a work environment that fosters collaboration and teamwork. "I know the Faculty encourages interdisciplinary, interfaculty, and inter-institutional research collaboration.

The research facilities here support Faculty staff to strive to achieve excellence in research," he shared. He believes the Faculty can maintain high rank in the dentistry society not only because of its remarkable performance in research, but also solid organisational structure and pleasant working environment. He aspires to contribute to the Faculty.

Currently, Dr Lee is generating new dental biomaterials to fit in dentistry for clinical application. "To cite an example, I am investigating facile stem cells delivery system by using injectable hydrogel incorporating nano/microparticles with growth factor together," he explained. In the future, he would like to set up a perfect dental tissue engineering system. "Through close collaboration with Faculty members who share similar goals with me, I will provide my research system for the Faculty to recover damaged oral health of the community," he revealed.

PLACE OF ORIGIN

- Republic of Korea

PROFESSIONAL INTEREST

- Dental biomaterials, Tissue engineering and Regenerative medicine

HOBBIES

- Playing golf, travelling, and shopping

Dr Zhaoming Wu

Assistant Professor in Applied Oral Sciences & Community Dental Care
BDS (Wuhan); PhD (HK)

Dr Wu is a scientist with areas of research expertise in craniofacial development, congenital disease, neural crest development and craniofacial birth defects. In view of the diversity, inclusiveness and leading role in dental teaching and research of the Faculty, Dr Wu joined us by end of 2021.

Along with his professional interest, he has been teaching craniofacial embryology for undergraduate students and conducting relevant research. "I aspire to expand our understanding of the mechanisms of craniofacial development and defects," he said. In the near future, he wishes to acquire and adapt the knowledge to improve the outcome for patients with craniofacial defects.

Dr Wu is not only fond of craniofacial research, but also cats. In his spare time, he draws, hikes and plays badminton. He is a gourmet who enjoys food, especially those around Sai Ying Pun. So, if you are a foodie or interested in art, science or cats, Dr Wu welcomes you to grab a coffee with him!

PLACE OF ORIGIN

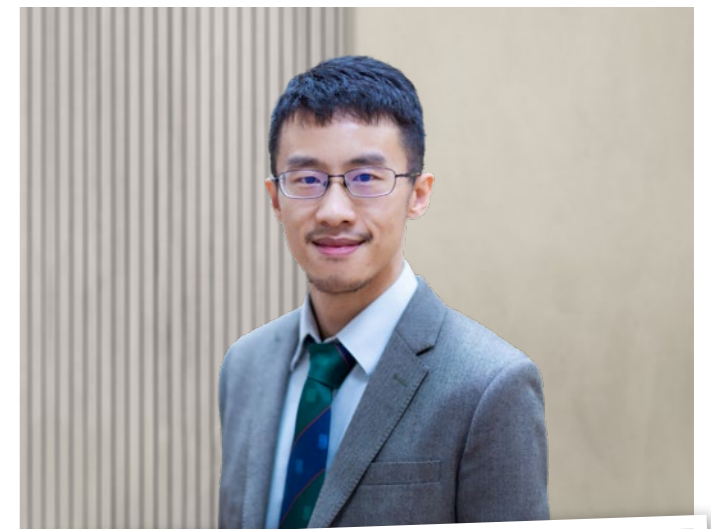
- Guizhou, China

PROFESSIONAL INTEREST

- Craniofacial development and Congenital disease

HOBBIES

- Drawing, hiking and badminton



Dr Teddy Yang

Clinical Assistant Professor in Oral and Maxillofacial Surgery
BMed, MMed (Sun Yat-sen), PhD (HK)



Dr Yang is an academic surgeon in Oral and Maxillofacial Surgery. He obtained a Bachelor and a Master of Stomatology from Sun Yat-sen University and pursued a Doctor of Philosophy (PhD) from the HKU Faculty of Dentistry.

