



British Society for Oral and Dental Research, Annual Meeting 2021
1 - 3 September, University of Birmingham

BSODR 2021

Scientific Programme



Queen Mary
University of London
Barts and The London



JOURNAL OF MEDICAL
MICROBIOLOGY
Publishing for the community



Scientific Programme

Wednesday 1st September

Pre-conference meetings

09.00 - 10.45 Oral Microbiology and Immunology Group (OMIG) Symposium

09.00 - 11.55 Mineralised Tissue Group Symposium (MINTIG) Symposium

11.00 - 12.00 BSODR MC Meeting

12.00 - 12.45 Lunch (OMIG/MINTIG/BODR MC)

Wednesday 1st September

OMIG meeting, Edgbaston Park Hotel

09.00 **Introduction**

Professor Graham Stafford, OMIG President

09.05 **NBIC- introduction to activities**

Dr Shi Qi-An: University of Southampton, NBIC fellow

09.15 **“The oral microbiome: dynamic communities and interactions”**

Dr Shi Qi-An: University of Southampton, NBIC fellow

09.45 **“The oral microbial resistome”**

Dr David Moyes, Centre for Host-Microbiome Interactions, KCL, UK

10.15 Break

10.40 **“Host glycan metabolism by human gut microbes and pathogens”**

Dr Lucy Crouch, Institute of microbiology and infection,
University of Birmingham

11.10 **“The Type IX Secretion System: a mechanism for virulence factor export in dental pathogens”**

Professor Ben Berks, Dept of Biochemistry, University of Oxford

11.55 Closing Remarks

12.00 Lunch

Wednesday 1st September

MINTIG meeting, Edgbaston Park Hotel

09.00 **Biomaterials for craniofacial tissue repair and disease modelling**
Eileen Gentleman, King's College London

09.25 **The effect of osteoporosis on bone regeneration**
Elena Calciolari, Queen Mary University of London

09.50 **The role of FGF signalling in syndromic craniosynostosis**
Erwin Pauws, University College London

10.15 **Clinical aspects of Molar Incisor Hypomineralisation (or enamel defects) in children**
Richard Balmer, University of Leeds

10.45 Close

12.00 Lunch

Scientific Programme

Wednesday 1st September
Leonard Deacon Lecture Theatre

12.30	Registration, exhibition and lunch
13.30	Senior Colgate Award Chair: Professor Marcello Riggio, University of Glasgow
	Valuation of CARIES-QC-U: a child-centred caries-specific preference-based measure Helen Rogers, Newcastle University
13.45	Incorporating Macrophages into Tissue-Engineered Oral Mucosal Equivalents Improves Inflammatory Response Bethany Ollington, University of Sheffield
14.00	Wnt Signalling in The Apical Papilla is Essential for Tooth Root Development Rupali Lav, King's College London
14.15	Examining the Role of Extracellular DNA in Oral Biofilm Formation Hannah Serrage, University of Bristol
14.30	Parotid Saliva 1H-NMR Analysis for Colon Cancer Salivaomics Angela Rovera, Queen Mary University London
14.45	The Longitudinal Effect of Rituximab in Primary Sjögren's Syndrome Farzana Chowdhury, Queen Mary University of London
15.00	Junior Colgate Award Chair: Professor Rachel Waddington, Cardiff University
	Artificial Neural Networks Can Reliably Predict the Presence of Periodontitis Nasir Bashir, University of Birmingham
15.15	Three-dimensional Analysis Reveals Significant Variability in Undergraduate Full-veneer-crown Preparation Quality Har-Amrit Singh, University of Birmingham
15.30	The Effect Of Maternal Pregnancy Smoking On Offspring Molar-Incisor Hypomineralisation Qui-Yi Lim, University of Bristol

Wednesday 1st September
Leonard Deacon Lecture Theatre

15.45	Dental students' perceptions of research Devki Shah, University of Sheffield
16.00	Investigating the Impact of Neutrophils on Biofilm Development Basmah Almaarik, King Saud University
16.15	President's Prize Lecture: Chair Professor Marcello Riggio Dr Elena Calciolari, Queen Mary University of London
17.00	Septodont Poster Prize Wolfson Common Room
18.00	Close
18.30	Welcome Reception Winterbourne House and Gardens, University of Birmingham

