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Academy NEWS

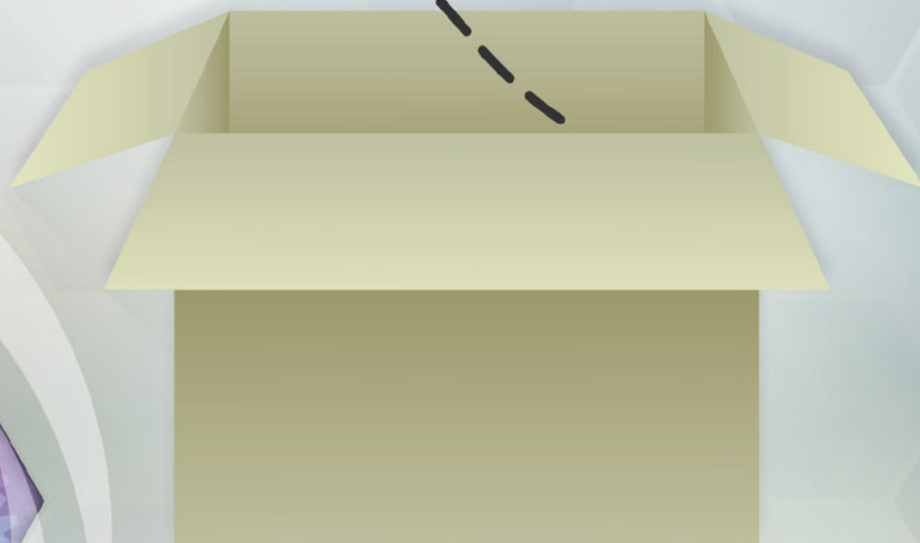
A QUARTERLY MEMBER NEWSLETTER

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ACADEMY NEWS

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President's Message

An extraordinary year of new approaches and new value

By Clark M. Stanford, DDS, PhD, MHA



2020 was a year for the history books. It presented us with many challenges where early in the year, hearing the outbreak of infections on the Pacific coast; the board had to make a difficult decision to suspend the Seattle meeting. After all the hard work, planning, discussions and strategic discussions, suddenly, the event was no more. The bride was left at the altar.

As the nature of the pandemic came into focus, the opportunities of expanding our creative connections accelerated. For a number of years, the board has strategized and tested different ways to connect to members and to enhance member value. The rapid movement to expansive online education occurred across the educational spectrum in 2020. Many of the best AO speakers generously shared their knowledge, experience and values through a range of web-based educational forums. In addition, we recognized the need to create a new, professional AO virtual community since we know based on pre-pandemic demographic changes; supply and demand for CE education and the first choice role of "on demand" education were transformational changes already occurring. The pandemic was simply an accelerant.

This led to the launching of the very successful roll out of the AO DocMatter Community, a professional forum of respectful, evidence-based dialog between the interdisciplinary communities that is the AO. Members are the best educated and highest performing providers of implant-based tooth replacement therapy in the world.

To highlight this beyond the web forums, we have now moved to expanded university and study club supporting venues to bring AO expertise to dental students, residents and young dentists. This expansion, led by Vice President and AO Fellow Dr. **Amerian D. Sones**, has made wonderful impacts with multiple new AO student chapters. Director and AO Fellow **Dr. Hom-Lay Wang** is leading a new educational set of programs to various levels of documented excellence as a "Masters" and "Diplomate" status of the AO along with the AO certificate programs. This is part of the implementation plan of our strategic plan created under Immediate Past President and AO Fellow, Dr. **Jay P. Malmquist**.

As the virtual year evolved, it became evident we once again needed to pivot to a virtual 2021 meeting. Dr. **E. Dwayne Karateew** worked incredibly hard designing the 2021 program for the in-person Orlando meeting. All the pieces were in place. Then the groom got cold feet. When we learned of the restrictions and uncertainty of the Orlando forums, the limited attendance allowed, the significant

increase in national infections, and the reluctance of members to travel we had to make the hard decision to go virtual. Make no mistake; to do this was reinventing the whole meeting, again. Staff members including **Gina Seegers** and **Kim Scroggs** and the whole team at EAI (AO's professional management firm), swung into action. Thank you!

The 2021 meeting is a role model for future professional CE events. It is combining the best in innovative education and leaders in implant dentistry. The forum is set up to allow members to experience the meeting in both a "synchronous" fashion (a.k.a., live) or asynchronous (watching the content when you want) and blended with moderated panel discussions of the presenters.

Think back to prior meetings where there are two simultaneous sessions and you really wanted to be in both. Now you can. This approach allows members to learn in a manner and mode suited to your time and interest. The meeting will provide more than 50 hours of world class CE with moderated live opening and closing sessions along with the live moderated panel sessions throughout for you to ask questions.



In the spirit of "Game Changers," the opening symposium has an exceptional panel of speakers starting with Dr. **Catherine Mohr**, a renowned surgical robotics expert who as president of Intuitive Foundation, pioneered the da Vinci surgical robot. This ground-breaking technology has revolutionized many surgical interventions around the world. We will then be treated to a presentation by Dr. **Pravin Patel** on facial plastic surgery, innovations in nerve regeneration by Dr. **Michael Miloro**, and Advances in 3D Imaging by OM Radiologist Dr. **Mitra Sadrameli**.



Dr. **Sonia S. Leziy** will discuss what is on the horizon in periodontology and Dr. **Miguel Stanley** will provide a talk on consumer and technology drive the future in implant therapy.

Following the opening day, we will have parallel sessions with a blend of recorded and live sessions, multiple chances for you to ask questions, virtual networking and receptions and an innovative exhibit hall floor where you can spend time with a variety of experts at each of the commercial virtual booths (with no one trying to crowd out your questions or thoughts).

Continues on page 18



Dr. Marjorie K. Jeffcoat

Academy pays tribute, fondly reminisces about implant dentistry trailblazer

A pioneer. Fearless researcher. Represented the very best of the Academy. A game changer.

There are so many reasons that **Marjorie K. Jeffcoat**, DMD will be missed. It is with deep sadness for the Academy of Osseointegration (AO) to announce that Dr. Jeffcoat, the first woman to serve as President of the Academy, passed away peacefully at her home in Haverford, PA on November 21, 2020. She was 69.

An AO Life Fellow, Dr. Jeffcoat served the Academy in many other capacities, including leadership on 12 committees and most notably as an organizer of the State of the Science on Implant Dentistry (SSID), which coincided with the Academy's 20th anniversary in 2006.