After working as a post-doctoral fellow at the Faculty, Dr Yang decided to stay and continue his academic career as a Clinical Assistant Professor. "I believe that HKU and the Faculty of Dentistry is the ideal place for me to become a surgeon and academic researcher," he said. His research focuses are 3D printing, implant surface engineering and bone regeneration. He endeavours to conduct research based on clinical needs and hopes to apply research findings effectively to the clinic.

In addition to clinical research, he teaches undergraduate classes in the extraction clinic and supervises a research-postgraduate student. "I wish to contribute as much as I can to dental education and research," Dr Yang said.

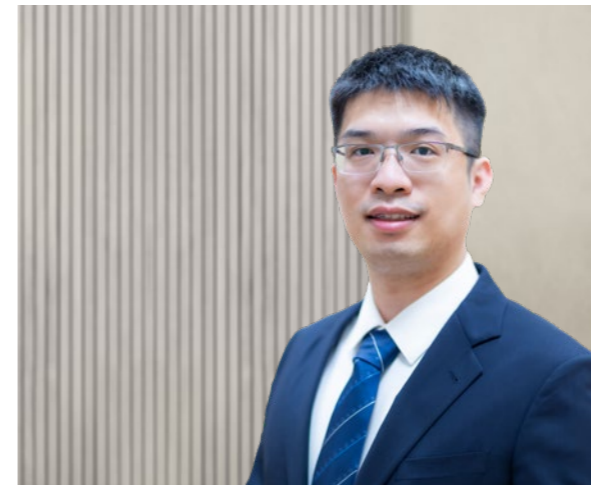
Dr Yang likes to spend time in the sun around Hong Kong after a busy week of work. "Hong Kong is one of the best coastal cities in the world - a combination of urban high-rises and natural landscapes. I always enjoy a blue sky from my office window during the summer or watch the tide from a bench by the sea even though it has been a stressful time amid COVID-19," he shared.

PLACE OF ORIGIN

- Guizhou, China

PROFESSIONAL INTEREST

- 3D printing, Virtual surgery planning, Implant surface engineering, and Bone regeneration



Dr Zhou Ye

Assistant Professor in Biofunctional Materials
BSc (SJTU), PhD (VT)

Dr Ye came from Yangzhou, Jiangsu Province, a beautiful historical city by the Yangtze River of China. After obtaining a Bachelor of Science degree in Mechanical Engineering from Shanghai Jiao Tong University, China, he continued his PhD study in Mechanical Engineering from Virginia Tech, the United States. He was trained as an engineer and materials scientist and started to get into dentistry during his first postdoctoral training at the School of Dentistry, University of Minnesota.

"When I started to look for an independent academic position, HKU Faculty of Dentistry was among the top of my choices in terms of world-renowned reputation," Dr Ye shared. He believes the open culture and academic environment of HKU would provide an excellent nest to hatch his ideas into new findings or products to benefit the society.

Dr Ye is working on developing new biomaterials in the format of hydrogels or scaffolds, leveraging the dynamics of supramolecular materials to solve the emerging problems in dental and other healthcare settings. "These types of materials are not explored much in dentistry yet, and I aim to pioneer the applications of such materials in oral and craniofacial regenerations," he said.

"I like traveling, cooking and tasting delicious food," Dr Ye revealed. During his stay in the United States for more than 10 years, he explored the whole country except Alaska. His passion for travelling is rooted in his love for exploring challenges since he was a child. He had never visited Hong Kong before, so he is keen to explore the energetic city and try some local cuisines. "Mixing different ingredients when cooking is very similar to synthesizing new chemicals and materials. It is like using magic to enhance taste. I have a lot of fun with culinary and science!" he expressed.

"Talking with dentists and clinicians is always inspiring to me because it opens up new ideas and opportunities," he said. As someone with an engineering background, he hopes to contribute to the Faculty of Dentistry by conducting his own research as well as collaborations with his colleagues.

