IMPLANT TRIBUNE
The World's Dental Implant Newspaper · U.S. Edition
FEBRUARY 2014 — VOL. 9, NO. 2 www.dental-tribune.com

AO's clinical guidelines answer questions about implant therapy

As dental implants become more mainstream, proper training and standards are more important than ever

By Stephen L. Wheeler, DDS

As dental implants grow in popularity, evidence-based clinical guidelines are more important than ever. The Academy of Osseointegration's guidelines for safe and effective implant dentistry are focused on achieving optimal patient outcomes. Photos/Provided by the Academy of Osseointegration

Thirty years ago when I started placing dental implants, the highly specialized therapy was in its infancy. At that time, implant dentistry was performed by an oral surgeon-prosthodontist team, and general dentists were not involved at all except as a referral base.

What a difference a few decades make. Today, implant dentistry has developed into a standard of care, and professionals involved in the specialty include not only oral surgeons and prosthodontists, but also periodontists and, increasingly, general dentists.

The therapy also is more widely available than ever before. While this evolution has brought many positives for the specialty and for patients, it also has created some challenges.

As implant dentistry has become increasingly mainstream, training is highly variable — ranging from comprehensive, in-depth instruction to weekend courses.

Those of us who specialize in the field have seen the catastrophic failures that can occur when someone is not properly trained — and we are often left to do the reconstruction. Improperly placed implants can get infected — or worse — and these types of scenarios can contribute to an undeserved negative public image for implant dentistry.

It's important that specialists and general dentists involved in implant dentistry work together to represent the field in the best light possible. As implant dentistry grows in popularity, we must ensure that those offering implant reconstruction to their patients have the training and background to provide excellence in their care.

It is also critical to follow evidence-based clinical guidelines focused on achieving the best possible patient outcomes.

Advancing the vision of implant dentistry

As the president of the Academy of Osseointegration (AO), I strongly support our mission "to advance oral health and well-being globally by disseminating state-of-the-art clinical and scientific knowledge of implant dentistry and tissue engineering and by defining expertise in the field."

AO is taking a multi-pronged approach to achieving this goal and advancing the vision of implant dentistry through:

• Our "Guidelines for the Provision of Dental Implants and Associated Patient Care" (more on that later in this article).

• The Academy of Osseointegration Annual Meeting, which takes place this year

▸ See AO, page 8

AO Annual Meeting

- **WHAT:** Academy of Osseointegration 29th Annual Meeting
- **THEME:** 'Real Problems, Real Solutions'
- **WHEN:** March 6-8
- **WHERE:** Seattle
- **TO VIEW PROGRAM AND REGISTER ONLINE:** *www.osseo.org*

PRSRT STD
U.S. Postage
PAID
Ft. Lauderdale, FL
PERMIT #1117

Dental Tribune America
116 West 23rd St., Ste. 500
New York, NY 10011

AAID president-elect named vice dean at Harvard School of Dental Medicine

After an extensive nationwide search, AAID President-Elect John Da Silva, DMD, MPH, ScM, AFAAID, has been named vice dean at Harvard School of Dental Medicine. Dean Bruce Donoff stated that Da Silva's "extensive institutional knowledge and experience in [HSDM's] three focal areas — research, education and patient care — will be of great value as HSDM continues its strategic planning process."

Da Silva serves on the board of trustees of the American Academy of Implant Dentistry and is currently the president elect. He is also chair of the Bylaws Committee and serves on the Education Oversight and Nominating committees. He has received widespread recognition during his academic career, including being named an honored fellow of the American Academy of Implant Dentistry and receiving the HSDM Distinguished Junior Faculty Award.

AAID President-Elect Dr. John Da Silva.

He has published numerous journal articles and lectured nationwide. Da Silva has made major contributions in research and the area of color science. He has also been involved in curricular changes to improve content on substance-abuse screening and brief interventions.

Da Silva was born in New York City and attended Williams College as an undergraduate. He received his dental degree from the Harvard School of Dental Medicine and his MPH degree from the Harvard School of Public Health. He later returned to the School of Public Health and received an ScM in health policy and management.

Da Silva completed specialty training in implant dentistry and prosthodontics at HSDM in 1992. He has been a faculty member there since 1993.

AD

IMPLANT TRIBUNE

PUBLISHER & CHAIRMAN
Torsten Oemus *t.oemus@dental-tribune.com*

PRESIDENT/CHIEF EXECUTIVE OFFICER
Eric Seid *e.seid@dental-tribune.com*

GROUP EDITOR
Kristine Colker *k.colker@dental-tribune.com*

MANAGING EDITOR IMPLANT TRIBUNE
Sierra Rendon *s.rendon@dental-tribune.com*

MANAGING EDITOR
Fred Michmershuizen
f.michmershuizen@dental-tribune.com

MANAGING EDITOR
Robert Selleck, *r.selleck@dental-tribune.com*

PRODUCT/ACCOUNT MANAGER
Humberto Estrada *h.estrada@dental-tribune.com*

PRODUCT/ACCOUNT MANAGER
Jan Agostaro *j.agostaro@dental-tribune.com*

PRODUCT/ACCOUNT MANAGER
Will Kenyon *w.kenyon@dental-tribune.com*

MARKETING DIRECTOR
Anna Kataoka
a.kataoka@dental-tribune.com

EDUCATION DIRECTOR
Christiane Ferret *c.ferret@dtstudyclub.com*

Tribune America, LLC
116 West 23rd Street, Suite 500
New York, NY 10011
Phone (212) 244-7181
Fax (212) 244-7185

Published by Tribune America
© 2014 Tribune America, LLC
All rights reserved.

