DENT2HEALTH

CONFERENCE BOOK

Malmö, 7 October 2026

The 5th annual Dent2Health Conference is organised by **Medeon Science Park in collaboration with Medicon Valley Alliance, Malmö University and Folktandvården Skåne.** This conference book aims to share key insights research and knowledge from the event.

This book is intended as a non-commercial resource for the general public and may be freely shared and distributed for informational purposes.

Medeon Science Park

About us

Medeon Science Park is a life science park in Malmö, Sweden, dedicated to driving innovation, collaboration and growth across the medtech and broader life science sectors. Established in 1985, Medeon has grown from a 1,150-square-metre facility into a dynamic life science hub spanning 13,220 square metres today. The science park brings together startups, established companies, researchers, and public sector organisations, creating an environment that encourages knowledge exchange, cross-sector collaboration and the development of innovative healthcare solutions.



Jointly owned by the City of Malmö (60%) and Wihlborgs Fastigheter (40%), Medeon Science Park, through its offerings at Medeon Incubator and Medeon Labs, plays an important role in strengthening the life science ecosystem in Malmö and the wider region.

Learn more about us here: https://www.medeon.se/

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Speaking agenda

The Studio, Malmö - Wednesday, 7 October 2026

Session & time	Topic & speaker
Opening 9:00	**Magdalena Almén** from Medeon Science Park delivered the opening remarks, followed by moderator **Lisa Kirsebom**, who introduced the programme and guided the event.
01 **Morning session A** 9:15 – 10:25	**Salivary biomarkers: the potential for diagnosis of oral and systemic disease** Melissa Grant, University of Birmingham
	Oral healthcare as a platform for early detection and prevention of disease Helena Domeij, Statens beredning för medicinsk och social utvärdering (SBU)
02 **Morning session B** 10:50-12:20	**Genome-wide association study of dental caries in children and young adults reveals shared genetic architecture with cardiometabolic traits** Torben Hansen, University of Copenhagen
	AVOLA - a new network for Health Björn Klinge, Malmö University & Karolinska Institutet
	The role of Limosilactobacillus reuteri probiotics in oral health management Jakob Axelsson, BioGaia AB

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Session & time	Topic & speaker
03 Afternoon session A 13:30-14:30	**Menopause and oral health: An overlooked connection** Betty Wassenius, Wassenius Health AB, Tandläkarna Wassenius
	Periodontitis and coronary heart disease: from association to prevention Daniel Jönsson, Lund University
04 Afternoon Session B 14:55-16:00	**Antibiotics in dental implant surgery - balancing benefits with risks** Palwasha Momand, Malmö University
	From saliva to diagnosis: omics-informed development of an AI-driven electrochemical sensing platform for early detection of periodontitis Shariel Sayardoust, Linköping University
	Panel discussion Shariel Sayardoust, Helena Domeij, Torben Hansen, Björn Klinge, moderated by Lisa Kirsebom
05 Concluding remarks 16:00	

Opening remarks

Magdalena Almén
Project Lead for Dent2Health Conference &
Strategic Area Manager at Medeon Science Park



This year is a little extra special for us because Dent2Health is celebrating its fifth anniversary. Four years ago, we started this conference with a clear ambition: to bring people together around the important connections between oral and systemic health, and to create a meeting place across disciplines and sectors.

I think we can safely say that this meeting place has become something very real. We are delighted to see representatives from academia, industry and the public sector gathered here today.

Everyone attending this conference shares a common interest in how we can improve health by looking beyond traditional boundaries – between disciplines, between research and clinical practice, and between great ideas and real-world solutions.

This conference is part of the Dent2Health initiative, managed by Medeon Science Park in close collaboration with Medicon Valley Alliance, Folktandvården Skåne, Malmö University and Region Skåne.

For those of you who are less familiar with Medeon, we are a life science park located in Malmö. We specialise in supporting the development of medtech innovations, and our key focus areas are diabetes, healthy ageing and, of course, oral health.

Oral health has become an increasingly important part of our work. And this year, I am particularly happy to share an exciting new development: Oral Bridge.

Oral Bridge is a new initiative in which we, together with our partners – some of whom are here today, including Malmö University, MAU Holding, Folktandvården Skåne and Malmö stad – are building a testbed for innovation in oral health.

