# SMILE RIGHT, SMILE BRIGHT

Annual Report 2021/22





# VISION

To be a dental institution of international distinction

# MISSION

Improve oral health through academic excellence, high impact research and quality clinical services

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## **Moving Forward**

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O ral health is a pivotal part of overall health. With increasing awareness of oral-systemic relationships, the significance of good oral health cannot be underestimated. Championing oral health is therefore a strategic focus for the Faculty.

We are privileged to be able to make local, regional, and global contributions through our mission of academic excellence and impactful research, which in turn, shapes the prevention of oral diseases, promotion of health, and the delivery of quality patient care.

While the COVID-19 pandemic may have posed many challenges for the Faculty since its emergence, it did not deter us from looking out for new opportunities to transform our education and research endeavours in the Academic Year (AY) 2021/22.

Ensuring an all-rounded undergraduate experience is a key priority for the Faculty. Toward this end, we explore ways to refresh the curriculum to keep up with the latest healthcare developments and ensure that the education provided to our students remains relevant and current so they can make a difference in patient care when they graduate.

Given the wide use of technology in education during the height of the pandemic, we continued to harness it in our teaching to enhance the learning of our students. As the pandemic situation eased, we were able to resume some of our community engagement activities where our students had the chance to bring the classroom beyond the campus and share their knowledge with different community stakeholders.

Recognising that the practice of dentistry is evolving rapidly, the Faculty supported the dental fraternity in its professional development efforts with various continuing education programmes. For instance, the Faculty introduced a new series of SkillsFuture-funded workshops covering popular clinical topics which resonated with practising clinicians.

In line with our mission to advance dental education - across the domains of undergraduate, postgraduate and continuing education - the Faculty remains committed to equipping today's oral healthcare professionals to embrace tomorrow's opportunities so as to bring smiles to patients.

Amid the complexities and uncertainties of the pandemic, our research team soldiered on and accomplished much. The launch of the Oral Care, Health Innovations and Designs Singapore (ORCHIDS) in November 2021 paved the way for the Faculty to step up its efforts in multidisciplinary collaborative research to not only impact oral health, but general health

To augment such work, the NUCOHS Tooth Tissue Bank was set up - a major milestone for the Faculty. With this bank, our researchers now have better access to necessary oral

The collective efforts of experts across diverse fields such as biomaterials and microbiology have also enabled the Faculty to unlock new insights to improve patient care and even

In the latter part of 2021, the Faculty hosted the International Advisory Panel (IAP) comprising experts in dental academia. With their wealth of academic and research experience. Professor Christian S Stohler (Professor and Dean, College of Dental Medicine and Senior Vice President, Columbia University Medical Centre, Columbia University), Professor Michael Curtis (Senior Vice President, Academic and Professor of Microbiology, King's College London) and Professor Scott S. De Rossi (Founding Dean, High Point University School of Dental Medicine & Oral Health, One University Parkway) reviewed the education, research, and administration plans alongside the achievements of the Faculty through a series of online engagements with staff and students.

Since the last IAP visit in 2014, the Panel noted how the Faculty had addressed previous areas for enhancement and affirmed its resolve as well as commitment in setting new directions to further its educational and research mission. Overall the external review was positive, with useful suggestions for the Faculty to move itself to the next peak of excellence.

Globally, the Faculty continued to play an active role in the DentAlliance network by collaborating closely with its partner universities - The University of North Carolina at Chapel Hill's Adams School of Dentistry; King's College London's Faculty of Dentistry, Oral & Craniofacial Sciences; and The University of Melbourne's Melbourne Dental School - to run various continuing education workshops, foster research collaborations and build staff capabilities to further dental education.

Indeed, the Faculty stood tall and remained steadfast in its pursuit of its vision and mission to accomplish much. This would not have been possible without the resilience, tenacity and commitment of everyone in the Faculty - our full-time and part-time academic colleagues, our administrators and our support staff - for whom we are deeply

We are also grateful to our alumni, donors, partners, students, and other stakeholders who walked AY 2021/22 with us. Together, we have been able to achieve much to help others smile right, smile bright.



6 NUS Faculty Of Dentistry





Dr Raymond Wong Director, Discipline of Oral & Maxillofacial Surgery

Dr Tan Hee Hon Assistant Dean (Clinical Phase) and Director, Discipline of Endodontics, Operative Dentistry & Prosthodontics

**Associate Professor** Victoria Yu Vice Dean (Graduate Studies)

**Associate Professor** Wong Mun Loke Acting Dean, Vice Dean (Academic Affairs) and Director, Discipline of Primary Dental Care and Population Oral Health

Dr Clara Mok Assistant Dean (Pre-Clinical Phase and Student Life)

**Associate Professor** Fu Jia Hui Director, Discipline of Periodontics

**Associate Professor** Tan Kai Soo Director, Discipline of

Oral Sciences

Dr Ode Wataru Assistant Dean (Continuing Education) **Associate Professor** Vinicius Rosa Vice Dean (Research)

**Associate Professor** Asher Lim Vice Dean (Clinical Affairs)

Associate Professor Kelvin Foong Director, Discipline of Orthodontics & Paediatric Dentistry





## **ALL-ROUNDED UNDERGRADUATE EDUCATION**

Ensuring the relevance of the Bachelor of Dental Surgery programme through the head, heart and hands of Dentistry.



The relevance of the BDS programme, which is core to the Faculty's mission of nurturing future generations of dental surgeons, was affirmed by the positive feedback it received from the International Advisory Panel.

Technology-enhanced teaching and learning methods were used especially for the pre-clinical components of the undergraduate curriculum. For example, students were exposed to virtual simulation, augmented reality and other digital tools. These deepened their theoretical knowledge and allowed them to acquire the skills necessary for the clinical management of patients. Beyond the conventional in-person teaching, students also sharpened their skills by attending online didactic classes such as tutorials.

The Faculty continued its educational

by adopting technology aggressively

and pivoting to new modes of

engagement to support the teaching

and learning of the Bachelor of Dental

Surgery (BDS) programme.

mission amid the COVID-19 pandemic

Beyond the curriculum, the digital platform was also used to reach prospective students who attended the Faculty's e-Open House in March 2022. Visitors were able to go behind the scenes and learn more about how dental professionals are trained through a virtual tour of the Faculty's facilities. At the same time, the online panel discussion with staff and inflight students provided valuable insights to those planning to enrol in the BDS course.

Saw Swee Hock School of Public Health, where the undergraduates, postgraduates and alumni worked alongside one another to provide oral health screening and dental education for the migrant worker community.

Advances in technology have catalysed the introduction of new and more effective educational pedagogies. Moving forward, the Faculty hopes to leverage on such developments to enhance our programme and ensure that it continues to bring out the best in our students so that they are able to contribute positively to the dental profession upon graduating.

The Bachelor of Dental Surgery programme is core to The team of external reviewers the Faculty's mission of nurturing future generations of dental surgeons.

comprising Professor Christian S Stohler (Professor and Dean, College of Dental Medicine and Senior Vice President, Columbia University Medical Centre, Columbia University), Professor Michael Curtis (Senior Vice President, Academic and Professor of Microbiology, King's College London) and Professor Scott S. De Rossi (Founding Dean, High Point University School of Dental Medicine & Oral Health, One University Parkway) assessed the programme through an intensive week-long virtual visit and engagement with staff and students and noted how the Faculty was moving progressively to enhance the educational experience of its BDS students.

The practice of Dentistry requires a human touch. In addition to nurturing the head (knowledge) and hands (clinical skills) of our dental students, the Faculty continuously looks for opportunities to nurture the heart (soft skills and values) too.

Towards this end, as pandemic containment measures eased, the Faculty resumed some community outreach activities. One such activity was organised in collaboration with HealthServe Singapore and the



## **LEVERAGING LOCAL AND GLOBAL RESOURCES**

Empowering practitioners and impacting oral health through strategic partnerships.



Courses were conducted to educate oral health practitioners on topics and procedures critical to the dental profession.

he COVID-19 pandemic changed the conventional delivery of dental education, including that for postgraduate studies. While we transitioned to online platforms at the height of the pandemic, we also resumed physical classes and activities as safe management measures eased so students could experience hands-on training at our facilities.

In Academic Year 2021/22, the Faculty leveraged SkillsFuture Singapore (SSG) funding and conducted four specially curated workshops for oral healthcare practitioners to upskill and hone their clinical acumen with three workshops on restorative dentistry - endodontics, prosthodontics and geriatric dentistry - and another workshop on patient communication and behavioural management.

In addition, we organised three short courses on medical sciences and dental implantology to further education and training on subjects critical to the dental practice.

Besides these, the Faculty also partnered dental schools around the world to offer online and physical professional development programmes under the DentAlliance partnership. It conducted eight on-demand webinars, four face-toface hands-on clinical workshops and a live Q&A session to examine the latest topics and innovations in dentistry.

Testament to the Faculty's efforts in providing excellent educational delivery is the fact that our postgraduates have gone beyond their potential to advance dental health in the community through their innovative research and projects.

Notably, Dr Nicholas Lim was presented the Asian Academy of Prosthodontics 2022: Korean Academy of Prosthodontics Award for his study on the prevalence of Erosive Tooth Wear and the associated risk factors among young military personnel. Likewise, Dr Boey Sean Kuan won second prize at the first-ever European Federation of Periodontology (EFP) Innovation Award for coming out with a mobile application, 'The Dental Tracker', which allows users to monitor their dental health through smartphones.

"At the Faculty of Dentistry, we are driven by a common goal to provide a distinctive educational experience to our postgraduates. This ensures that they are able to apply what they learned in dentistry and beyond. Through our programmes, we hope to provide quality training to dentists locally and in the region to equip them with skills relevant for their practice and empower them to make a difference to population health and patient care globally," said Associate Professor Victoria Yu, Vice Dean (Graduate Studies).



"We hope to provide quality training to dentists locally and in the region to equip them with skills relevant for their practice and empower them to make a difference to population health and patient care globally."

Associate Professor Victoria Yu, Vice Dean (Graduate Studies)



## **OUR HIGHLIGHTS**

Take a peek into the exciting world of dental education as we showcase some of the key moments of our educational mission.



