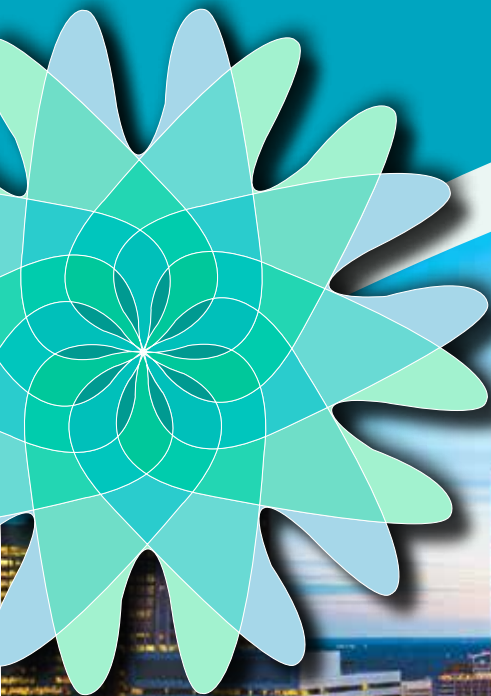


THE 2ND INTERNATIONAL
QUINTESSENCE SYMPOSIUM ON ORAL HEALTH

THE ORAL-SYSTEMIC HEALTH CONNECTION

APRIL 21–22, 2017 | CHARLOTTE MARRIOTT CITY CENTER | CHARLOTTE, NC

ADVANCE PROGRAM



SPEAKERS

Wenche S. Borgnakke, DDS, MPH, PhD

Robert J. Genco, DDS, PhD

Barbara L. Greenberg, MSc, PhD

Effe Ioannidou, DDS, MDS

Ira B. Lamster, DDS, MMSc

Peter B. Lockhart, DDS

Panos N. Papapanou, DDS, PhD

Douglas E. Peterson, DMD, PhD, FDS RCSEd

Thomas E. Van Dyke, DDS, PhD

Robert J. Weyant, MS, DMD, DrPH

David M. Williams, BDS, MSc, PhD,
FDS RCS (Engl), FRCPath

David T. W. Wong, DMD, DMSc

Sook-Bin Woo, DMD, MMSc

Program Chair:

Michael Glick, DMD



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Recognition Program



WELCOME INVITATION



Dear Colleagues,

It is with great pleasure that I invite you to attend the 2nd International Quintessence Symposium on Oral Health: The Oral-Systemic Health Connection in Charlotte, April 21–22, 2017, at the Charlotte Marriott City Center. This unique gathering will bring together the most prominent clinicians and researchers on the subject of the oral-systemic health connection.

Over the past several decades, an impressive body of knowledge has accumulated about the impact of oral infections on overall health and well-being. Studies have found important associations that are now being evaluated for causative relationships. New information is being published at a rapid pace, and clinicians must sort through occasionally conflicting published findings. This symposium provides the most up-to-date knowledge on the associations between oral and systemic health. This event will also provide guidance on addressing these associations with colleagues and patients, and attendees will learn how claims made by scientists working on this subject can be interpreted.

I am confident that this symposium will bring clarity and understanding to a subject of utmost importance to all health care professionals. Not only will you benefit from the knowledge gained from the gathered experts, but you will also be able to apply this knowledge for the benefit of your patients.

I look forward to welcoming you to Charlotte and the 2nd International Quintessence Symposium on Oral Health: The Oral-Systemic Connection.