Our ambition is to create a testbed where new ideas, technologies and solutions can be developed, tested and validated, with the ultimate goal of improving oral health. And in many ways, Oral Bridge is a natural next step for the Dent2Health initiative.

For almost five years, we have been bringing people together, sharing knowledge and creating new connections. With Oral Bridge, we want to take this one step further – and help turn ideas and innovations into solutions that can make a real difference.

Today, we have an exciting programme ahead of us, featuring research, new perspectives and innovation. But just as important as what happens on stage is what happens between the presentations.

So, I encourage you to be curious. Ask questions. Share your own experiences. Talk to someone you haven't met before. Because we know that new ideas often begin with a conversation.

And perhaps some of the conversations we start here today will lead to collaborations, research projects or innovations that we'll be talking about at future Dent2Health conferences. Welcome!

Keynotes



MELISSA GRANT, UNIVERSITY OF BIRMINGHAM

Salivary biomarkers: the potential for diagnosis of oral and systemic disease

What if a simple saliva sample could help detect disease, monitor health and even reduce the need for invasive medical procedures? Melissa Grant from the University of Birmingham highlighted the exciting potential of saliva as a diagnostic tool, offering new insights into the connection between oral and systemic health. By analysing proteins and other biomarkers in saliva, researchers can identify molecular patterns associated with different diseases. One key message from her presentation was that combining multiple biomarkers can provide more reliable results than relying on individual markers, particularly in conditions such as periodontitis.

She also shared promising findings from exploratory research into inflammatory bowel disease (IBD), where differences in salivary protein profiles were identified between patients with Crohn's disease, ulcerative colitis and individuals with similar symptoms but without IBD. While the findings are encouraging, further studies involving larger patient groups are needed to establish how reliable and disease-specific these biomarkers are. Looking ahead, Melissa pointed to an exciting possibility: a future where a simple saliva test could help monitor disease activity, predict flare-ups and potentially reduce the need for invasive procedures such as colonoscopy

Her presentation highlighted how saliva-based research could help bridge oral and systemic healthcare, opening new opportunities for more personalised, accessible and less invasive diagnostics.

Keynotes



HELENA DOMEIJ, STATENS BEREDNING FÖR MEDICINSK OCH SOCIAL UTVÄRDERING (SBU)

Oral healthcare as a platform for early detection and prevention of disease

Dental care could play an increasingly important role in detecting diseases and health risks beyond the mouth. But how strong is the scientific evidence supporting this potential? Helena Domeij from SBU shared insights into an ongoing Swedish government assignment exploring how routine dental care could contribute to earlier disease detection and prevention.

The initiative takes a broad perspective, examining not only scientific evidence but also organisational conditions, collaboration between healthcare providers and ethical considerations. Through a systematic mapping of existing research reviews, SBU is assessing the quality and reliability of available evidence, identifying where research provides a solid foundation and where important knowledge gaps remain.

Helena emphasised that the purpose is not to provide clinical recommendations, but to establish a reliable evidence base that can support future decisions about the role of dentistry in preventive healthcare.

Her presentation highlighted the opportunity to strengthen the connection between dental care and general healthcare, while reinforcing an important message: turning scientific potential into clinical practice requires robust evidence, thoughtful collaboration and a clear understanding of both opportunities and challenges.

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Keynotes



TORBEN HANSEN, UNIVERSITY OF COPENHAGEN

Genome-wide association study of dental caries in children and young adults reveals shared genetic architecture with cardiometabolic traits

The connection between oral health and overall health may begin much earlier than we think – already in childhood. Torben Hansen from the University of Copenhagen highlighted research showing that gingivitis and dental caries in children are associated with an increased risk of developing type 2 diabetes and cardiovascular disease later in life. His presentation explored how genetic patterns linked to dental caries and specific protein signatures associated with cardiovascular disease can already be identified during childhood.

Even peptides produced by bacteria in the mouth appear to be connected to the body's metabolism, particularly its insulin response. An important aspect of the research is the interaction between genetics and lifestyle. Genetic factors may influence how sensitive individuals are to certain lifestyle-related risks, while healthy lifestyle choices may help compensate for genetic predispositions.