## **OUR HIGHLIGHTS**

2022



Management of Deep Caries - Vital Pulp Therapy or Root **Canal Treatment** Workshop 19 March 2022



Restoring Tooth. from Apex to Crown Workshop

30 April and 7 May 2022





**Promoting Oral** Health through - The Potential of Motivational Interviewing Workshop



**Dental Screening** for Migrant Workers (With **HealthServe** Singapore) 29 May 2022

Behavioural Change 18 June 2022

## STUDENT ENROLMENT

FROM JULY 2021 - JUNE 2022

## STUDENT INTAKE FOR ACADEMIC YEAR 2021/22



The undergraduate student cohort for Academic Year (AY) 2021/22 is as follows:

YEAR 1 81

YEAR 2

YEAR 3 60

YEAR 4

TOTAL UNDERGRADUATES: 275

The postgraduate student cohort for AY 2021/22 is as follows:

- DOCTOR OF PHILOSOPHY (DENTISTRY) 4
- MASTER OF DENTAL SURGERY (ENDODONTICS) 12
- MASTER OF DENTAL SURGERY (ORAL AND MAXILLOFACIAL SURGERY) 10
- MASTER OF DENTAL SURGERY (ORTHODONTICS) 10
- MASTER OF DENTAL SURGERY (PERIODONTOLOGY) 10
- MASTER OF DENTAL SURGERY (PROSTHODONTICS) 10
- MASTER OF DENTAL SURGERY (PAEDIATRIC DENTISTRY) 6
- GRADUATE DIPLOMA IN DENTAL IMPLANTOLOGY 5
- GRADUATE DIPLOMA IN GERIATRIC DENTISTRY 3

TOTAL POSTGRADUATES (COURSEWORK): 70



## PATIENT ATTENDANCES

FROM JULY 2021 TO JUNE 2022

Total 32,479

Undergraduate 13,828

Postgraduate 18,651

**PERCENTAGE OF TOTAL PATIENT ATTENDANCES** 

Postgraduate

57%

Undergraduate

43%



"Clinical service is not just about fixing teeth, it's about improving a patient's quality of life and overall health."





Globally, digital technology has brought about significant improvements in the quality of dental education and patient experience. The Faculty has actively embraced and adopted such technology to complement conventional approaches of teaching and advance the delivery of clinical patient care.

"Technological changes allow us to drive innovative transformations at an unimaginable rate, creating pathways and models of care that propel dental education, research and clinical practices," said Dr Tan Hee Hon, Assistant Dean (Clinical Phase).

On the education front, technologyenhanced learning has been facilitated with the use of haptic simulation and virtual/augmented reality. Such advances in dental education help students enhance their pre-clinical training with high fidelity and realistic simulations.

"Using technologies like the Simodont 3D visual simulation with realistic haptics feedback in pre-clinical dental training provide students with the opportunity to experience more true-to-life clinical dental procedures in a training environment."

CLINICAL SERVICES

RESEARCI

Meanwhile, in the clinical setting, our students are exposed to the use of intraoral digital scanners for their patients undergoing fixed prosthodontic procedures," said Dr Christopher Quek, Senior Lecturer.

Elaborating, he said, "The real-time capture and visualisation of the preparations allow the students to appreciate and understand the nuances of different clinical situations - these are otherwise not possible with the conventional analogue methods of examination and diagnosis as well as treatment."

Apart from generating new educational content, faculty members use digital technologies to innovate their teaching approaches. Through iterative design, faculty members are able to better develop teaching materials based on

"Technological changes allow us to drive innovative transformations at an unimaginable rate. creating pathways and models of care that propel dental education. research and clinical practices."

> Dr Tan Hee Hon, (Clinical Phase)

the desired learning outcomes for their courses and this, in turn, benefits students' learning.

Beyond education, the Faculty also uses digital technology to shape workflows in the clinics and laboratories. This includes generating 3D printed models and developing in-house 3D fabrication capabilities for better patient treatment planning and prosthetics.

Dr Raymond Wong, Director of the Discipline of Oral and Maxillofacial Surgery, said: "At the Faculty, we leverage digital technologies such as 3D imaging for diagnosis, 3D printed anatomical models for treatment planning and patient education, as well as 3D generated cutting and positioning guides for surgery.

Such technologies enable dental surgeons to execute more accurate positioning during surgeries as well as tailor treatment to each patient's needs by using personalised 3D designed and printed implants."

Dr Wong added that this has, in turn, transformed patient care. He pointed out that "digital techniques, supported by analogue practices, have essentially elevated clinicians' ability to generate better treatment plans for our patients by allowing them to work on procedures and analyse improvement areas in realistic settings before operating on real patients."

Concurring on the benefits of digitalisation, Associate Professor Vinicius Rosa, Vice Dean (Research), noted that "technological advances allow our researchers to use computer tomography to support the development of novel biomaterials and structures for tissue regeneration and transplantation. We also use cameras and scanners to understand the dynamics of dental caries and periodontal diseases. The knowledge from these research streams paves the way for revolutionary advancements in dental care and treatment, benefiting patients and practitioners alike.

As technology continues to evolve rapidly, the Faculty has set up a Digital Dentistry Workgroup to monitor digital dentistry trends, analyse the benefits and limitations of adopting specific applications and implement relevant tools to aid data, logistics, clinical and laboratory workflows. The Workgroup will also conduct training sessions to upskill staff on using the hardware and software.

Digital dentistry has presented boundless options to dentists, dental educators and patients in terms of treatment choices, teaching approaches and care solutions. It has also opened the doors for more dental research areas to be explored where previously they were challenging, impractical, or costly.

In the coming years, it will be critical for the Faculty to continue exploring digital solutions and integrate these into its plans to bring dental education, research and clinical services to the next peak of excellence.

# **DENTISTRY**

Digital technologies have rapidly evolved and transformed the practice of dentistry.



**ALIGNING RESEARCH** WITH APPLICATION

Enhancing global health through award-winning studies and the launch of a research centre and a tooth bank.

he Academic Year 2021/22 was very productive for the Faculty. We set up several new programmes to reinforce our position as a vital hub of dental and craniofacial research and

In November 2021, the Faculty inaugurated the Oral Care, Health Innovations and Designs Singapore (ORCHIDS), an autonomous research centre which aims to transform health and life. The centre has since been integral in supporting the development of new concepts and technologies for oral and systemic healthcare.

innovation in Singapore.

Then in June 2022, the Faculty established the NUCOHS Tooth Tissue Bank (NTTB) - Singapore's first. The Bank seeks to actively garner tooth donations so that biological materials are readily available for researchers to start their projects expeditiously. This, in turn, helps to empower more effective and efficient research to transform oral well-being and overall health globally.

Beyond boosting our facilities to enhance research, the Research Office comprising students, junior and senior principal investigators also gained the opportunity to share our achievements, strategies, targets and challenges with the International Advisory Panel. The Panel, which comprised globally renowned researchers - Professor Christian S Stohler (Dean, College of Dental Medicine and Senior Vice President, Columbia University Medical Centre, Columbia University, New York), Professor Michael Curtis (Senior Vice President, Academic and Professor of Microbiology, King's College London), and Professor Scott De Rossi (Dean, High Point University, School of Dental Medicine & Oral Health, North Carolina. USA), recognised the upward trajectory of the Faculty's research programmes.

Driven by a team of motivated scientists, we also continued to raise our research profile internationally. In 2022, the Faculty published 116 manuscripts - a 28.9 per cent increase from the 90 that

were published in 2021. Notably, our global average, indicating the impact of our research.

Besides publishing papers, our researchers and students presented their studies globally at virtual forums including the 2022 International Association of Dental Research (IADR), and made a comeback at physical conferences such as the Academy of Dental Materials and the European Federation of Periodontology.

With our groundbreaking studies, we are proud that our researchers, postgraduates and undergraduates have been honoured for their efforts at various prestigious awards, including the Interstellar Initiative 2021 – 2022, IADR-SEA Division Hatton Award (Senior Category), the International Association for Dental Research/KULZER Travel Award, and the European Federation of Periodontology Innovation Award for Digital Solutions for Gum Health.

While we celebrate our successes thus far, we look forward to achieving new heights in the year ahead. The Faculty recently received the approval to start banking stem cells from the dental pulp and periodontal ligament in 2023. We will collect stem cell samples from individuals with different profiles to further studies on dental conditions and systemic diseases, deepen our understanding of these diseases and conditions, and create new potential treatment alternatives.

At the same time, we are expanding our research capabilities in digital dentistry and investing in hardware, software, and brainpower. This is to improve the existing regenerative and restorative paradigms and develop new strategies in this fast-evolving field.

We will also host novel programmes such as the inaugural BLOOMS Discovery Series, a research summer school programme in July 2023. The programme will focus on trends and technologies in the fast-evolving biomedical and craniofacial industries.

With the rapid transformation of healthcare, the Faculty will continue to align upstream research with downstream applications. We will do so by enabling resources, collaborating with our industry partners, and nurturing the next generation of clinical scientists. Together, we aspire to further our rigour in research and advance novel solutions to enhance health for our community and beyond.



## **PUSHING BOUNDARIES, CREATING IMPACT**

## **Publication Highlights:**

48%

more citations than the global average.

51.6%

of publications were co-authored with international institutions.

of publications were published in top 10% most influential journals.

of papers were done in collaboration with corporate affiliations.

28.9%

increase in number of publications.

90

2021

2022

116



#### **Dr Nilesh Dubey**

Co-recipient of one of the three winning nitiatives at the Interstellar Initiative 2021-2022



#### Dr Gabriel Lee

International Association for Dental Research Geriatric Oral Research Group (IADR GORG) Pre-doctoral Award 2022

editorial positions

37 editorial positions in premier periodicals like Journal of Dental Research, International Journal of Implant Dentistry, Journal of Orthodontics, Gerodontology, Journal of Dental Research (JDR) Clinical Translational Research, Genes and Diseases, Dental Materials. and others.



#### Mr Hardik Makkar

IADR-SEA Division Hatton Award (Senior Category) 2022



#### Ms Priti Pragati Rath

International Association for Dental Research (IADR)/ KULZER Travel Award





### Dr Boey Sean Kuan

Second prize in European Federation of Periodontology Innovation Award for Digital Solutions for Gum Health



#### Ms Shen Jia Jing/

European Federation of Periodontology Undergraduate **Essay Competition** 

million research grants awarded





What is tooth tissue banking about and what are the processes for banking?

Assoc Prof Rosa: Tooth tissue banking is about collecting processing and

is about collecting, processing and storing teeth and other dental tissues so that they are readily available for researchers when needed.

First off, we engage and encourage patients who undergo tooth extractions to donate their extracted tooth by way of collection kits which we distribute to clinics in NUCOHS. The kits are then collected and the teeth are cleaned, sorted and placed inside containers with solutions to preserve their biological integrity.

Based on the most optimal ethical standards, we have also created processes, such as internal and external audits, to ensure that every tooth is accounted for.

Describe the work that went behind setting up the Bank.

**Assoc Prof Rosa:** The preparations were extensive

Firstly, we needed to deliberate on the ethical and safety considerations behind the banking processes and assess the risk of sustaining the Bank. Then we had to apply to set up a tissue repository and clear the regulatory processes to start the Bank. Necessary equipment to ensure the safe and optimal banking of the teeth was then purchased. We also wrote procedures so the public could understand how to store their teeth with us

Lastly, we commenced training for specialised staff to operationalise the Bank and we engaged patient-facing clinicians and staff on how to obtain consent for tooth donation.

What are the challenges you think the team will face for tooth banking and how do you hope to overcome them?

Assoc Prof Rosa: With the launch of the Bank, there is a need for us to encourage members of the public to donate their teeth. This means that we ought to increase awareness of how donating and collecting teeth could positively impact dentistry and patients' overall well-being.