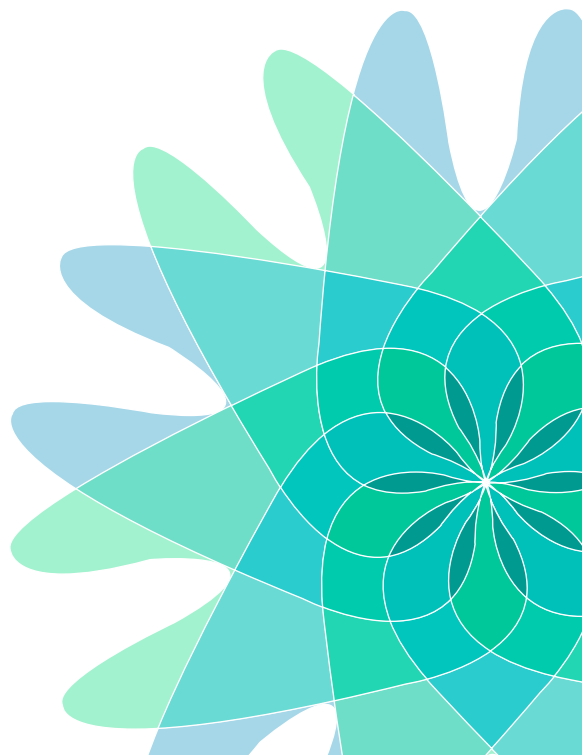
A handwritten signature in black ink that reads "Michael Glick". The signature is fluid and cursive.

Michael Glick
Program Chair

PROGRAM OBJECTIVES

Participants will:

- Learn how to appraise studies reporting on associations between oral and systemic conditions
- Understand the role of oral infections and general health
- Learn how to inform patients about the associations between oral infections and their health

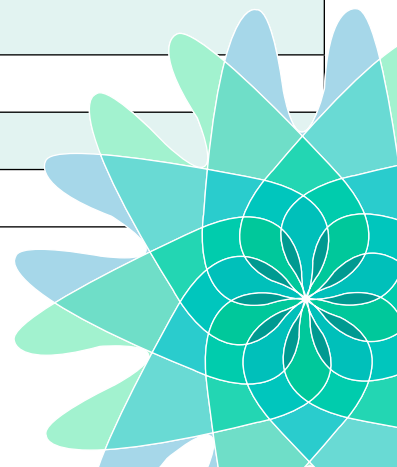


FRIDAY, APRIL 21, 2017

TIME	SPEAKER	TITLE
7:00 AM–8:00 AM		<i>Breakfast with Exhibitors</i>
8:00 AM–8:15 AM	Michael Glick	Introduction and welcome
8:15 AM–8:45 AM	Michael Glick	How to Define Causation
8:45 AM–9:30 AM	Barbara L. Greenberg	An Evaluation of the Oral-Systemic Health Literature
9:30 AM–10:15 AM	Wenche S. Borgnakke	The Traveling Oral Microbiome
10:15 AM–10:45 AM		<i>Break and Refreshments with Exhibitors</i>
10:45 AM–11:30 AM	Thomas E. Van Dyke	The Role of Inflammation in Oral-Systemic Interactions
11:30 AM–12:15 PM	Ira B. Lamster	Obesity, the Metabolic Syndrome, and Oral Health
12:15 PM–1:15 PM		<i>Lunch with Exhibitors</i>
1:15 PM–2:00 PM	Robert J. Genco	The Association of Periodontal Disease and Diabetes
2:00 PM–2:45 PM	Effie Ioannidou	The Association Between Oral Infections, Renal Disease, and Pulmonary Disease
2:45 PM–3:15 PM		<i>Break and Refreshments with Exhibitors</i>
3:15 PM–4:00 PM	Panos N. Papapanou	Inflammatory Periodontal Disease and Adverse Pregnancy Outcomes
4:00 PM–5:00 PM		<i>Panel Discussion Q&A</i>

SATURDAY, APRIL 22, 2017

TIME	SPEAKER	TITLE
7:00 AM–8:00 AM		<i>Breakfast with Exhibitors</i>
8:00 AM–8:45 AM	Sook-Bin Woo	Synopsis of Oral Manifestations of Systemic Disease
8:45 AM–9:30 AM	Douglas E. Peterson	Oral Complications in Immunocompromised Patients: The Oncology Prototype
9:30 AM–10:15 AM	Robert J. Weyant	Oral-Systemic Health: The Genomic Connection
10:15 AM–10:45 AM		<i>Break and Refreshments with Exhibitors</i>
10:45 AM–11:30 AM	David M. Williams	Common Risk Factors: The Link Between Oral and Systemic Disease
11:30 AM–12:15 PM	Peter B. Lockhart	Antibiotic Prophylaxis: Dogma Versus Data
12:15 PM–1:15 PM		<i>Lunch with Exhibitors</i>
1:15 PM–2:00 PM	David T. W. Wong	Saliva Liquid Biopsy
2:00 PM–3:00 PM		<i>Panel Discussion Q&A</i>



