Quality mark affirms implant cleanliness

Residues on sterile-packaged implants, in particular organic particles from the production or packaging process, are highly suspected of being responsible for an incomplete osseointegration of dental implants or even a loss of bone in the early healing period. Studies from recent years have shown that neither the CE mark (de-ignating European Conformity) nor FDA clearance can provide a reliable indication of the cleanliness of dental implants. In March 2017, a new initiative was presented at the IDS in Cologne, which is focusing on this topic for the protection of both the users and the patients. In three consecutive studies using scanning electron microscopes, scientists with the University of Cologne and the Charité-University Berlin analyzed more than 200 sterile-packaged implants since 2007. Results from the most recent study and comparisons with previous years showed a noteworthy increase in implants with conspicuous residues. With growing numbers of practitioners raising concerns about a biologic answer to these impurities, questions also arise about possible legal implications. Because of the variety of implant systems, it has become difficult for the individual dentist to identify which implants are not affected by these impurities.

In response, the CleanImplant Foundation has set itself the goal of providing such information worldwide. The independent nonprofit organization is supported by a scientific advisory board that is chaired by scientists and practitioners, including Prof. Tomas Albrektsson (University of Gothenburg, Sweden), Prof. Ann Wennergren (Malmö University, Sweden), Prof. Florian Beuer (Charité-University Medicine Berlin, Germany), Prof. Jaafar Mouhyi (University of Agadir, Morocco), Luigi Canullo (Rome, Italy) and Michael Norton (London, U.K.), who is president of the U.S. Academy of Osseointegration. In September 2017, this group of scientists released a consensus paper providing objective evaluation criteria for enabling a "clean implant" to carry the "Trusted Quality" award for a two-year period. The 20-pages document is available for download on the project website. This new global quality mark is designed to enable clinicians to see at a glance whether the appropriate type of implant meets a minimum of cleanliness. Through a five-step approach, the Trusted Quality award can be earned by implants demonstrating in a comprehensive neutral analysis that they are free of significant organic impurities (Fig. 1) and free of particles containing copper, chromium, nickel, iron, tin, zinc, bronze, stainless steel or particles of antimony on the implant surface.

Technically, it is possible to produce residue-free implants, as many of the implants demonstrated in the recent quality assessment studies. However, if quality control steps are reduced for production or economic reasons, medical devices of inferior quality can result—despite CE certification and/or FDA clearance.

For the Quality Mark awarding process, five implants per type are examined, with at least two of those bought through blind purchase from practices. The analytical reports are screened and released by the CleanImplant scientific advisory board in a peer-review process.

"Through these procedures we want to make absolutely sure that there is no connection between the financial support of the project and the analysis result," said Dirk Duddeck, DDS, managing director of the CleanImplant Foundation. "The biggest difference to all previous attempts to develop such a quality mark is that we not only re-evaluate the results with new implants of the same type every two years, but also regularly tighten the criteria for this quality mark. Thus, the existing analyses will be substantially expanded in the coming years."

Results will be published on the project’s website, www.cleanimplant.com, to provide implantologists with comprehensive information about possible implant pollution as well as analysis results of contaminated and clean implants. The project is open to all dentists and manufacturers concerned about the protection of patients from potentially inferior medical devices.

At the European Association for Osseointegration congress in Madrid in October 2017, two implants (UniCA from BTI and the T6 implant made by NucleoSIS) received the Quality Mark award.

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The time-saving Unit Dose 0.5 ml from Sulzer Mixpac is a single-use hygienic application system for two-component dental materials such as cements and bleaching materials. MixPAC™ T-Mixer mixing technology produces high-quality, reliable mixing results, according to the company. The ergonomic and easy-to-use system has a range of safety features including transport protection and a safety fastener. Clear visual indicators ensure that the user can see at a glance whether the system has been activated and is ready to use.
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The removable denture may seem an outdated rehabilitation. However, it is the foundation on which all prosthetic procedures are based; therefore, it is imperative to know it and follow its constructive steps when restoring the patient’s oral cavity to obtain an aesthetic result not only of the smile but of the whole face.

