



14th European
Oral Microbiology
Workshop ■■

28th-31st May 2024
Program



Tuesday, 28th May

19:00	Overview of recent advances in Oral Microbiology. Alex Mira. FISABIO Foundation Welcome and general instructions
20:00	Welcome reception at Parador El Saler Hotel

Wednesday, 29th May

8:30	KEYNOTE SPEAKER. Bastiaan Krom. Academic Centre for Dentistry Amsterdam, ACTA. Fungi, conductors of oral health and disease.
9:30-11:00	Session 1 Oral Biofilms Chairs Michel Hoogenkamp (ACTA, The Netherlands) Joseph Aduse-Opoku (Kings College, London)
9:30	Micron-scale spatial patterns in the tongue dorsum consortia. Shamayim Tabita Ramirez Puebla. <i>ADA Forsyth Institute</i>
9:45	Effects of post-surgical rinsing with chlorhexidine mouthwash on the oral microbial composition and the prevalence of antimicrobial resistance genes. Cieplik Fabian. <i>University of Freiburg</i>
10:00	Have we given up on cultivating new oral bacteria? Ali Al-Ahmad. <i>University of Freiburg</i>
10:15	Enhanced Endodontic Infection Treatment Using Chlorhexidine-Loaded self-propelled nanoparticles. Miglé Žiemyté . <i>FISABIO Foundation</i>

10:30	Functional characterization of a sialidase protein from capnocytophaga ochracea. Jing He. <i>The University of Hong Kong</i>
10:45	Inhibitory effect of common plant flavonoid cyanidin on dental biofilm. Viktoriya Shyp. <i>University of Basel</i>
11:00	Coffe break
11:30 - 13:00	Session 2 Microbial pathogenesis of oral diseases Chairs Shauna Culshaw (University of Glasgow) Ana Adrados (FISABIO Foundation, Valencia)
11:30	Novel regulation of a membrane embedded phosphatase linked to outer membrane vesicle production in Porphyromonas gingivalis. Yichao Liu. <i>King's College London</i>
11:45	Fusobacterium nucleatum from malignant and potentially malignant oral disease show high levels of genetic variation, recombination and inflammatory microRNA induction. Claire Crowley. <i>Trinity College Dublin</i>
12:00	Plaque metagenomics on 1,157 dental implant patients reveals new microbial biomarkers of peri-implant diseases. Vitor Heidrich. <i>University of Trento</i>

12:15	Microbial Dysbiosis and Increased Abundance of Oral Pathogenic Bacteria in the Intratumoral Environment of Oral Squamous Cell Carcinoma. Hyeunjeong Song. <i>Seoul National University</i>
12:30	Synergies between periodontal pathogens in the oral cavity and beyond. Elena Buetas Giménez. <i>FISABIO Foundation</i>
12:45	Communication is key – roles of c-di-AMP signalling in <i>Fusobacterium nucleatum</i> virulence. Sarah Kuehne. <i>Nottingham Trent university</i>
13:00	Lunch
14:30	KEYNOTE SPEAKER. Wim Teughels. Catholic University of Leuven (KU Leuven). Interacting with microbiomes: bringing oral microbiology back to the dental chair
15:30–17:00	Session 3 Modulation of the oral microbiome Chairs Georg Conrads (Aachen University Hospital, Germany) Ainhua Revilla (FISABIO Foundation, Valencia)
15:30	Antibiotic resistance genes in the saliva of dental students-A pilot study. Marwan Mansoor Mohammed. <i>University of Sharjah</i>
15:45	Community metaproteomics to study the functional response of the oral microbiome. Chandra Lekha Ramalingam Veena. <i>The University of Sheffield</i>