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

Tribune America cannot assume responsibility for the validity of product claims or for typographical errors. The publisher also does not assume responsibility for product names or statements made by advertisers. Opinions expressed by authors are their own and may not reflect those of Tribune America.

EDITORIAL BOARD

Dr. Pankaj Singh
Dr. Bernard Touati
Dr. Jack T. Krauser
Dr. Andre Saadoun
Dr. Gary Henkel
Dr. Doug Deporter
Dr. Michael Norton
Dr. Ken Serota
Dr. Axel Zoellner
Dr. Glen Liddelow
Dr. Marius Steigmann

Corrections

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

Tell us what you think!

Do you have general comments or critique you would like to share? Is there a particular topic you would like to see featured in Implant Tribune? Let us know by e-mailing *feedback@dentaltribune. 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 us an e-mail at *database@dental-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.

INPLACE™

Keep Your Teeth In Place

A TURNKEY PRACTICE MARKETING PROGRAM DESIGNED SPECIFICALLY FOR OVERDENTURES

INPLACE™ HELPS YOU ATTRACT NEW OVERDENTURE PATIENTS AND GAIN TREATMENT ACCEPTANCE

Attracting new patients to your practice can be challenging. Gaining treatment acceptance during the patient consultation can be equally as challenging. ZEST Anchors can help you meet these challenges with InPlace – a turnkey marketing program that is specifically designed for overdenture patients.

The InPlace Program consists of a variety of print and electronic promotional and educational elements, including a patient focused website, **teethinplace.com**, where patients can search for an InPlace Clinician in their area.

InPlace provides you with the marketing elements you need to attract patients to your office, educate them on the benefits of implant-retained overdentures and ultimately treat more overdenture patients.

Start attracting new overdenture patients to your practice today.
To learn more, please visit www.zestanchors.com/inplace/30 or call 800.262.2310.

©2014 InPlace is a trademark of ZEST Anchors LLC. ZEST is a registered trademark of ZEST IP Holdings, LLC. All rights reserved.

ZEST ANCHORS

Study: Improved implant surface and hygiene boost restoration success

Should a person's teeth be saved at all costs? During the last decade, the answer has shifted from yes to no in favor of replacing diseased and damaged teeth with implants. But treatment of patients with periodontitis, inflammatory disease of ligaments and bones supporting teeth remains controversial because artificial tooth roots are more likely to fail.

A recent article in the Journal of Oral Implantology looks at long-term treatment for a patient with severe periodontal damage. The authors anticipate that the higher risk of implant failure in this patient will be offset by coating the implants with a rough, oxidized surface called TiUnite and by emphasizing the need for diligent oral hygiene. They also expect that by using overdenture prostheses instead of conventional removable dentures, they will improve stability and function — and thus patient satisfaction.

Overall, increased use of implants has improved eating comfort and resulted in few complications after the surgery. However, pressure on implants is suspected to speed up loss of dense cortical bone in the jaw. Research has shown the TiUnite material stimulates bone growth, leading to faster fusion of implants and surrounding jawbone.

The current article is a case report on a 51-year-old patient who had been in a motorcycle accident and has a history of herpes, hepatitis, insulin-dependent diabetes and persistent recurrent tooth decay. The patient's remaining teeth were composed of fractured crowns and older failing implants.

'The patient was pleased with the results one week after the provisional implants were placed and was still happy with the surgery 12 years later.'

The surgeons removed all of his teeth and old implants followed by the immediate insertions of new implants and stabilizing overdentures. Provisional implants were used for support during healing. Five months later, the interim provisional implants and prosthesis were removed and fabrication of a final restorative prosthesis was initiated.

Despite the higher risk of implant failure because of his periodontal disease and diabetes, the patient's implants have been in place for 12 years with no complications noted at routine check-ups and cleanings. The patient has been instructed post surgery in proper use of floss threaders, deep-cleaning brushes and an oral irrigator. His daily efforts to practice good oral hygiene improved his overall dental health. The patient was pleased with the results one week after the provisional implants were placed and was still happy with the surgery 12 years later. Little care and maintenance of the prostheses have been necessary.