Since the concept of tooth banking is new in Singapore, it will take time for people to fully understand the impact that their seemingly small actions have. For the Bank to grow, we will need to work towards making tooth donation a natural process when patients extract their teeth in clinics.

But I do not consider this a challenge. Instead, I see it as a positive change that we aim to bring about through the tooth bank. We hope that by boosting a culture of biological material donations (like tooth donations), we can eventually work towards supporting and advancing research efforts to yield innovative healthcare solutions.

How will the Bank benefit research and, most importantly, go beyond to impact oral well-being and overall health globally?

Assoc Prof Rosa: Through research, we seek to use donated teeth to understand how materials and bacteria interact. Growing a tooth library will enhance the study of this process in the laboratories, leading to improved preventive and curative strategies for caries and gum diseases, for instance.

Using donated teeth, we can also build our knowledge about pulp regeneration, adhesion of dental materials to teeth and the degradation of hard tissues. Such knowledge will shed light on new alternatives to sustain the vitality of pulp tissues and promote its regeneration.

Moreover, studying the tooth out of the mouth will help us to generate essential solutions to questions which remain open in dental research. With more research, we can create new and significant knowledge to benefit oral and systemic health in the long run. This continues to excite and motivate the Faculty to develop the tooth bank to its total capacity!

"We were inspired
to start NTTB because
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impactful outcomes."



n June 2022, the Faculty, in collaboration with the National University Centre for Oral Health Singapore (NUCOHS), set up the first tooth bank in Singapore - the NUCOHS Tooth Tissue Bank (NTTB).

The NTTB is an enterprise that will facilitate research initiatives in an integrated academic health system and help to maintain a ready supply of donated teeth so researchers can tap on them for further studies to benefit oral health globally.

Managed by the Faculty's Clinical Research Unit (CRU), the team collects donated extracted teeth daily. CRU removes blood, dental plaque and calculus from the donated teeth, and disinfects them before committing them to long-term storage. The team also reviews research studies which require teeth samples and manages the inventory. Associate Professor Vinicius Rosa, Vice Dean (Research), shares more on the NTTB and how it will benefit research as well as impact oral and systemic health.

What inspired the Faculty to develop Singapore's first tooth tissue bank?

Assoc Prof Rosa: We were inspired to start NTTB because we wanted to support our researchers in their studies so that, as a Faculty, we could be more productive in our research and strive for more impactful outcomes.

Before the Bank was established, collecting clinical samples to start and maintain projects was challenging. We thus wanted to create a new model where we could have biological materials readily available for use in studies. By reducing time spent gathering materials, we allow our researchers to focus more on their research approach, design and discoveries.

#### NUS Faculty Of Dentistry

## RESEARCHERS RANKED WITHIN THE TOP 2% MOST **CITED RESEARCHERS** IN THE WORLD

Global peers attest to the robust calibre of our Faculty's research.



**Assoc Prof Toh Wei Seong** 



**Assoc Prof Gao Xiaoli** 



**Assoc Prof Vinicius Rosa** 



**Prof Patrick Finbarr Allen** 

At the Faculty of Dentistry, four researchers were ranked within the top two per cent of most-cited researchers in the world in 2021, according to a study done by Stanford

Based on bibliometric information in the Scopus database which includes more than 200,000 scientists from 22 scientific fields and 174 subfields, the ranking is considered one of the most prestigious worldwide and examines the number of publications and the impact of the citations.

"It is reassuring to learn that ten per cent of the Faculty staff are listed among the top two per cent of the most influential scientists worldwide. The team's achievement is a testimony that their peers recognise the quality of their research. It also serves to strengthen the research culture and inspire researchers to go forth to pursue better studies," said Associate Professor Vinicius Rosa, Vice Dean (Research).

The goal of the Research Office is to support researchers and provide resources for high-impact research

that will benefit patients and society and to that end, "we hope that with new research initiatives and consolidated programmes, we can continue to nurture more generations of researchers to produce positive results and be featured in the list,"

"It is reassuring to learn that ten per cent of the Faculty staff are listed among the top two per cent of most influential scientists worldwide. The team's achievement is a testimony that their peers recognise the quality





Your team was recognised as one of the three winning initiatives at the Interstellar Initiative 2021-2022 for creating a diagnostic platform that could help in the real-time detection and monitoring of health for cardiovascular disease patients. Could you tell us more about the project and its objectives?

Dr Dubey: Cardiovascular disease (CVD) is the leading cause of death globally, taking an estimated 17.9 million lives each year and representing 32 per cent of global deaths. Studies have shown that the prevalence of the disease increases through the stages of life - making it more widespread among the ageing population. This is despite rapid medical advances which have enhanced the identification, analysis and treatment of the condition over the previous century.

Adding to the issue, CVD is one of the most expensive disease syndromes, estimated to cost billions of dollars to treat. This is due to repeated visits to medical centres for evaluation. As a result, there is an urgent need for a more sensitive, dependable and cost-effective diagnostic platform to improve the real-time identification and remote monitoring of CVD patients' health.

Our study seeks to create a non-invasive biomarker monitoring device to help identify critical symptoms of CVD. Our longterm objective is to develop home-based wearable technologies to identify and monitor health issues in real-time using disease-specific biomarkers from saliva. This will decrease the need for regular visits to the doctor and aid in prompt selfdetection of CVD.

#### Why is the project an essential breakthrough for public health?

Dr Dubey: The key to longevity is disease prevention. A healthy lifestyle paired with disease prevention will go a long way in helping to preserve and advance health and well-being while also preventing disease, disability and death.

#### What inspired you to embark on this project?

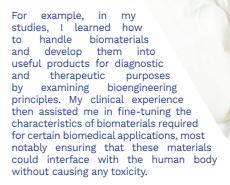
Dr Dubey: While pursuing dentistry in school, I learnt that signs and symptoms of diseases around the body might be found in the oral cavity and its secretions.

I was thus inspired to create non-invasive technology capable of detecting early signs of CVD and displaying diagnostic accuracy comparable to more invasive procedures now in use. This project is my first step in taking that to reality.

How did you use techniques applied to dentistry to come up with a solution that extends beyond dental health?

Dr Dubey: Materials science is a fundamental research area in dentistry, generating the most significant breakthroughs in dentistry, including advances in materials and the discovery of novel materials.

My dual training as a clinician and materials science researcher helped me to identify the biocompatible materials used in dentistry and it was instrumental in finding solutions beyond dental health.



"My dual training as a clinician and materials science researcher helped me to identify the biocompatible materials used in dentistry and it was instrumental in finding solutions beyond dental health."

How have interdisciplinary collaborations with various experts helped to develop the project and ensure it brought about the desired outcomes?

Dr Dubey: My team comprised multidisciplinary experts, including an Assistant Professor from the University of Oklahoma Health Sciences Centre. Dr Wang Hongwu, who is an expert in wearable and mobile technology; and Dr Christian Penaloza, team leader from the Mirai Innovation Research Institute and an expert on brain-machine interfaces and robotics.

Each team member has unique expertise but shares common interests in wearables, non-invasive devices and remote health condition detection and monitoring. We had very open dialogues as a team throughout the study process, allowing each other to share experimental details and experiences (i.e. successes and lessons learned from failures) at our weekly meetings. Through these discussions, we were able to contribute expertise and knowledge in our specialised areas and grow the project step-by-step till fruition.

How do you hope this project will eventually go beyond research to benefit patient care, from preventive health to treatment of CVD?

Dr Dubey: The wearable devices can perform elemental analysis for specific CVD patients. This data can be retrieved by authorised medical personnel to monitor patients' health status so that caregivers can reach patients as soon as possible and provide prompt and necessary treatment.

With the emergence of intelligent gadgets, wearable devices have gained popularity due to their ability to give vital information about people's health at the tip of their fingers. This helps individuals to take care of their physical and mental health, transcending treatment to prevent the disease at an early stage.

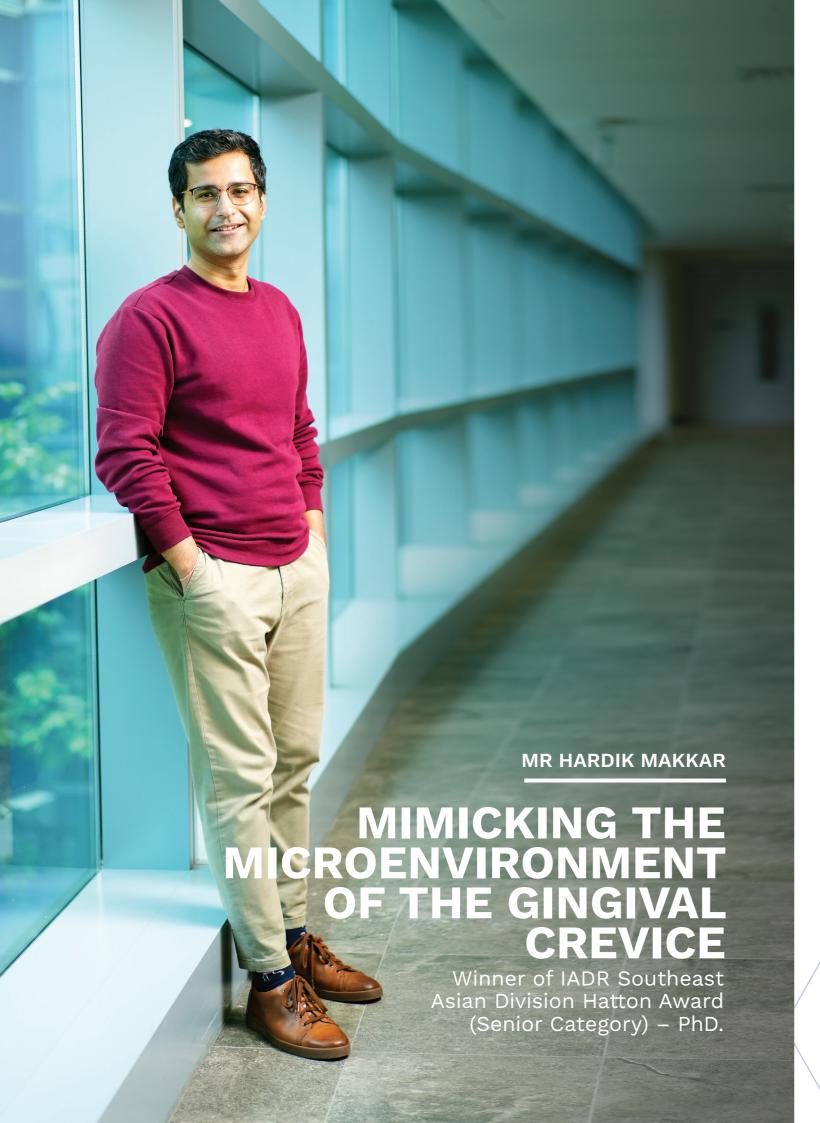
#### Are there any plans for future studies and projects beyond dentistry?

Dr Dubey: In the laboratory, I use technologies - like bioprinting and electrospinning - to fabricate personalised scaffolds and tissues for transplantation with the long-term goal of translating these biomaterials and tissues for clinical use.

