ESE
AUTUMN MEETING

Science into Practice

KRAKOW, POLAND
6 & 7 SEPT 2024

PROGRAMME

SAVE THE DATE

3-6 SEP. 2025

PARIS
CHALLENGES, OPPORTUNITIES AND NEW PERSPECTIVES IN ENDODONTOLOGY
3-6 SEPTEMBER 2025 ese

AIM GROUP PORTUGAL

EXECUTIVE SECRETARIAT
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Welcome LETTER

As the president of the European Society of Endodontology (ESE) I wish to extend a warm welcome to the beautiful city of Krakow for the ESE Autumn meeting "Lessons learned from the ESE S3 guideline process" | 6th-7th September 2024.

Our Autumn meeting scientific programme contains the usual diverse range of speakers who will include renowned specialist practitioners, clinical academics and researchers in an exciting two day programme that combines the themes of research and clinical practice.

In the tradition of previous Autumn meetings, the style will be different from our conventional biennial event, with the focus be on one theme, albeit examined from the perspective of research and practice. In order to build on the intimate nature of previous events, the meeting will only feature one hall hosting a series of plenary events on both Friday 6th and Saturday 7th September. Although the focus of the meeting will revolve around recommendations and evidenced-based practice in endodontics, the purpose will be to simplify the message and discuss where we are now in endodontic practice as well as the evidence we need to improve.

Hal Duncan
(President 2024-25)

We hope you will be happy to visit Krakow, Poland as the ESE visits the country for the first time. This cultural and historic city will provide the ideal backdrop for a congress delivering a feast of practice-based lectures.

The ESE Autumn Meeting will be supported as before in our trade exhibition of Corporate Partners and Sponsors, and we offer them, as always, our respect and thanks. The ESE Executive Board are confident that with your support the ESE Autumn meeting in Krakow will be an important congress for all people with an interest in endodontics to consider what we should be practicing, teaching and researching in the future!

The aim of the ESE Krakow Autumn meeting is to share the findings and recommendations of the ESE S3-level guidelines from two distinct perspectives:

Firstly, we will discuss the impact of the guidelines on clinical practice by highlighting the relevance of the recommendations to four different endodontic procedures: instrumentation, irrigation, obturation and regenerative endodontics. Two subject experts will demonstrate the effect of recent improvements in clinical procedures, providing clinical tips on how to improve skills and optimise outcomes.

Gianluca Gambarini
(President-Elect 2024, Meeting Organiser)

The second more scientific approach, will critically analyse the research underpinning the guideline process and identify research areas of priority that will improve our understanding of the best clinical procedures in the future. Again, two experts from each field will provide their own insight and feedback the evidence supporting the guidelines, while highlighting future research directions in the field.

A diverse range of renowned international speakers will contribute to this innovative mix of research and clinical practice making the meeting a great opportunity for practitioners, academics and students to improve both theoretical and practical knowledge in a wide range of everyday endodontic procedures.

Committees

ORGANISING COMMITTEE

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Chair Benefits of Endodontics Committee Lise-Lotte Kirkevang
Chair Engagement and Communications Committee Laura Andriukaitiene

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Josette Camilleri
Saulius Drukteinis
Janja Jan
Maarten Meire
Isabelle Portenier
Nastaran Meschi
Xenos Petridis
Sebastian Bürklein
Christos Boutsioukis

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PROFESSIONAL CONGRESS ORGANISER

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GENERAL MEETING
Information

MEETING VENUE
The ESE Autumn Meeting 2024 will be held in the city of Krakow, Poland, at the ICE Krakow Congress Center.
Adress: Marii Konopnickiej 17, 30-302 Kraków, Poland.

LANGUAGE
The official language of the Meeting is English and live translation will be available to all participants.
AI powered simultaneous translation in more than 30 languages through smartphone.
Scan the QR code and choose the language; read the captions on device or use your own headphones for audio.

MEETING SECRETARIAT OPENING HOURS
5th September 2024 | 14:00 – 18:00
6th September 2024 | 08:00 – 17:00
7th September 2024 | 08:00 – 17:00

CLOAKROOM OPENING HOURS
6th September 2024 | 08:00 – 17:00
7th September 2024 | 08:00 – 17:00

SPEAKERS PREVIEW ROOM, NEXT TO THE PLENARY ROOM, LEVEL 0
5th September 2024 | 15:00 – 17:00
6th September 2024 | 08:00 – 17:00
7th September 2024 | 08:00 – 16:00

EXHIBITION OPENING HOURS
6th September 2024 | 09:00 – 17:30
7th September 2024 | 09:00 – 17:00

MEETING NAME BADGE
Participants must wear their badges at all times.

FREE PUBLIC TRANSPORTATION
The ESE in association with Kraków Convention Bureau is happy to provide all participants with a free public transportation hologram ticket. At the Accreditation Desk and together with your badge, you will receive a hologram sticker that will allow you to use public transports free of charge during the days of the meeting (Sep. 6th and 7th).

WI-FI
Dedicated Wi-Fi is available for all participants throughout the meeting venue:
Network: ese2024
Password: ese2024

NO SMOKING
Smoking is strictly forbidden in the meeting venue.

MOBILE PHONES
Participants must keep their phone in the off or silent mode when attending lectures.

PHOTOGRAPHY
Participants must not take photographs or make video recordings of lectures.
An official photographer will record meeting activities at ICE Krakow Congress Center on behalf of the ESE. These pictures may be used by the ESE to promote future activities. If you do not authorize the capture of your images, please advise the Secretariat onsite and inform the photographer.

MEALS
Complimentary coffees/refreshments and lunches will be available to all in the Exhibition Area. Welcome Drink will be available on Friday at 17:00.

INSURANCE
The meeting organizers cannot accept liability for personal injuries sustained or for loss or damage to property belonging to meeting participants, either during or as a result of the meeting. Please ensure you have a valid personal insurance.

LOCAL *Information*

ABOUT KRAKOW

Area 326 ,8 km²
Population 800 653

LANGUAGE

Polish is the official language; however, English is widely (and fluently) spoken in central Krakow.

