NGS Academy of Multidisciplinary Dentistry

FALL SCIENTIFIC SEMINAR

Friday, September 26, 2025
Current, Pier 59, Chelsea Piers, New York City

Speaker: JOHN A. SORENSEN, DMD, PHD

"New Frontiers in Digital Prosthodontics: Integrating Digital Materials, Digital Technology and Traditional Prosthodontic Principles Into Clinical Practice"

Digital technology breakthroughs have transformed clinical prosthodontics to levels implausible only 10 years ago. Just as important though, are the disruptive innovations made in digital material systems. The specifically designed properties of glass ceramics, zirconia ceramics and polymers work synergistically with fabrication technologies to significantly accelerate CAM speed, efficiency and accuracy.

Dr. Sorensen will systematically evaluate each step and material in the digital workflow (DWF) with available laboratory and clinical research validating where DWF is superior or when conventional prosthodontics still work better. He will cover the occlusal considerations for digital prostheses compared to conventional prosthodontics.

He will demonstrate with single tooth to complex oral rehabilitation clinical cases how DWF can leverage and enhance the clinician's knowledge and skills in diagnosis, treatment planning, technician-dentist and interdisciplinary provider 3D communication, provisionalization, prototyping and definitive prosthesis, producing predictable exceptional clinical outcomes.

Course Objectives:

1. Understand the advantages, disadvantages and limitations of digital impressions relative to conventional impressions
2. Understand the advantages and limitations of the various parts of the digital workflow in prosthodontics for both the clinical and laboratory technology aspects
3. Identify how digital tools can enhance patient communications, treatment planning and communication between interdisciplinary providers and the dental technician
4. Explain the mechanisms of improved zirconia esthetics by ceramic structure, milling disk/block structure and shade gradation, shading technologies and unique ultra-thin layering materials
5. Understand the advantages and disadvantages of applications of the various classes of digital ceramics and polymers
6. Understand selection criteria for ceramic material systems, digital technologies, implant abutments and cements

About the Speaker:

Dr. John Sorensen is Professor, Department of Restorative Dentistry; Director, Biomimetics Biomaterials Biophotonics Biomechanics & Technology Laboratory; Director of Research, Graduate Prosthodontics Program at the University of Washington. The B4T team is actively engaged in materials science investigation, developing new diagnostic and analysis tools, R&D of digital workflows for conventional prosthodontics and implant surgical-prosthodontics and clinical trials. Dr. Sorensen is President of the Academy of Prosthodontics and a diplomate of the American Board of Prosthodontics. Over his career he has conducted 12 clinical trials on ceramic systems and implant prosthodontics, published over 99 research articles and chapters, and over 160 research abstracts. He has given over 150 invited lectures in 37 countries and over 300 lecture courses, hands-on programs and patient-treatment classes. Sorensen was awarded the 2018 Clinician-Researcher Award of Distinction by the American College of Prosthodontists and Distinguished Speaker Award by Greater New York Academy of Prosthodontics in 2017.

Speaker: TARUN AGARWAL, DDS

"Making Complex Dentistry Predictable with Digital Tools"

This presentation focuses on practical, real-world strategies for digitizing complex prosthodontic treatment. Topics will include digital workflows for cosmetic dentistry,, multi-unit implants and full-arch implant solutions. Emphasis will be placed on case planning, efficient team integration, and delivering consistent, high-quality outcomes. Attendees will learn how digital tools – from intraoral scanning and treatment planning software to guided surgery and restorative design – can enhance predictability and profitability in everyday practice.

Course Objectives:

1. Understand the essential steps for digitizing cosmetic, single-unit implant and full-arch workflows
2. Identify key technologies and protocols that improve predictability and reduce complications
3. Develop an actionable plan for integrating digital tools into everyday complex prosthodontic treatment

About the Speaker:

Dr. Tarun Agarwal represents a new generation of leadership for the dental profession. As a respected speaker, author, and practicing dentist, he is focused on changing the way general dentists practice. He maintains a full-time general practice in Raleigh, NC that has faced it's share of ups and downs. Despite being an 'in network' insurance provider, he's managed to build a successful practice by balancing common sense business principles, digital technology, and clinical excellence.

Dr. Agarwal produces a weekly podcast called 'Dentistry Made Simple' and regularly holds seminars and workshops at his 3D Dentists training center. Learn more at www.TBoneSpeaks.com.

Speaker: CHERILYN SHEETS, DDS

"Assessing Structural Integrity of Teeth and Implants Using AI and Quantitative Percussion Diagnostics (QPD)"

One of the more challenging diagnostic efforts in dentistry is the assessment of the structural integrity of teeth and dental implants. Cracked teeth, deteriorating/fracturing restorations, loss of cement seal or loss of osseointegration are often hard to diagnose until the results are advanced or catastrophic. Quantitative Percussion Diagnostics (QPD) has been shown in over 28 peer reviewed studies in engineering and dental journals to be an accurate and reliable test for determining the structural wellness of teeth or implants. QPD is a mechanical test similar to evaluation methods used in engineering for assessing structural stability of objects, in contrast to visually based dental diagnostics such as radiographs and visual examination.

The mechanism that creates QPD data has been illustrated by Finite Element Analysis of novel models of uncracked and cracked teeth. QPD, FEA modeling plus the addition of AI and Machine Learning are currently creating a future for dentistry of predictive diagnostics, where structural problems can be diagnosed early and rated as to type or severity. Preventive or therapeutic steps can then be instituted earlier in the damage cycle prior to the occurrence of advanced or catastrophic results, providing dentists with a new aid to diagnosis.