Prior to being elected president of the Academy, Dr. Jeffcoat was already viewed as a rising star. In 1990, she opened our Annual Meeting with a presentation on radiology in her capacity then as assistant dean of research and chair of the Department of Periodontology at the University of Alabama, Birmingham, AL. Prior to that, she was an associate professor at the Harvard School of Dental Medicine, where she earned her DMD certification of periodontology.

Dr. Jeffcoat also reached other milestones in implant dentistry as the first female dean of the University of Pennsylvania School of Dental Medicine (where she was professor emeritus and dean emeritus at the time of her passing), and the first woman editor of the *Journal of the American Dental Association*. She was also a member of the National Institutes of Health-NIDCR Advisory Committee for Research on Women's Health.

The Academy has received many expressions of remembrances. The following is a collection of those:

“

The passing of Marjorie Jeffcoat was like losing a family member. Behind all that energy and dedication was an extremely sensitive person. Marj was a delight to be with and had an easy way about her. My wife, Maro, and I will never forget her.

– **James H. Doundoulakis, DMD, MS**
AO Life Fellow; Academy president 2002 – 2003
Osseointegration Foundation president, 2010 – 2011

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“

It is very sad to hear about Marjorie. She was way ahead of the curve as a leader in dentistry. In hindsight, Marjorie was AO president many years ago and the first woman to lead the organization. This was progressive and it foreshadowed the current women who will soon lead AO in her footsteps. She will be missed.

– **Russell D. Nishimura, DDS**
AO Life Fellow; Academy president 2015 – 2016
Osseointegration Foundation board member
2016 – 2017 and 2019 – 2021

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“

This is sad news indeed. My earliest recollections of AO board meetings were as *Academy News* editor when I was allowed to sit in, listen and learn how the AO was run. Dr. Jeffcoat governed her board with a determination akin to that of the “Iron Lady.” Margaret Thatcher would have recognized and admired her steely, sharp and unswerving commitment to the direction she believed was right for the AO. She will be missed by her AO family.

– **Michael R. Norton, BDS, FDS, RCS(Ed)**
AO Life Fellow; Academy president 2017 – 2018
Osseointegration Foundation board member
2018 – 2019

”

“

It is true; this is very sad news. I met Marjorie in 1990 and she always was trying to convince me to come to Alabama (and to the U.S.). She was a real role model for many people especially in the field of periodontics with an excellent career. We will miss her, and I cannot forget her passion and energy from the first moment I met her.

– **Georgios E. Romanos**, DDS, DMD, PhD
AO Fellow, Osseointegration Foundation President,
2018 – 2019

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“

Marjorie was a great person and a visionary. It is truly saddening to learn that she is no longer with us, but undoubtedly she has left behind a great legacy. We will continue to advance her dream of promoting implant education through AO. We will definitely miss her and my sincere condolences go out to her family.

– **Hom-Lay Wang**, DDS, MSD, PhD
AO Fellow, Academy Secretary

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Many years ago, I remember often sitting with Marjorie and telling her she would be the first woman president of AO. She said she was unsure that would ever happen or what it would be like, if it did come true. Those of us who were close to her remember she was a great president and blazed the way for others like Tara Aghaloo and Amerian Sones to pick up her baton and carry it even higher. She will be missed. A brilliant mind. A great researcher. A great leader. And arguably most importantly, a great friend. Yes, indeed, she will be missed.

– **Edward B. Sevetz, Jr.**, DMD
AO Life Fellow; Academy president 2006 – 2007
Osseointegration Foundation president 2017 – 2018

”

“

Thank you for your message and the sad news of the passing of Dr. Marjorie Jeffcoat. She had an impressive career in academics, her specialty, and was a special supporter of AO. We will miss her spirit and thank her for all her contributions to our profession.

– **Amerian D. Sones**, DDS, MS
AO Fellow; Academy vice president, 2020 – 2021

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“

I'm terribly saddened to hear this news. Marjorie was a trailblazer in her field. It was an honor to know her and to provide some contributions to the literature for which she was primarily responsible. My heartfelt sympathy goes out to her husband.

– **Steven E. Eckert**, DDS, MS
AO Life Fellow; editor, *International Journal of Oral and Maxillofacial Implants (JOMI)*;
Academy president, 2007 – 2008

”

“

Dr. Jeffcoat was a pioneer in many ways in dentistry, both in periodontology as well as with our Academy. Our Academy represents the very best in terms of bringing specialists together as well as our generalists to provide tooth replacement therapy for all of our patients. She represented the very best of what the Academy can do. Dr. Jeffcoat will be kindly and sincerely remembered by everyone. On behalf of the board, I would like to give our sincerest condolences to Dr. Jeffcoat's family.

– **Clark M. Stanford**, DDS, PhD, MHA
AO Fellow; Academy president, 2020 – 2021

Also see the Academy's YouTube channel to view a short video tribute by Dr. Stanford.

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2021 Virtual Annual Meeting to provide many benefits

The Academy may not see you in person this year, but participating in its 2021 Virtual Annual Meeting will provide a unique, exciting and interactive experience - with the added benefit of many one-of-a-kind opportunities.

Extended and Expanded Programming. No need to pick and choose which presentations you want to see this year! With both live and on-demand viewing options, you will have access to every minute of the Academy's programming at your fingertips whenever it fits your schedule. Live sessions will be recorded and posted for viewing within 12 hours. All on-demand sessions will be posted at the start of the meeting on March 12.

Watch the experts as many times at your leisure, wherever you are until the end of the year - another added benefit! The meeting features 235 expert presentations.

Increased CE Credit. The Academy's 2021 Virtual Meeting will offer 55 hours of continuing education - an increase of more than 77%! CE credit will be available for up to 90 days after the end of the meeting - through June 14, 2021.

Enhanced research presentations. Throughout the duration of the meeting, more than 160 research presentations will be available for viewing. This includes e-posters with an added element of video recordings by the researchers - new for 2021. Numerous Oral Research (Scientific and Clinical, and Clinical Innovations) abstracts are also on the schedule.

Unopposed Corporate Forums.

A wide range of Corporate Forum presentations hosted by numerous companies will be featured live March 9 - 11 without scheduling conflicts. Topics and presenters are selected by the participating companies without input from the Academy. Corporate Forums are not available for CE credit.

