



The Melbourne Dental School
in conjunction with
Institute of Science Tokyo



Online Periodontal Lecture Series

Melbourne Dental School and Institute of Science Tokyo. Explore latest advancements with renowned experts, engaging presentations, case studies, and interactive Q&A sessions from these globally renowned institutions. Enhance your expertise through this informative educational experience.

NIGHT 1: 9th July 2025 (7:30 pm - 9:25 pm - AEST) & (6:30 pm - 8:25 pm - JST)

Lecture 1:

What should we know about biology of periodontium?: From basic science to clinical application - Assistant Professor Mizuki Nagata

In my talk, I would like to share the information about biology of periodontium to treat periodontitis and achieve predictable periodontal regeneration in clinical practice. Moreover, I will update the current knowledge of indication and limitation of periodontal regenerative therapies, with future perspective of periodontal regeneration.

Lecture 2:

Genetics of periodontitis: problems and new approaches - Dr. Neil McGregor

In the talk I will address the problems with using the current genetic analyses to assess periodontitis and its progression. I will evaluate the different methods being used to assess the genetic susceptibility and why we have not as yet found a way to evaluate the obviously disease heterogeneity issues. I will outline different measures we should consider in our investigations and novel ways we need to approach this complex set of issues.

Lecture 3:

Minimally invasive approach for periodontal tissue regeneration in patients with diabetes - Junior Associate Professor Koji Mizutani

Microsurgery and adjunctive laser applications are emerging as promising minimally invasive (MI) approaches in periodontal therapy. Our recent report is the first to document that MI surgery incorporating enamel matrix derivative significantly enhances clinical outcomes in intrabony defects of patients with type 2 diabetes. Furthermore, both clinical and preclinical evidence indicate that the use of the Erbium:YAG laser during microsurgery can achieve successful periodontal tissue regeneration in advanced cases. This presentation will highlight minimally invasive and tooth-preserving periodontal therapies for patients requiring minimal surgical intervention due to age or underlying systemic conditions, supported by the latest evidence and case studies.

NIGHT 2: 23rd July 2025 (7:30 pm - 10:00 pm - AEST) & (6:30 pm - 9:00 pm - JST)

Lecture 1:

Soft tissue management for health and function of dental implant - Assistant Professor Shogo Maekawa

Soft tissue management is crucial to achieving the health and optimal function of dental implants. This webinar will share the latest evidence regarding soft tissue around implants and clinical applications in case of peri-implant tissue complications. After this presentation, you should be able to understand soft tissue phenotype around dental implants and its difference compared to natural teeth, list the surgical management to prevent/manage peri-implant soft tissue complications, and consider implant placement and its emergence profile.

Lecture 2:

Ridge preservation: when, why and how - Professor Stephen Chen

Tooth extraction is invariably followed by resorption of the ridge which can have negative implications for a future pontic site or for the subsequent placement of implants. The first part of this interactive hands-on course will provide the rationale for the decision criteria to graft or not to graft a socket at the time of extraction. Key technical aspects of the procedure will be presented to increase the success rate. After this presentation, you should be able to describe the biological processes and dimensional changes that take place following tooth extraction, outline the decision criteria when to graft a socket, list the clinical steps for socket grafting.

Lecture 3:

The power of digital workflow in perio-implant treatments - Adjunct Lecturer Kosei Yano

In my lecture, I will discuss periodontal approaches for achieving aesthetic balance, highlighting how these techniques contribute to optimal outcomes in both function and appearance. Additionally, I will explore the potential of a digital workflow in perio-implant treatments, demonstrating how digital technologies can enhance precision and treatment efficiency. Finally, I will examine the combination of analog and digital workflows, showing how integrating both methods can maximize the benefits of each approach, resulting in improved treatment planning, execution, and overall patient satisfaction.

Lecture 4:

Challenges of digital dentistry and guided surgery - Dr. Luan Ngo

In my lecture, I will dive into the topic of digital dentistry, addressing the learning curve associated with adopting new technologies and the importance of software and computer literacy for clinicians. We will also explore static guided surgery, focusing on its accuracy, the potential sources of errors, and the advantages of performing flapless procedures. Additionally, I will discuss the critical aspect of planning for static guided surgery, including who is responsible for this task. Lastly, I will cover the medicolegal implications of complications that may arise during treatment.

Key Course Details:

Register now for this enlightening 2-night online event and elevate your periodontics expertise.

Costs (inc gst):

- \$AUD200 for Night 1
- \$AUD250 for Night 2
- \$AUD400 for both nights

Enrolments:

URL: <https://go.unimelb.edu.au/t2ip>

Introducing your lecture presenters:



Junior Associate Professor Koji Mizutani – I am a Junior Associate Professor in the Department of Periodontology at Institute of Science Tokyo (Science Tokyo), Japan. I completed both a dental degree (DDS: 2002) and a doctoral degree (PhD: 2006) at Tokyo Medical and Dental University (TMDU). I was a Research Fellow at Joslin Diabetes Center, Harvard Medical School, USA (2010–2012). I am a Board-Certified Specialist of the Japanese Society of Periodontology and the Japanese Society of Conservative Dentistry. I have articles published in many international peer-reviewed journals including recently: Improvement of periodontal parameters following intensive diabetes care and supragingival dental prophylaxis in patients with type 2 diabetes: A prospective cohort study. *J Clin Periodontol.* 2024. | Genetic analysis of impaired healing responses after periodontal therapy in type 2 diabetes: Clinical and in vivo studies. *J Periodontal Res.* 2024. | Assessment of bone defect morphology for the adjunctive use of bone grafting combined with enamel matrix derivative: A 3-year cohort study. *J Periodontol.* 2024.