Course Objectives:

1. Understand how percussion can be a diagnostic risk assessment aid
2. Know the scientific foundation of QPD
3. Envision the power of AS/ML combined with increasing amounts of QPD/DATA
4. Determine the synergistic clinical possibilities of QPD/FEA/AI

About the Speaker:

Dr. Cherilyn Sheets is an educator, clinician, author and lecturer, both nationally and internationally. She is Co-Executive Director of the Newport Coast Oral Facial Institute, an international non-profit teaching and research center. She is also a Clinical Professor of Restorative Dentistry at the USC School of Dentistry and is on their Board of Councilors. Dr. Sheets is a Past President of the American Academy of Esthetic Dentistry and the American Association of Women Dentists. She is also a Fellow in the Academy of General Dentistry, American College of Dentists, International College of Dentists, Academy of Dentistry International, and the Pierre Fauchard Academy of Dentistry. She received the 2002 Gordon Christensen Award for Excellence in Lecturing, the 2004 USC School of Dentistry Alumnus of the Year Award, and the 2006 Section of Honor Award (Distinguished Dentist Award) from the California Section of the Pierre Fauchard International Honor Dental Academy. Dr. Sheets is co-principal of a research project on dental implants and cracked teeth with James C. Earthman, PhD at the UCI School of Engineering. Dr. Sheets has authored over 100 articles and has co-authored numerous textbook chapters.

Dr. Sheets serves on numerous editorial boards of peer-reviewed journals. She is the Founder and Chairman Emeritus of The Children's Dental Center in Inglewood, California, which is a non-profit prototype dental center for providing multidisciplinary care to children of the working poor. She is also the Founding Chairman of the Board of the National Children's Oral Health Foundation. 2012 awards:

- The Excellence in Clinical Research Award from the Academy of Microscopic Enhanced Dentistry
- The Honorary Membership in the American College of Prosthodontics

Speaker: TOMASO VERCELLOTTI, MD, DDS

"LESS IS MORE: A New Wedge-shaped Implant to Reduce the Need for Bone Augmentation Procedures"

This lecture introduces new concepts, new technology, and new surgical techniques associated with the use of wedge-shaped implants, which allow to exploit native bone by combining Leonard Linkow and P.I. Bränemark's teachings with the advantages of piezoelectric microsurgery developed by the author.

Course Objectives:

1. Understand the concept of bone volume adequacy in relation to implant dimensions as a prerequisite for implant success
2. Understand how piezoelectric osteotomies and non-circular implant sites allow to place implants exclusively in native bone even in severely atrophic cases
3. Understand the differences in peri-implant bone response to screw-vs wedge-implant site preparation

About the Speaker:

Dr. Tomaso Vercellotti is the inventor of piezoelectric bone surgery and co-inventor of Rex PiezoImplants. He has authored some of the most important scientific and clinical studies on piezoelectric bone surgery as well as the books *Essentials in Piezosurgery: Clinical Advantages in Dentistry* (Quintessence, 2009) and *Piezoelectric Bone Surgery: A New Paradigm* (Quintessence, 2020).

Dr. Vercellotti is Founder and first President of the International Piezoelectric Bone Surgery Academy (IPA), and Honorary Professor and Faculty at the University College of London Eastman Dental Institute. He is an active member of numerous professional associations and has dedicated over 30 years to the rehabilitation of complex cases, currently maintaining a private practice specializing in periodontology and implantology in Genoa, Italy.

XTX Talk: An Interactive Session with Richard B. Smith, DDS, Moderator

With the evolution of the NGS AMD to a true multidisciplinary organization, a new perk of membership is access to XTX, or Cross-Treatment Talks. XTX Talks are treatment planning style seminars conducted several times per year in a virtual format and are intended to reflect the current trend of cross-discipline education and team dentistry. Patient treatments are presented and attending members from various specialties are invited to collaborate on how they would treatment plan and execute the cases

The program will be devoted to giving members and guests a look into a live XTX-style treatment planning seminar. In addition to hearing the speaker give his/her scheduled presentation, everyone can participate with the speaker as he/she presents and reviews patient treatment. With Dr. Richard Smith, we'll get insight into how this highly skilled and knowledgeable dentist approaches a complex, mutidisciplinary treatment with his own specialist perspective. After the case has been discussed by him we will open up the floor to questions. Audience participation will be encouraged.
The objective of the presentation is the same as that of the NGS AMD a a whole: high-quality educational content in a supportive and collaborative environment.

About the Moderator:

Dr. Richard Smith received his dental degree from the New York University College of Dentistry. After completing a general practice residency at Booth Memorial Medical Center, he earned a specialty certificate in prosthodontics from NYUCD's Postgraduate Advanced Education Program in Prosthodontics. He returned to NYUCD obtaining a unique level of training as a Fellow in the Postgraduate Implant Surgical Program. He is a former Associate Clinical Professor in the Department of Periodontics and Implant Dentistry at NYUCD, and the former director of the Periodontal-Prosthetics residency program at New York Hospital Queens. Dr. Smith also served as an Associate Clinical Professor at the Columbia University College of Dental Medicine in the Department of Prosthodontics, where he taught postgraduate Prosthodontics and Implant Dentistry. He continues to lecture, locally, nationally and internationally, and has had numerous articles, including his original research, published in the dental literature. Dr. Smith maintains a private specialty practice along with his partners at SDNY Dental in midtown Manhattan.