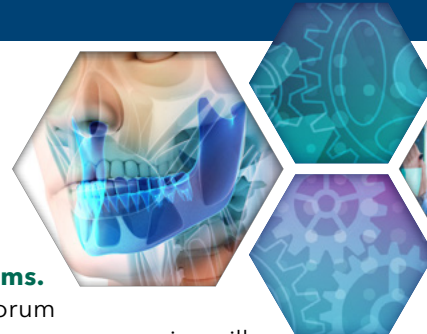
Interactive video networking. Connect one-on-one with participating companies in the virtual exhibit hall and other AO registrants in the networking lounge.

Social networking and gamification. Fun and prizes!

Phenomenal Educational Value. All of the Academy's innovative programming and the virtual meeting experience is being offered at an amazing registration fee - \$249 for member doctors, \$149 for Affiliate/Allied Staff and \$75 for students. However, these rates include advance registration discounts that are valid only through March 1. Attendees are encouraged to register early at ao2021.osseo.org to maximize these cost savings.

After March 8, registrations must be processed manually and meeting access may be delayed up to 12 hours - all the more reason to register early. The Academy's 2021 Virtual Annual Meeting presents a phenomenal value for your educational dollar that will extend well beyond the weekend of the event.

We look forward to "seeing" you March 12 - 14!





New Frontiers in Robotic Surgery: A game changing virtual Opening Symposium



The Academy's 2021 Virtual Meeting will have a dynamic kickoff of its theme, **Game Changers**, as **Catherine Mohr, MD, MS** will take attendees on an exciting journey about "New Technologies in Robotic Surgery."

Dr. Mohr is president of the Intuitive Foundation, the corporate foundation of Intuitive Surgical, pioneers of the da Vinci surgical robot. During the Opening

Symposium on March 12, Dr. Mohr will provide a compelling Keynote presentation about the future delivery of medicine and what it means for introducing new technologies on a global scale, especially in the context of a pandemic. She will also talk about how new capabilities might affect the way in which surgical skills are taught to the next generation of practitioners.

According to Dr. Mohr, robot-assisted surgery has been in existence for more than 25 years. Approval from the U.S. Food and Drug Administration (FDA) in 2001 has led to more widespread use over the past 10 - 15 years and significant growth most recently.

"When you look at where robotics has been growing, it has been in surgeries where there is low penetration minimally-invasive surgery. Robotics helps bridge the gap between what clinicians want to do for their patients, and what they actually can do. It is crucial to note this technology must be a function of filling the gap of a particular clinical need to help improve life outcomes," she said.

Surgical robots, such as the da Vinci produced by Intuitive Surgical, act as tele-manipulators in which, Dr. Mohr stresses, the surgeon is in complete control. Sitting at a console, the surgeon looks in a viewer connected to a 3D scope, which is placed through an 8 mm or 12 mm port, with the robotic instruments placed through 5 mm or 8 mm cannulas.

"The intuitive part occurs when the surgeon perceives the instrument in the field of view. They see the instruments superimposed over where they feel their hands to be. When someone is working in a clinical situation, they do not need to be thinking about the interface," stated Dr. Mohr. "That has been the successful part of the design ethos. It makes user interface fade into the background and as the surgeon, you are tele-present."

As it relates to dentistry and implant applications, orthopedic robots hold the greatest potential similarities. These instruments are considerably stiffer than their soft tissue counterparts, with a primary mode of operation of guiding a drill to mill out a socket using guided navigation. With this type of technology, Dr. Mohr suggests, a dentist could benefit from using image guidance in the patient's mandible or maxilla to determine the orientation needed for the targeted fixture.

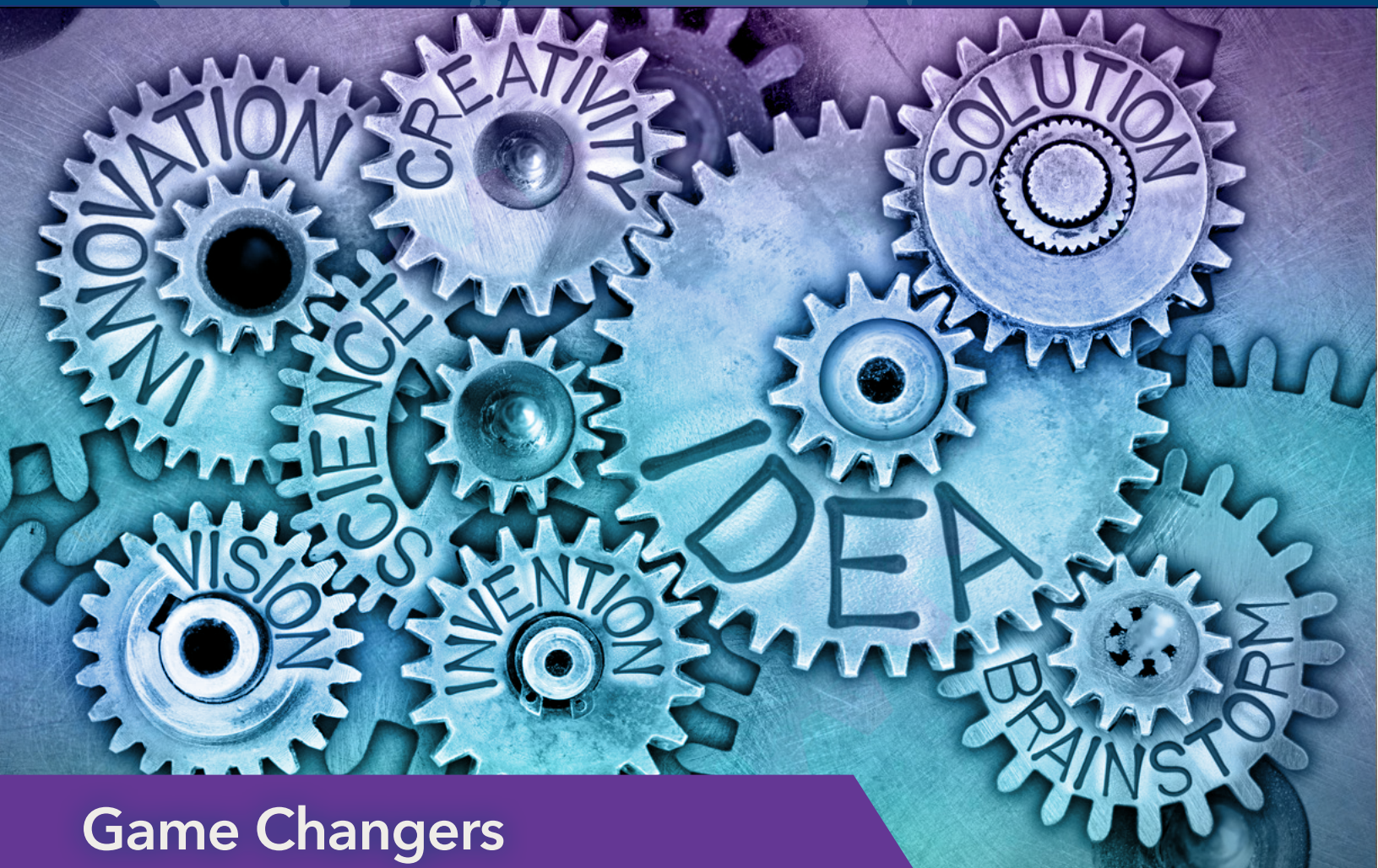
There are also two newly available soft tissue surgical robots, for which the clinical applications are single port procedures, and lung cancer biopsies. Although over the years robotic-assisted surgery has become the gold standard in prostatectomies, the majority of cases are gynecologic, and the fastest growth has been in the general and thoracic surgical arenas, including lung and colon surgeries. The da Vinci is involved in over 1,200,000 procedures per year.