I also conduct in vitro and in vivo testing on my scaffold designs to evaluate the efficacy of advanced biomaterials and tissues and regenerate functional human tissues and organs - including bone, dental pulp, periodontium and heart.

These are research areas that I hope to continue advancing so as to develop further studies to benefit dental and systemic health.

Dr Nilesh Dubey is a faculty member in the Discipline of Oral Sciences.



You won the IADR Southeast Asian Division Hatton Award (Senior Category) in 2022 for for your project on 'Gingival Crevice-on-Chip to Biomimic Periodontal Host-Microbe Interaction'. Tell us more about the study.

Mr Makkar: The bacteria that cause periodontal (gum) disease sits in a unique protected space between the gingiva and the teeth called 'gingival crevice' and the periodontal tissues secrete a gingival crevicular fluid (GCF). The GCF helps to wash away the bacteria. It also has other host protective factors that help to defend against bacterial invasion into the gingiva and tissues surrounding

Traditionally, to understand the interaction between periodontal tissues and bacteria within this unique microenvironment, researchers use cells cultured on flat dishes and expose them to the bacteria or their products. As these laboratorybased models do not mimic the unique microenvironment of the gingival crevice, researchers then resort to animal models. which raises questions on the ethical and physiological relevance to humans.

Hence, to address this research gap, we developed a thumb-drive sized microfluidic organ-on-a-chip device called 'Gingival Crevice-on-Chip'. The device helped us to mimic the tiny features of the gingival crevice, the unidirectional flow of GCF and the interaction between periodontal tissues and bacteria under different GCF flow conditions.

Within a tiny chamber in the device, we were able to culture the human gingival fibroblasts within a 3D matrix derived from human blood (i.e. fibrin), which mirrored the soft tissue wall of the gingival crevice. Using reservoirs and the effect of gravity, we simulated the flow of GCF through the 3D matrix into a microchannel representing the gingival crevice. Within the microchannel, we were also able to culture live bacteria to mimic the presence of bacteria within the gingival crevice.

Due to the presence of simulated GCF flow, we could co-culture live bacteria with human cells over four days, a capability that is impossible with traditional cultures.

The power of microfluidics and microfabrication technology gave us opportunities to simulate the microenvironment of the gingival crevice and shed light on the interactions between periodontal tissues and microbes in healthy and diseased states.

What motivated you to embark on this project?

Mr Makkar: I was inspired to embark on this project because I wanted to find a novel solution to the major challenges which dental researchers face in studying the complex oral host-microbiome interaction in a laboratory setting.

Faced with a lack of in vitro tools and models that can realistically simulate the gingival crevice's microenvironment, we adopted the principles of tissue engineering, fluid mechanics and microfabrication to develop the 'Gingival Crevice-on-Chip'.

> "The Faculty has dedicated and progressive research facilities which allow me to pursue my research aspirations effectively."

How did collaborations and inputs from experts across other interdisciplinary healthcare fields help to contribute to the positive outcomes of the project?

Mr Makkar: Undeniably, the project would not have been possible without the scientific expertise and cutting-edge microfluidic and biofabrication infrastructure at the Faculty and those of our collaborators at the NUS Institute for Health Innovation & Technology (NUS iHealthtech).



I want to take this opportunity to thank my PhD Advisor Dr Gopu Sriram, Co-Advisors Professor Lim Chwee Teck (Director of NUS iHealth) Associate Professor Tan Kai Son and collaborator Dr Ying Zhou (a postdoctoral student in Prof Lim's laboratory) for their critical scientific input and mentorship.

Apart from research, how will your study impact patient care?

Mr Makkar: We used human gingival fibroblasts isolated from kind donors in the current research project. To take the study closer to human relevance, we are working towards using donor-derived dental plaque samples within the microfluidic device to study host-microbe interaction in the healthy and diseased states of the periodontal tissues. This will help correlate the in vitro data with clinical findings to test possible therapeutic solutions.

The long-term goal is to expand the application of the 'Gingival Crevice-on-Chip' in personalised dentistry and accelerate the development of alternative nonsurgical treatment approaches for various periodontal diseases among individuals.

Are there any plans to embark on other studies to benefit the community?

Mr Makkar: At the Faculty, we strive to reduce and replace animal research models by developing human-relevant in vitro models.

We recently demonstrated the use of microfluidic technology to develop a 'tooth-on-chip' that simulates the interface between dental biomaterials, the tooth and cells that live within the tooth. Through this, our researchers could assess the toxicity of dental biomaterials if used in deep cavities.

Through the use of cutting-edge technology and cross-disciplinary scientific collaborations, we hope to expand on our current studies to advance multidisciplinary solutions that will transform how we understand oral health and diseases. This will, in turn, help clinicians to offer treatment and deliver care with better precision and more predictable outcomes.

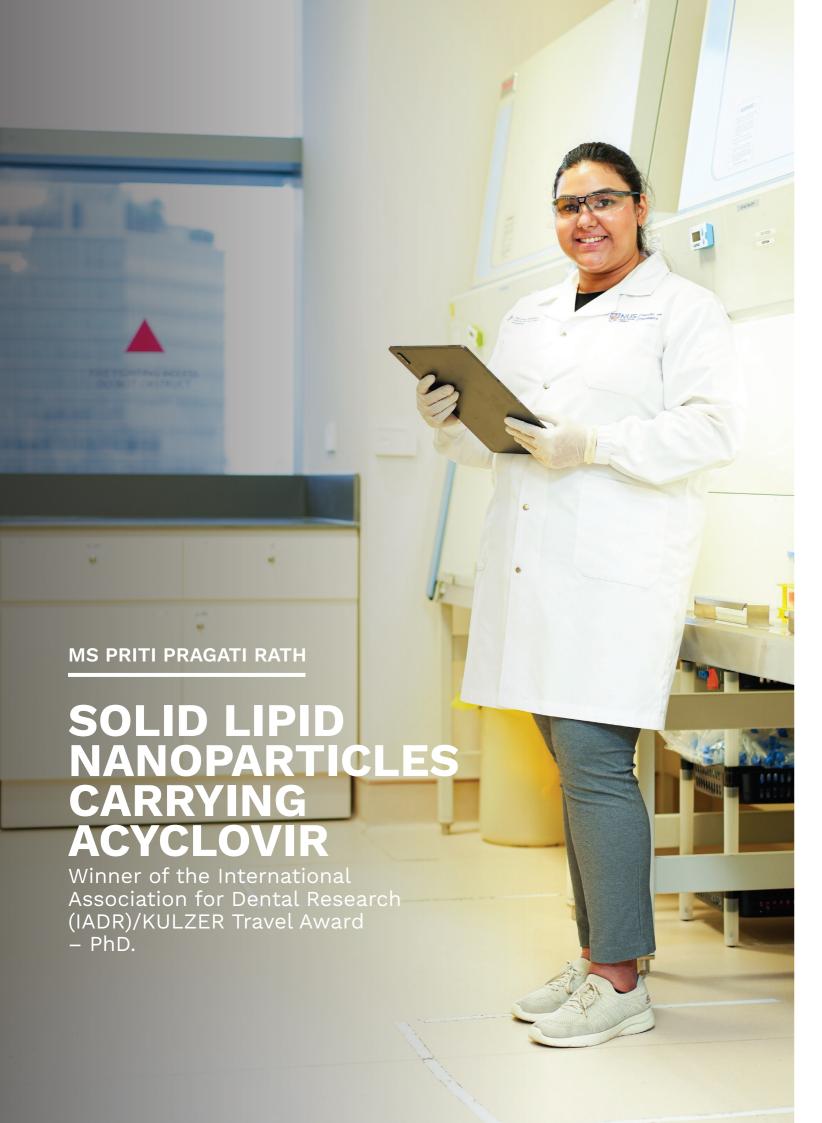
How has your research journey at the Faculty helped you to grow as a scientist?

Mr Makkar: The Faculty has provided me with a stimulating and challenging environment to support my research interests and learning needs. The Discipline of Oral Sciences has delivered high-impact research outputs on craniofacial tissue engineering to enable better understanding of oral diseases - and this converges with my academic background and future research goals.

The Faculty also has dedicated and progressive research facilities which allow me to pursue my research aspirations effectively.

All in all, I am grateful for the multidisciplinary exposure I gained through my PhD programme. The journey has been extremely enriching, both culturally and academically and I am very thankful to be part of the Faculty.

Mr Hardik Makkar is pursuing a PhD in Oral Sciences





Ms Priti Pragati Rath (left) with Associate Professor Vinicius Rosa (right).

> "The Faculty trained me to constantly question the possibility of each study and subsequently discover novel findings from my research work."

Tell us more about your award-winning project on Solid Lipid Nanoparticles (SLN) and some of the key breakthroughs from the study.

Ms Rath: The IADR/Kulzer Travel Award is dedicated to young researchers working in the field of dental materials. The award encourages young investigators to research innovative dental materials and generate new ideas and approaches to improve oral health.

For my project, we started our journey by addressing how to increase the efficacy of the antiviral drug, Acyclovir. We decided on a lipid-based system, SLN, because of its reduced toxicity.

Our first challenge was to produce these Acyclovir-loaded lipid particles. We synthesised and optimised these nanoparticles using an ultrasonication method. Through the study, we managed to improve retention of the drug in the system so individuals may decrease the frequency of intake of the drug per day. This will, in turn, reduce the chances of chronic toxicity.

What inspired you to embark on the project?

Ms Rath: The global COVID-19 pandemic set me thinking about embarking on a study to improve the outcome of antiviral drugs. Specifically, though Herpes labialis (or oral ulcer) is one of the most prevalent diseases caused by the Herpes Simplex Virus (HSV), we have limited drugs that carry a potential against HSV.

Moreover, the relatively lower solubility of Acyclovir increases chronic renal toxicity due to the large intake doses. Hence, we started our journey by testing the sustained release of SLN to see whether we could reduce the frequency of intake of Acyclovir, in the hope of improving the efficacy and bioavailability of other antiviral drugs with similar properties.

How have contributions from other researchers across multidisciplinary fields helped to contribute to the project's positive outcomes?

Ms Rath: I am glad to have worked with Dr Gopu Sriram, Dr Nilesh Dubey and Associate Professor Tan Kai Soo. Being experts in different research areas, they have each given me advice to grow my project.

I have also collaborated with Associate Professor Chu Jang Hann from the NUS Yong Loo Lin School of Medicine (Department of Microbiology & Immunology) to further study the antiviral efficacy of the Acyclovir-loaded SLN against HSV.

How has your research experience with the Faculty helped you to grow as a scientist?

Ms Rath: The last three years at the Faculty have been enlightening. The Faculty trained me to constantly question the possibility of each study and subsequently discover novel findings from my research work. Though the path was often filled with

challenges, the results of the studies were always satisfying.

In line with my PhD supervisor, Associate Professor Vinicius Rosa's advice to always think broader to address issues that are beyond dentistry, I hope to continue conducting studies to discover new solutions that will eventually impact not only oral health but also overall individual well-being.