CURRENCY

Although Poland is in the European Union, the country uses its own currency – the Złoty (PLN) instead of the Euro (EUR). All variations on Visa and Mastercard debit and credit cards are almost universally accepted in the city. Other cards, such as American Express are less widely accepted.
Cash machines don't usually carry a usage fee, especially the ones of the main banks.
Euronet-branded ATMs should be avoided, as their fees can be punitive.
Banks are typically open Monday to Friday between 8am and 5pm.

TIME

Krakow is in the Central European Time (CET / UTC +1).

CLIMATE IN KRAKOW

Kraków has a narrow temperature range which makes it reasonably comfortable all-year round.
September temperatures in Krakow:
Average high: 19°C / 66°F
Average low: 9°C / 48°F
Krakow is still relatively warm in September but there may be a slight chill in the evenings, and the days are definitely getting shorter. You should start to feel the change of season.

VAT – VALUE ADDED TAX

VAT is included in the price of almost every product and service purchased. VAT in Krakow is currently 23%. VAT is included in all Meeting fees. As a participant in the ESE Autumn Meeting 2024 you may have the possibility – under certain conditions – to recover the VAT paid on certain types of expenses incurred. This may apply to both non- European business travellers visiting Europe. For further information, please contact Customs and Excise on departure at the airport.

TIPPING

Is usual to tip (max 10%) in restaurants only in if good service. It is not mandatory to give a tip to taxi drivers.

SHOPPING AND BUSINESS HOURS

Most shops will be open 9am-6pm Monday-Friday, and 10am-2pm on Saturdays. Many shops will be closed on Sundays and key public holidays.

SMOKING

Smoking is not permitted inside trains, trams, buses and other forms of public transport. People are allowed to smoke outside. Smoking is not permitted inside the conference building.

EMERGENCY CONTACTS

General emergency number for police, ambulance and fire department: 112.

ELECTRICITY

The voltage used is 230 Volts. Electric appliances have standard European plug (two round shape metal poles).

TELEPHONE

The telephone prefix for calling Poland from other countries is: +48.

Timetable
PROGRAMME

FRIDAY
September 6, 2024

09:00 | 09:15 Introduction and Overview
Hal Duncan, Gianluca Gambarini

Part 1 - Instrumentation

CLINICAL ASPECTS
Chair: *Cristiano Fabiani*

09:15 | 09:45 Clinical advantages of heat treated nickel-titanium instruments
Gianluca Gambarini (Rome, Italy)

09:45 | 10:15 Root canal instrumentation - Clinical aspects
Sebastian Bürklein (Münster, Germany)

10:15 | 10:30 Discussion

10:30 | 11:00 Coffee Break

RESEARCH ASPECTS

Chair: *Matthias Widbiller*

11:00 | 12:00 Research background and gaps in knowledge on root canal instrumentation
Ana Arias (Madrid, Spain)
Gianluca Plotino (Rome, Italy)

12:00 | 12:15 Discussion

12:15 | 13:30 Lunch

Part 2 - Irrigation

CLINICAL ASPECTS
Chair: *Cristiano Fabiani*

13:30 | 14:00 Irrigation: Lessons learned from the S3 guideline process
Maarten Meire (Ghent, Belgium)

14:00 | 14:30 Clinically realistic irrigation. Am I doing well?
Hagay Shemesh (Amsterdam, Netherlands)

14:30 | 14:45 Discussion

14:45 | 15:15 Coffee Break

RESEARCH ASPECTS

Chair: *Matthias Widbiller*

15:15 | 15:45 A critical analysis of research on irrigants and irrigation techniques: Mind the gap!
Christos Boutsioukis (Thessaloniki, Greece)

15:45 | 16:15 Transgressing from basic science to translational research models for improving biofilm disinfection
Xenos Petridis (Athens, Greece)

16:15 | 16:30 Discussion

16:30 | 17:00 Round Up and Group Discussion

17:00 | 17:30 Welcome Drink

SATURDAY
September 7, 2024

09:00 | 09:15 Introduction and Overview
Hal Duncan, Gianluca Gambarini

Part 3 - Obturation

CLINICAL ASPECTS
Chair: *Cristiano Fabiani*

09:15 | 09:45 Endo-Resto obturation in single visit appointment
Maciej Zarow (Krakow, Poland)

09:45 | 10:15 Is root canal filling with bioceramics fillers really predictable?
Stéphane Simon (Paris, France)

10:15 | 10:30 Discussion

10:30 | 11:00 Coffee Break

RESEARCH ASPECTS

Chair: *Matthias Widbiller*

11:00 | 11:30 Obturation: Reality vs Instagram
Josette Camilleri (Birmingham, UK)

11:30 | 12:00 Obturation - Should we know more?
Leo Tjäderhane (Helsinki, Finland)

12:00 | 12:15 Discussion

12:15 | 13:30 Lunch

Part 4 - Regenerative Endodontics

CLINICAL ASPECTS
Chair: *Cristiano Fabiani*

13:30 | 14:00 Regenerative endodontics: a clinical overview
Tugba Turk (Izmir, Turkey)

14:00 | 14:30 Preserving and restoring pulp vitality: when, why and how to do it
Anibal Diogenes (San Antonio, USA)

14:30 | 14:45 Discussion

14:45 | 15:15 Coffee Break

RESEARCH ASPECTS

Chair: *Matthias Widbiller*

15:15 | 15:45 Beyond repair? Exploring the frontiers of endodontic tissue engineering
Matthias Widbiller (Regensburg, Germany)

15:45 | 16:15 Clarifying the S3 recommendations for treatment of pulp necrosis without apical periodontitis in (im)mature permanent teeth by means of revitalization
Nastaran Meschi (Ghent, Belgium)

16:15 | 16:30 Discussion

16:30 | 17:00 Round Up and Group Discussion

Programme

F R I D A Y
September 6, 2024

09:00 | 09:15 Introduction and Overview
Hal Duncan, Gianluca Gambarini

In the tradition of previous Autumn Meetings, the style of this meeting will be different from our conventional biennial event, with focus on one theme, albeit examined from the perspective of research and practice. In order to build on the intimate nature of previous events, the meeting features only one plenary hall hosting a series of events on both Friday 6th and Saturday 7th September. Although the focus of the meeting will revolve around recommendations and evidenced based practice in endodontics, the purpose will be to simplify message and discuss where we are now in endodontic practice as well as evidence we need to improve.