PLACE OF ORIGIN

- Jiangsu, China

PROFESSIONAL INTEREST

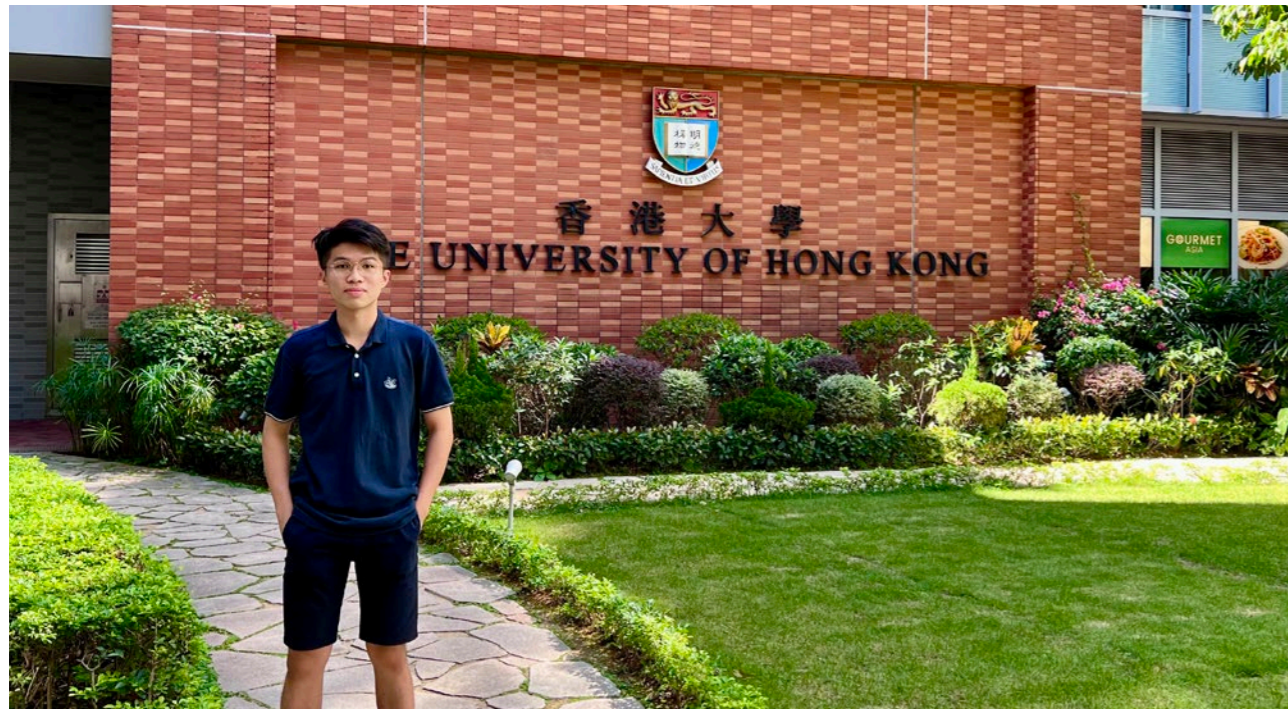
- Biomaterials and tissue regeneration, and Smart drug delivery

HOBBIES

- Travelling, cooking, and tasting delicious food

President's Scholar

Goal Achiever Becoming Top Student



Above:
President's Scholar,
Mr Matthew Fok

Mr Matthew Fok, Bachelor of Dental Surgery Year 1 student, is one of the President's Scholars in the academic year 2022/23. "I believe that people only become motivated when there are goals that are hard to achieve but easy to fail. Hence, to strive for the best, I am deeply convinced that I need to set big goals for myself," he said.

DENTIST-TO-BE READY TO FLY UP HIGH

Mr Fok grew up in a loving family as an only child. His parents have always encouraged him to follow his dreams and widen his horizons. This outlook allowed him to accomplish a lot. Apart from achieving remarkable academic results, he obtained kayak proficiency bronze and silver certificates; and became a cadet corporal for over 2 years in Hong Kong Air Cadet Corps (HKACC). While kayaking can increase his strength and endurance, joining

the air cadets can develop his leadership abilities and aviation expertise. HKACC is a uniformed group that encourages him to obtain a pilot's license in addition to providing discipline training and aviation knowledge. He shared, "I find flying absolutely fascinating. I watched Top Gun: Maverick twice for this reason. The Paramount Picture Studio rented F/A-18 Super Hornets as the fighter jets featured in the movie in order to produce the incredibly realistic scenes. I had a great time viewing the convincing portrayal."