Although the underlying biological mechanisms are not yet fully understood, ongoing research aims to explore how genetics, the oral microbiome, proteins and immune responses interact to influence long-term health. One of the most striking takeaways from Torben's presentation was that signs of increased disease risk may be detectable long before the diseases themselves develop.

This opens up new possibilities for using childhood oral health as an early indicator of future health risks, potentially supporting more personalised prevention strategies and earlier interventions. The presentation reinforced an important message: oral health is not just about the mouth – it may offer valuable clues about our health throughout life.

Keynotes



BJÖRN KLINGE, MALMÖ UNIVERSITY & KAROLINSKA INSTITUTET

AVOLA: A New Network for Health

Shifting the focus from treating diseases to preventing them is at the heart of AVOLA, a new initiative aiming to strengthen the connection between oral and overall health. Björn Klinge from Malmö University and Karolinska Institutet introduced AVOLA's vision, highlighting a growing global health challenge: more wealth – less health. Despite increasing prosperity, non-communicable diseases (NCDs), such as cardiovascular disease and diabetes, continue to place a significant burden on individuals and healthcare systems.

A central message of his presentation was that oral health cannot be separated from general health. Preventive dental care needs to become part of a broader approach that connects healthcare, nutrition, lifestyle, behavioural economics and public policy.

Through its 2025–2030 strategy, AVOLA aims to create stronger incentives for preventive oral care, address shared risk factors between oral diseases and NCDs, and encourage collaboration across disciplines and sectors. Expanding and diversifying expertise in oral health is also an important part of this ambition. Björn emphasised the need for a fundamental shift in how we approach healthcare: moving from "sickcare" to true healthcare, where preventing disease becomes just as important as treating it.

The long-term ambition is clear: more years of healthy living, improved quality of life and reduced healthcare costs. His presentation reinforced the importance of making oral health an integral part of broader prevention strategies, rather than treating it as a separate field. By connecting expertise, research and policy, initiatives like AVOLA could help pave the way for a more preventive, collaborative and sustainable healthcare system.

Keynotes



JAKOB AXELSSON, BIOGAIA AB

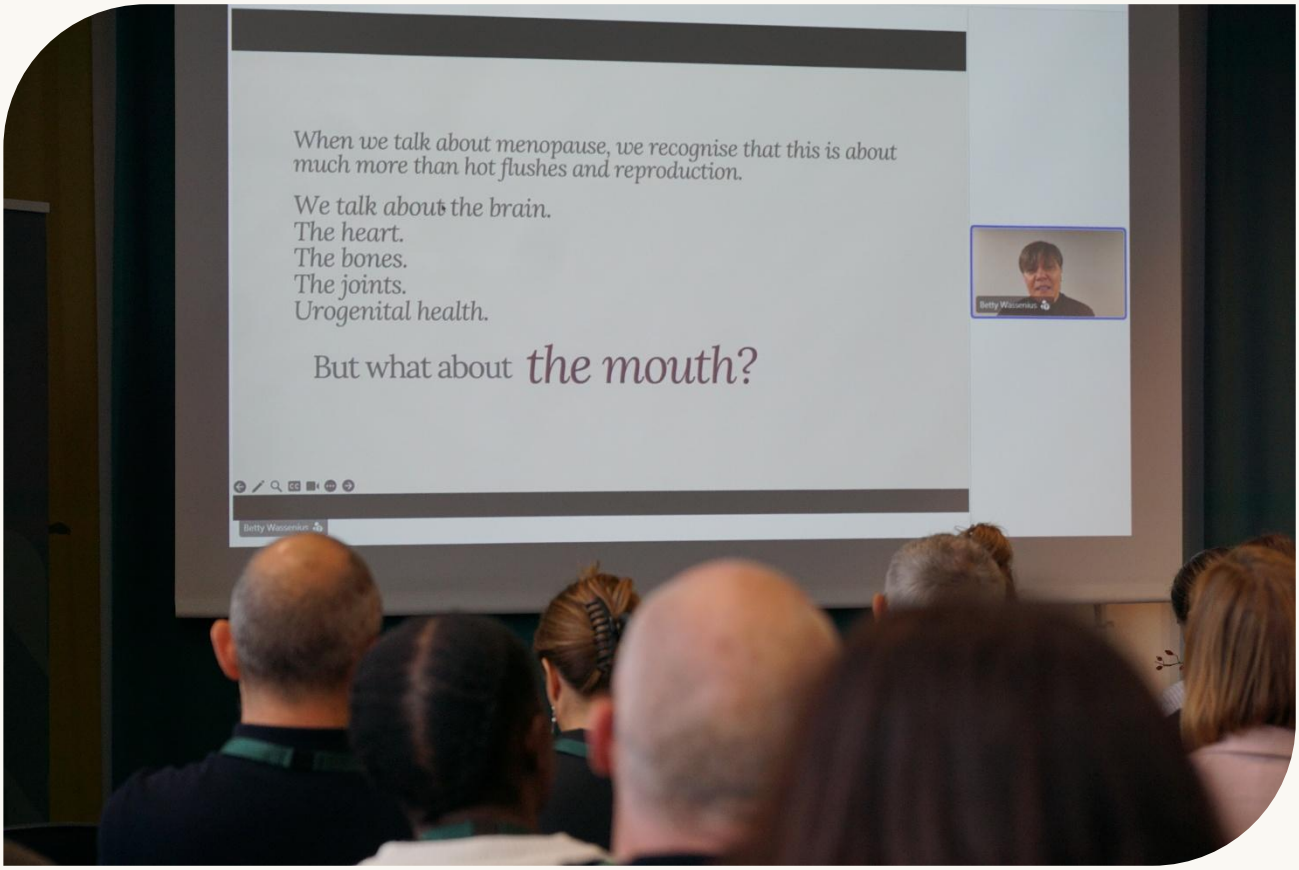
The role of Limosilactobacillus reuteri probiotics in oral health management