Part 1 - Instrumentation

CLINICAL ASPECTS
Chair: *Cristiano Fabiani*

09:15 | 09:45 Clinical advantages of heat treated nickel-titanium instruments
Gianluca Gambarini (Rome, Italy)

The lecture will describe the advantages of heat treatments and their positive influence on mechanical properties of the NiTi rotary files. Besides describing the mechanical properties it will also show the clinical impact on such properties on operative performance, providing also some hints on how to optimize the clinical performance by using proper motion and handling and will also show how to increase safety by using specific clinical approaches.

09:45 | 10:15 Root canal instrumentation - Clinical aspects
Sebastian Bürklein (Münster, Germany)

Does a clinical algorithm exist for choosing the most appropriate instrument and/or instrumentation technique during root canal treatment? The clinical aspects of root canal preparation are complex. The clinician is confronted with many factors that have an influence on individual treatment planning and implementation. Which procedure guarantees a successful endodontic treatment? Based on patient and treatment considerations as well as the practitioner's own skills, efficiency, simplicity and safety in the use of suitable instruments are paramount when deciding on the choice of the instrument/system in terms of flexibility, rigidity, cutting and cleaning efficiency, fed-in effect and others - in short, performance during root canal preparation. Nonetheless, these parameters are of secondary importance for the patients, as they are unable to assess these factors themselves. The comfort, the duration of the treatment, any post-interventional complaints, long-term tooth preservation, quality of life and, above all, the costs take priority here. There is a lack of randomised controlled trials taking into consideration the quality of evidence and patients' values, preferences and financial resources. The presentation is an attempt to interpret both clinical and patient-related aspects and to make practical clinical suggestions that take into account both the limitations of existing studies and common sense.

10:15 | 10:30 Discussion

10:30 | 11:00 Coffee Break

RESEARCH ASPECTS
Chair: *Matthias Widbiller*

11:00 | 12:00 Research background and gaps in knowledge on root canal instrumentation
Ana Arias (Madrid, Spain)
Gianluca Plotino (Rome, Italy)

In this lecture the speakers analyse critical aspects of instruments and techniques for root canal preparation and emphasize the pivotal role of effective root canal instrumentation for successful endodontic outcomes. The presentation gives a comprehensive overview of the historical evolution of root canal procedures, highlighting the key milestones in instrumentation methodologies. The audience gains insights into the evolution of root canal instrumentation, with an exploration of cutting-edge technologies enhancing precision and efficiency in root canal shaping. Various contemporary techniques and instruments are discussed, shedding light on their advantages and limitations. A significant portion of the lecture is dedicated to a thorough analysis of the current state of research trends in root canal instrumentation. The speakers identify existing gaps in knowledge and research, addressing the need for further exploration and innovation. Topics such as the impact of instrumentation on treatment success rates, challenges associated with anatomical variations and the influence of instrumentation on post-operative outcomes are examined. The speakers encourage the audience to critically engage with these existing gaps in understanding and drive advancements in root canal instrumentation, emphasizing the need for targeted research initiatives and clinical trials to bridge these gaps. In conclusion, this lecture serves as a comprehensive overview of the research background and current gaps in knowledge in root canal instrumentation. It not only provides a historical context and current research trends, but also challenges the audience to contribute to the evolving landscape of endodontics through rigorous research and collaborative efforts.

12:00 | 12:15 Discussion

12:15 | 13:30 Lunch

Part 2 - Irrigation

CLINICAL ASPECTS

Chair: *Cristiano Fabiani*

13:30 | 14:00 Irrigation: Lessons learned from the S3 guideline process
Maarten Meire (Ghent, Belgium)

One of the outcomes of the ESE S3 guideline process is the suggestion not to use adjunct therapy in addition to traditionally (syringe-needle-based) delivered irrigants for the treatment of apical periodontitis. This recommendation suggests that all techniques, methods, devices, as well as all well-intended efforts aiming to improve root canal cleaning, need to be kicked. What should we do with this recommendation as clinicians aiming for excellence, best possible treatment outcomes and patient satisfaction? This talk will address some critical points on how to interpret this guideline recommendation and how to deal with it as a clinician delivering endodontic care.

14:00 | 14:30 Clinically realistic irrigation. Am I doing well?
Hagay Shemesh (Amsterdam, Netherlands)

Numerous clinical factors may be linked to the efficacy of irrigation in root canal treatments, including irrigating material, concentrations, insertion method, activation, anatomy and diagnosis. Despite ongoing research, a consensus on the recommended protocol has yet to be established, and previous suggestions face continual scrutiny. Above all, new technology is being introduced which does not always benefit the clinical outcomes yet required additional high costs. This presentation centers on the latest evidence regarding the impact of factors associated with irrigation on treatment outcomes.

14:30 | 14:45 Discussion

14:45 | 15:15 Coffee Break

RESEARCH ASPECTS

Chair: *Matthias Widbiller*

15:15 | 15:45 A critical analysis of research on irrigants and irrigation techniques: Mind the gap!
Christos Boutsioukis (Thessaloniki, Greece)

Irrigation is an essential part of root canal treatment and a popular topic in the endodontic literature. A vast amount of research has been concentrated on the evaluation and fine-tuning of various irrigants and irrigation techniques. The development of the recent S3-level Clinical Practice Guidelines of the European Society of Endodontology motivated a comprehensive search and analysis of the available clinical evidence on a number of fundamental topics concerning root canal irrigation. However, surprisingly little evidence was retrieved to answer even the most basic PICOTS questions, leading to very general and frequently open recommendations. The lack of randomized clinical trials reporting primary outcomes of interest along with an overreliance on non-validated surrogate outcomes and unrealistic laboratory models have been identified as key components of this problem. The aims of this lecture are to explain the gaps in knowledge on root canal irrigation, to elaborate on the reasons why the ESE working group was unable to give more specific recommendations and to discuss future directions in research so that the guidelines can be further developed in the next update.