16:00	Oral biofilm composition, dissemination, and inflammation depend on probiotic and synbiotic strain-specificity. Wannes Van Holm. <i>KU Leuven</i>
16:15	The influence of probiotics on the pH value in oral biofilm formation. Elisabeth Reichardt. <i>Aarhus University</i>
16:30	Modelling eubiosis and dysbiosis in a multispecies oral consortium. Madeleine Blomqvist. <i>Malmö university</i>
16:45	Effect of dietary nitrate supplementation on the oral bacterial community in patients with stable angina. William Wade. <i>King's College London</i>
17:00–18:30	Poster session + refreshments

20:00 Dinner
at Parador El Saler Hotel



Thursday, 30th May

8:30	KEYNOTE SPEAKER. Mike Curtis. King's College London. The commensal microbiota is required for development of the host chemosensory systems
9:30-11:00	Session 4 Host-Microbial interactions Chairs Mike Curtis (Kings College, London) Maria D. Ferrer (FISABIO Foundation, Valencia)
9:30	Disrupted gut resolution mechanisms in inflammatory arthritis facilitate pathogenic behaviour of the oral pathobiont Porphyromonas gingivalis. Magdalena Flak. <i>King's College London</i>
9:45	Microbiome - host inflammatory cell interactions in the subgingival environment. Julia Davies. <i>Malmö University</i>
10:00	Oral Microbiota Contribution to the Maintenance of Essential Amino Acid Balance in Human Physiology. Ana Adrados Planell. <i>FISABIO Foundation</i>
10:15	Investigating the association between hypertension and nitrate-reducing activity of oral bacteria. Amazon Doble. <i>University of Plymouth</i>
10:30	Characterisation of novel murine Streptococcal species. Joseph Aduse-Opoku. <i>King's College London</i>

10:45	Changes in oral microbiota and markers of inflammation following the use of a polyphenol-containing dentifrice. Teresa Vinuesa. <i>University of Sheffield</i> <i>University of Barcelona</i>
-------	---

11:00

Coffe break

11:30-13:00

Session 5

Systemics effects of oral diseases

Chairs

Gary Moran (Trinity College, Dublin)

Bob T Rosier (FISABIO Foundation, Valencia)

11:30

Supporting the management of periodontal diseases - probiotics may alleviate inflammation and modify oral microbiota.

Krista Salli. *IFF Health/Danisco Sweeteners Oy*

11:45

The oral-gut axis: salivary and fecal dysbiosis in inflammatory bowel diseases (IBD).

Georg Conrads. *RWTH Aachen University*

12:00

Exploring the subgingival microbial signature in individuals at risk of rheumatoid arthritis.

Thuy Do. *University of Leeds*

12:15

Nitrate reduction capacity of the oral microbiota is impaired in periodontitis: implications for oral and systemic health.

Bob Rosier. *FISABIO Foundation*

12:30

Aggregatibacter actinomycetemcomitans and its leukotoxin A in collagen-induced arthritis in mice. Zijian Cheng. *Zhejiang University*

13:00	Lunch
14:30	KEYNOTE SPEAKER. Egija Zaura. Academic Centre for Dentistry Amsterdam. ACTA Reflection on the current understanding of the oral microbial homeostasis
15:30-17:00	Session 6 Oral homeostasis and dysbiosis Chairs Julia Davies (University of Malmö, Sweden) Wannes van Holm (KU Leuven)
15:30	Comparative analysis of the oral resistome in health and disease: insights from publicly available sequencing data. Jack Lynch. <i>University of Leeds</i>
15:45	The effect of menopause on the activity of oral nitrate-reducing bacteria. Katie Muddiman. <i>University of Plymouth</i>
16:00	Examination of the acetaldehyde generating capacity of <i>Rothia mucilaginosa</i> recovered from the oral microbiome of patients with potentially malignant lesions. Gary Moran. <i>Dublin Dental Hospital</i>
16:15	The effect of different antibacterial compounds on the nitrate-reducing activity of oral bacteria. Lisa Anne du Toit. <i>University of Plymouth</i>
16:30	Associations between exogenous and intrinsic host factors and tongue microbiota in a healthy population. Marije Kaan. <i>ACTA</i>