Jakob Axelsson highlighted the growing potential of probiotics, particularly Limosilactobacillus reuteri, as a complementary approach to maintaining oral health and preventing dental diseases. The presentation explored how beneficial bacteria can support a healthier oral microbiome by helping to regulate pH levels, reduce the activity of harmful bacteria, and support the management of gum inflammation. Emerging clinical research suggests that specific probiotic strains may contribute to improved gum health and help manage oral health conditions when used alongside conventional dental care.

A key focus was the scientific evidence supporting L. reuteri. Jakob highlighted findings from clinical studies and meta-analyses suggesting that while several probiotics demonstrate short-term benefits, L. reuteri has shown promising evidence of longer-term effects on oral health. The topic also highlighted the relationship between microbiome balance, immune responses, and inflammation. Research on L. reuteri strains has demonstrated immunomodulatory and anti-inflammatory properties, although findings from gastrointestinal studies cannot be directly translated into proven oral health benefits.

Beyond probiotics, Jakob emphasized the importance of lifestyle and nutrition. Diets rich in fiber, omega-3 fatty acids, and essential nutrients may support healthier gums, while excessive consumption of processed carbohydrates may contribute to inflammation. Probiotics such as L. reuteri represent a promising addition to preventive oral healthcare. Combined with good oral hygiene, a balanced diet, and regular dental care, they may offer new opportunities to support long-term oral health through microbiome-focused approaches.

Keynotes



BETTY WASSENIUS, WASSENIUS HEALTH AB / TANDLÄKARNA WASSENIUS

Menopause and Oral Health: An Overlooked Connection

Menopause affects many aspects of women's health, yet its potential impact on oral health is often overlooked. Betty Wassenius highlighted how hormonal changes during perimenopause and menopause can influence the mouth in ways that are not always recognised in routine healthcare. As estrogen levels fluctuate and decline, they may affect inflammation, immune responses, bone metabolism and the sensation of dry mouth, since estrogen receptors are also present in oral tissues.

One particularly striking finding came from a survey involving 627 women, in which 91% reported experiencing some form of oral discomfort, including dry mouth, sensitive teeth, gum problems or a burning sensation in the mouth. However, Betty emphasised that the relationship between menopause and oral health is complex. Factors such as stress, sleep disturbances, medication, ageing, pain sensitivity and lifestyle behaviours may also contribute to these symptoms.

A central message from her presentation was that "*We still know too little about the full impact of menopause on oral health. To build a stronger understanding, healthcare professionals need to start asking about, documenting and monitoring oral symptoms during this stage of life*."

Her presentation highlighted an important opportunity to bring oral health into the broader conversation about women's health, encouraging greater awareness, better communication between healthcare professionals and more personalised care throughout menopause.