15:45 | 16:15 Transgressing from basic science to translational research models for improving biofilm disinfection
Xenos Petridis (Athens, Greece)

Background: Apical periodontitis (AP) is considered a biofilm-induced disease. Treatment of AP relies on biofilm disinfection. The finite capacity of endodontic instruments to eliminate biofilms from the intricate root canal system has established irrigation as the principal determinant of disinfection. From an inferential point of view, enhancing the irrigation efficacy should lead to improved control of the root canal biofilm infection, which, in turn, should be reflected on increased treatment success. Within this context, the level of disinfection achieved by irrigation is considered as a valid surrogate endpoint predicting treatment success. Despite the intuitive positive association between improvement of surrogate endpoints and increased treatment outcome success, clinical investigations have failed to corroborate it. In clinical endodontic research, it is inherently difficult to standardize and isolate parameters of interest and mechanistically explore the action of irrigants. These constraints prompt researchers to develop translational laboratory models to increase generalizability to the clinical setting. In endodontic irrigation research, converting fragmented knowledge derived from basic research into translational laboratory models is a demanding task. It requires appreciation of disease etiology and root canal configuration, creative engineering, laborious optimization steps, and multimodal assessment tools. These research facets are construed as development of appropriate biofilm models, realistic root canal models, and selection of a broad range of evaluation tools for appreciating the antibiofilm capacity of irrigants. Aim: to present methodological aspects of research on endodontic irrigation-driven biofilm disinfection and challenges that need to be considered for the effective transition from basic to translational research.

16:15 | 16:30 Discussion

16:30 | 17:00 Round Up and Group Discussion

17:00 | 17:30 Welcome Drink

SATURDAY
September 7, 2024

09:00 | 09:15 Introduction and Overview
Hal Duncan, Gianluca Gambarini

Part 3 - Obturation

CLINICAL ASPECTS

Chair: *Cristiano Fabiani*

09:15 | 09:45 Endo-Resto obturation in single visit appointment
Maciej Zarow (Krakow, Poland)

The success of an endodontic treatment excessively depends on obturation as well as chemomechanical shaping. A total root canal obturation is a major objective in endodontic treatment. Composing a both apically and coronally, three dimensional sealing is crucial in order to ensure maximum preservation of root canals from microorganisms and inhibit their penetration to periradicular tissues. Although apical percolation has always been considered a factor in the failure of endodontic treatment, over the last 20 years there has been a significant focus on the contamination of the root canal system via the coronal route of an inadequate restoration. Obturation is a barrier to the elimination of bacterial irritants and must be supplemented as soon as possible by coronal restoration. This will optimize the outcome of the endodontic treatment. Should it be performed in single appointment today? What are the Endo-Resto protocols aiming to single appointment? How to finish obturation without risk of contamination?

09:45 | 10:15 Is root canal filling with bioceramics fillers really predictable?
Stéphane Simon (Paris, France)

Root canal treatment is a succession of interlocking steps. Successful completion of each stage determines the prognosis of the treatment. Root canal obturation is the final stage of the treatment and "freezes" things in time. Over and above the technical objectives to be achieved, it is the filling of the three-dimensional space and maintenance of the disinfected state that will enable the tooth to be returned to a favourable biological context for bone regeneration in the case of apical pathology, or to be maintained in good health. Over the past fifteen years, Bioceramic materials have become increasingly popular as a new filling material. Their dimensional stability, biochemical adhesion to tooth structures and potentially interesting biological properties make these materials a possible technical alternative to three-dimensional gutta percha obturation. Drawing on 12 years' experience with this technique, I will present our latest multicentric randomized clinical trial, including 13 operators and 160 patients with a 24-month follow-up, which will enable us to discuss the relevance of this still highly controversial obturation technique. (Financially supported by Septodont Company)

10:15 | 10:30 Discussion

10:30 | 11:00 Coffee Break

RESEARCH ASPECTS

Chair: *Matthias Widbiller*

11:00 | 11:30 Obturation: Reality vs Instagram
Josette Camilleri (Birmingham, UK)

Root canal obturation techniques have changed from mostly gutta-percha based to sealer-based. The use of hydraulic cement sealers provides huge opportunities to have a simplified and effective obturation. The main shortcoming is that the materials interact with the clinical environment thus require a bespoke irrigation and obturation protocol. Currently there seems to be no correlation between the obturation technique and the outcome of apical periodontitis. This may be due to the heterogeneity of the cases in the clinical research undertaken. This lecture will overview the materials and techniques and look into how enhanced knowledge of the materials can improve the clinical outcomes.

11:30 | 12:00 Obturation - Should we know more?
Leo Tjäderhane (Helsinki, Finland)

Obturation of the root canals is - along with diagnostics, cleaning and shaping, and restorative work - one of the cornerstones of success in endodontics. Gutta-percha has been used in root canal obturation since late 1800's, and there's been a tremendous development both in materials (especially sealers) and obturation techniques. Still, the most recent clinical practice guidelines are not able to present any strong, evidence-based recommendations regarding the optimal obturation technique or gold standard sealer. There are several reasons behind this. Some relate to the methodological problems in in vitro sealibility studies; clinical studies are troubled with numerous confounding factors; and finally, vast number of tested sealers, techniques and their combinations make comprehensive conclusions difficult. In this presentation, we will discuss the various aspects why, despite huge efforts in research, definitive recommendations in root canal obturation are difficult to obtain.

12:00 | 12:15 Discussion

12:15 | 13:30 Lunch

Part 4 - Regenerative Endodontics

CLINICAL ASPECTS

Chair: *Cristiano Fabiani*

13:30 | 14:00 Regenerative endodontics: a clinical overview
Tugba Turk (Izmir, Turkey)

In the contemporary landscape of dental science, the integration of cutting-edge technologies and evidence-based knowledge has given rise to innovative clinical principles aimed at mimicking nature. A crucial aspect of this evolution lies in endodontic practice, which is now urged to harmonize with principles encompassing biosustainability, biomimicry, and biominimalism. Regenerative endodontic therapy is a biologically driven procedure designed to replace damaged tissue, including dentin, root structures, as well as cells of the pulp-dentin complex. In the modern age of dentistry, preserving pulp vitality or revitalizing pulp tissue using biologically based approaches is of great importance, and regenerative therapies are at the core of pulp tissue management. The aim of the current lecture is to discuss advanced clinical revitalization procedures, featuring personal case reports and long-term follow-up. Significant clinical details, including the materials used and success criteria, will be thoroughly examined following the latest guidelines. Additionally, the advantages and limitations of extending the indications and scope of revitalization procedures will also be discussed.