16:45	Evaluating the impact of antiseptic mouth rinses on oral biofilm resilience. Naiera Zayed. <i>KU Leuven</i>
19:00	Bus departure from Parador El Saler
19:15	Bus departure from Devesa Gardens Resort
19:30	Albufera Lagoon boat ride
20:00	Dinner at Albufera Natural Parc



Friday, 31st May

8:30-10:00	<p>Session 7</p> <p>Novel concepts</p> <p>Chairs</p> <p>Jessica Mark-Welch (ADA Forsyth Institute, Boston)</p> <p>Tabita Ramirez-Puebla (ADA Forsyth Institute, Boston)</p>
8:30	<p>Standardized disk diffusion method for antimicrobial susceptibility testing of <i>Aggregatibacter actinomycetemcomitans</i>.</p> <p>Anne Birkeholm Jensen. <i>Aarhus University</i></p>
8:45	<p>Oral fibroblasts display metabolic changes after exposure to bacterial extracellular vesicles from <i>Porphyromonas gingivalis</i>.</p> <p>Helene Rygvold Haugsten. <i>University of Oslo</i></p>
9:00	<p>Together they are stronger. The importance of bacterial clusters.</p> <p>Miguel Carda Diéguez. <i>FISABIO foundation</i></p>
9:15	<p>Strain-Level Complexity in the Oral Microbiome at Micrometer Scales.</p> <p>Jessica Mark Welch. <i>ADA Forsyth Institute</i></p>

9:30	<p>The salivary microbiome as a diagnostic biomarker of periodontitis: a 16s multi-batch study before and after removal of batch effects.</p> <p>Alba Regueira Iglesias. <i>Fundación Instituto de Investigación Sanitaria de Santiago de Compostela (FIDIS)</i></p>
9:45	<p>Developing a 3-dimensional oral epithelium model for evaluating antimicrobial and immune responses to dental implant materials.</p> <p>Jon Vernon. <i>University of Leeds</i></p>
10:00-11:30	<p>Session 8</p> <p>Novel treatments</p> <p>Chairs</p> <p>Thuy Do (University of Leeds)</p> <p>Jessica Neilands (Probi AB, Sweden)</p>
10:00	<p><i>Streptococcus dentisani</i> as a new source of antibiotics to fight the antimicrobial resistance crisis: focus in the probiotic strain 7746.</p> <p>Ainhua Revilla. <i>FISABIO Foundation</i></p>
10:15	<p>Disulfiram as a novel antimicrobial and immune-modulatory agent to treat periodontal diseases via targeting <i>Porphyromonas gingivalis</i>.</p> <p>Qin Hu. <i>The University of Hong Kong</i></p>
10:30	<p>The microbiological quality of dental unit water is reaching which limit?</p> <p>Michel Hoogenkamp. <i>ACTA</i></p>
10:45	<p>Personalized antibiotic selection in periodontal treatment improves clinical and microbiological outputs.</p> <p>María Desamparados Ferrer García. <i>FISABIO Foundation</i></p>

11:00	Bridging the gap: translating electrolyzed saline from in vitro efficacy to clinical application in dysbiosis prevention. Haris Munjakovic. <i>University Medical Centre Ljubljana</i>
11:15	Surprises in the clinical, microbiological and inflammatory response to periodontal treatment. Shauna Culshaw. <i>University of Glasgow</i>

11:30 **Coffe break**

12:00 **Keynote speakers (Tribute Session)**
Pending issues in oral microbiology
Phil Marsh
Professor Emeritus at University of Leeds
William Wade
Professor at King's College London
Chair: Alex Mira, FISABIO Foundation

**13:30 Farewell
and final remarks**

Picnic Lunch Box provided

Hang up posters:

Tuesday, 28th May from 17:00 h

Take down posters:

Friday, 31st May until 14:00 h

Posters will be displayed during the Conference, and authors are expected to be present at their posters during the 2-hour dedicated session on Wednesday.