THE POWER OF SELF-DISCIPLINE

The gap between setting goals and actually achieving them is self-discipline. Mr Fok said, "Self-discipline is fundamental to achieving great results. After achieving one goal, I would aim even bigger for the next, steadily working

toward excellence." To prepare for Hong Kong Diploma of Secondary Education, he started to develop a daily study schedule. He prioritized revision at that time. He made textbook material stick to his memory using memory techniques like active recall and spatial repetition. By using these techniques, he could spend more time studying marking schemes and practicing exam strategies. When under pressure, he changes his focus to pleasant memories or goals for future to be more resilient.

SERVING THE DENTAL INDUSTRY

"Dentistry is a profession that combines science and art. It requires a lot of practical, hands-on work. As someone who enjoys manual dexterity-demanding activities like calligraphy and assembling Nanoblock, I am confident in handling dentistry," Mr Fok said. He would like to serve the local community with his knowledge and talent. He was inspired by Greta Thunberg, a young climate activist who is fearless, enthusiastic, and dedicated to raising public

awareness on climate change. He made the decision to contribute to the area of dentistry. In the near future, he hopes to become the chairperson of one of the student committees of Dental Society to strengthen ties among members of both committee and faculty. In the long run, he wants to see improvements in Hong Kong's oral healthcare system so that more residents would be able to access services at reasonable prices.

President's Scholars are top scorers admitted to HKU with level 5** in seven or more subjects in HKDSE who will be representing HKU to participate in ceremonies, conferences, and seminars to expand networks and develop interpersonal skills.

Learn more about President's Scholars, please visit: www.admissions.hku.hk/fees-and-scholarships/scholarships



Dentistry is a profession that combines science and art. It requires a lot of practical, hands-on work. As someone who enjoys manual dexterity-demanding activities like calligraphy and assembling Nanoblock, I am confident in handling dentistry.

MR MATTHEW FOK



Mr Matthew Fok is a cadet corporal

Sports Scholars

Students were Encouraged to Pursue Dental Studies and Sports

The Faculty of Dentistry has been nurturing talented sports scholar by supporting students to pursue dental studies while continuing their sport training. In 2022/23 academic year, through HKU Sports Scholarships Scheme, five sports scholars were admitted to the Faculty of Dentistry. They are Mr Darren Chu, Mr Ethan Leung, Mr Melvin Lo, Mr Brian Shih and Mr Matthew Yip. The University of Hong Kong (HKU) offers the Sports Scholarship Scheme to outstanding athletes who pursue sports excellence and formal academic studies as an alternative admission path to HKU.



SHUTTLECOCK Darren Chu

Mr Darren Chu, a member of both the Hong Kong Shuttlecock Team and the Youth Shuttlecock Team, participated in national and Guangzhou / Hong Kong competitions; and achieved fabulous results. Darren has been playing the sport since secondary 2. He first learned about the sport through his father who is also a huge fan of shuttlecock. Through competitions, he developed the ability to face challenges head-on and turn things around with positivity. His capability of focusing on athletics and academics at the same time is enhanced through training. He is confident that he can manage his study and shuttlecock training well. "Participating in sports not only assists me in developing a good biological and mental outlook, but also reduces the stress that comes with studying for the Hong Kong Diploma of Secondary Education Examination particularly." He desires to become a kind and loving dentist who could greatly impact patients, especially children. He encourages his fellow junior students, "In the face of keen competition, you should be well-prepared in order to study dentistry. If you can, take the opportunity to practice in a dental clinic to find out whether you are qualified to become a dentist."