Regarding new frontiers in robotic surgery, Dr. Mohr considers the potential for using AI based tools generated from robotic surgeries akin to giving surgeons "superpowers." She says there has been an enormous expansion over the past 10 years in the ability to analyze machine learning. Digitized task-specific data is helping gain insights into how a surgeon learns, improve teaching procedures, and how variations result in different patient outcomes.

"The promise of AI is analysis of the observable skills to support decision making and getting high level, high value, and high impact coaching from these analyses. This could not be done without these data streams and the new renaissance in algorithm development," she said.

Looking ahead to her Keynote address, Dr. Mohr says, "There is always something to learn from all the different specialties. I will be very interested in understanding some of the challenges in the dental space and the types of technologies your attendees are interested in exploring."

Plan to join the Academy March 12 - 14, 2021 for its 2021 Virtual Annual Meeting, which will begin with Dr. Mohr followed by live scientific presentations from several other "game changers." Live Q&A will also be included, so be sure to have your questions ready! Register at ao2021.osseo.org through March 1 to take advantage of advance discounts.



Game Changers

By Paul A. Fugazzotto, DDS, Academy News Editorial Consultant

Newton forever altered man's understanding of his origins and place in the universe. Caravaggio changed the way art was done and its relationship to man. Einstein revolutionized our very understanding of existence.

Implant therapies have been and continue to be irreversibly impacted by game changers, men and women not dictated to by existing paradigms; who don't recognize the term "thinking outside the box," because their thought exercises refuse the concept of confined meditations.

Spending time extolling the foundational and continuing work of Profs. **Per-Ingvar Brånemark**, **Tomas Albrektsson**, **Ulf Lekholm**, and Dr. **George A. Zarb**, et al is unnecessary.

Although it is impossible to recognize every game changer, it is instructional and motivational to highlight contributors from different aspects in the field. While important, game changers are not people who develop new surgical or restorative techniques to help maximize treatment outcomes. Game changers offer important new paradigms.

Ron Nevins, DDS, through his untiring efforts with fellow periodontists, and some who like him, also served as presidents of the AAP, was instrumental in bringing implant therapies into the realm of periodontics, to the lasting benefit of patients. Such treatment was initially viewed as

the purview of oral and maxillofacial surgeons, due to a since abandoned belief that implants must be placed in a "sterile" operating room setting.

Dr. Nevins' conceptual revolution did not end there. Rather than viewing implant and periodontal therapies as distinct paths for patient care, he utilized his periodontal podium to integrate implant therapies into the teachings of periodontal prostheses and comprehensive patient care. Clinical therapy was forever altered.

This could not have been accomplished without willing, insightful corporate partners. Bill Ryan, one such individual, proved more than worthy of the task. During his career, he was president of two major implant companies. Mr. Ryan worked to draw periodontists and general dentists into the world of implantology, through the introduction of newer, more accessible restorative materials and protocols, grassroots education, and a belief that "if it is done the right way, everyone benefits, most especially the patient."

Two anecdotes demonstrate Bill's paradigm of business. I was in the early stages of growing my "implant practice," had taken Dr. Nevins' teachings to heart, and was going to have **Vincent Celenza**, DMD (New York, NY) speak to my study club about the limitations of cantilevers in fixed prostheses. Although Vinny would not be discussing

implants, Bill understood my mission and underwrote the presentation.

Another time, the company Mr. Ryan was leading in the U.S. experienced solid abutment fractures due to supplier misrepresentation. Instead of waiting for clinicians to complain, Bill proactively contacted all customers and offered reimbursements, not only for the faulty abutments, but also for the restorations which had been placed and the clinician's time. Clinicians and patients throughout the world benefited, as other countries followed his lead.

"Companies can have a heart and soul. If you have a heart and soul toward the world, it will have a heart and soul toward you," said Mr. Ryan.

Daniel Buser, DDS, DMD (Guemligen, Switzerland) was a driving force in forever changing the face of implant education. Through his work at the University of Bern, Switzerland and in the ITI, culminating in his well-deserved ITI presidency, Dr. Buser extracted implant research and techniques from the ivory towers of academia and rarefied clinical acumen, and delivered them to the everyday clinician in an understandable and predictable form. Danny spearheaded development of treatment protocols which have helped many millions of patients in "regular" practices throughout the world. Danny's Caravaggio - like demystification of implant therapies is all the more astounding as it was accomplished while in partnership with the now largest implant company in the world. While corporate support was critical to the organization's mission, these resources were never accompanied by undue corporate pressures or influence, thanks in large part to Danny's efforts and integrity.

"Always work with the best. If you work together you can go really high up. If a company wants to grow it must depend on independent research," said Dr. Buser.

AO Life Fellow **David L. Cochran**, DDS, MS, PhD, MMSc, may well be the paragon for paradigm challenging, clinically meaningful research. He is well known for conducting research free from corporate influence despite the level of support, and which provides foundational support for the development and promulgation of meaningful clinical approaches. David's "thought experiments" are more than mere conjecture. They are a wellspring of conceptual evolution which continues to benefit patients, clinicians and the field as a whole. David describes his career as a quest to fill the void between scientists and clinicians, to pull the two sides together.

"Hopefully, when we are gone, what we have done will have an impact on the lives of lots of patients," he said.