Thursday 2nd September
Leonard Deacon Lecture Theatre

08.00	 ECR Breakfast Sponsored by Colgate
09.00	Opening Ceremony Chair: Professor Marcello Riggio, BSODR President
	Professor Marcello Riggio, BSODR President, University of Glasgow
9.10	Dr Josette Camilleri, Chair of LOC, University of Birmingham
9.20	Professor David Adams, Head of College, College of Medical and Dental Sciences, University of Birmingham
9.30	Dr Kirsty Hill, Head of School, School of Dentistry, University of Birmingham
9.40	Heroic Industrialisation: the origins of the 'City of a Thousand Trades' Dr Malcolm Dick, Invited Speaker
10.00	Graham Embrey Lecture Chair: Professor Rachel Waddington, Cardiff University
	Regenerative dentistry - a partnership between science and the clinic Professor Anthony Smith, University of Birmingham

Scientific Programme

Thursday 2nd September
Leonard Deacon Lecture Theatre

10.45	Refreshments
11.00	Parallel Session MINTIG Award Chair: Professor Paul Anderson, Queen Mary University of London
	Importance of Dexamethasone in Mineralised Matrix Production in Saos-2 Cells Olga Yevlashevskaya, University of Birmingham
11.15	Identifying Internal Changes in the teeth in response to external challenges using X-ray Microtomography Yousaf Jamil, Queen Mary University of London
11.30	Characterisation of SDF-HAP Reactions Under Remineralising Conditions: An NMR Study Mandeep Kaur, Queen Mary University of London
11.45	The Effect of Diabetes on Osteogenic Differentiation of MSCs Nancy Hussein, University of Leeds
12.00	Investigation Of Effects Of Glass Ionomer Cements On Dentinal Lesions Treated Using Atraumatic Restorative Technique Mridula Malik, Queen Mary University of London
12.15	Human Dental Enamel Crystallite Orientation Varies Periodically Within Prisms Mohammed Al-Mosawi, University of Leeds
12.30	Chemical Speciation Analysis of Influence of Parotid Saliva on Demineralisation Paul Anderson, Queen Mary University of London

Thursday 2nd September
Forum Lecture Theatre

11.00	Parallel Session Oral Session 1 Chair: Professor Will Palin, University of Birmingham
	Synthesis of twofold LAS-Nepheline glass-ceramics for dental applications Ali Alzahrani, Saudi Arabia
11.15	Are Inert Glasses Really Inert? Saroash Shahid, Queen Mary University London
11.30	Interaction of Pulp Capping Materials with Caries Affected Dentine Kawthar Bukhari, University of Manchester
12.00	SARS-CoV-2, Dental Aerosols and Electric Handpieces at 200,000 rpm David Wood, University of Leeds
12.15	High-Precision Surface Metrology of sub-80 µm Enamel Lesions using Intra-Oral Scanning Polyvios Charalambous, King's College London
12.30	Radiopacities of Novel Radiopaque Infiltrants for Early Enamel Caries Mahmoud Hasan, Queen Mary University of London
	Main Session
12.45	Poster Session 1, Lunch and Exhibition
13.30	Dental Materials Keynote Chair: Dr Josette Camilleri, University of Birmingham
	The journey of an innovative idea: from lab bench to clinical practice. Dr Gilles Richard, Septodont

