FOCUSED LEARNING SESSIONS (FLS)

ALL SESSION TIMES ARE IN CHINA STANDARD TIME (UTC +8)

Thursday, June 23, 12:45 p.m.-1:45 p.m.
FLS #1: Large Animal Models for Peri-Implantitis
Speaker: Ke Deng (Shanghai Ninth People's Hospital, School of Medicine, Shanghai Jiaotong University, China)
Sponsoring Group/Network(s): Implantology Research
Track Selection: C, E

Description: Dental implant treatment has been challenged lately by the onset of inflammatory reaction around implants. Among these, the peri-implantitis is characterized by inflammation of the peri-implant mucosa and loss of supporting bone. The prevalence of peri-implantitis has been reported in around one fifth of the patients after a mean function time ranging from 3.4 and 11 years. Due to the ethical concerns, there are limited systematic investigations of the pathogenesis on peri-implantitis in human. Peri-implantitis models have been previously induced in different animal species with the placement of ligatures around the implant neck and varying periods of undisturbed plaque accumulation. Recently, this principle has been adopted in both systematic healthy and compromised larger animals. The peri-implantitis lesions in larger animal models provides a unique opportunity for researchers and clinicians to address the mechanism of peri-implantitis and to develop therapeutic solutions in large segments of the population.

Thursday, June 23, 12:45 p.m.-1:45 p.m.
FLS #2: Metabolites Epigenetically Regulate Periodontal Tissue Homeostasis
Speaker: Shigeki Suzuki (Tohuku University, Sendai, Japan)
Sponsoring Group/Network(s): Periodontal Research
Track Selection: C, E

Description: Epigenetic changes are modifications to DNA that regulate gene transcription. Common types of epigenetic modification are DNA methylation, histone acetylation, and histone methylation. Epigenetic regulation allows each cell to produce tissue- and cell-type specific gene expression patterns. Recently, metabolites are known to be the key regulators of epigenetic modifications. Moreover, metabolites are the factors that regulate inter-organ

communication and, thus, involve in systemic disease pathogenesis. In this session, I explain how systemically derived metabolites affect the progression of periodontitis and other oral infectious disease such as pulpitis, and the maintenance of dental tissue homeostasis through local epigenetic modifications.

Thursday, June 23, 8 p.m.-9 p.m.
FLS #3: Smart Materials for Pediatric Application
Speaker: Paula Pires (Universidade Federal do Rio de Janeiro, Brazil)
Sponsoring Group/Network(s): Dental Materials
Track Selection: C, E

Description: Contemporary interventions, due to the advent of “therapeutic” smart materials, should now be used to broaden the application of Minimally Invasive Dentistry. Indeed, this is of certain interest in pediatric procedures when used in restorative and preventive dentistry. This approach enables tissue replacement which reduce the susceptibility of tooth mineral to dissolution and/or being able to recover its mechanical properties via remineralization.

Friday, June 24, 12:45 p.m.-1:45 p.m.

FLS #5: Laser Assisted Caries Inhibition: Caries Inhibition with Aluminium Gallium Arsenide Lasers
Speaker: Sonali Sharma (Army Dental Centre Delhi, India)
Sponsoring Group/Network(s): Cariology Research, Pharmacology/Therapeutics/Toxicology
Track Selection: C, E

Description: Dental caries is a highly prevalent oral disease and till date continues to be an omnipresent global health care concern.Since dental caries is a progressive disease with varying phases of demineralization and remineralization, the scope of reversing the carious lesion is increased if it is diagnosed before there is surface cavitation. Preventive management strategies are directed towards making the enamel more resistant towards acid dissolution. The limitations of remineralizing studies is that most of the evidence based studies are invitro and outcome is divergent when translated to complex dynamic oral milieu. The other impediments are remineralization to occur within the body of a subsurface lesion, calcium and phosphate ions must penetrate the intact surface layer of the enamel.Thus, an effective preventive regime would be one which not only has a synergistic caries preventive effect but also increase the effectiveness of these remineralizing pastes. One such modality is inclusion of lasers in the caries preventive protocol.

Friday, June 24, 12:45 p.m.-1:45 p.m.
FLS #6: Trip to TRPs: TRP Ion Channels in Periodontitis
Speaker: Naoki Takahashi (Niigata University, Japan)
Sponsoring Group/Network(s): Periodontal Research
Track Selection: C, E

Description: Transient receptor potential (TRP) channels constitute a superfamily of non-selective cation channels, which are widely expressed in several tissues and cell types in the oral cavity. These channels act as environmental sensors of various stimuli (e.g. temperature, mechanical forces, and chemical compounds) and play pivotal roles in several cellular processes and inflammatory diseases. In this session, I introduce the features of oral TRPs and their involvement in the pathogenesis of periodontitis with reference to our recent findings.

Friday, June 24, 12:45 p.m.-1:45 p.m.
FLS #7: Zirconia Implants as an Alternative for Tooth Replacement
Speaker: Joan Pi Anfruns (University of California Los Angeles Dentistry, USA)
Sponsoring Group/Network(s): Implantology Research
Track Selection: C, E

Description: Ceramic dental implants are a new and exciting development in implant dentistry. Recent studies suggest that ceramic implants induce less inflammation in the peri-implant tissues and promote a favorable epithelial attachment to the implant. They have a more natural appearance that may enhance esthetics, and contain no metal, making them ideal for patients who have metal sensitivities or those that are seeking a metal-free option for tooth replacement. The demand for ceramic implants is growing exponentially, providing a unique opportunity for clinicians to differentiate their practice and attract new patients.

Friday, June 24, 12:45 p.m.-1:45 p.m.
FLS #8: Treatment of Xerostomia and Hyposalivation: Ductal Irrigation and Sialendoscopy
Speaker: Derk Hendrik Jan Jager (Amsterdam University Medical Center/ACTA, Netherlands)
Sponsoring Group/Network(s): Oral & Maxillofacial Surgery Research, Salivary Research
Track Selection: C

Description: Until now, only a few treatments are available for hyposalivation and xerostomia in Sjögren's syndrome and other dry-mouth patients, and consequently, there is a need for other ones. In this session we will discuss two promising, safe and simple options to treat xerostomia and hyposalivation related to Sjögren's Syndrome: sialendoscopy and ductal irrigation.