Providing meaningful clinical education on a non-organizational level has been the hallmark of the efforts of **Michael A. Pikos**, DDS (Palm Harbor, FL) for more than two decades. Having helped educate innumerable clinicians, Dr. Pikos' impact on everyday patient care cannot be overstated. Mike has never attempted to "mystify" his philosophies or techniques.

He believes any clinician who has made the effort to obtain the philosophical and technical underpinnings necessary to explore more comprehensive therapies, should be provided the appropriate educational opportunities, but advises caution when interpreting results of online platforms, as many lack long term follow-ups and do not go through peer review.

"All clinicians performing clinical procedures in any area of dentistry must do so using evidence-based approaches," said Dr. Pikos.

Dr. **Sergio DePaoli** (Ancona, Italy) is an example of such a world view. Trained in both prosthodontics and periodontics, in Geneva and Boston respectively, he is an exacting and exquisite clinician. While his therapeutic acumen is unchallenged, it is his commitment to maximization of long-term treatment outcomes and ongoing education, which are awe inspiring. At 84 years of age, Sergio continues to treat patients full time, and prior to COVID, to spend most weekends either educating clinicians throughout Italy, or exploring educational opportunities for himself. Sergio's mission is nothing less than elevating dentistry as a whole, and himself as an individual clinician.

These are examples of game changers. Apologies to those who have been omitted due to space limitations. You know who you are. Not developers of new techniques and materials, but rather foundational disrupters. People who accomplish a priori alterations in our field.

However, the true game changers are the front-line dental providers, who impact millions of lives every day, and especially those who never lose their appetites for scientific discovery and clinical excellence.

Is our field now set in stone, resembling an old board game which occasionally undergoes superficial esthetic changes while leaving all the paradigms and "rules" unaffected? It is not.

We must continue to question, to challenge, to change the rules of the game.

However, to do so we require an infusion of fresh perspectives, from clinicians, researchers and educators who did not study directly under Plato.

To quote **Axel Kirsch**, DDS, DMD (Filderstadt, Germany) during a dinner many years ago, "We did our work. Now it is your generation's turn to make a difference."

The value of alveolar ridge preservation in the context of dental implant therapy

By Gustavo Avila-Ortiz DDS, MS, PhD, Academy News Guest Contributor

Tooth extraction is one of the most frequently indicated procedures in dental practice. Clinicians must be aware that, as a direct consequence of tooth loss, a sequence of local biologic events that ultimately lead to dimensional alterations of the hard and soft tissues that constitute the alveolar ridge are inevitably triggered.^{1,2}

Our group recently conducted a meta-analysis of post-extraction dimensional changes affecting the alveolar ridge following unassisted socket healing in humans.³ Meta-analyses using data from properly executed randomized clinical trials are generally acknowledged as the highest level of scientific evidence. This study corroborated previous findings showing horizontal and vertical alveolar ridge reduction occur naturally, as a direct consequence of tooth extraction.

These dimensional alterations are more pronounced on the corono-facial aspect of the ridge, while more horizontal ridge reduction should be expected in molar sites compared to non-molar sites. The clinical impact of these changes is more critical in the anterior zone. Additionally, facial bone thickness upon extraction seems to be a strong predictor of the extent and magnitude of alveolar bone resorption, as the thicker the facial bone, the lower the amount of ridge resorption.³

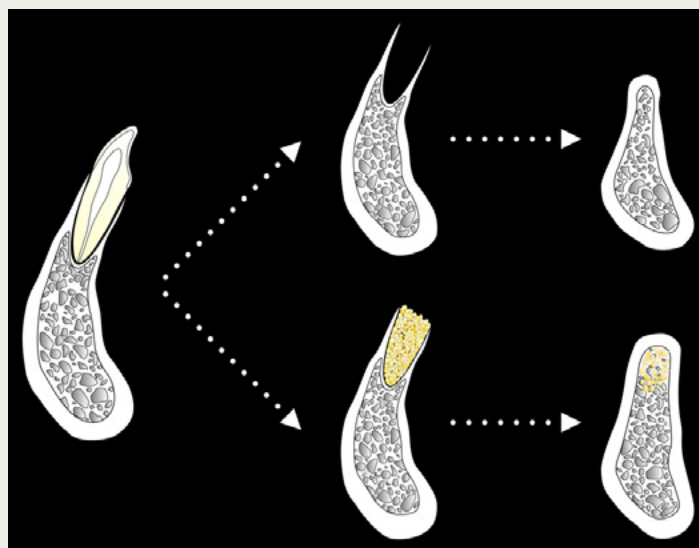
In sites that undergo extensive alveolar ridge atrophy, ridge augmentation is often required to correct resulting deformities that interfere with tooth replacement therapy using implant-supported prostheses. Unfortunately, ridge augmentation procedures pose increased risks for complications and patient morbidity, as well as higher expenses and longer treatment times.

However, adequate management of the extraction site provides an opportunity to attenuate or even overcompensate for post-extraction ridge resorption, with the ultimate objective of optimizing patient care. For this purpose, numerous therapeutic strategies have been described and tested in clinical settings, including partial extraction protocols,⁴ orthodontic extrusion⁵ and alveolar ridge preservation.⁶

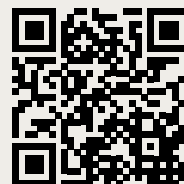
Alveolar ridge preservation (ARP) has been defined as a therapeutic intervention carried out immediately after complete tooth extraction with the goal of attenuating the loss of ridge volume.⁷ ARP procedures are even indicated for extraction sites that exhibit minimal or no

bone damage. They typically consist of the application of a socket filler, usually a bone grafting material, with or without socket sealing,⁸ either with a barrier material (e.g., membrane or matrix) or an autogenous soft tissue punch.⁹ In spite of technical similarities, ARP is conceptually different from buccal overbuilding techniques¹⁰ or alveolar ridge reconstruction procedures, which are indicated in sites exhibiting significant alveolar bone damage upon extraction.¹¹

Evidence supporting the efficacy and predictability of ARP is ample and robust. This is clearly illustrated in a meta-analysis conducted by our group that analyzed data extracted from randomized clinical trials and demonstrated that ARP renders superior outcomes compared to unassisted socket healing.¹² In fact, over the past two decades, ARP has truly become a game changer in daily clinical practice and should be considered the standard of care in the management of extraction sites that are likely to undergo significant remodeling, whether or not immediate implant placement is performed.¹³



Dr. Avila-Ortiz is Professor and Chair, Department of Periodontics, University of Iowa College of Dentistry, Iowa City, IA. References in this article are available via scanning the QR code.