The possibility to anchor a denture to teeth/roots or implants enables the benefits of a removable prosthesis in terms of soft-tissue support, oral hygiene and the greater stability associated with the use of retentive attachments. Preserving roots for the anchoring of a denture provides several strategic advantages, including the maintaining of the alveolar bone (for preserving the periodontal ligament), proprioception and physiological masticatory dynamics (Scotti R et al., 2003).

After an endodontic treatment, different types of post attachments can be applied into the roots. These attachments can be identified as spherical attachments and low profile attachments. Spherical attachments (Pivot Block Normo and Micro and Pivot Flex, Rhein83, Italy, www.rhein83.com) are good anchoring devices because of their self-aligning capacity, small dimensions (in particular for the Micro sphere) and ability to compensate severe divergences between the roots (flex). Today’s spherical attachments have further evolved into the low-profile Pivot OT Equator (Rhein83). This new attachment maintains the same diameter and retentive capacity as the Pivot Block Normo sphere but has a substantially smaller vertical size (only 2.2 mm, including the retentive cap and the housing).

Today’s spherical attachments have evolved into the low-profile Pivot OT Equator (Rhein83). This new attachment maintains the same diameter and retentive capacity as the Pivot Block Normo sphere but has a substantially smaller vertical size (only 2.2 mm, including the retentive cap and the housing).
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- Clinical case and photography courtesy of Paresh B. Patel, DDS.

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Conference focuses on implants

ICOI to host its annual Winter Implant Symposium in Orlando

By ICOI Staff

Orlando and the surrounding Central Florida region is a favorite destination among travelers from around the globe. Join us there on Jan. 11-13 for the ICOI Winter Implant Symposium for a spectacular program designed by ICOI President Dr. Michael Pikos. Serving as our host hotel, the Orlando World Center Marriott offers amazing on-site amenities as well as a shuttle service to nearby amusement parks.

The theme for this meeting will be "Maxillary Arch Reconstruction: Single Tooth to Full Arch." Scientific Program Chair Pikos, from Trinity, Fla., has assembled a talented group of experienced and enthusiastic, private practice and academic-based clinicians who will share their respective wealth of knowledge in a friendly and scientific environment.

The first day will feature a full afternoon podium devoted to our "Young Implantologists." Quickly becoming a highlight of the ICOI meetings, this afternoon session on Thursday, Jan. 11, will showcase the fresh ideas and talents from our

* See ICOI, page A4

25th AAOMS Dental Implant Conference to continue its educational tradition

By AAOMS Staff

The American Association of Oral and Maxillofacial Surgeons (AAOMS) will host its 25th Dental Implant Conference — a premier dental implant educational event featuring an internationally renowned faculty of experts — from Nov. 30 to Dec. 2 in Chicago, Ill. More than 1,000 oral and maxillofacial surgeons, their staff and restorative dentists will gather to enhance their knowledge of dental implants, which offer patients a long-term solution to missing teeth. The event caters to the entire dental implant team.

By attending the three days of innovative research and procedural courses, participants can elevate their implant practice. Session topics — taught by more than 30 speakers — range from replacing congenital missing teeth to effectively applying digital technology in a practice.

Highlights of the preconference sessions and the intensive educational

* See AAOMS, page A2
JOMS study: Botox can relieve jaw muscle pain

By JOMS Staff

Botox therapy can provide significant relief with only a mild risk for negative effects to patients with stubborn pain in the muscles involved in chewing, according to a new retrospective study.

Chemically known as botulinum toxin A, Botox is a protein made from bacteria that, when injected, stops nerve signals that command muscles to contract—resulting in a months-long decrease in muscle activity. It has been used to treat conditions such as muscle spasms, facial wrinkles, migraines and excessive sweating.

According to the study published in the November issue of the Journal of Oral and Maxillofacial Surgery, botulinum toxin A injections also may have pain-relieving properties.

To determine the therapy’s safety and effectiveness in treating stubborn jaw muscle pain, researchers conducted a retrospective review of 16 patients. The patients underwent at least two Botox injection cycles for refractory masticatory myalgia—pain in the muscles used for chewing—that had not responded to other therapies.

The patients at the Department of Oral and Maxillofacial Surgery at Massachusetts General Hospital also had coexisting chronic pain disorders and were receiving other therapies and/or taking medications.

Nearly one-third of participants (30.6 percent) reported significant pain relief—defined as 75 percent or greater—for an average of 10.1 weeks.