8:15 AM–8:45 AM

How To Define Causation

Michael Glick, DMD



Most of us are uncomfortable living with uncertainties, so we seek reasons for why things happen. Therefore, the concept of causation has been discussed and argued in both the philosophical and scientific literature for thousands of years. Yet there is no universal definition that can be agreed upon by all. Can we cure, solve social problems, or know the association between oral infections and systemic diseases without knowing the cause? Causation is the basis for predictions and explanations, and it behooves researchers and clinicians to be familiar with some of the more common explanations of this concept. This presentation provides an overview of causation that will help explain the association between oral and systemic health.

8:45 AM–9:30 AM

An Evaluation of the Oral-Systemic Health Literature

Barbara L. Greenberg, MSc, PhD



The association between oral and systemic health has been reported and discussed for thousands of years. These reports have evolved from anecdotal cases to sophisticated epidemiologic studies and intervention trials resulting in clinical care and preventive measures. This presentation briefly reviews some of the more common epidemiologic and statistical methods in use today and discusses how results from different studies can be interpreted to ultimately benefit our patients.

9:30 AM–10:15 AM

The Traveling Oral Microbiome

Wenche S. Borgnakke, DDS, MPH, PhD



This presentation provides an overview of the scientific evidence for characteristics of the oral microbiome, including its constantly changing composition and abundance; its diversity within the oral cavity; and its importance relative to the total human microbiome. Mechanisms used when oral microbes travel within their host and from one person to another are described, along with some of the consequences of travel and colonization of remote locations by members of the oral microbiome. Examples of such recently discovered or confirmed consequences include bacteria that harbor antibiotic-resistant variants of common oral microbes or contribute to various cancers in organs distant from the oral cavity. Naturally occurring compounds that exhibit antimicrobial properties, and thus might be used as alternatives to antibiotics, will also be mentioned. Such substances modify pathogenic effects of commensal oral bacteria that experience abundant overgrowth due to an unusually conducive environment during

disturbance of the normal homeostasis. Development or discovery of such alternatives is important in the quest for reducing antibiotic resistance due to abuse and overuse of antibiotics while keeping the microbiome in its healthy equilibrium.

10:45 AM–11:30 AM

The Role of Inflammation in Oral-Systemic Interactions

Thomas E. Van Dyke, DDS, PhD



Periodontitis is a frequent comorbidity in people with type 2 diabetes, cardiovascular disease, rheumatoid arthritis, and other inflammatory disorders. The inflammation-mediated pathways contributing to these diseases are suggested as possible links between periodontitis and other systemic diseases. For instance, in epidemiologic studies, periodontitis creates excess risk for cardiovascular disease. In the instance of periodontitis, uncontrolled local and systemic inflammation leads to overgrowth of commensal pathogens and phagocyte-mediated tissue injury. As periodontitis may also represent a complication of type 2 diabetes and cardiovascular disease through this mechanism, there is a critical need to develop a cellular and molecular map for the causes of failed regulation of inflammation. This presentation examines the role of resolution of inflammation pathways in periodontitis and the commonalities and interrelationships with other diseases relating to inflammation, as well as the development of small molecules for pharmacologic intervention to predictably harness natural pathways to treatment.

11:30 AM–12:15 PM

Obesity, the Metabolic Syndrome, and Oral Health

Ira B. Lamster, DDS, MMSc



The link between oral health and obesity has focused on obesity as a proinflammatory condition and the relationship of obesity to periodontal disease. This association has been established, but causation is unclear. The relationship of obesity to dental caries is not clear, with studies reporting a positive association, a negative association, and no association. This analysis is complicated by consideration of common risk factors associated with both obesity and caries. Any discussion of the relationship of obesity and oral health must consider the metabolic syndrome, which is comprised of a group of five risk factors for diabetes mellitus and cardiovascular disease, including abdominal obesity, elevated serum triglycerides, low levels of serum high-density cholesterol, hypertension, and elevated blood glucose concentration. Evidence suggests that the metabolic syndrome is related to periodontitis, with particular importance of the concentration of serum glucose.