Scientific Programme

Thursday 2nd September
Leonard Deacon Lecture Theatre

14.30	Parallel Session VOCO Prize Chair: Professor David Wood, University of Leeds
	(Non-prize/virtual presentation) Improving the surface properties of Nickel-Titanium endodontic files Beliz Ozel, Queen Mary University of London, Yeditepe University, Turkey
14.45	Fluoride-releasing Glasses Based on Sodium Fluoride-modified 45S5 Bioglass Hasan Merie, Newcastle University
15.00	A Comparative evaluation of “House of Cards” and “Cabbage Head” fluormica glass-ceramics Maher Mohamed, Queen Mary University of London
15.15	Refreshments
15.30	Characterisation of Fluoride Containing Bioactive Glass Composites for Dental Restoratives Melissa Tiskaya, Queen Mary University of London
15.45	Characterization of Bioactive Restorative Materials for Restoration of Root Caries Diana Abdullaah, University of Birmingham
16.00	Bioactivity analysis of novel fluoride releasing bioactive glass based Dental restorative composites Hina Khalid, Queen Mary University of London
16.15	Radiopacity of CAD/CAM Materials and Resin-based Composites Rua Babaier, University of Manchester
16.30	Cell Derived Matrices as Models to Study Gingival Reintegration Fauzia Quadir, Queen Mary University of London
16.45	Assessment of different toothpastes on root caries using X-ray Diffraction Haoran Chen, Queen Mary University of London

Thursday 2nd September
Forum Lecture Theatre

14.30	Parallel Session Oral Session 2 Chair: Dr Vehid Salih, University of Plymouth
	Effects of Blue Light on Oxidative Stress Responses in Gingival Fibroblasts Edward Gait-Carr, Cardiff University
14.45	Cell Culture Vessels Affect the Evaluation of Ultrasound on Cells Dhanak Gupta, University of Birmingham
15.00	Thermal Effect of Ultrasound Excitation on Culture Medium Lisa Shriane, University of Birmingham
15.15	Refreshments
15.30	Oral Session 3 Chair: Dr Ryan Moseley, Cardiff University
	Sustained release of extracellular vesicles using electrospun scaffold as novel approach for cell-free tissue engineering Hatim Alqurashi, University of Sheffield
15.45	The Chemokine Landscape in Murine Gingiva Robert Reilly, University of Glasgow
16.00	The Ability of Resin Modified Glass Ionomer Cements to Mineralise and Form Apatite Bandar Alshehri, Queen Mary University of London
16.15	Nanostructural Analysis of Dentine using 3D SAXS Tensor Tomography Tayyaba Rabnawaz, University of Surrey
16.30	Biomimetic self-assembling peptides as a treatment for hypomineralised dental enamel Essra Zawia, University of Leeds
	Main Session Leonard Deacon Lecture Theatre
17.00	AGM
19.00	Gala Dinner Edgbaston Park Hotel

Scientific Programme

Friday 3rd September

Leonard Deacon Lecture Theatre

09.00 **MINTIG Keynote**
Chair: Professor Marcello Riggio, University of Glasgow

Molecular and Developmental Analysis of Craniofacial Morphogenesis
Professor Mike Dixon, University of Manchester

10.00 **Oral Session 4**
Chair: Dr Melissa Grant, University of Birmingham

Systemic inflammation and the relationship between periodontitis, edentulism and all-cause mortality
Lewis Winning, Trinity College Dublin

10.15 **Epithelial-Mesenchymal Inhibitors May Have A Role In Inhibiting Pathogen-Induced EMT**
Satvir Shoker, University of Birmingham

10.30 **Epigenetic Regulation in Peri-implantitis Correlates with Disease Severity**
Annika Kroeger, University of Birmingham

10.45 Refreshments

11.00 **An analysis of aerosol emissions from dental procedures**
Mark Gormley, University of Bristol

11.15 **Lifestyle Traits are Associated with Oral Microbiota Composition and Function**
Shirleen Hallang, University of Bristol

11.30 **Clinical Keynote**
Chair: Dr Josette Camilleri, University of Birmingham

Dentistry - sit down you're rocking the boat
Professor Farida Fortune, Queen Mary University of London

12.45 Poster Session 2, Lunch and Exhibition

Friday 3rd September
Forum Lecture Theatre

09.00 **ASEID Committee Meeting**

10.00 **MRC Keynote**
Chair: Professor Paul Anderson, Queen Mary University of London

How MRC supports oral and dental research
Dr Kerry McLaughlin, Medical Research Council

10.45 Refreshments

11.00 **MRC Workshop:
MRC support for early career researchers**
Dr Kerry McLaughlin