AO Summits: Elevating evidence-based implant dentistry to new heights

By Lourdes Ann Christopher, DDS, MS, Academy News Editorial Consultant

How good are you at evaluating scientific literature? Have you ever had a formal literature review course? I was asked these questions over 20 years ago during an interview for my residency program. As I started conducting my own research, I realized how flawed scientific inquiry can really be.

In classic and current literature courses, I observed how experienced professors could take a seemingly perfect study apart and promptly point out various weaknesses in design, materials, methods, statistics, analyses, and conclusions. My professors always seemed aware of the strengths, weaknesses, character and biases of their fellow researchers, as if they were scrutinizing the work of close associates or family members.

As AO members, we hold a strong commitment to an evidenced-based approach to dental care. However, as busy clinicians, we have little time to plow through thousands of new journal articles every month to systematically review the latest scientific reports. Even if we had the time, most of us would need expert advice on how to analyze and interpret the latest information.

The Academy has the answer to this predicament. Since 1996, it has brought together leaders in implant dentistry for targeted scientific summits designed to review existing research to help answer relevant clinical questions in implant dentistry. An ancillary goal over the years has been to update the AO Clinical Practice Guidelines, a valuable resource to help its members practice best evidence implantology.

The history of AO Summits goes back to 1996, with the Report of the Sinus Consensus Conference. In the past 10 years, AO summits have covered a wide array of relevant topics, including biotechnology, nanotechnology, biologics, and genomic medicine (2010) Current Best Evidence for Management of the Edentulous Maxilla (2014), and the most recent summit in 2018, **Optimized Patient Care: Converting Osseointegration to Patient Integration**.

On November 18, the Academy held a live webinar that discussed the latest literature and expert consensus on systematic reviews focusing on outcomes or osseointegration performed by the Summit's three working groups. Moderated by AO Fellow and President, **Clark M. Stanford**, DDS, PhD, MHA, presenters **Tara L. Aghaloo**, DDS, MD, PhD (Los Angeles, CA), **Joseph P. Fiorellini**, DMD, DMSc, AO board director (Philadelphia, PA) and **Michael R. Norton**, BDS, FDS, RCS, AO past president (London, England), a recording of this webinar is available on osseo.org.

The 2022 Summit is already being planned, with the following working groups:

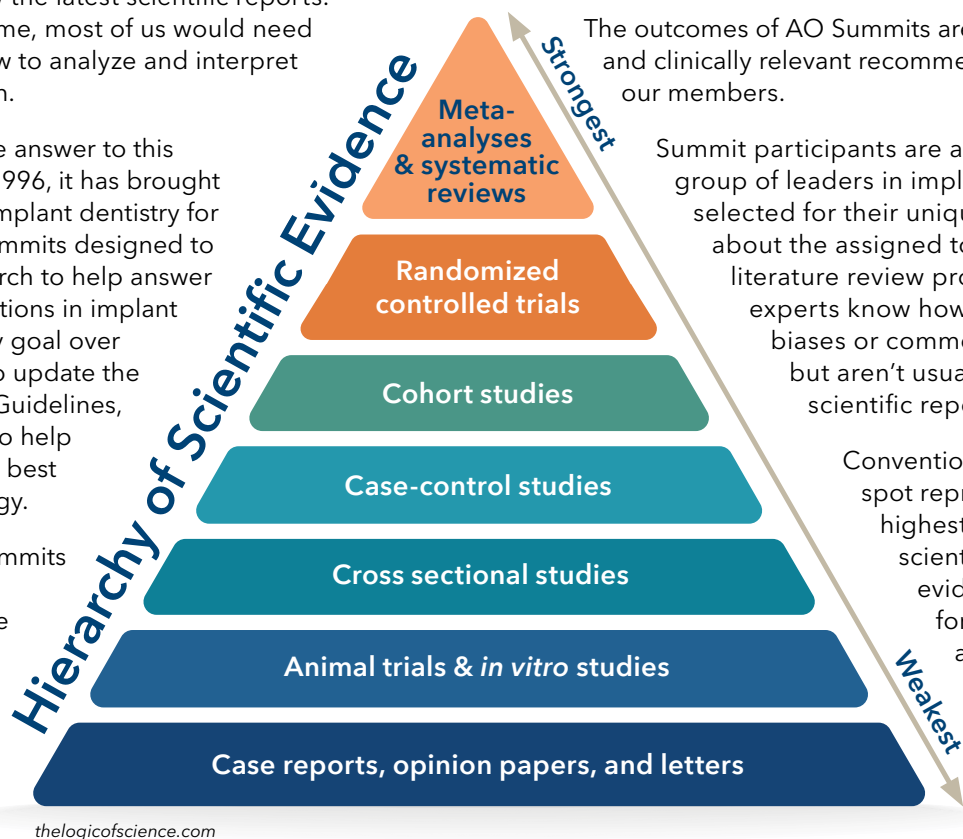
- Flapless and Guided Surgery
- Ceramic Implants
- Implant Abutment Connection and Fixation of Superstructures

The outcomes of AO Summits are up-to-date, clear, and clinically relevant recommendations for our members.

Summit participants are a distinguished group of leaders in implant dentistry selected for their unique expertise about the assigned topics. Like my literature review professors, Summit experts know how to filter out biases or commercial interests but aren't usually spelled out in scientific reports.

Conventionally, the peak spot representing the highest value in the scientific hierarchy of evidence is reserved for meta analysis and systemic reviews. The systemic reviews reported as a result of AO Summits published in

AO journals and on the website provide evidence-based recommendations for changes that our members may need to make in our practices according to the latest innovation, research and technology.





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The untapped dental implant market

By Ed McGlumphy, DDS MS, Academy News Guest Contributor

Some implant "game changers" are not new; but rather, may have been unrealized and "right under our noses" (pun intended) for a long time.

When I attended dental school in the early 1980's, I was intrigued by this factoid at the time: *In England, even though socialized dentistry was "free" to patients, still only 50% of the population sought dental care.*

It wasn't until this past year (my 35th as a licensed dentist) that I fully realized how likely true that statement was and what a golden source of patients the "untapped" 50% can be for the implant dentist.