The dental profession has the opportunity to become more involved in prevention and management of obesity. Delivery of a healthy lifestyle message by oral health care providers can lead to improved oral health and health outcomes.

1:15 PM–2:00 PM

The Association of Periodontal Disease and Diabetes

Robert J. Genco, DDS, PhD



Diabetes and periodontitis are two common, serious conditions that have a bidirectional association. The prevalence and incidence of periodontal disease is greater in patients with type 1 or type 2 diabetes. Furthermore, periodontitis can adversely affect glycemic control in patients with diabetes. Dental management of patients with diabetes requires extra caution and, when

possible, coordination of care with their physician. Such patients should be routinely assessed for periodontal involvement as well as other oral complications of diabetes. Dentists should be aware of any antidiabetic medications patients are taking and ensure that glycemic control is adequate before undertaking procedures such as surgery. Likewise, dental patients who have periodontal disease and exhibit additional risk factors for diabetes should be made aware of the relationship between these two diseases and referred to their physician for assessment of their diabetic status. Early identification and early treatment of diabetes and prediabetes have many benefits for the patient in terms of improved health and reduced risk of complications, including periodontal disease.

2:00 PM–2:45 PM

The Association Between Oral Infections, Renal Disease, and Pulmonary Disease

Effie Ioannidou, DDS, MDS



Chronic periodontitis has been associated with many systemic diseases that lead to poor oral and systemic outcomes. Chronic kidney disease is a worldwide public health problem and is ranked third in the list of diseases causing premature mortality, following AIDS and diabetes. Pulmonary disease is an important cause of mortality and hospitalization with significant implications

on public health costs. Therefore, the assessment of the bidirectional relationship of chronic kidney and pulmonary diseases and oral health is essential. Observational studies have proposed models of biologic plausibility with potential direct and indirect pathways. Large epidemiologic studies have produced evidence highlighting the presence of several confounders in these relationships. This presentation evaluates the existing evidence using the Bradford Hill criteria and discusses its experimental and interventional significance and strengths to propose future directions of interdisciplinary research.

3:15 PM–4:00 PM

Inflammatory Periodontal Disease and Adverse Pregnancy Outcomes

Panos N. Papapanou, DDS, PhD



For the past two decades, the association between inflammatory periodontal disease and adverse pregnancy outcomes has been the focus of investigation in a variety of studies, ranging from experimental animal models to epidemiologic association studies and intervention trials in humans. Yet several uncertainties remain, and

oral health professionals and the public alike are exposed to frequently contradictory information that needs to be clarified. This presentation addresses the following specific questions: What is the effect of pregnancy on the periodontal tissues? What is the biologic plausibility of the association between periodontal diseases and adverse pregnancy outcomes? Are periodontal diseases independent risk factors for the development of adverse pregnancy outcomes? Does the delivery of periodontal therapy in pregnant women contribute to an improvement of pregnancy outcomes? Is periodontal therapy during pregnancy safe for both mother and child? What is the appropriate message to the public on this association?

Saturday, April 22, 2017

8:00 AM–8:45 AM

Synopsis of Oral Manifestations of Systemic Disease

Sook-Bin Woo, DMD, MMSc



In daily practice, the general dentist encounters a variety of mucosal disorders, most of which are straightforward and easy to diagnose. However, even banal-appearing lesions may be a manifestation of systemic disease or a side effect of treatment for systemic disease. Furthermore, the oral signs may be the first presentation, and the dentist is in a unique position to help render an

early diagnosis. In this lecture, I present seven common oral conditions that are encountered in routine general dental practice. For each, there will be a common “default” diagnosis, followed by a discussion on other conditions that may look similar but represent the oral presentation of a systemic condition. The differences in history and clinical findings, as well as diagnostic tests that may help distinguish between each of them, are also presented. The conditions to be discussed include aphthous-like oral ulcers, lichen planus and lichenoid lesions, gingivitis, gingival hyperplasia, pigmented macules, and nonhealing extraction sockets.