I also live by the saying that "the real voyage of discovery consists not in seeking new landscapes, but in having new eyes". Thus, I aspire to continue putting on varied lenses to uncover different research findings in the hope of advancing my knowledge in dentistry and medical sciences. This, I believe, will help me to grow as a scientist and a dentist.

Ms Priti Pragati Rath is pursuing a PhD in Oral Sciences.



#### DR HU SHIJIA

# TRANSLATIONAL RESEARCH: BRIDGING BASIC SCIENCE WITH CLINICAL SCIENCE

Advancing results from basic science to bring about new healthcare practices.





## What is translational research and why is it crucial in improving overall health?

**Dr Hu:** Translational research is an approach to research that seeks to produce clinically meaningful and applicable results. It aims to advance results from basic science into actionable improvements in clinical care. While clinical research is essential in refining existing techniques, translational research is often required to bring about new healthcare practices.

Tell us more about some critical translational research projects you have worked on and some of the positive outcomes that have been achieved.

**Dr Hu:** One of the studies we have been part of examines oral microbiome in Crohn's Disease, a lifelong condition where parts of the digestive system become inflamed. The oral cavity is part of the digestive system and its microbiome can influence the development and progression of gastrointestinal disease.

In our publication "Ectopic Gut Colonisation: A Metagenomic Study of the Oral and Gut Microbiome in Crohn's Disease", we found that oral microbes can colonise the gut in Crohn's Disease and have the potential to impact the progression of the disease. Notably, it is one of only six studies worldwide that studied the pairing of the oral and gut microbiome.

In the subsequent publication "Oral Microbiome of Crohn's Disease Patients With and Without Oral Manifestations" published in the prestigious *Journal of Crohn's and Colitis*, we also found that a model of the oral microbiome can be used to aid the diagnosis and prognosis of Crohn's Disease.

In addition to this research, we have translational studies with our Master of Dental Surgery students. In our study "Sodium Hypochlorite Treatment Post-Etching Improves the Bond Strength of Resin-Based Sealant to Hypomineralised Enamel by Removing Surface Organic Content", we found that the use of a sodium hypochlorite treatment post-acid etching improves the bond strength of resins to hypomineralise enamel. This directly affected how we manage hypomineralised teeth in the clinic, a condition that affects over 12 per cent of the population in Singapore.

On the other hand, our study
"SMART: Silver Diamine
Fluoride (SDF) Reduces
Micro-tensile Bond Strength
of Glass Ionomer Cement (GIC)
to Sound and Artificial Cariesaffected Dentin" showed that
SDF application affected the bond
strength of immediately placed GIC.
This informed the clinical decision to
restore cavities treated with SDF at a
later visit.

How have collaborations with dental and medical experts been helpful in the projects you are working on?

Dr Hu: We worked closely with experts in the Genome Institute of Singapore and the Division of Gastroenterology & Hepatology for the microbiome study at the National University Hospital. Such collaborations are vital for the study's success as these experts assisted in the recruitment of subjects and data analysis. As the analysis of microbiome is an emerging field, having experts in the area was crucial in making sense of the data to produce clinically relevant models that can be used to advance the care of patients.

Besides the microbiome study, it is also important to collaborate with dental professionals and experts from other disciplines for translational studies in general. Especially for my studies, I worked closely with Associate Professor Vinicius Rosa and researchers from the Biomaterials laboratory. Collaborating with basic scientists enables me to answer clinical questions with translational potential. It also helps me to bridge basic science with clinical science to increase the impact of my research on patients' health.

What motivates you to continue working on translational research studies and what keeps you going as a clinical scientist?

**Dr Hu:** Being a clinical scientist allows me to work with basic scientists and clinicians to frame clinical questions as testable hypotheses. That makes the work I do here more clinically relevant and impacts the health of the community at large. And that is something that gives me immense satisfaction.

Dr Hu Shijia is a faculty member in the Discipline of Orthodontics and Paediatric Dentistry.

"Collaborating with basic scientists enables me to answer clinical questions with translational potential. It also helps me to bridge basic science with clinical science to increase the impact of my research on patients' health."



"By working with field experts and professionals, we plan to eventually take our research beyond the laboratory to cultivate positive outcomes in the clinics."

Why did you choose to become a microbiologist?

**Assoc Prof Tan:** I enjoy the excitement of exploring what makes microorganisms tick! While these organisms are only unicellular, they can evolve elegantly and often intrigue mechanisms to survive and persist.

Tell us about some critical microbiology studies you have worked on.

Assoc Prof Tan: One of my fundamental research studies was examining novel methods to eradicate oral biofilms and reduce the growth of pathogens in the oral cavity. Another study was about understanding the fundamentals of host-microbe interactions to engineer oral microbiome associated with periodontal health and improve an individual's oral health.

I am glad that several of my studies have gone on to generate interest among industrial partners. By working with field experts and professionals, we plan to eventually take our research beyond the laboratory to cultivate positive outcomes in the clinics.

Have you worked with any other teams on your studies and how have their inputs helped to produce positive outcomes for your research?

Assoc Prof Tan: My collaborations with dental clinicians have certainly enabled me to enhance my research approach and apply them to the studies to generate better outcomes that would impact patient care.

Associate Professor Victoria Yu and I were the first to propose a quick way - within five minutes - to determine if a treated root canal harbours viable organisms. This method will help clinicians determine if an infected root canal is adequately disinfected.

I also worked with Associate Professor Catherine Hong in a pre-clinical study which discovered that probiotics can reduce the severity of chemotherapyinduced oral mucositis. As mucositis is usually painful, we hope our study will decrease the side effects for patients undergoing cancer therapy.

More recently, I have been working with Dr Jacob Chew to determine the utility of a biosensor system to predict

periodontal healing. If successful, this system will have the potential to help clinicians predict patients who require more aggressive treatment.

Why are microbiology studies critical in advancing innovative solutions for public health beyond dentistry?

Assoc Prof Tan: Microorganisms are not only the primary aetiological agent of major oral diseases such as dental caries and periodontitis. The oral cavity can serve as a reservoir for bacterial pathogens which cause serious diseases such as pneumonia. In addition, inflammation caused by bacteria in the mouth can impact systemic health such as diabetes and cardiovascular disease.

Microbiology studies will continue to play a significant role in furthering our understanding of oral microorganisms and their impact on diseases. Such knowledge can, in turn, generate new understanding about prevention, care and treatment of various conditions and advance health solutions to benefit the population.

Assoc Prof Tan Kai Soo is a faculty member in the Discipline of Oral Sciences.



"Microbiology studies will continue to play a significant role in furthering our understanding of oral microorganisms and their impact on diseases."



NUS Faculty Of Dentistry Annual Report 2021/22

## TRANSFORMING EDUCATION AND RESEARCH THROUGH COLLABORATION

DentAlliance continues to make headway in offering global insights into contemporary trends in dentistry.

Faculty continued its DentAlliance partnership with The University of North Carolina at Chapel Hill's Adams School of Dentistry; King's College London's Faculty of Dentistry, Oral & Craniofacial Sciences; and The University of Melbourne's Melbourne Dental School. The partnership has enabled the institutions to draw on each institution's strengths to advance and transform research, education and practice in dentistry and the oral and craniofacial health sciences.

Central to DentAlliance are the Workgroups that are the engines to conceive, lead and implement their respective projects programmes. These are the Continuing Professional Development (CPD); Education; Research and Innovation; and Addressing Global Inequalities Workgroups.

Since its formation in 2020, the Workgroups have conceived and implemented numerous initiatives. They have organised several key events where experts from the four dental schools shared engaging content and conducted hands-on training. Discussions were also held to offer global insights into contemporary trends in dentistry.

Central to DentAlliance are the Workgroups that are the engines to conceive, lead and implement their respective projects

and programmes.

## **DATES EVENTS ON-DEMAND WEBINARS** Crown Lengthening Surgery - King's College London **12 August – 31 December 2021** 3D Orthodontic Diagnosis - The University of Melbourne 12 August - 31 December 2021 Digital Planning for Aesthetic and Functional Success - 12 August - 31 December 2021 The University of North Carolina at Chapel Hill Third Molar Surgery - National University of Singapore **12 August – 31 December 2021 Live Q&A Session** 31 August 2021

#### **WORKSHOPS CONDUCTED AT THE NATIONAL UNIVERSITY OF SINGAPORE**

**Third Molar Surgery Workshop** 2 October 2021 Crown-Lengthening Surgery: A Step-by-Step Guide 9 October 2021 3D Orthodontic Diagnosis: A Step-by-Step Guide 16 October 2021

& Digital Planning for Aesthetic and Functional Success





In Academic Year 2021/22, the CPD Workgroup organised eight on-demand webinars, four face-to-face hands-on clinical workshops and a live questionand-answer session to examine the latest topics and innovations in

The Education Workgroup organised the Students Collaborating Online to Network and Empower (SCONE) series of online events for students of the four dental schools to share their learning environment and experiences. They also identified the oral health-related challenges of their patients and worked to develop a future global vision for dentistry and dental education.

Concurrently, the Research and Innovation Workgroup organised several online workshops with its international counterparts to share ideas and explore future collaborations. Each workshop had a programmatic theme that aimed to promote international cooperation, particularly to support early career researchers.

Moving forward, DentAlliance will continue to develop more programmes to address critical oral, dental and craniofacial health issues with the hope of benefitting patient care and population health globally.





## **OUR DONORS**

FROM JULY 2021 TO JUNE 2022

he Faculty wishes to extend its heartfelt appreciation to generous donors who made gifts totalling **\$819,855** to the Faculty during the period between July 2021 and June 2022.



Thank you for supporting the Faculty in our mission to improve oral health through academic excellence, high impact research and quality clinical services.

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Tan Ying Han

Tang Panmei

Tay Chong Meng

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Tay Li Chye

Tay Seng Kong, Louis

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Yeo Yong Yan



## FROM MOLARS AND MALOCCLUSIONS **TO MOUNTAINS AND MEMORIES**

Dr Dennis Leong asserts that meticulousness, resilience, continual learning and critical thinking are life-saving, whether in a clinic or atop a mountain.



When did you start climbing and how did your passion for trekking grow through the vears?

Dr Leong: My background in sports was in squash which I played competitively in secondary school. I managed to get into the National Under-19 team at the age of 18 but was overaged after that.

I began understanding more about mountaineering when I came across a book in my primary school's library. It was about the Himalayas. I remember the front cover showing two men all geared up and climbing a steep snowcovered slope of the Himalayas. I was fascinated by what they were doing and the challenges they faced. I never thought I would do anything like that, but that front cover had been seared in my memory for the last 50 years.