After my prosthodontic specialty training, I spent the next 32 years of my career in academic dentistry teaching implant prosthodontics and conducting implant clinical trials. In the university setting, I grew quite comfortable with my now admittedly delusional opinion that the lowest common denominator patients seek treatment at "the dental school." Not even close. In my current "retirement" position, I restore 12-15 complete arches of implant dentistry *per week* on patients who were formerly in the untapped 50% and who would likely not know that a dental school exists.

What this means for AO members is, that if you want to help more patients with complete arch implant restorations, you would be much better served NOT to look for these patients in the recall systems of your practice or those of your referral base. These patients, who come in every six months, often do not need complete mouth extractions due to gross caries and advanced periodontal disease. Rather, the patients who want and need your complete arch implant care are in the 50% who have long neglected their dental issues due to a myriad of reasons, including fear, embarrassment and/or perceived inability to pay. However, once their dental situation reaches a crisis level regarding esthetics, pain, infection, and/or tooth mobility, they make every effort to solve these problems with implant dentistry.

Moreover, when their dental issues intersect with or impede their lives, such as wedding photos, health scares or new potential dating interests, paying for implant

treatment becomes a priority. Their only question at that point is, "Where do I go?" Your question should be "How can 'my office' be the answer to their question?"

On average, I screen ten patients *every day* who can benefit from complete arch implant dentistry. Two to three of these patients can find a way to pay for complete care. Granted, I currently direct an implant center within a dental service organization which conducts a sophisticated television and social media marketing campaign targeted at this population. That's how they get to my office.

There are more than enough of these patients for all of us to help. Internal marketing research within my network suggests there are 4.2 million people in the U.S. who are missing 10 or more teeth and can afford full arch implant care. With up to 60 centers focused primarily on full arch implant dentistry working full time over the last 14 years, this network has restored approximately 200,000 patients. The remaining four million people are your untapped dental implant market.

This knowledge can be a "game changer" for your implant practice. I can't tell you how to get them in your door, but I can tell you they are right under your nose (and theirs).

Dr. Ed McGlumphy is Professor Emeritus at The Ohio State University College of Dentistry, Columbus OH, and clinical director of an implant center in Columbus, OH.



NEW AO DocMatter Corner

Last fall, the Academy launched a new member benefit, AO DocMatter Community – a secure, virtual community to facilitate high quality clinical and practice management collaboration. Through this new regular feature column, we will strive to provide important updates with each issue of Academy News about AO DocMatter Community.

The volume of activity, feedback and usage of AO DocMatter is an early demonstration of the high value and significant interest that is being placed into this private, members-only network. **This is a very vibrant community:**

- 78% of the Academy's members have been engaged over the past 60 days.
- From nearly 40 discussion threads initiated, more than 300 posts by 108 contributors have been approved.
- Each discussion topic has received an average of 3,135 interactions, and
- Overall, there have been more than 122,300 total member interactions.

In addition to the analytics, many members have been speaking out directly:

Dr. Richard Nichols: "I like the digest – I can scan topics that are relevant. As a periodontist I actually enjoy the prosthodontic discussions, which helps me with various aspects of treatment planning."

Dr. Brian D. Bray: "The amount of chatter on the DocMatter site seems to be what I expected and seemingly very helpful."

Dr. Thomas Dodson: "This is a good product and your team is doing a terrific job managing it."

DocMatter

Dr. Roberto Luongo: "I'm glad that my topic has been appreciated with several posts. The moderation and pace of conversations have been very interesting so far."

Dr. Gary A. Morris: "All good. I've enjoyed what I have seen."

Dr. Joseph E. Gian-Grasso: "I have been pleasantly surprised at the level of discourse in the discussions to date."

Dr. William C. Roddy: "I have been enjoying the discussions very much. I couldn't be more pleased with the efforts being made by the AO."

Dr. Edward Sevetz: "This is out of this world outstanding! I particularly appreciate the review process and moderation by the clinician advocate team and the ability to directly engage with experts. Use it. For your patients' sakes, please."

Dr. Joachim S. Hermann: After hearing about the clinician advocate team's role in supporting AO members (e.g., helping to draft up posts, moderating the content, etc.): "This made my day!" and "I love you guys!"

Dr. Timothy Kosinski: "I'll be posting a lot, this is great!"

Dr. Bryce C. Dorrough: "The questions that have shown up so far are very interesting and it is very easy to negotiate the site."

Dr. Cherilyn G. Sheets: "I have been following AO DocMatter with interest and feel you are creating something special."

Dr. Lillian Carol Carpio: "I believe this AO DocMatter platform is informative and useful to clinicians! I select topics of interest to me."

Dr. Susan A. Cutler: "Happy New Year to you! I have been reading the community postings and plan to be much more active in 2021."

Even better yet, the AO DocMatter Community integrates seamlessly into your workflow, as it is accessible via the website, mobile app, of replaying to a discussion notification directly via your email. If you have not recently, log in to AO DocMatter and see what all the excitement is about!

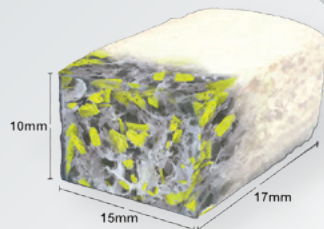


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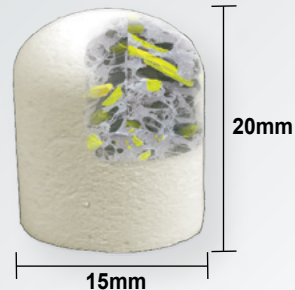
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AO periodontist receives high honors

By Harriet K. McGraw, Academy News Editorial Consultant



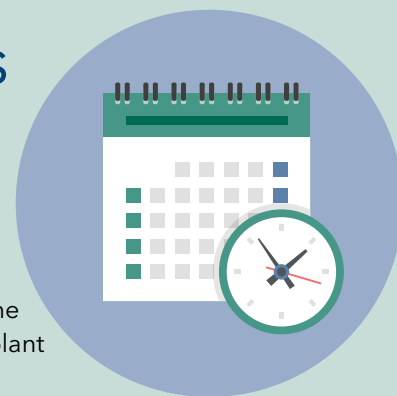
Pamela K. McClain (Aurora, CO), a member of the Academy since 1996, is a leader in the dental profession. Not only because of her accomplishments in clinical research, but because of her efforts in fostering collaboration amongst general dentists, hygienists, dental specialists, and physicians, with the goal of providing the best possible care for patients.

In recognition of her efforts, she was awarded the Master Clinician Award by the American Academy of Periodontology (AAP) at its annual meeting held virtually November 6 - 15, 2020.