8:45 AM–9:30 AM

Oral Complications in Immunocompromised Patients: The Oncology Prototype

Douglas E. Peterson, DMD, PhD, FDS RCSEd



Immunocompromised cancer patients can experience clinically impactful oral complications caused by neoplastic disease and/or its treatment. Oral toxicities can result in significantly compromised quality of life for patients, with decreased patient survival occurring secondary to adverse oral-systemic sequelae in selected cases. Management of the oral lesions tax health care

and/or patient economic resources that are often constrained. This presentation addresses the state of the science of this field. Evidence-based strategies for prevention and management of key oral toxicities caused by cancer therapies are discussed. Acute toxicities, including oral mucosal injury, pain, and infection, are emphasized in relation to the oral-systemic interface. The presentation also highlights novel basic, translational, and clinical research that could lead to innovative strategies for prevention and treatment of oral lesions in immunocompromised cancer patients in the future.

9:30 AM–10:15 AM

Oral-Systemic Health: The Genomic Connection

Robert J. Weyant, MS, DMD, DrPH



Genomic science continues to make rapid advances, providing clinicians with new insights into disease etiology, risk assessment, and prognostic markers. Through approaches such as genome-wide association studies, we have identified thousands of candidate genes that are linked with both oral and general health. Moreover, we will soon enter an era where whole genome scans can be completed for any patient at reasonable costs.

This presentation provides background into the “new” genetic science and how it contributes to our understanding of common complex diseases. Additionally, the many challenges that arise from having such extensive genetic information available will be explored.

11:30 AM–12:15 PM

Antibiotic Prophylaxis: Dogma Versus Data

Peter B. Lockhart, DDS



The focal infection theory that oral health impacts systemic health stems from ancient times, but it has had a significant revival in the past 25 years. Of the many purported associations between oral and systemic health, the longstanding concern about dental health and invasive dental procedures and infective endocarditis (IE) and prosthetic joint infections (PJI) has become more

controversial in recent years. Although antibiotic prophylaxis prior to dental procedures has been the mainstay for prevention of IE and PJI for several decades, our longstanding notions about this practice are under intense review in the face of new data. This presentation focuses on the more important considerations at the interface of dentistry and patients at risk for IE or PJI.

10:45 AM–11:30 AM

Common Risk Factors: The Link Between Oral and Systemic Disease

David M. Williams, BDS, MSc, PhD, FDS RCS (Engl), FRCPath



Despite extensive research, the evidence for a causal relationship between oral diseases such as periodontal disease and systemic disease—particularly heart disease—is weak. By contrast, it is well established that the major oral diseases and noncommunicable diseases share the same social determinants and common risk factors. These particularly include tobacco and dietary sugar intake.

This paper reviews the evidence and argues that, rather than focusing on the search for a causal relationship between oral and systemic disease, oral health care professionals have a major role in advocating for the inclusion of oral disease in the common risk factor approach. This has the potential to both reduce the burden of noncommunicable diseases in general and lead to more effective prevention of oral diseases.

1:15 PM–2:00 PM

Saliva Liquid Biopsy

David T. W. Wong, DMD, DMSc

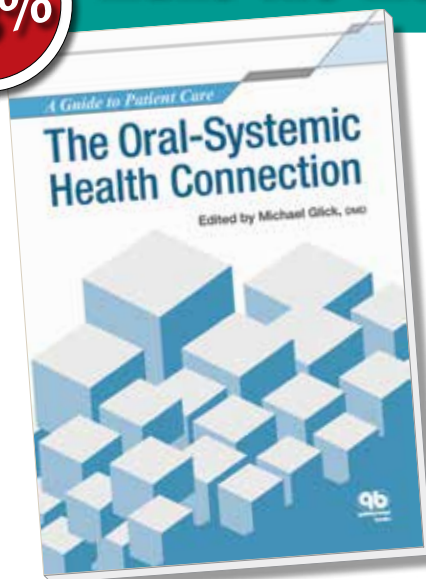


Liquid biopsy provides diagnostics based on cell-free circulating tumor DNA (ctDNA), which can be a surrogate for the entire tumor genome. Its detection can facilitate molecular-targeted therapies, most of which are based on droplet digital polymerase chain reaction (ddPCR) and/or next-generation sequencing for liquid biopsy applications. The development of electric field-induced

release and measurement (EFIRM) liquid biopsy provides the most accurate detection of the most common subtype of lung cancer, non-small cell lung cancer (NSCLC), which can be treated with tyrosine kinase inhibitors (TKIs). EFIRM can detect ctDNA at the single copy level, whereas ddPCR detects ctDNA at 10 times that amount. This presentation discusses the benefits of noninvasive EFIRM and how its detection of the most common epidermal growth receptor gene mutations facilitates treatment with TKIs to effectively extend the progression-free survival of lung cancer patients.