I climbed my first mountain, Mount Ophir (1,276 metres), in first-year dental school in October 1980 at the age of 18. I embarked on the expedition with three teammates from the same dental class. We spent three days and two nights on Mount Ophir. It was fun, but at one point, when we were crossing a waterfall, one of my teammates slipped and fell into the water. The strong current flushed him downstream for some distance. Fortunately, he managed to grip a rock in time, or he would have gone over the edge of a precipice. To this day, I can still remember the look of fear on his face I continued to go on

expeditions to other mountains and the challenge of scaling them one by one keeps me excited year after year. I started to trek in the Swiss Alps, Hong Kong, Malaysia and Indonesia. This included summiting two active volcanos in Indonesia, namely, Mount Ijen (2,769 metres) in Java and Mount Batur (1,717 metres)

At 60 years old, I am still excited about trekking. Recently, I reached the top of Dayara Bugyal (3,639 metres) in the State of Uttarakhand but stopped short at 4,420 metres on Friendship Peak (5.289 metres) in Himachal Pradesh, both in the Indian Himalayas. I also scaled Mount Kinabalu (4,095 metres). Each expedition is filled with varied trials, including visibility, gruelling weather and unexpected accidents. but through these, I learned the importance of perseverance and teamwork.

What are your objectives for the treks and how do they set out to develop your character and outlook on life?

**Dr Leong:** I enjoy climbing mountains because it is good exercise and keeps me healthy, fit and agile. It is also a great social activity where I can bond fast with people because we face challenges together. I also witness how individuals manage stress differently which often reflect their actual characters. Besides scaling mountains with friends, I have also formed friendships with strangers I met on the mountains.

The activity teaches me to be more mentally strong as well - I must be constantly alert and have situational awareness because situations change rapidly on the mountains. This trains me to continuously assess situations and be a problem solver. Because of this, I think I have become more resilient and determined - these are values that I try to apply in my daily life when facing challenges.

Were there any knowledge and skills you picked up as a dentist and applied during your mountaineering adventures?

Dr Leong on

his expeditions

through the years.

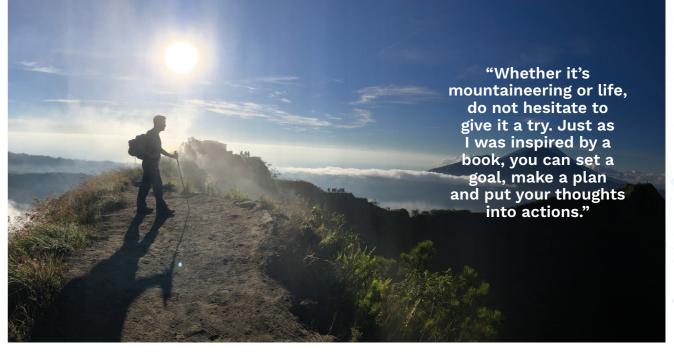
Dr Leong: Yes. In dentistry, we learn to be Similarly, a mountaineer needs to meticulous in what we do. There are no acquire knowledge in various areas shortcuts, no cutting corners. We are - some as mundane as learning how also trained to be very thorough to cook, how to make a fire, how because one mistake can prove to be costly. We thus learn to pay attention to details and study many subjects and skills to become competent in different oral procedures.

> also use the same principles at work in the clinic as in the mountains:

to handle an emergency, what to do when lost, how to make your shelter, how to hydrate, stay warm, understand the physiology of our bodies at high altitudes (low oxygen, hypothermia), first aid and understanding your

gear among others. If you miss any of these lessons, it may cost you your life. We are, therefore, constantly meticulous, learning and getting prepared.

Always use the best



possible gear so as to achieve optimal performance and comfort. Similarly, I do not compromise on materials and processes when delivering optimal dental care to my patients.

Do you foresee yourself continuing your expeditions and will you encourage younger dentists to take up mountaineering?

Dr Leong: Yes, absolutely! So far in 2022, I have climbed nine mountains and summited eight. I will keep trekking for as long as I can, but age is catching up. It also takes longer to recover from each trip.

I intend to, however, stay active after my climbing days to keep my mind alert. I plan to partake in adventures with decreased intensity. For example, I hope to get certified in rock climbing next year because it is good training for various muscles. I also tried ice skating recently and love it. I still need to improve, but I am prepared to learn more. One day, I hope to be good enough to do crosscountry ice skating on frozen lakes in Sweden.

I will encourage my younger as well as more mature peers to try mountaineering at least once. One can start trekking at lower levels and then gradually ascend higher altitudes before eventually summiting a mountain. The younger you start, the better because your body is stronger. It is, however, still possible for the older ones to start so long as they are healthy.

Are there any tips you would like to share with our readers on lessons in mountaineering and life?

Dr Leong: I saw this on a t-shirt when I was walking around in Manali, India:

"Die with memories. Not dreams."

I wish to leave all of you with this: Whether it's mountaineering or life, do not hesitate to give it a trv. Just as I was inspired by a book, you can set a goal, make a plan and put your thoughts into actions. It starts with baby steps but with discipline and determination, you will eventually get there. I hope my little adventures will motivate everyone to keep going and achieve whatever you aspire to accomplish.

Dr Leong during his trek to Mount Kinabalu.





## PROMOTING COGNITIVE, EMOTIONAL **AND PHYSICAL HEALTH**

Health and wellness webinars support the overall well-being of staff at home and in the office.

The well-being of our staff is of utmost importance and amid the evolving COVID-19 situation, the Faculty continued to promote cognitive, emotional and physical health through curated programmes.

Working hand in hand with our counterparts from the National University of Singapore and the National University Centre for Oral Health Singapore, our first health and wellness programme commenced in July 2021 around the theme, "Love Your Mind, Body, Soul".

A total of seven online workshops were conducted, including "A Mindful Sit", which introduced staff to the practice of mindfulness and how to better manage stress and difficult emotions; "Virtual Cooking Demo", where a nutritionist demonstrated how to prepare healthy meals; and "Ergonomics Workshop", where participants learnt to relieve pains that they might face when they work at the clinic, office or home.

To understand our staff's baseline health status and to help in the design of relevant Health and Wellness programmes and work practices, the Faculty also conducted the Basic Health Insight Survey.

In the survey, respondents shared that the programmes and initiatives implemented had enabled them to better understand the concept of wellness and the importance of maintaining good cognitive, emotional

and physical health. They also learnt more about managing stress and how to help themselves through challenging situations.

In the coming year, the Faculty hopes to continue advocating for the allrounded health of our staff through more interesting and engaging activities.





## **STAFF LISTING**

### NUS LONG SERVICE AWARD RECIPIENTS

| S/N | NAME  | YEARS OF SERVICE |
|-----|---|------------------|
| 1   | Mr Vellasamy S/O Muniandy                               | 45               |
| 2   | Ms Lee Yue Peng   | 40               |
| 3   | Associate Professor Neo Chiew Lian, Jennifer (Deceased) | 40               |
| 4   | Associate Professor Foong Weng Chiong, Kelvin           | 30               |
| 5   | Mr Tok Wee Wah  | 30               |
| 6   | Associate Professor Cao Tong                            | 20               |
| 7   | Ms Chiang Im-Ping, Perina                               | 20               |
| 8   | Ms Ow Yong Oi   | 15               |
| 9   | Ms Boh Siew Thang                                       | 10               |
| 10  | Dr Goh Enhui, Charlene                                  | 10               |
| 11  | Dr Mok Yuen Pun, Clara                                  | 10               |
| 12  | Ms Ng Siew Hua  | 10               |
| 13  | Associate Professor Tan Kai Soo                         | 10               |
| 14  | Mr Boo Kin Poh  | 5                |
| 15  | Ms Foo Li May   | 5                |
| 16  | Dr Lee Kong Fei, Frank                                  | 5                |
| 17  | Professor Patrick Finbarr Allen                         | 5                |
| 18  | Mr Roland Lim   | 5                |
| 19  | Dr Soh Shean Han  | 5                |
| 20  | Ms Suryati Binte Sumaryo                                | 5                |
| 21  | Ms Yan Jia En   | 5                |
| 22  | Ms Zarina Binte Zainol Abidin Marican                   | 5                |

## NUH LONG SERVICE AWARD RECIPIENTS

| S/N | NAME  | YEARS OF SERVICE |
|-----|---|------------------|
| 1   | Associate Professor Tseng Seng Kwong, Patrick | 35               |
| 2   | Associate Professor Cao Tong                  | 20               |
| 3   | Dr Hong Kanglun                               | 10               |
| 4   | Dr Lu Xiaotong, Jacinta                       | 10               |
| 5   | Dr Tan Mei Na                                 | 10               |
| 6   | Dr Chen Wei Jin, Matthias                     | 5                |
| 7   | Dr Chew Ren Jie, Jacob                        | 5                |
| 8   | Dr Lee Kong Fei, Frank                        | 5                |
| 9   | Dr Sim Ruiqi, Paul                            | 5                |



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## **STAFF LISTING**

## PROMOTIONS (NUS)

| S/N | NAME                           | PROMOTED TO                    | DATE OF PROMOTION |
|-----|--------------------------------|--------------------------------|-------------------|
| 1   | Dr Lui Jeen Nee                | Clinical Associate Professor   | 1 July 2021       |
| 2   | Dr Lim Li Zhen                 | Senior Lecturer                | 1 July 2021       |
| 3   | Dr Soh Shean Han               | Senior Lecturer                | 1 July 2021       |
| 4   | Dr Lee Keng Yan, Gabriel       | Lecturer                       | 1 July 2021       |
| 5   | Ms Choo Si Yi                  | Senior Assistant Manager       | 1 July 2021       |
| 6   | Ms Lakshmipriya D/O Gunaseelan | Assistant Manager              | 1 July 2021       |
| 7   | Ms Ng Zi Wei                   | Assistant Manager              | 1 July 2021       |
| 8   | Dr Fu Jia Hui                  | Associate Professor            | 1 January 2022    |
| 9   | Dr Kwek Swee Nguang, Henry     | Adjunct Asssociate Professor   | 1 January 2022    |
| 10  | Dr Lee Chee Wee                | Adjunct Asssociate Professor   | 1 January 2022    |
| 11  | Dr Ong Eng Yau, Timothy        | Adjunct Asssociate Professor   | 1 January 2022    |
| 12  | Dr Tan Tzee Jen                | Adjunct Asssociate Professor   | 1 January 2022    |
| 13  | Dr Tay Lai Hock, Alphonsus     | Adjunct Asssociate Professor   | 1 January 2022    |
| 14  | Ms Boh Siew Thang              | Laboratory Technologist 1      | 1 January 2022    |
| 15  | Ms Ong Mei Teng                | Management Assistant Officer 3 | 1 January 2022    |
| 16  | Mr Lim Yu Sheng                | Management Assistant Officer 3 | 1 January 2022    |

## PROMOTIONS (NUH)

| S/N | NAME                               | PROMOTED TO          | DATE OF PROMOTION |
|-----|------------------------------------|----------------------|-------------------|
| 1   | Associate Professor Intekhab Islam | Senior Consultant    | 1 July 2021       |
| 2   | Dr Ode Wataru                      | Consultant           | 1 July 2021       |
| 3   | Dr Tan Mei Na                      | Consultant           | 1 July 2021       |
| 4   | Dr Lee Keng Yan, Gabriel           | Dental Surgeon II    | 1 July 2021       |
| 5   | Dr Chua Kho Xian, Sarah            | Registrar            | 1 July 2021       |
| 6   | Dr Loke Weiqiang                   | Associate Consultant | 1 January 2022    |