Keynotes



DANIEL JÖNSSON, LUND UNIVERSITY

Periodontitis and Coronary Heart Disease: From Association to Prevention

The connection between gum disease and cardiovascular health is becoming increasingly important, with new research offering insights into how periodontal health may relate to the progression of cardiovascular disease. Daniel Jönsson from Lund University presented findings from major research initiatives, including the Malmö Offspring Dental Study and SCAPIS, exploring the relationship between periodontitis, atherosclerosis, epicardial adipose tissue and coronary heart disease.

The findings showed that more extensive periodontitis was associated with a greater amount of atherosclerotic plaque in the carotid arteries. Particularly interesting were results from a study examining different outcomes of periodontal treatment. Patients who received successful periodontal treatment showed no progression in total carotid plaque area, while plaque progression was observed both in untreated individuals and in those whose treatment had been unsuccessful, with the greatest progression in the latter group.

Additional findings from SCAPIS revealed associations between periodontitis and more extensive coronary atherosclerosis, changes in epicardial adipose tissue and an increased risk of future coronary events. The relationship between periodontitis and future coronary heart disease also appeared to be partly explained by the extent of coronary atherosclerosis.

Interestingly, the association between periodontitis and coronary atherosclerosis appeared particularly strong among individuals with low caries activity. One of the most important takeaways from Daniel's presentation was that successful periodontal treatment may be associated with slower progression of atherosclerotic plaque. A planned cardiovascular screening study through dental care among people with periodontitis will take this body of research into clinical practice, using the shared risk factors as an opportunity for targeted screening and prevention.

Keynotes



PALWASHA MOMAND, MALMÖ UNIVERSITY

Antibiotics in Implant Surgery: Balancing Benefits and Risks

Antibiotics are frequently prescribed as a preventive measure in dental implant surgery, but are they always necessary? With antibiotic resistance becoming an increasingly serious global health concern, understanding when prophylactic antibiotics provide real benefits is essential.

Palwasha Momand from Malmö University presented findings from a randomised multicentre study investigating the effectiveness of preventive antibiotic treatment in healthy and relatively healthy patients undergoing implant surgery. The study compared amoxicillin with a placebo and found no statistically significant differences in implant failure or postoperative infections between the two groups.

These findings raise important questions about the routine use of antibiotics in implant surgery, suggesting that preventive treatment may not always provide the expected benefits for this patient group. Palwasha also introduced an upcoming clinical study focusing on bone augmentation procedures, where a patient's own bone or bone substitute materials are used to support implant placement. As these procedures are more complex, antibiotics are often prescribed as a precaution.

The aim is to better understand when antibiotic prophylaxis offers sufficient benefits to justify its potential risks. Her presentation highlighted the importance of evidence-based decision-making in dentistry, supporting a more targeted approach to antibiotic use that protects both individual patients and public health.

Keynotes



SHARIEL SAYARDOUST, LINKÖPING UNIVERSITY

From Saliva to Diagnosis: An Electronic Tongue for Detecting Periodontitis

A new approach to detecting periodontitis could make use of something as simple as a saliva sample, combined with advanced sensor technology and artificial intelligence. Shariel Sayardoust from Linköping University introduced the development of an AI-powered electrochemical sensor platform, described as an "electronic tongue", designed to explore whether the composition of saliva can provide an early indication of periodontal disease.

Today, diagnosing periodontitis requires clinical examinations, including measurements of periodontal pockets, bleeding, attachment loss and radiographic assessment of bone loss. The new technology aims to explore a potentially simpler, non-invasive way of identifying disease-related patterns. Instead of measuring individual biomarkers, the electronic tongue captures an electrochemical fingerprint of saliva, reflecting its overall chemical composition.

The results are being compared with established laboratory methods, including high-performance liquid chromatography (HPLC). One of the challenges is that saliva composition naturally varies depending on factors such as food intake and the time of day, making reliable measurements more complex.

Shariel explained that saliva samples are now being collected from patients with periodontitis and healthy individuals. The next step is to investigate whether the technology can consistently distinguish between the two groups. While the method is still under development and its diagnostic accuracy has yet to be established, the research highlights the potential of combining saliva analysis, sensor technology and AI to develop new tools for oral healthcare.

Key moments




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