14:00 | 14:30 Preserving and restoring pulp vitality: when, why and how to do it
Anibal Diogenes (San Antonio, USA)

There has been considerable development in the understanding of the regenerative potential of dental structures in the last decade. Regenerative endodontics is currently considered a treatment option for certain cases. Despite its clinical and scientific value, factors related to the predictability of continued root development remain elusive. Several advancements have been proposed to overcome the current challenges with these procedures. This lecture focuses on discussing the current status of regenerative endodontics and the future directions to achieve the ultimate mission to preserve tissue homeostasis and tooth longevity.

14:30 | 14:45 Discussion

14:45 | 15:15 Coffee Break

RESEARCH ASPECTS

Chair: *Matthias Widbiller*

15:15 | 15:45 Beyond repair? Exploring the frontiers of endodontic tissue engineering
Matthias Widbiller (Regensburg, Germany)

Regenerative endodontic procedures, primarily using blood clot techniques, demonstrate biological repair without achieving complete regeneration of the original dental pulp. Recent advances in regenerative endodontics incorporate tissue engineering concepts to address apical periodontitis in both mature and immature permanent teeth. This advancement is encapsulated in Endodontic Tissue Engineering (ETE), where scaffolds or biomaterials, with or without cells, are introduced into the root canal to facilitate pulp tissue regeneration. Although ETE is a promising alternative to conventional procedures, the lack of comprehensive studies hinders the derivation of robust clinical recommendations. While an increasing number of clinical trials are evaluating the efficacy of ETE compared to existing procedures, there is still uncertainty as to whether ETE can go beyond mere repair to achieve true pulp regeneration.

15:45 | 16:15 Clarifying the S3 recommendations for treatment of pulp necrosis without apical periodontitis in (im)mature permanent teeth by means of revitalization
Nastaran Meschi (Ghent, Belgium)

Nearly one in five children worldwide have a history of dental trauma before the age of twelve. Generally, the immature permanent upper front teeth get injured, often resulting in pulpal inflammation or necrosis and arrested root development. Two treatment modalities have been described to treat immature permanent teeth with injured pulp, depending on the root development stage: apexification and the more novel revitalization procedures. Both treatments aim primarily in short-term periapical bone healing and in long-term preservation of teeth, which are attained in most of the clinical trials. However, the second main goal of revitalization (further root development) is not that easily reached clinically. Despite this, recent studies report the application of this novel treatment in mature permanent teeth, with promising results in terms of success and survival. But what is the certainty of the available evidence? The recommendations of the ESE S3 guidelines in endodontology, published in 2023, were based on the best available evidence. One of the pillars of the current recommendations regarding revitalization procedures was the review published by Meschi et al. (2022): "Effectiveness of revitalization in treating apical periodontitis: a systematic review and meta-analysis". This presentation will attempt to elucidate the reasoning of the current S3 guidelines for treatment of pulp necrosis w/o AP in (im)mature permanent teeth by means of revitalization procedures.

16:15 | 16:30 Discussion

16:30 | 17:00 Round Up and Group Discussion

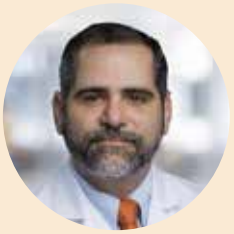
Faculty

ANA ARIAS

Dr. Ana Arias is a professor in the Department of Conservative and Prosthetic Dentistry and Director of the Postgraduate program of Endodontology at Complutense University of Madrid (Spain) where she received her degree in Dentistry, her Certificate in Endodontics and earnt her PhD in Dentistry. Along her career, she has also earned a Postgraduate Certificate in Statistics and Study Design for Health Sciences at Autonoma University (Barcelona, Spain); worked as an assistant Professor at the Department of Endodontics at University of the Pacific Arthur A. Dugoni School of Dentistry (San Francisco) and completed a Master of Science in Medical Education Leadership at University of New England (Biddeford-Maine, USA). She has extensively published in journals with high impact factor in the field of Endodontics.

ANIBAL DIOGENES

Dr. Anibal Diogenes received his D.D.S. from UFPE in Brazil, his M.S. in Molecular Biology from the University of Nebraska, and his Ph.D. in Pharmacology and Certificate in Endodontics from the University of Texas Health Science Center at San Antonio. Dr. Diogenes is a tenured professor Chair of the Department of Endodontics at the University of Texas Health Science Center at San Antonio. He is a Director of the American Board of Endodontics and a standing member of the National Institutes of Health Oral, Dental and Craniofacial study section. His areas of research include: inflammation, pain and regenerative endodontics.



CHRISTOS BOUTSIOUKIS

Dr. Christos Boutsioukis received his DDS degree in 2003 and his postgraduate certificate in Endodontics in 2006 from the University of Thessaloniki in Greece. From 2007-2010 he divided his time between the University of Thessaloniki, the Academic Centre for Dentistry Amsterdam (ACTA) and the Physics of Fluids group at the University of Twente in the Netherlands, towards completion of the PhD degree. In 2011 he became postdoctoral researcher in the Physics of Fluids group, University of Twente and in 2013 he joined ACTA where he served as assistant professor of Endodontology until 2022. In 2023 he moved back to Thessaloniki, where he is currently assistant professor in the Department of Endodontology while retaining a guest researcher position at ACTA. He has authored or co-authored more than 40 papers in peer-reviewed journals and five book chapters and serves as a referee for several international journals. He is also a member of the ESE Research Committee. His main research interest lies in experimental and computational methods to study the dynamics of root canal irrigation.

CRISTIANO FABIANI

Cristiano received his dental degree in Italy, completing his postgraduate clinical training in Endodontics (CAGS) at Boston University (where he earned also a MSD) under the guidance of the late Dr. Herbert Schilder.

Cristiano has served for a long time as a member of the Cultural Committee of the SIE (Italian Endodontic Society) focusing primarily on developing national guidelines and quality control, participating in the organisation of the annual Italian Endodontic Meeting, as well as a reviewer for the Italian Journal of Endodontics. He is currently practicing limited to Endodontics both in Italy and the UK. A specialist member of the ESE, he has been part of the Clinical Practice Committee since its introduction in the ESE.