“While myalgia is not a life-threatening condition, it can be extremely debilitating and can cause significant distress to the patient,” the study’s lead author stated.

The researchers wrote, “In summary, 39.8 percent of participants had moderate relief for 8.7 weeks on average, and 29.6 percent had no or minimal relief for 1.3 weeks on average.

The most common side effect was a decrease in the size of the masticatory muscle, possibly due to blocked release of a chemical that activates muscles, the study states. However, all of the negative effects were minor and brief, and full recovery occurred within 16 weeks.

Simultaneous use of opioid pain relievers was a predictor of no or minimal relief. Of the participants, 36 percent were using a long-term opioid therapy.

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**About JOMS**

The Journal of Oral and Maxillofacial Surgery is published by the American Association of Oral and Maxillofacial Surgeons to present to the dental and medical communities comprehensive coverage of new techniques, important developments and innovative ideas in oral and maxillofacial surgery. Practice-applicable articles help develop the methods used to handle dental- and-oral surgery, facial injuries and deformities, TMJ disorders, oral and head and neck cancer, jaw reconstruction, anesthetics and analgesics. The journal also includes specifics on new instruments and diagnostic equipment, and modern therapeutic drugs and devices.

**FROM PAGE 1**

**Corrections**

Implant Tribune strives to maintain the utmost accuracy in its news and clinical reports. If you find a factual or content that requires clarification, please contact Managing Editor Sierra Rendon at s.rendon@dental-tribune.com.

Tell us what you think!

Do you have general comments or criticisms you would like to share? Or do you have a particular topic you would like to see featured in Implant Tribune? Let us know by e-mailing your feedback to dental-tribune.com. We look forward to hearing from you! If you would like to make any change to your subscription (name, address or to opt-out), please send an e-mail to: mis@tribune.com and be sure to include which publication you are referring to. Also, please note that subscription changes can take up to six weeks to process.
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American Academy of Implant Dentistry names its new honored fellows for 2017

By AAID Staff

The American Academy of Implant Dentistry (AAID) named six dentists from around the world to the coveted status of Honored Fellow at its recently concluded 66th Annual Conference. The honored fellow designation is awarded to those members of the AAID who, through their professional, clinical, research or academic endeavors, have distinguished themselves within implant dentistry.

Named as AAID honored fellows were:

- George Arvanitis, DDS; Waterloo, Ontario, Canada
- Kirk Kalagiannis, DMD; Lyndhurst, N.J.
- Philip J. Kroll, DDS; Ventura, Calif.
- D. Timothy Pike, DDS; Rockville, Md.
- Dale Edward Spencer, DDS; Hickory, N.C.
- Dr. Atsushi Takahashi; Tokyo, Japan

About the AAID

Established in 1951, the AAID is the only dental implant organization that offers credentials recognized by state and federal courts as being bona fide. Its membership, which exceeds 6,000, includes general dentists, oral surgeons, periodontists and prosthodontists from across the United States and in more than 60 other countries.

Completion of all four certification programs also confers eligibility for ADIA fellowship credentialing. For information, visit www.adiaonline.org.

For full information on this symposium, visit our website at www.icoi.org.
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AAP and European Federation of Periodontology host a workshop on classification of periodontal and peri-implant diseases and conditions

By AAP Staff

In conjunction with the European Federation of Periodontology (EFP), the American Academy of Periodontology (AAP) hosted the World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions Nov. 9-11 at the Gleacher Center in Chicago. More than 100 international researchers, educators and clinicians gathered to review the latest literature and come to consensus on up-to-date guidelines for periodontal and peri-implant disease diagnosis and definition.

Participants conducted literature reviews, established case definitions and deliberated diagnostic considerations for the following topic areas: periodontal health and gingival diseases and conditions; periodontitis; developmental and acquired conditions and periodontal manifestations of systemic conditions; and peri-implant diseases and conditions. The inclusion of peri-implant diseases and conditions within periodontal disease classifications is a first, accommodating for what scientists and practitioners have come to understand about implant dentistry.

“Since the last World Workshop was held in 1999, periodontics has made notable advancements in the treatment and diagnosis of periodontal disease. The 2017 workshop intended to account for what we’ve learned in the last 18 years and help standardize the specialty’s definition of disease,” says Dr. Steven R. Daniel, president of the AAP. “Our collaboration with the EFP and periodontists from all over the world will work to positively shape the quality of patient care globally.”