11.45 **Oral Session 7**
Chair: Dr Paul Ryan, Queen Mary University of London

The Influence of Strain Rate on Benex Vertical Tooth Extraction
Mohamed Abughalia, University of Birmingham

12.00 **Sentiment Analysis of Reviews Compared to Friends and Family Test**
Matthew James Byrne, University of Manchester

12.15 **Early socioeconomic disadvantage predicts less dental care utilization in adolescence**
Amira Mohamed, University of Bristol

12.30 Close of Session

12.45 Poster Session 2, Lunch and Exhibition

Scientific Programme

Friday 3rd September

Leonard Deacon Lecture Theatre

13.30

OMIG Keynote

Chair: Professor Marcello Riggio, University of Glasgow

Stick with me: Adhesion and cohesion in dental plaque

Dr Nick Jacobovics, Newcastle University

14.30

Parallel Session

Oral Session 5

Chair: Professor Graham Stafford, University of Sheffield

Broad-spectrum Antimicrobial Effects of a Novel Quaternary Ammonium Compound

Alexander Brezhnev, Hong Kong

14.45

Response of Salivary Glucose and pH in the Oral Microbiome

Nailé Damé-Teixeira, Brazil/Leeds

15.00

Biodegradation of zirconia by *Fusobacterium nucleatum*

James Kit-Hon Tsoi, Hong Kong

15.15

Parallel Session

Oral Session 6

Chair: Dr Anousheh Alavi, GSK

TiO₂/CaO Effects on Crystallization and Flexural Strength of Leucite Glass-ceramics

Mustafa Al Musali, Queen Mary University of London

15.30

Stability of Veneered and Implant-supported PEEK FDPs with Free-end Unit

Danka Micovic Soldatovic, Germany

15.45

Characterisation of the film thickness and the bond strength reliability of a bioactive Calcium Aluminate/Glass-Ionomer cement (CaAI/GIC) to lithium disilicate (LD) and dentine

Angelle Lonnia Espanon, Queen Mary University of London

16.00

Multi-scale Synchrotron X-ray Study of Dentine Demineralisation

Nathanael Leung, University of Surrey

16.15

Biocompatibility of Silver Nanoparticles Gel as an Endodontic Intra-Canal Medicament

Ahmed Mahmoud, Egypt/Leeds

16.30

Desmoglein-3 Induces Phospho-YAP Expression and Controls Oral Cancer Cell Migration

Usama Ahmad, Queen Mary University of London

16.45

4NQO-Induced Oral Carcinogenesis in Wistar Rats: A Systematic Literature Review

Vivian Petersen Wagner, University of Sheffield

Friday 3rd September

Forum Lecture Theatre

14.30

Parallel Session

Oral Session 8

Chair: Professor Robert Allaker, Queen Mary University of London

The effect of bee propolis mouthwash on markers of oral health

Zoe Brookes, University of Plymouth

14.45

Adipocytes stimulate tumour cell motility through secreted factors including adipokines

Basma H. Ali, University of Sheffield

15.00

Effects of Sphingosine-1-phosphate Receptor 2 (S1PR2) on the Behaviour of Three Oral Squamous Cell Carcinoma (OSCC) Lines

Adjabhak Wongviriya, University of Birmingham

15.15

Refreshments

15.30

Parallel Session

Oral Session 9

Chair: Dr Sarah Kuehne, University of Birmingham

Copper-containing Implant Materials offer Antimicrobial and Pro-osteogenic Properties

Javeria Khalid, Queen Mary University of London

15.45

Impact of Hyperglycaemia and Hyperkalaemia on *Fusobacterium nucleatum* Polymorphum Behaviour

Ruba Abusur, University of Birmingham

16.00

Interplay of *Streptococcus gordonii* Adhesins in the Pathogenesis of Endocarditis

Angele Nobbs, University of Bristol

16.15

The Impact of *C. albicans* and Sucrose on Polymicrobial Cariogenic Biofilm Development

Khulood Almansour, King's College London

16.30

Modulation of Oral Bacterial Metabolism by Proline

Leanne Cleaver, King's College London