GIANLUCA GAMBARINI

Full Professor and Head of Endodontics, Director of Master of Endodontics. University of Rome, La Sapienza.
International lecturer and researcher, He is author of more than 500 scientific articles, books and chapters in other books. He has lectured all over the world (more than 500 presentations) and has been invited as a main speaker in the most important international endodontic congresses. He is actively cooperating with many manufacturers all over the world to develop new technologies, operative procedures and materials for root canal treatment.
He is currently President Elect at ESE and maintains a private practice limited to Endodontics in Rome, Italy.

GIANLUCA PLOTINO

Gianluca Plotino was born in 1978 in Rome, Italy. He graduated in dentistry from the Catholic University of Sacred Heart of Rome in 2002. He received the "Hans Genet Award" from the European Society of Endodontology in 2013 and several other research prizes and awards. Dr. Plotino obtained his PhD in 2009 at the Catholic University of Rome, in 2017 he received the certification to be Professor of II level and in 2018 to be Professor of I level in Italy. Gianluca Plotino is a Specialist Member of the European Society of Endodontology (ESE), active member and President Elect (2025-26) of the Italian Academy of Endodontics (AIE) and active member of several other societies. Dr. Plotino published more that 130 articles in scientific peer-reviewed journals reaching a h-index of 42, 3 textbooks on Endodontics and contributed with numerous chapters in other textbooks. He is Associate Editor of the European Endodontic Journal and part of the Editorial Board of the Journal of Endodontics and several other international journals. Dr. Plotino owns 4 patents and a start-up and he is currently working in his own private practice in Rome, Italy, focused on endodontics and restorative, esthetic and interdisciplinary dentistry.

HAGAY SHEMESH

Dr. Hagay Shemesh graduated as a dentist from the Hebrew University in Jerusalem in 1990. In 2000, he completed his post graduate program in Endodontology.
Subsequently, in 2002, he came to the Netherlands and joined ACTA as a dental lecturer affiliated with the Department of Endodontology. Since 2004, he has been working at a referral practice for dentistry in Amsterdam. In 2009, he earned his PhD with honors from the University of Amsterdam (UvA). He has authored numerous scientific articles, book chapters and other professional publications , and is currently serving as an associate professor and acting chair of the Department of Endodontology at the Academic Center of Dentistry in Amsterdam.

HAL DUNCAN

Professor Hal Duncan is the new President of the ESE and will serve until the end of 2025. He originally received his dental degree from the University of Glasgow and his endodontic speciality training in Guy's Hospital, King's College London. For ten years, he worked part-time in specialist referral endodontic practice. He completed his PhD in the University of Birmingham and has been an Academic Consultant in Endodontics in Dublin where he has led endodontic teaching, service delivery and research in Dublin Dental University Hospital (DDUH) for the last 15 years. He has published over 140 international peer-reviewed scientific articles, 50 research abstracts, 18 book chapters as well as editing 3 textbooks. He was the primary author of the recent European Society of Endodontology (ESE) position statement on 'Management of deep caries and the exposed pulp' and the lead of the 'ESE S3-level Guidelines for the Treatment of Endodontic Disease'. He has been the Editor in Chief of the International Endodontic Journal since 2022. In DDUH, he currently maintains a research lab and supervises several clinical and scientifically trained PhD students and postdoctoral researchers in basic and translational pulp biology and endodontics. Within the ESE he is an ex-Chair of the Membership Committee, a Member of the Executive Board and an ex-Irish country representative. He is a past president of the Irish Endodontic Society.

JOSETTE CAMILLERI

Josette Camilleri obtained her Bachelor in Dental Surgery and Master of Philosophy in Dental Surgery from the University of Malta. She completed her doctoral degree, supervised by the late Professor Tom Pitt Ford, at Guy's Hospital, King's College London. She has worked at the Department of Civil and Structural Engineering, Faculty for the Built Environment, University of Malta and at the Department of Restorative Dentistry, Faculty of Dental Surgery, University of Malta, Malta. She is currently a Professor in Endodontics and Applied Materials at the School of Dentistry, College of Medical and Dental Sciences, Institute of Clinical Sciences, University of Birmingham, United Kingdom. Her research interests include endodontic materials such as root-end filling materials and root canal sealers, with particular interest in mineral trioxide aggregate; Portland cement hydration and other cementitious materials used as biomaterials and also in the construction industry.
Josette has published over 170 papers in peer-reviewed international journals and her work is cited over 15,000 times. Three of her publications on the chemistry of mineral trioxide aggregate have been placed in the top 50 most cited papers in International Endodontic Journal. In 2018, she has been awarded the Louis Grossman prize by the French Endodontic Society and is the first female recipient of this prestigious award.
She is the Course Director of the MSc Endodontics run at the University for Birmingham and also Director of a material testing company Birmingham Materials Testing Services.

LEO TJÄDERHANE

Leo Tjäderhane was born 1962 in Ylitornio, Lapland, Finland. He graduated from the University Oulu, Finland in 1986, where he also received his PhD in 1995 and the licensed specialty in cariology, restorative dentistry and endodontology in 2000. He worked as the post-doctoral fellow at the University of British Columbia (UBC) in Vancouver, Canada, in 1995-1996, as an assistant professor at the Department of Endodontology, University of Toronto in 2001-2002 and at the University of Helsinki, Finland in 2002-2003. Later, he worked as a research fellow for the Academy of Finland in 2003-2008, after which he was appointed as a professor at the University of Oulu in 2008. He is currently holding the position as the professor and head of the Division of Cariology and Endodontology at the University of Helsinki and the senior consultant at the Helsinki University Hospital. Leo's research interests include the dentin-pulp complex biology and pathology and the adhesion of composites. He has published over 240 scientific original or review articles in international and more than 50 articles in national journals, and supervised two MSc and 15 PhD theses. Leo also served as the member of the ESE Executive Board and the head of Research Committee in 2012-2020.