Assistant Professor Mizuki Nagata – I am an Assistant Professor in the Department of Periodontology at Science Tokyo, Japan. I completed both a dental degree (DDS: 2012) and a doctoral degree (PhD: 2017) at TMDU. I was a Postdoctoral Research Fellow, Department of Orthodontics & Pediatric Dentistry, University of Michigan School of Dentistry, USA (2018–2021) and Department of Orthodontics, University of Texas Health Science Center at Houston (UTHealth) School of Dentistry, USA (2021–2024). I have articles published in many international peer-reviewed journals including recently: Diverse stem cells for periodontal tissue formation and regeneration. *Genesis.* 2022. | Single-cell transcriptomic analysis reveals developmental relationships and specific markers of mouse periodontium cellular subsets. *Front Dent Med.* 2021. | Unveiling diversity of stem cells in dental pulp and apical papilla using mouse genetic models: a literature review. *Cell Tissue Res.* 2021.



Assistant Professor Shogo Maekawa – I am an Assistant Professor in the Department of Periodontology at Science Tokyo, Japan. I completed both a dental degree (DDS: 2010) and a doctoral degree (PhD: 2016) at TMDU. I was a Visiting Research Scholar, Department of Periodontics and Oral Medicine, University of Michigan School of Dentistry, USA (2020) and a Visiting Research Fellow/Part-time Clinical Teaching Faculty, Harvard School of Dental Medicine, USA (2021–2022). I am a Board-Certified Specialist of the Japanese Society of Periodontology. I have articles published in many international peer-reviewed journals including recently: BMP gene-immobilization to dental implants enhances bone regeneration. *Adv Mater Interfaces.* 2022. | An unusual anatomical variation of the inferior alveolar nerve. *Anat Cell Biol.* 2020. | RNA sequencing for ligature induced periodontitis in mice revealed important role of S100A8 and S100A9 for periodontal destruction. *Sci Rep.* 2019.



Adjunct Lecturer Kosei Yano – I am an Adjunct Lecturer at Science Tokyo and owner of a private specialist clinic in Tokyo, Japan. I completed a dental degree (DDS: 2012) at Okayama University and a doctoral degree (PhD: 2018) at TMDU. I have extensive experience in private practice in Tokyo providing implant treatments including bone grafting, periodontal regenerative surgery, implant surgery and full-mouth reconstructions with conventional and implant-retained restorations. In 2022, I opened my own private clinic in Tokyo, which accepts referrals from all over Japan for patients requiring highly advanced dental care such as full-mouth reconstruction treatment for advanced periodontal disease and complex implant dentistry. I also have articles published in international peer-reviewed journals including recently: The role of Tsukushi (TSK), a small leucine-rich repeat proteoglycan, in bone growth. *Regen Ther.* 2017.



Dr Neil McGregor – Neil graduated dentistry at Sydney University, then did a post-graduate specialist masters in periodontics at University of Queensland and his PhD at Sydney University. After he completed his PhD, he took part in multiple medical research projects on chronic pain syndromes and related diseases in the US and Europe based upon his understanding of metabolomics, which was a newly developing technology at the time. In 2015 Neil was invited to join the Open Medicine Foundation, which is a US philanthropic funded research group with researchers from the universities of Melbourne, Harvard, Stanford, Cornell, Montreal and Upsala, with the aim of using the latest technologies to investigate these chronic diseases. Neil is a research fellow at the University of Melbourne Bio21 research institute which has access to the UK Biobank databases and other metabolome/genome databases related to these investigations. The OMF groups have developed a metabolome directed genomic approach to investigating previously unexplainable chronic disease. Current projects include genetic and metabolomic assessment of post COVID, MECFS and periodontitis. This approach potentially provides meaningful advances in our understanding of these difficult to research disorders.



Associate Professor Stephen Chen – Assoc Prof Stephen Chen is a specialist periodontist in private practice in Melbourne, Australia and is Clinical Associate Professor at the Melbourne Dental School at the University of Melbourne. He graduated BDS (Malaya) in 1983 and MDS (Melbourne) in 1987. He was awarded Fellowship by examination of the Royal Australasian College of Dental Surgeons (FRACDS) in 1988 (KG Sutherland Prize) and completed his PhD at the University of Melbourne in 2008. Stephen was past president of the International Team for Implantology (ITI), and has served as chairman of the ITI Education Committee. In Australia, he has contributed significantly to local academic and professional associations, having previously served as chairman of the Australian and New Zealand Academy of Periodontists (ANZAP), Australasian Osseointegration Society (AOS) and Australian Society of Periodontology (ASP). He was awarded honorary life membership of the AOS and ITI for services to both organizations. Stephen's clinical and scientific interests are in the field of periodontal tissue regeneration, bone grafting and post extraction dental implant outcomes. He has published over 30 papers in peer-reviewed journals, authored 2 textbooks and contributed chapters to 6 textbooks.



Dr Luan Ngo – Graduating with honours from the University of Melbourne in 1999, Luan worked in both public and private practice until 2003, when he commenced a PhD in the field of periodontics looking at biomarkers for periodontal disease. He completed the didactic component of his specialist training in periodontics in 2009. Since then, Luan has been working in both private practice and as an academic at the University of Melbourne. Luan is the former convenor of the specialist periodontics program at the Melbourne Dental School. He is a fellow of the Royal Australasian College of Dental Surgeons in the specialist field of periodontics and a committee member of the Australian Society of Periodontics and the Australian and New Zealand Academy of Periodontists.

Contact Us

For more information, please contact
mds-cpd@unimelb.edu.au



Enrolments:
URL: <https://go.unimelb.edu.au/t2ip>