For the Academy, Dr. McClain has been a presenter at multiple annual meetings, having most recently been scheduled to present in 2020. She continues to contribute to the organization as a member of the William R. Laney Committee, which reviews and scores each article published in the *Journal of Oral and Maxillofacial Implants (JOMI)*, one of the Academy's two official journals, to determine the best article for the year.

Her contributions in the field of periodontics have been many, with a primary focus on regeneration. She has also received the prestigious R. Earl Robinson Periodontal Regeneration Award five times. Dr. McClain has been a leader in her specialty, having served as AAP president and an advisory board member for the *Journal of Periodontology*.

AO events and CE calendar



February 24, Noon ET

Live Webinar: How Does the Virtual Patient Improve Implant Rehabilitation Workflow?

Junying Li, DDS, MS, PhD

March 4, 1:00 pm ET

Live Webinar: Covid-19 Update: Where We Are One Year Later

Robert Lemke, DDS, MD

March 12 - 14

AO 2021 Virtual Annual Meeting: Game Changers
ao2021.osseo.org

March 31, Noon ET

Live Webinar: Orthodontics and Implant Dentistry

Roger Wise, DDS, MS

April 13, Noon ET

Live Webinar: Restorative Abutment Protocols for Long-term Success

Luigi Canullo, DDS, PhD

April 21, Noon ET

Live Webinar: Peri-implant Diseases and Treatment Options

Alpdogan Kantarci, DDS, MS, PhD

AO live webinars are complimentary to members.
To register, go to osseo.org/online-learning-center.

President's Message *(continued from page 4)*

We have also created a new forum for the corporate forums, "Coffee & Controversies," research posters, and presentations. The meeting will conclude with a live symposium on the future of implant practice models with presentations by Dr. **Lyndon F. Cooper** on the five generational shifts dentists need to be aware of, the role and value of multi-specialty practice models by Drs. **Paul D. Fletcher** and **Dennis P. Tarnow**; the DSO model by Dr. **Theresa C. Wang**, and the future position of the solo specialist model by Dr. **Paul A. Fugazzotto**. The forum will conclude with a moderated panel discussion.

The 2021 meeting provides a number of innovative value adds for you. The blended model of recorded sessions, live moderated Q&A sessions, and social networking opportunities along with the more conventional live sessions allow you to determine your schedule. The overall meeting using an innovative software platform that isn't your kid's Zoom. Even better, you will be able to

come back to review, watch and contemplate exactly what was said after the meeting is over, since the whole meeting will be available to you through the end of 2021.

The AO board of directors has worked incredibly hard to bring new approaches and new value to AO membership this year. This is an opportunity to experiment and we are. The AO's staff, Kevin, Mike, Kim, Gina, and all of the hard working EAI staff are dedicated and wonderful. The entire EAI team needs to be heartily congratulated for continuing to support the mission and vision of your Academy. While my year as your president has been virtual, the energy and vitality of your Academy is not. I look forward to AO Fellow Dr. **Tara L. Aghaloo's** year of success as your Academy continues on its key missions for our patients. In the end, that is the only reason we are here. It has been an honor and pleasure to work with your board of directors and the staff of the AO.

Change is the only constant on the way to perfection

By Mehrdad Favagehi, DDS, MS, Academy News Editor

From its inception, osseointegration can be characterized by change, so it is fitting to have "Game Changers" as the theme of the Academy of Osseointegration's (AO) 2021 Virtual Annual Meeting, as well as this issue of *Academy News*.

In our last edition, Dr. **Tomas Albrektsson** wrote about Prof. **Per-Ingvar Brånemark** describing how he and his team developed the concept of osseointegration and how they fought hard to overcome resistance to change by many clinicians. The osseointegration journey is an epic tale about "change" and human reaction to change.

Change is the only constant on the way to perfection as we seek to develop the perfect implant and techniques. How we deal with change can define our professional standing on a continuum from extinction to survival to success.

Ironically, if we were to practice osseointegration today strictly as it was practiced by Prof. Brånemark in the early days of osseointegration, we wouldn't consider single implants in the aesthetic zone, site development bone grafting, sinus lifts, immediate placement in sockets or early loading. Practicing according to the standards of decades ago would guarantee extinction for our practices today. Implantologists know that change is a constant in the evolution of implant dentistry as we implement changes to improve outcomes.

Dealing with change is usually inconvenient and requires energy, time and resources. Even though change and adaptation are keys to survival, change doesn't always lead us to a better place. Change can be discouraging if it leads us awry. With an explosion of marketing for products and techniques that are sometimes accompanied by fake or flawed science and information overload, it's exceedingly difficult for the average clinician to know what or when to change in order to survive or succeed.

Many clinicians do not have the time or resources to systematically analyze the latest scientific evidence while avoiding the commercial trap of making costly and unwarranted changes. Some have delegated this burden to mentors. But even the best mentors are fallible human

beings who can potentially be misled themselves, as they develop biases for when their views are skewed by commercial interests.

Helping busy clinicians keep track of important changes and navigate their practices according to the latest innovations and research involving osseointegration, and related disciplines via a science based approach is part of the mission of the Academy.



Dr. Mehrdad Favagehi

“Change is the only constant in life. Ones ability to adapt to those changes will determine your success in life.”

- Benjamin Franklin

In this edition, you will find articles focused on "Game Changers" and embracing change in implant dentistry. Drs. **Fugazzotto**, **McGraw** and **McGlumphy** have submitted articles highlighting a sample of the individuals and the patients that have made osseointegration a success today. Dr. **Gustavo Avila-Ortiz** reviews bone grafting in the context of osseointegration as a game changer in implant dentistry. The article by Dr. **Lourdes Christopher** describes how AO Summits allow busy clinicians to keep track of changes in their field by providing unbiased and evidence-based summaries about

the latest changes. The new DocMatter Corner on page 16 goes over the online discussions of AO members as they share their knowledge and experience about the constantly changing landscape in implant dentistry.

How we deal with change, including new concepts and innovations, is the key to our success or extinction. As AO members, please be sure to take advantage of the many resources it provides to help you keep track of new developments in our field as we change our practices for a successful future.

The Editor's Editorial is intended to contribute to the dialogue on issues important to implant dentists. The views expressed in the editorial do not necessarily reflect the policy of the Academy of Osseointegration or its Board of Directors. To provide feedback about this issue, or to contribute as a guest author, please contact me at mfavagehi@yahoo.com. We will endeavor to publish pertinent comments or views when space permits.

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