Posters' list

1. Oral biofilms

P01. Oral biofilm composition and phenotype in caries-active and healthy children.

Gabriella Boisen, *Malmö University*

P02. Two oligopeptidase B homologues contribute to the elevated trypsin-like peptidolytic activities of capnocytophaga gingivalis.

Rory Munro Watt, *The University of Hong Kong*

2. Microbial pathogenesis of oral diseases

P03. Association between Streptococcus mutans detection and caries activity in oral microbiome studies: A systematic review and meta-analysis.

Dongmei Deng, *ACTA*

P04. Investigation of the microbiome of oral leukoplakia (OLK).

Gary Moran, *Dublin Dental Hospital*

P05. New Insights into Evolution and Diversity of Mayor Fimbriae (FimA) of the Oral Pathogen Porphyromonas gingivalis.

Josefa Nuñez-Belmar, *Universidad Mayor*

3. Modulation of the oral microbiome

P06. The effect of chlorhexidine and common antibiotics on the composition and nitrate metabolism of subgingival plaque an in vitro study.

María Nadal Ruiz, *FISABIO Foundation*

P07. Porphyromonas gingivalis long fimbriae superstructures and their role for targeted transport and release of extracellular vesicles

Georg Conrads, *RWTH University Hospital*

P08. Effect of a probiotic combination on oral Candida colonization in head and neck cancer patients undergoing radiotherapy: randomized clinical trial.

Tanya Valeria Pereira Riveros, *Universidad de Barcelona*

4. Host-microbial interactions

P09. 3D oral mucosa model to evaluate bacterial invasion.

Monika Astasov-Frauenhoffer, *University of Basel*

P10. Identification of New Biomarkers in Gingival Crevicular Fluid and Saliva for Diagnosing Periodontitis by SWATH-MS.

Triana Blanco Pintos, *Universidad de Santiago de Compostela*

P11. Immunomodulatory effects of oral streptococci in periodontal disease.

Zita Dinis Lopes da Silva, *Malmö University*

P12. Fitness costs and evolutionary dynamics of Tn916 in oral streptococcal isolates.

Tracy Lunde, *The Arctic University of Norway*

P13. Effects of MUC5B on early oral biofilm glucose metabolism.

Carolina Robertsson, *Malmö University*

P14. The influence of periodontal microbial biomarkers on reaching the endpoints of therapy.

Nils Werner, *University Hospital, LMU*

P15. Determining the effect of processed-grain or high-fiber diets on microbial and immunological markers of periodontitis.

Lea Sedghi, *University of California*

5. Oral homeostasis and dysbiosis

P16. Citrulline as a potential prebiotic & synbiotic for dental caries.

Oscar Climent Soler, *FISABIO Foundation*

P17. Oral and intestinal microbiomes in patients with periodontitis: design and preliminary results of the first national study (Uruguay).

Bruno Manta, *Universidad de la Republica & Institut Pasteur Montevideo*

P18. Rapid Griess Assay a Chair-side Evaluation of Oral Nitrite Production.

Simeon Kosmas Bjørhovde Mavropoulos, *University of Gothenburg*

P19. Salivary microbiome and proteome in kidney transplant recipients up to 24-months after transplantation.

Benedita Sampaio Maia, *i3S-Investigação e Inovação em Saúde*

P20. Interactions of Nitrate-Reducing and Sulphur-Metabolising Bacteria: Implications for Oral Health.

Abish Stephen, *Queen Mary University of London*

6. Systematic effects of oral diseases

P21. Human endothelial cell cytokine and chemokine responses to oral anaerobe infection is species specific.

Antonia Cutts, *The University of Sheffield*

7. Novel concepts/methodologies in oral microbiology

P22. CellTrace - a tool for visualisation of multi-species oral biofilms.

Olivia Aherne, *Malmö University*

P23. Development of a bioinformatic pipeline for archaea detection in dental caries.