MACIEJ ZAROW

Dr. Maciej Zarow graduated from Semmelweis University in Budapest in 1995. After a three-year training programme he achieved specialisation in operative dentistry in 1999. From 1998 until 2005 he was teaching at the Jagiellonian University in Krakow. There, in 2002, he defended his PhD and, in 2005, he achieved specialisation in endodontics. He is also the co-author of more than 80 papers published in Polish and international journals. Dr Zarow is the author of a book called Endo-Prosthodontics: Guidelines for Clinical Practice, published by Quintessence Publishing (2013 in Polish, 2014 in Russian, 2016 in English, 2017 in French and Croatian) and a book called "Veneers" (2020 in Polish, 2022 in English, 2024 Chinese and Spanish). In 2012-2017 he has been editor-in-chief of the Polish language dental magazine Medycyna Praktyczna – Stomatologia, and since 2020 – Polish Edition of Quintessence. A member of the Polish Academy of Aesthetic Dentistry, board member and v-ce president of European Society of Cosmetic Dentistry. Dr Zarow has lectured extensively in Poland and worldwide. Visiting Professor of Uniwersiti in Chieti (Italy) 2015-2016, lecturer of postgraduate master programs at UIC in Barelona (2012-2016), Graduate (2018) and Mentor (2021) of Kois Center. He has run a private dental clinic since 1999 and postgraduate course centre „Dentist", since 2003, in Krakow, Poland.

MAARTEN MEIRE

Maarten Meire received his dental degree from Ghent University in 2002 and completed a three-year Master in Endodontology at the same university in 2005. He remained part-time faculty at the Department of Restorative Dentistry & Endodontology ever since, leading to a doctoral degree in 2011. After a post-doctoral period, he became head of the section of endodontology and programme director of the 3-year postgraduate training in endodontology. As an assistant professor, his academic activities include undergraduate and postgraduate endodontic education, and research within the field. He is a member of the ESE clinical practice committee, and author of several national and international scientific publications and lectures. In addition, he works in a referral-based practice limited to endodontics in Antwerp.

MATTHIAS WIDBILLER

Dr. Matthias Widbiller began his academic career in 2013 after completing his dental studies at the University of Regensburg. He then worked both as a dentist and as a research assistant at the Department of Conservative Dentistry and Periodontology at the University Hospital Regensburg, where he obtained his doctorate in 2015. Matthias Widbiller is a lecturer in conservative dentistry and a certified university teacher. His interest in research and continuing education led him to the University of Texas Health Science Center at San Antonio (UTHSCSA), USA, as a postdoctoral fellow from 2017 to 2018. During this time, he joined the renowned research laboratory of Dr. Kenneth M. Hargreaves and Dr. Anibal Diogenes. He worked intensively on tissue engineering of dental pulp, bioactive materials and bioactive proteins of the dentin matrix. As a clinical expert, Dr. Widbiller has particular expertise in dental traumatology, vital pulp therapy and regenerative endodontic procedures. Since 2016, he has coordinated the Centre for Dental Traumatology at the University Hospital of Regensburg, and since 2021, he has been the head of the research department. In 2023, Dr. Widbiller was appointed by the university as full professor of endodontics.

NASTARAN MESCHI

Nastaran Meschi was born in Iran and lives since 1989 in Belgium. She attended humanities high school class in science mathematics in Brussels and graduated magna cum laude in 2001. Nastaran became cum laude dentist (University of Brussels) in 2006. In 2012, she graduated magna cum laude as Master of Science in Endodontology (KU Leuven). From 2014 until 2022, while exercising exclusively endodontology in private practices in Brussels and Leuven, she was also a part-time researcher in BIOMAT KU Leuven and an instructor (clinical and research) in endodontology at the Department of Oral Health Sciences (University Hospitals Leuven). In March 2021, she obtained the degree of Doctor in Biomedical Sciences at the KU Leuven (promotor: Prof. Em. Paul Lambrechts). So far, Nastaran has published 20 scientific articles, written 2 book chapters and presented her research at several international meetings. Since 2022 she is a member of the ESE Research Committee. Since 2023, she is a visiting professor at Ghent University (Belgium), next to her clinical work in private practice.

SEBASTIAN BÜRKLEIN

2003: Degree in Dentistry;
2003–2006: Department of Operative Dentistry, University of Münster, Germany;
2005: DDS;
2006–2010: Graduation as a specialist in oral surgery in the Dental Clinic of Bochum, Germany (Head: Prof. Dr. H.-P. Jöhren);
2009: Certified specialist in Endodontology of the DGET (German Society of Endodontology and Dental Traumatology);
2010: Specialist in Oral Surgery;
Since 2011: Deputy Head of the Central Interdisciplinary Outpatient Clinic in the School of Dentistry (Head: Prof. Dr. E. Schäfer), University of Münster, Germany;
2015: associate professor; University of Münster, Germany;
2014-2020: Member of the Board of the German Society of Restorative Dentistry (DGZ);
Since 2021: Member of the Board of the German Society of Endodontology and Dental Traumatology (DGET);
Since 2022: Associate Editor - International Endodontic Journal;
More than 20 years of academic and research experience. Publication of multiple scientific papers in world-leading peer-reviewed journals in the endodontic field. Book contributions in national and international reference books. Numerous lectures in national and international congresses in the field of endodontics.

STÉPHANE SIMON

Stéphane SIMON has been qualified as Doctor in Dental Surgery in 1994 at the University of Reims. He got a certificate in Biomaterials in 1998 (University of Paris 7) and in Endodontology in 2000 (Paris 7). He taught Endodontics from 2001 to 2005 at the University of Paris 7 as Assistant Professor, and from 2006 to 2008 at the University of Birmingham (United Kingdom) as a Clinical lecturer. In 2006, he left France for joining Birmingham's Dental School team for two full years; there, 90% of his time was devoted to research, and 10% to clinical practice and teaching, as a Clinical Lecturer and Associate Specialist in Endodontics. He also got a Master Degree (MPhil) in Molecular and cell Biology in 2005 (Paris 7), and completed in 2009 his PhD in Pulp Biology in the frame of a co-supervised Thesis between the University of Paris 7 and the University of Birmingham. He was also the President of the Pulp Biology and Regeneration Group of the IADR and member of the education committee of the European Society of Endodontology.

From 2012 up to august 2019, he was a full-time academic teacher/researcher, awarded as Professor in Endodontics at the Paris Diderot University and was the director of the Postgraduate Endodontic Program at Paris Diderot University (3 years full time program). His time was 50% devoted to the clinical practice and 50% to Basic Science research about Tissue engineering and dental Pulp.

He is the author of 8 Endodontic books, authored 8 chapters in clinical books, and three chapters in Tissue engineering books. He has also published 38 papers in per-reviewed scientific journals (Endodontics and Science) and more than 95 papers in clinical per-reviewed journals; he is also one of the editor of Visualendodontics software.