The 2017 World Workshop is the second recent collaboration of the EFP and AAP. The groups’ joint workshop on periodontitis and systemic disease in 2012 was a major milestone in the specialty’s understanding of the periodontal medicine’s research.

“After three years of preparation, it was rewarding to see many of the best and brightest in periodontics convene to accomplish the important task of updating and standardizing the definitions of periodontal and peri-implant diseases that will be used by dental professionals around the world. The contributions of the workshop’s expert participants will set the stage for periodontics’ expansive future,” said Dr. Jack Caton, co-chair of the event’s organizing committee.

Proceedings from the 2017 World Workshop on Periodontal Disease Classification will be published in both the AAP’s Journal of Periodontology and the EFP’s Journal of Clinical Periodontology in 2018.

About the AAP
The American Academy of Periodontology (AAP) represents more than 8,000 periodontists — specialists in the prevention, diagnosis and treatment of inflammatory diseases affecting the gums and supporting structures of the teeth, and in the placement of dental implants.
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‘Inspiring Imagination — Enhancing Health’: Registration opens for AO 2018 Annual Meeting

By AO Staff

If you’re interested in learning the newest techniques, observing demonstrations of the latest technologies and interacting in discussions about the current issues affecting implant dentistry, the Academy of Osseointegration’s (AO) 2018 Annual Meeting is a must-attend event — and registration is now open (http://meetings.osseo.org/2018/).

For the first time in its history, the Academy of Osseointegration will be hosting its annual meeting in Los Angeles from Feb. 28 to March 3 to put the spotlight on all the customary components, as well as new and interactive features.

“The academy’s 33rd annual meeting will feature a thrilling new format aimed at maximizing audience engagement and many exciting educational and networking opportunities,” said Dr. Joseph Kan, 2018 annual meeting program chair.

The new formats AO will be introducing will include:
• Concurrent surgical and restorative sessions with a new point-counterpoint format.
• “Lunch with the Masters” program.
• “Reflection Panel” as part of the closing session.
• All sessions will assemble the foremost authorities in research and clinical practice from around the world who are on the cutting edge of scientific discovery in implant dentistry.

In addition to these new format changes to promote significantly more dialogue between attendees and presenters, AO will also be bringing back popular meeting favorites, including corporate forums and “Morning with the Masters” sessions. AO’s annual meeting will also continue to feature many opportunities to network with dental colleagues across all specialties and career stages from all corners of the globe.

Continuing AO’s tradition of supporting research and innovation, the oral clinical and oral scientific research and clinical innovations presentations will take place on Friday. With more than 250 abstracts and e-posters submitted for the 2018 annual meeting, attendees can get a first-hand look at a wealth of original and groundbreaking research conducted by its international implant dentistry member community.

For an additional registration fee, scientific content of the annual meeting can also include a number of options for hands-on workshops, all of which will take place on Feb. 28.

On the social side, the 2018 President’s Reception will be one of the most festive social gatherings ever assembled by AO. To be held in Microsoft Plaza within the L.A. Live area, just a stone’s throw from our headquarters hotel, this event complementary to registered attendees will provide an Oscar-themed evening filled with many surprises and an atmosphere of a miniature Times Square.

Registration fees for the annual meeting will include:
• Most scientific sessions (including TEAM Program and Laboratory Technician programs)
• Admission to the corporate forums and extensive exhibit hall
• Thursday’s Welcome Reception
• Friday’s President Reception
• Continental breakfasts
• Complimentary lunches in the exhibit hall

“Global networking opportunities “This is also the perfect chance to bring your family to enjoy Disneyland, Universal Studios, visit the famous Rodeo Drive or attend a Lakers or Clippers game at the nearby STAPLES Center. With the heart of vibrant Los Angeles as the backdrop, AO looks forward to ‘Inspiring Imagination and Enhancing Health!'” Kan said.

Don’t delay in securing your attendance, making your hotel reservations or taking advantage of early bird rates. We recommend registering online, which is fast and easy. After Jan. 8, registration fees increase by $100. Don’t wait, register today at meetings.osseo.org/2018.
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