Naile Dame-Teixeira, *University of Brasilia*

P24. Comparative characterization analysis of two novel mucin-degrading proteases, MdpL and MdpS, from different oral bacteria.

Fredrik Leo, *Malmö University*

P25. Co-culture of Helicobacter pylori with oral microorganisms in human saliva.

Konstantin Johannes Scholz, *University of Freiburg*

P26. Oral Species with Highly Similar in-silico 16S rRNA gene amplicons: a reason to avoid OTU clustering.

Inmaculada Tomás, *School of Medicine and Dentistry*

8. Novel treatments, including Infection Control in dentistry

P27. Hydrogel-delivered bismuth-doped carbon dots-based nanomedicine treats periodontal disease via antimicrobial & immuno-modulatory approaches.

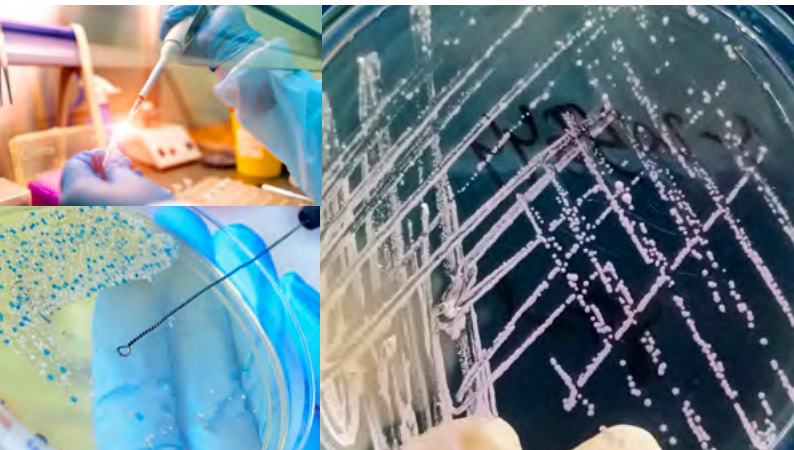
Xuan Li, *The University of Hong Kong*

P28. Antimicrobial peptides with a double-glycine leader peptide from *Streptococcus oralis* subsp. *dentisani* strains.

Ainhoa Revilla, *FISABIO Foundation*

P29. New postbiotic to improve canine oral health.

Adrian Florit, *ADM-Biopolis*



Social Program

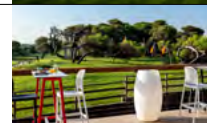
Tuesday, 28th May

20:00 Welcome cocktail
at Parador El Saler Hotel



Wednesday, 29th May

20:00 Dinner at Parador El Saler Hotel



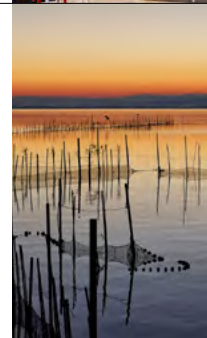
Thursday, 30th May

19:00 Bus departure
from Parador El Saler

19:15 Bus departure
from Devesa Gardens Resort

19:30 Albufera Lagoon boat ride

20:00 Dinner at Albufera Natural Parc



Practical information

CONFERENCE VENUE

Parador El Saler Hotel

Address: Avenida de los Pinares, 151,
46012, El Saler (Valencia, Spain)

SESSIONS ROOM

Sala vela latina

WI-FI AT CONFERENCE VENUE

Network: Paradores

Password: paradores1928

CONTACT

TECNICAL SECRETARIAT

Alo Congress – VB Group

Numancia 73, 08029 Barcelona | Spain

T +34 933 633 954

M +34 621 260 361 (24h during the meeting)

secretary@eomw2024.com



ORGANIZERS



SPONSORS



GENERALITAT
VALENCIANA



COLLABORATORS



Federation of European
Microbiological Societies





14th European
Oral Microbiology
Workshop 2024 ■■



VALENCIA - SPAIN