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## **STAFF LISTING**

## CLINICAL FACULTY SCHEME

AS OF 31 MARCH 2022

| S/N | NAME                                  | APPOINTMENT                  | INSTITUTION                        |
|-----|---------------------------------------|------------------------------|------------------------------------|
| 1   | Dr Lim Wanyi                          | Clinical Lecturer            | Health Promotion Board             |
| 2   | Dr Low Huey Moon                      | Clinical Senior Lecturer     | Khoo Teck Puat Hospital            |
| 3   | Dr Sia Kia Suan, Priscilla            | Clinical Lecturer            | Khoo Teck Puat Hospital            |
| 4   | Dr Tan Shao Yong                      | Clinical Lecturer            | Khoo Teck Puat Hospital            |
| 5   | Dr Tan Wye Lynn                       | Clinical Teacher             | Khoo Teck Puat Hospital            |
| 6   | Dr Wong Kuan Yee                      | Clinical Teacher             | Khoo Teck Puat Hospital            |
| 7   | Dr Yee Hui Xin, Sophia                | Clinical Teacher             | Khoo Teck Puat Hospital            |
| 8   | Dr Chay Pui Ling                      | Clinical Lecturer            | KK Women's and Children's Hospital |
| 9   | Dr Yee Ruixiang                       | Clinical Teacher             | KK Women's and Children's Hospital |
| 10  | Cl Assoc Prof Chen Nah Nah            | Clinical Associate Professor | National Dental Centre Singapore   |
| 11  | Cl Assoc Prof Chew Ming Tak           | Clinical Associate Professor | National Dental Centre Singapore   |
| 12  | Cl Assoc Prof Goh Bee Tin             | Clinical Associate Professor | National Dental Centre Singapore   |
| 13  | Cl Assoc Prof Ken Tan                 | Clinical Associate Professor | National Dental Centre Singapore   |
| 14  | Cl Assoc Prof Lui Jeen Nee            | Clinical Associate Professor | National Dental Centre Singapore   |
| 15  | Cl Assoc Prof Mimi Yow                | Clinical Associate Professor | National Dental Centre Singapore   |
| 16  | Cl Assoc Prof Ong Meng Ann, Marianne  | Clinical Associate Professor | National Dental Centre Singapore   |
| 17  | Cl Assoc Prof Poon Choy Yoke          | Clinical Associate Professor | National Dental Centre Singapore   |
| 18  | Cl Assoc Prof Sim Poh Choo, Christina | Clinical Associate Professor | National Dental Centre Singapore   |
| 19  | Cl Assoc Prof Tay Ban Guan, Andrew    | Clinical Associate Professor | National Dental Centre Singapore   |
| 20  | Cl Assoc Prof Teoh Khim Hean          | Clinical Associate Professor | National Dental Centre Singapore   |
| 21  | Dr Chee Hoe Kit                       | Clinical Senior Lecturer     | National Dental Centre Singapore   |
| 22  | Dr Choo Johanna                       | Clinical Senior Lecturer     | National Dental Centre Singapore   |
| 23  | Dr Koh Chu Guan                       | Clinical Senior Lecturer     | National Dental Centre Singapore   |
| 24  | Dr Lai Juen Bin                       | Clinical Senior Lecturer     | National Dental Centre Singapore   |
| 25  | Dr Lai Wen Pui Bien                   | Clinical Senior Lecturer     | National Dental Centre Singapore   |
| 26  | Dr Lim Kuen Fui, Ivan                 | Clinical Senior Lecturer     | National Dental Centre Singapore   |
| 27  | Dr Lim Sor Kheng                      | Clinical Senior Lecturer     | National Dental Centre Singapore   |
| 28  | Dr Quek Heng Chuan                    | Clinical Senior Lecturer     | National Dental Centre Singapore   |
| 29  | Dr See Toh Yoong Liang                | Clinical Senior Lecturer     | National Dental Centre Singapore   |

| S/N | NAME                            | APPOINTMENT                  | INSTITUTION                      |
|-----|---------------------------------|------------------------------|----------------------------------|
| 31  | Dr Tan Ben Poon, Danny          | Clinical Senior Lecturer     | National Dental Centre Singapore |
| 32  | Dr Tan Li Yen, Elaine           | Clinical Senior Lecturer     | National Dental Centre Singapore |
| 33  | Dr Lee Wan Zhen                 | Clinical Lecturer            | National Dental Centre Singapore |
| 34  | Dr Leonardo Saigo               | Clinical Lecturer            | National Dental Centre Singapore |
| 35  | Dr Ng Jing Hao                  | Clinical Lecturer            | National Dental Centre Singapore |
| 36  | Dr Rahul Harshad Nagadia        | Clinical Lecturer            | National Dental Centre Singapore |
| 37  | Dr Sim Qiuxia, Chelsia          | Clinical Lecturer            | National Dental Centre Singapore |
| 38  | Dr Song Yi Lin                  | Clinical Lecturer            | National Dental Centre Singapore |
| 39  | Dr Chan Pei Yuan                | Clinical Teacher             | National Dental Centre Singapore |
| 40  | Dr Chew Qin'An, Amelia          | Clinical Teacher             | National Dental Centre Singapore |
| 41  | Dr Chia Ai Ping, Vanessa        | Clinical Teacher             | National Dental Centre Singapore |
| 42  | Dr Foo Lean Heong               | Clinical Teacher             | National Dental Centre Singapore |
| 43  | Dr Lee Ming Hsien, Albert       | Clinical Teacher             | National Dental Centre Singapore |
| 44  | Dr Lim Wen Yi                   | Clinical Teacher             | National Dental Centre Singapore |
| 45  | Dr Ng Chee Wee, Benjamin        | Clinical Teacher             | National Dental Centre Singapore |
| 46  | Dr Qian Li                      | Clinical Teacher             | National Dental Centre Singapore |
| 47  | Dr Sabrina Ng Livia             | Clinical Teacher             | National Dental Centre Singapore |
| 48  | Dr Shi Hongyi, Adrian           | Clinical Teacher             | National Dental Centre Singapore |
| 49  | Dr Tan Mei Hui                  | Clinical Teacher             | National Dental Centre Singapore |
| 50  | Dr Wu Siwen                     | Clinical Teacher             | National Dental Centre Singapore |
| 51  | Dr Yang Jingrong                | Clinical Teacher             | National Dental Centre Singapore |
| 52  | Dr Wong Ren Jie, Patricia       | Clinical Lecturer            | National University Polyclinics  |
| 53  | Cl Assoc Prof Yap U-Jin, Adrian | Clinical Associate Professor | NTFGH - Jurong Health Campus     |
| 54  | Dr Ho Chee Wai, Henry           | Clinical Senior Lecturer     | NTFGH - Jurong Health Campus     |
| 55  | Dr Lai Ye Choung                | Clinical Lecturer            | NTFGH - Jurong Health Campus     |
| 56  | Dr Wong Li Beng                 | Clinical Lecturer            | NTFGH - Jurong Health Campus     |
| 57  | Dr Lin Dan                      | Clinical Teacher             | Tan Tock Seng Hospital           |

## **STAFF LISTING**

## ADJUNCT APPOINTMENTS SCHEME

AS OF 31 MARCH 2022

| 5 | S/N | NAME  | APPOINTMENT                 |
|---|-----|---|-----------------------------|
|   | 1   | Adj Assoc Prof Cheng Chi Chung, Ansgar              | Adjunct Associate Professor |
|   | 2   | Adj Assoc Prof Chng Chai Kiat                       | Adjunct Associate Professor |
|   | 3   | Adj Assoc Prof Chung Kong Mun                       | Adjunct Associate Professor |
|   | 4   | Adj Assoc Prof Elliott, Myra nee Lin Wen Jui        | Adjunct Associate Professor |
|   | 5   | Adj Assoc Prof Goh Kwee Chien, Benny                | Adjunct Associate Professor |
|   | 6   | Adj Assoc Prof Hwang Yee Cheau                      | Adjunct Associate Professor |
|   | 7   | Adj Assoc Prof Kwek Swee Nguang, Henry              | Adjunct Associate Professor |
|   | 8   | Adj Assoc Prof Lee Chee Wee                         | Adjunct Associate Professor |
|   | 9   | Adj Assoc Prof Lee Woon Oi, Teresa                  | Adjunct Associate Professor |
|   | 10  | Adj Assoc Prof Lim Kian Chong, Gerald               | Adjunct Associate Professor |
|   | 11  | Adj Assoc Prof Loh Fun Chee                         | Adjunct Associate Professor |
|   | 12  | Adj Assoc Prof Loh Kai Woh                          | Adjunct Associate Professor |
|   | 13  | Adj Assoc Prof Loh Poey Ling                        | Adjunct Associate Professor |
|   | 14  | Adj Assoc Prof Mohamed Azharashid Bin Mohamed Tahir | Adjunct Associate Professor |
|   | 15  | Adj Assoc Prof Ong Eng Yau                          | Adjunct Associate Professor |
|   | 16  | Adj Assoc Prof Robinson Narendran Andrew            | Adjunct Associate Professor |
|   | 17  | Adj Assoc Prof Tan Hwee Hiang                       | Adjunct Associate Professor |
|   | 18  | Adj Assoc Prof Tan Thong Kwan, Benjamin             | Adjunct Associate Professor |
|   | 19  | Adj Assoc Prof Tan Tzee Jen                         | Adjunct Associate Professor |
|   | 20  | Adj Assoc Prof Tay Lai Hock, Alphonsus              | Adjunct Associate Professor |
|   | 21  | Dr Natascha Ekawati Putri Bunjamin                  | Adjunct Assistant Professor |
|   | 22  | Dr Ang Chee Wan                                     | Adjunct Senior Lecturer     |
|   | 23  | Dr Bai Shuren, Adrian                               | Adjunct Senior Lecturer     |
|   | 24  | Dr Chan Siew Luen                                   | Adjunct Senior Lecturer     |
|   | 25  | Dr Chng Huey Shin                                   | Adjunct Senior Lecturer     |
|   | 26  | Ms Ho Koon Chyn, Florence                           | Adjunct Senior Lecturer     |
|   | 27  | Dr Kaan Sheung Kin                                  | Adjunct Senior Lecturer     |
|   | 28  | Dr Lee Hoon Hwee                                    | Adjunct Senior Lecturer     |
|   | 29  | Dr Lee Kwee Jin                                     | Adjunct Senior Lecturer     |
|   | 30  | Dr Leung Wing Hung                                  | Adjunct Senior Lecturer     |