Make the most of your conference experience!



The Oral-Systemic Health Connection: A Guide to Patient Care

Edited by Michael Glick

Read up on the latest scientific associations between the oral environment and overall health. This book will introduce you to and prepare you for all of the topics covered at the symposium. **Order your copy today at this special discounted price for conference registrants only!**

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GENERAL INFORMATION

REGISTRATION

Your registration fee includes admission to all symposium sessions and exhibits, daily breakfast and lunch, coffee breaks, and the symposium reception on Friday evening. Take advantage of specially reduced fees by registering in advance.

REGISTRATION FEES

	By January 6, 2017	After January 6, 2017
Regular rate	\$748	\$798
Resident rate*	\$498	\$498
Auxiliary/office staff**	\$598	\$598
Military rate†	\$558	\$558

*Please submit verification of resident status with the registration form.

**Support staff only. Verification required upon request.

†Please submit a copy of your active military ID card.

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- Mail the enclosed registration form and your check (payable to Quintessence Publishing Co, Inc) for the registration fee to Quintessence Publishing at the address indicated on the form.

On-site registration will be offered only on the basis of space availability and thus cannot be guaranteed. Advance registration is strongly recommended.

The deadline for registering for the symposium is April 11, 2017.

CANCELLATIONS/REFUNDS

Cancellations made in writing and received by Quintessence by April 11, 2017, will be refunded in full. For cancellations received on or after April 12, 2017, but before the start of the meeting, a cancellation fee of US \$150 will be charged. No refunds will be made after the symposium begins on Friday, April 21, 2017.

CONDUCT AT SYMPOSIUM

If an attendee engages in unacceptable behavior, symposium organizers reserve the right to take any action they deem appropriate, including expelling offending persons from the symposium without further notice or refund.

LOST BADGES

Your badge represents your ticket of admittance to all lectures. If you lose or misplace your badge, you will be charged a replacement fee of US \$400; there are no exceptions to this policy. **You must wear your badge each time you wish to enter the lecture hall.**

REGISTRATION DESK

Your symposium packet will await you at the symposium registration desk. The desk will be open from 1:00 PM to 5:00 PM on Thursday, April 20, and from 7:00 AM to 5:00 PM on Friday and Saturday.

HOTEL RESERVATIONS

Hotel rooms have been blocked at the Charlotte Marriott City Center. Reservations at the special symposium rate of US \$182 will be accepted until the **cut-off date of March 27, 2017, or until the room block is sold out, whichever comes first.** Call the hotel reservation desk directly at 1-800-228-9290 or 1-704-333-9000. Be sure to indicate the name of the symposium to receive the special meeting rate.

TECHNICAL EXHIBITS

Technical exhibits will be held on Friday and Saturday during the symposium in the Charlotte Ballroom. Visit the exhibits to observe the latest developments in dental products offered by the leading manufacturers. Exhibit hours are:

Friday, April 21, 2017	7:00 AM–5:30 PM
Saturday, April 22, 2017	7:00 AM–3:00 PM

SYMPOSIUM RECEPTION

A Welcome Reception will be held on Friday, April 21, from 5:30 PM to 7:00 PM in the Charlotte Ballroom. Food and an open bar will be provided. Take this opportunity to renew friendships and meet colleagues from around the world.

CONTINUING EDUCATION CREDITS

One hour of continuing education (CE) credit is offered for each hour of program attendance. CE credit awarded for participation in a course may not apply toward licensing renewal in all states. It is the responsibility of each participant to verify the requirements of his or her state's licensing board. Meeting attendees are responsible for ensuring that their education credits are current and on file with their respective state board or other licensing/regulatory agency. Attendees of the symposium may receive up to 14.5 hours of CE credit. If you have any questions regarding CE credit, contact Paul Lochner at plochner@quintbook.com.

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