TENNIS Ethan Leung

Excellent in tennis, Mr Ethan Leung is a confident young man who goes from strength to strength. At the age of four, he began playing tennis, and has been devoted ever since. When asked about the challenges he faced while competing, he said, "To me, competitions are not challenges, because I love competing in tournaments. It is the thing that draws me back to the court. If there isn't any competition, I won't participate in sports. It's tremendously satisfying to put in extra effort to perform well when the time comes." He has represented Hong Kong on multiple occasions and has participated in many International Tennis Federation Junior tournaments and local tournaments, even winning a few of them. As a student and an athlete, he believes effective time management is the key to balancing training and studying. He shared, "As long as I pay extra attention in

class, I don't need to devote much extra time in studying outside of the classroom. That is how I manage the pressure and stress of both my studies and athletic endeavours." His guiding principle is "Continue engaging in your favourite activities. Have confidence in yourself."



TENNIS Melvin Lo

Mr Melvin Lo, a former member of the Hong Kong Tennis National Training Squad, has participated in different local and international competitions. Encouraged by his father, he began to join training programmes organized by Hong Kong Tennis Association at the age of seven. Since then, he hasn't looked back. He encountered ups and down; joy and tears; satisfaction and disappointment throughout his 12-year tennis career. It was persistence which kept him moving forward and progressing. "I couldn't have conquered the obstacles I came across without the help of my family and friends," he stressed.

Mr Lo has always desired to work in the healthcare sector. He wants to become a dentist to serve the community. "Dentistry is fun and interesting, especially when it comes to different kinds of practical and clinical work," he said. Being a sportsman, he has trained to be disciplined, perseverant and gritty. He also

mentioned, "I believe that participating in sports can benefit my academic pursuit in some ways. As long as I can effectively manage my time, I can concentrate in class." For him to handle his studies and athletics, good time management is a key prerequisite. He encourages his fellows, "Work hard and play hard! Uphold a healthy work-life balance."



STUDENT CORNER



TABLE TENNIS

Brian Shih

Mr Brian Shih, a talented table tennis player who was a member of the Hong Kong Table Tennis Junior Team, participated in a number of tournaments both inside and beyond the region. He shared, "Table tennis involves ongoing skill improvement and competition of wisdom and strength. To put forward and showcase my speed, ambience, and skill at tournaments is absolutely enjoyable." He has struggled with numerous setbacks and frustrations as an athlete. Eventually, he survived the hardship with diligent daily training and the unwavering support from his parents. In both sports and academics, he adopted perseverance as his most crucial approach. Despite his demanding training schedule, he managed to maintain concentration in class and efficiently utilize his downtime to catch up on his studies. "I am overjoyed that my dream of attending dental school has come true. I made the decision to pursue dentistry to assist people live a better life after witnessing my friend's significant transformation brought on by orthodontic treatment," Mr Shih said. He exhorts students to never lose confidence and to persevere in the face of hardship.



SQUASH

Matthew Yip

Mr Matthew Yip ranks 6th in Hong Kong Squash Category U19 currently. He actively participates in various tournaments of Hong Kong Squash League. He mentioned, "Speed, tact, and a high level of physical and mental aptitude are necessary for playing squash. Though tough, I really enjoy playing it. Constant practice is the key to overcoming obstacles." Mr Yip found science interesting and enjoyed interacting with people. Studying dentistry was an obvious choice for him. He learns from his experience as an athlete that effective time management, a high level of attention, and solid problem-solving skills make studying less challenging. He couldn't find a reason not to keep training as it benefits him in many aspects. He shares, "Always be ready to face challenges!"

Learn more about
HKU Sports Scholarship Scheme,
please visit: [www.scholarships.hku.hk/
Scholarships/detail/246](http://www.scholarships.hku.hk/Scholarships/detail/246)



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Philips Sonicare AI Toothbrush

SenseIQ
Adaptive Intensity

All-in-One
Brush Head

AI-Powered
Sonicare App



^ 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.