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|----|-----|------------------------------|-------------------------|
|    | S/N | NAME                         | APPOINTMENT             |
|    | 31  | Dr Lim Ching Chiat           | Adjunct Senior Lecturer |
|    | 32  | Dr Lim Chong Yang, Arthur    | Adjunct Senior Lecturer |
| 4  | 33  | Dr Lim Gim Teck              | Adjunct Senior Lecturer |
|    | 34  | Dr Liu Hao Hsing             | Adjunct Senior Lecturer |
|    | 35  | Dr Loganathan Vijayan        | Adjunct Senior Lecturer |
|    | 36  | Dr Michael Lim               | Adjunct Senior Lecturer |
|    | 37  | Dr Neo Tee Khin              | Adjunct Senior Lecturer |
|    | 38  | Dr Ng Chai Hoon, Clarisse    | Adjunct Senior Lecturer |
|    | 39  | Dr Ng Jing Jing              | Adjunct Senior Lecturer |
|    | 40  | Dr Ong Hoe Boon              | Adjunct Senior Lecturer |
|    | 41  | Dr Pang Soon Eng             | Adjunct Senior Lecturer |
|    | 42  | Dr Phay Yew Ming             | Adjunct Senior Lecturer |
|    | 43  | Dr Sankaran Basanti          | Adjunct Senior Lecturer |
|    | 44  | Dr Shahul Hameed             | Adjunct Senior Lecturer |
|    | 45  | Dr Teh Kiat Seong            | Adjunct Senior Lecturer |
|    | 46  | Dr Tong Huei Jinn            | Adjunct Senior Lecturer |
|    | 47  | Dr Wong Keng Mun             | Adjunct Senior Lecturer |
|    | 48  | Dr Wong Soon May, Adeline    | Adjunct Senior Lecturer |
|    | 49  | Dr Chin Yee Fatt             | Adjunct Lecturer        |
|    | 50  | Dr Leong Woei Jian, Elvin    | Adjunct Lecturer        |
|    | 51  | Dr Lim Toh Seong, Andy       | Adjunct Lecturer        |
|    | 52  | Dr Md Badrun Nafis Bin Saion | Adjunct Lecturer        |
|    | 53  | Dr Ong Kheng Kok             | Adjunct Lecturer        |
|    | 54  | Dr Ong Teng Sin              | Adjunct Lecturer        |
|    | 55  | Dr Tan Kian Meng             | Adjunct Lecturer        |
|    | 56  | Dr Thean Tsin Piao           | Adjunct Lecturer        |
|    | 57  | Dr Wee Tze Haur              | Adjunct Lecturer        |
|    | 58  | Dr Yap Kin Wai               | Adjunct Lecturer        |
|    | 59  | Dr Ung Youlin Justina        | Adjunct Instructor      |
|    |     |                              |                         |

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## **STAFF LISTING**

### PART-TIME TEACHING APPOINTMENTS SCHEME

AS OF 31 MARCH 2022

| S/N | NAME                        | APPOINTMENT        |
|-----|-----------------------------|--------------------|
| 1   | Dr Ow Kok Keng, Richard     | Part-time Lecturer |
| 2   | Dr Poon Kee Hwang           | Part-time Lecturer |
| 3   | Dr Seow Yian San            | Part-time Lecturer |
| 4   | Dr Wee Chun Kheng, Eugene   | Part-time Lecturer |
| 5   | Dr Chang Hui Min, Jaime     | Part-time Tutor I  |
| 6   | Dr Cheok Be Chen, Christina | Part-time Tutor I  |
| 7   | Dr Chong Isaac              | Part-time Tutor I  |
| 8   | Dr Felicia Sharmila Sundram | Part-time Tutor I  |
| 9   | Dr Foo Mooh Thong           | Part-time Tutor I  |
| 10  | Dr Goh Xian Jun, Edwin      | Part-time Tutor I  |
| 11  | Dr Guo Weidi                | Part-time Tutor I  |
| 12  | Dr Heng Hui Mian, Nora      | Part-time Tutor I  |
| 13  | Dr Ho Kok Sen               | Part-time Tutor I  |
| 14  | Dr Hoang Tram Ngoc          | Part-time Tutor I  |
| 15  | Dr Huang Shuyan             | Part-time Tutor I  |
| 16  | Dr Khng Kwang Yong, Kelvin  | Part-time Tutor I  |
| 17  | Dr Koh Chee Keong, Ivan     | Part-time Tutor I  |
| 18  | Dr Koh Geok Sin, Sylvia     | Part-time Tutor I  |
| 19  | Dr Lee Pheng Hean, Bryce    | Part-time Tutor I  |
| 20  | Dr Lee Yun Hui              | Part-time Tutor I  |
| 21  | Dr Leo Song Jie             | Part-time Tutor I  |
| 22  | Dr Leong Jack Min, Daylene  | Part-time Tutor I  |
| 23  | Dr Lim Shy Min              | Part-time Tutor I  |
| 24  | Dr Lim Songping, Nicholas   | Part-time Tutor I  |
| 25  | Dr Lim Tian Wei, William    | Part-time Tutor I  |
| 26  | Dr Long Benjamin Charles    | Part-time Tutor I  |
| 27  | Dr Lye Poh Wah, Clement     | Part-time Tutor I  |
| 28  | Dr Phua Zong You, Jonathan  | Part-time Tutor I  |
| 29  | Dr Poon Kah Chai            | Part-time Tutor I  |
|     |                             |                    |

|   | S/N | NAME                       | APPOINTMENT        |
|---|-----|----------------------------|--------------------|
|   | 30  | Dr Sim Peng Chuan, Timothy | Part-time Tutor I  |
|   | 31  | Dr Sng Kong Chee           | Part-time Tutor I  |
|   | 32  | Dr Steven Soo              | Part-time Tutor I  |
|   | 33  | Dr Tan Tiat Heng, Edwin    | Part-time Tutor I  |
|   | 34  | Dr Tan Wah Ching           | Part-time Tutor I  |
|   | 35  | Dr Tan Ying Han            | Part-time Tutor I  |
|   | 36  | Dr Tang Kok Siew           | Part-time Tutor I  |
|   | 37  | Dr Tay Koong Jiunn         | Part-time Tutor I  |
|   | 38  | Dr Tay Li Chye             | Part-time Tutor I  |
|   | 39  | Dr Teh Yi Mui, Marina      | Part-time Tutor I  |
|   | 40  | Dr Teo Juin Wei            | Part-time Tutor I  |
|   | 41  | Dr Tey Hwee Shinn, Valerie | Part-time Tutor I  |
|   | 42  | Dr Toh Siew Luan           | Part-time Tutor I  |
|   | 43  | Dr Yang Shi Lin, Sherine   | Part-time Tutor I  |
|   | 44  | Dr Yip Pei Wen, Natalia    | Part-time Tutor I  |
|   | 45  | Dr Chan Hui Ping, Berenice | Part-time Tutor II |
|   | 46  | Dr Choo Keang Hai          | Part-time Tutor II |
|   | 47  | Dr Goh Wan-Lin, Jacqueline | Part-time Tutor II |
| Ч | 48  | Dr Lee Chi Hong, Bruce     | Part-time Tutor II |
|   | 49  | Dr Lee Leing               | Part-time Tutor II |
|   | 50  | Dr Leong Yoon Hee          | Part-time Tutor II |
|   | 51  | Dr Li Shanshan, Angela     | Part-time Tutor II |
|   | 52  | Dr Lim Boon Kuan           | Part-time Tutor II |
|   | 53  | Dr Lim Lii                 | Part-time Tutor II |
|   | 54  | Dr Lu Zhiyin               | Part-time Tutor II |
|   | 55  | Dr Phay Yong Kang          | Part-time Tutor II |
|   | 56  | Dr Soh Tian En, Gladys     | Part-time Tutor II |
|   | 57  | Dr Soon Hwee Ming          | Part-time Tutor II |

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As technology continues to advance, the field of dentistry is poised to undergo a transformative shift. At the Faculty, we aspire to be at the forefront of this change by focusing on providing quality education to our students, creating high-impact research and elevating the standard of clinical care offered to patients. catalyst for transformation.

Our Faculty's vision – "To be a dental institution of international distinction" is built on solid foundations. These take the form of an unwavering commitment to provide quality education, develop high-impact research and improve clinical services to meet current needs and anticipate future ones.

#### A QUALITY EDUCATION

Developing future-ready professionals remains one of our Faculty's priorities. This is made possible through a curriculum that is holistic and comprehensive. With appropriate introduction of digital dentistry, our students are exposed to the latest developments in clinical dentistry to help them excel in the

Beyond the rigorous curriculum, our programmes also nurture and hone critical habits for success. For example, learning at the Faculty inculcates in our students the ability to think

Dentistry trends and practices are critically, stimulates their curiosity and boosts their resilience when faced recent decades with technology as a with challenges. This ensures that with challenges. This ensures that our students not just adapt to everchanging scenarios and trends, but thrive as dental practitioners dedicated to provide optimal care to patients after graduation.

> We also advocate lifelong learning among oral healthcare professionals through innovative educational initiatives and programmes. Besides generating a continued network of relevant knowledge and expertise that can be shared to enhance dental practice, we aim to keep up with the rapidly changing oral and healthcare needs of the community and ensure they remain well-served.

#### **HIGH-IMPACT RESEARCH**

Complementing our focus on education is our desire to transform the future of dentistry and healthcare by exploring innovative and novel solutions, as well as seeking a better understanding of a wide range of relevant research topics.

We do so by continually increasing our scope of research - from upstream

research to laboratory application and clinical translation - for the benefit of global health. In 2023, we plan to further our research efforts by developing our tooth and stem cell storage banks. Samples from both banks will aid studies on dental conditions and systemic diseases to generate a better understanding of different medical conditions. This will, in turn, lead to the exploration and subsequent development of renewed treatment alternatives.

Other plans for the year include bringing together a network of likeminded local and international collaborators. Through the inaugural BLOOMS Discovery Series in July 2023 and similar networking sessions, we plan to partner with experts across various disciplines to exchange ideas and broaden our research capabilities. In merging existing expertise with new perspectives, we strive to contribute to the development of new and alternative solutions that will ultimately enhance both acute and preventive care in the discipline of dentistry and general healthcare.

#### **CLINICAL SERVICES**

Developments in education and research will lead to improved solutions that will augur well for the standards of clinical care available to patients.

Indeed, equipping our students with the best training ensures that the knowledge and skills they have learned and honed in the Faculty are translated to come. into tangible, quality patient care.

Likewise, our research undertakings aim to continuously break new ground with research outcomes that transcend laboratories and eventually translate to clinical use for patients. In the long run, we want to leverage research to examine people's needs, habits and lifestyles; enhance care; and improve the quality of life of the population at large.

#### **EYES ON THE FUTURE**

These are truly exciting times for the Faculty of Dentistry and we relish the possibilities by enhancing our deliverables in three key areas: education, research and clinical services.

We are confident that we will not just maintain a consistent flow of future-

ready dental professionals in the pipeline, but also continue to deliver outstanding oral healthcare to the community through novel and innovative ways. By doing so, we uphold the Faculty's status as a leading dental school that will have a lasting impact on the profession for decades

Our Faculty's vision - "To be a dental institution of international distinction" - is built on solid foundations. These take the form of an unwavering commitment to provide quality education, develop high-impact research, and improve clinical services to meet current needs and anticipate future ones.