In 2011, he received the Hans Genett Award from the European Society of Endodontology. He has now a private practice limited to endodontics for 20 years, and is the founder and scientific director of a postgraduate course company named Endo Académie.

TUGBA TURK

Dr. Tugba Turk is a Professor in the Department of Endodontology at the Faculty of Dentistry, Ege University in Izmir, and holds a parallel position at Istanbul Kent University, Department of Endodontology in Istanbul, Turkey. She earned her DDs degree and completed her PhD at Ege University. As a full-time faculty member, she is involved in teaching undergraduate and graduate students and supervising PhD students. Additionally, she has given lectures at postgraduate programs at Sapienza University of Rome, Italy.

Dr. Turk has published several articles, received awards for her scientific studies, and presented at national and international conferences. She also serves as an editor and reviewer for several national and international journals. She is a member of The European Society of Endodontology, The Turkish Endodontic Society, and The Society of Stem Cell and Cellular Treatments. Since 2024, she is a member of the clinical practice committee of the European Endodontic Society.

Her primary research interests include regenerative endodontics, dental stem cells, tissue engineering, and vital pulp therapies. Dr. Turk has extensive experience in performing clinical regenerative endodontic therapies with a large number of patients.

XENOS PETRIDIS

Xenos Petridis was born on 9 April 1984 in Athens, Greece. In 2008, he obtained his Doctor of Dental Surgery degree from the School of Dentistry, National and Kapodistrian University of Athens (NKUA), Greece. In 2014, he successfully completed the 3-year postgraduate specialty program in Endodontics at the same university. From 2015 to 2022, he lived and worked in Groningen, The Netherlands. In 2020, he successfully defended his doctorate thesis and obtained his Doctorate degree from the University of Groningen, The Netherlands. Since 2023, he has been appointed Assistant Professor, Department of Endodontics, School of Dentistry, NKUA, Greece. His research focuses on endodontic biofilm disinfection, bacterial modulation of dental pulp stem cell fate, dentin extracellular matrix components and dental pulp tissue engineering. He is also involved in several projects of clinical endodontic interest. He has been the author/co-author in several original scientific papers and book chapters related to endodontics, stem cells and tissue engineering. He maintains a private practice limited to Endodontics in Athens, Greece. He is member of the American Association of Endodontists, and certified member of the Hellenic Society of Endodontics, Dutch Society of Endodontology, European Society of Endodontology (ESE), and member of the ESE Research Committee.

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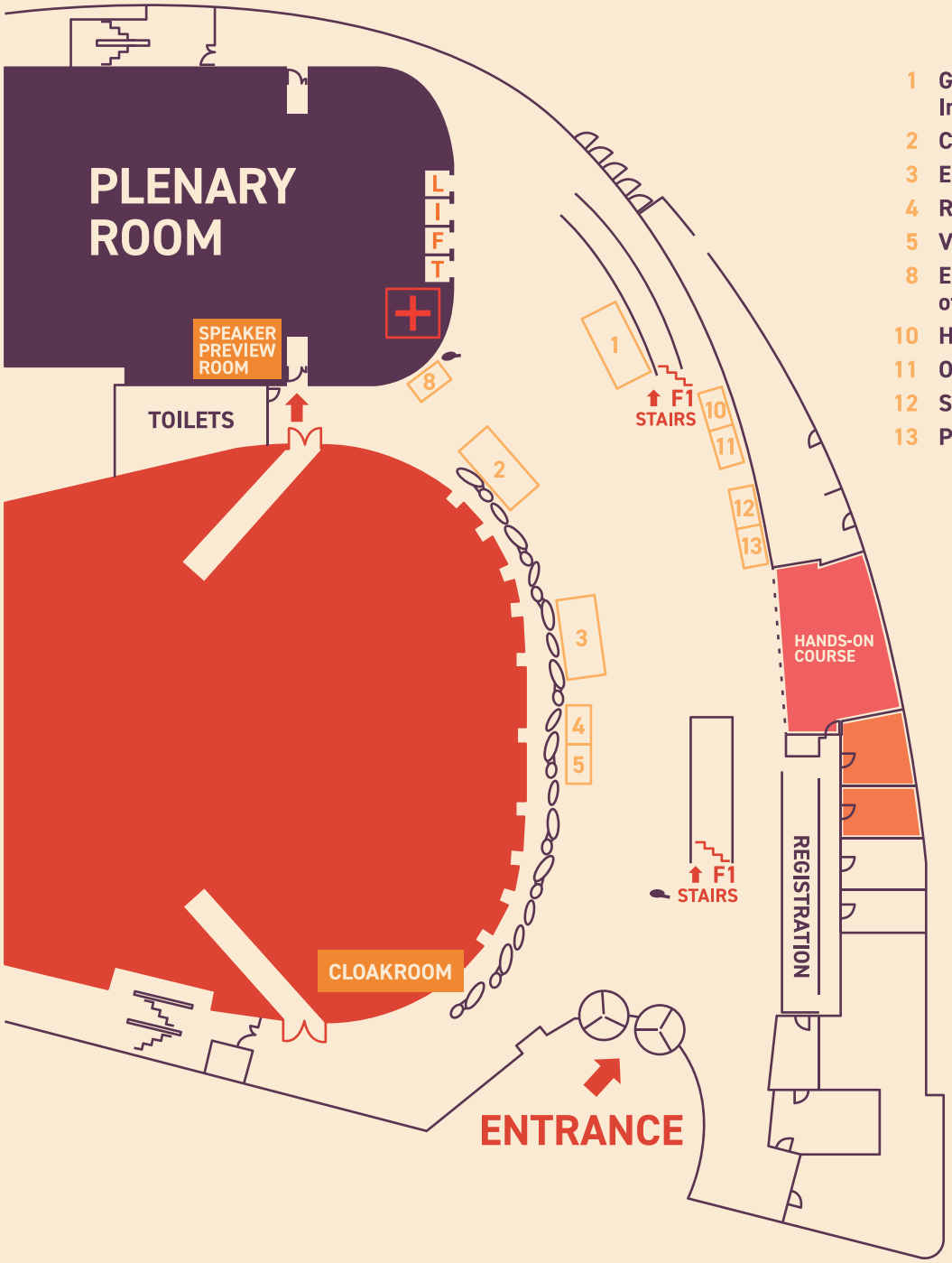

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