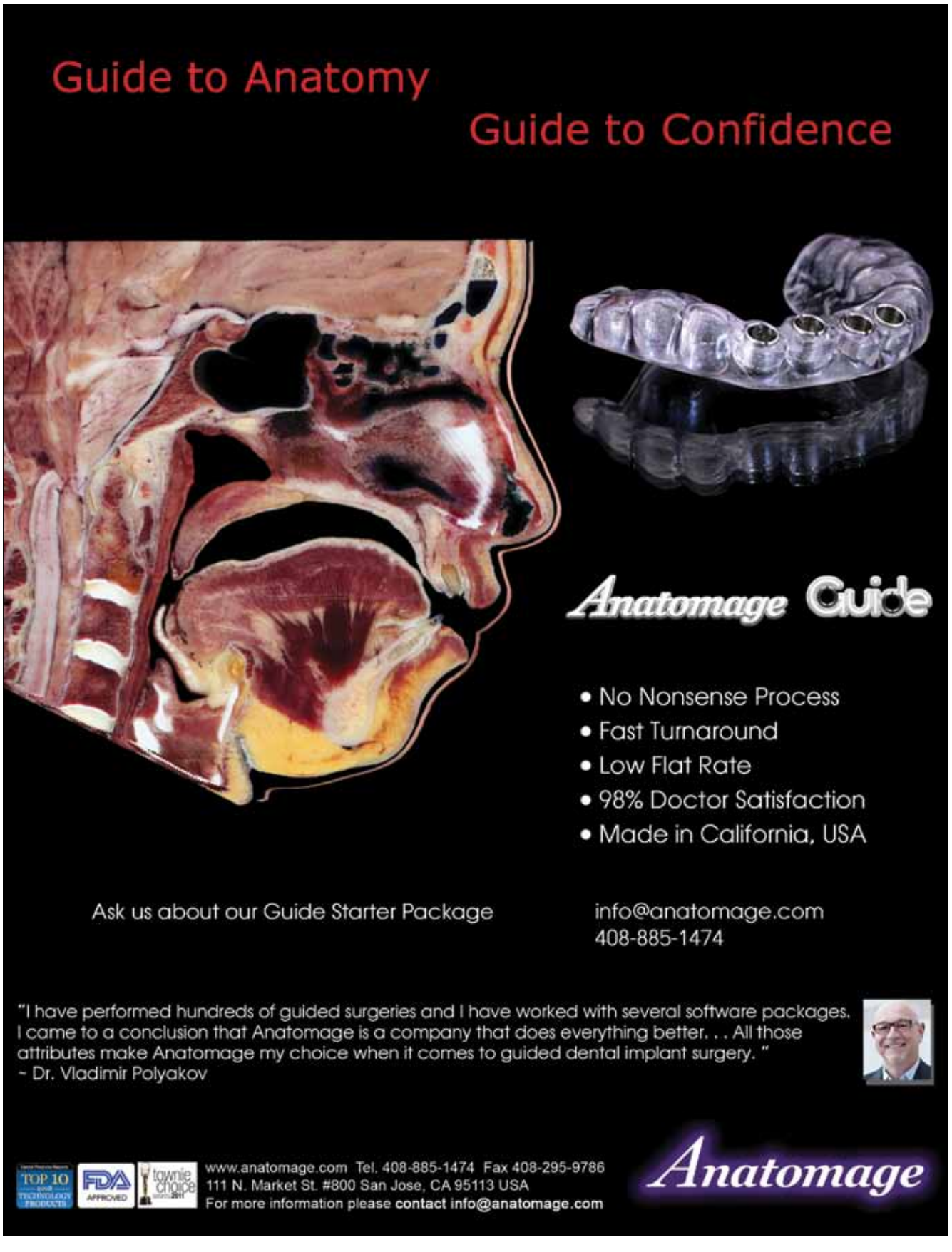
The authors concluded that in this case the prostheses have been effective, predictable, and reliable. They contend that such positive results were only possible because the patient changed his at-home oral care preventing plaque buildup and disease.

Full text of the article "Twelve-year clinical and radiological results of a maxillary and mandible implant-retained bar overdentures carried out on oxidized (TiUnite) replace select implants: A clinical case," Journal of Oral Implantology, Vol. 39, No. 6, 2013, is now available at *www.joionline.org/doi/full/10.1563/AAID-JOI-D-12-00311*.

About Journal of Oral Implantology

The Journal of Oral Implantology is the official publication of the American Academy of Implant Dentistry. It is dedicated to providing valuable information to general dentists, oral surgeons, prosthodontists, periodontists, scientists, clinicians, laboratory owners and technicians, manufacturers and educators. The JOI distinguishes itself as the first and oldest journal in the world devoted exclusively to implant dentistry. For more information about the journal or society, visit *www.joionline.org*.

AD



PEOPLE HAVE PRIORITY

W&H

Let our new products tackle your toughest procedure

IA-400

Mini LED +

Now available from your dental supplier or via wh.com/na

Planmeca makes strategic investment in E4D Technologies

Planmeca, the world's largest privately owned dental imaging company and equipment manufacturer, announced recently that it has made a non-controlling, strategic investment in E4D Technologies, LLC, developer of the E4D CAD/CAM Restorative System.

This strategic investment reinforces Planmeca's ongoing commitment to help dental providers improve patient care by offering a comprehensive portfolio of integrated digital dental solutions for dentists and dental laboratories.

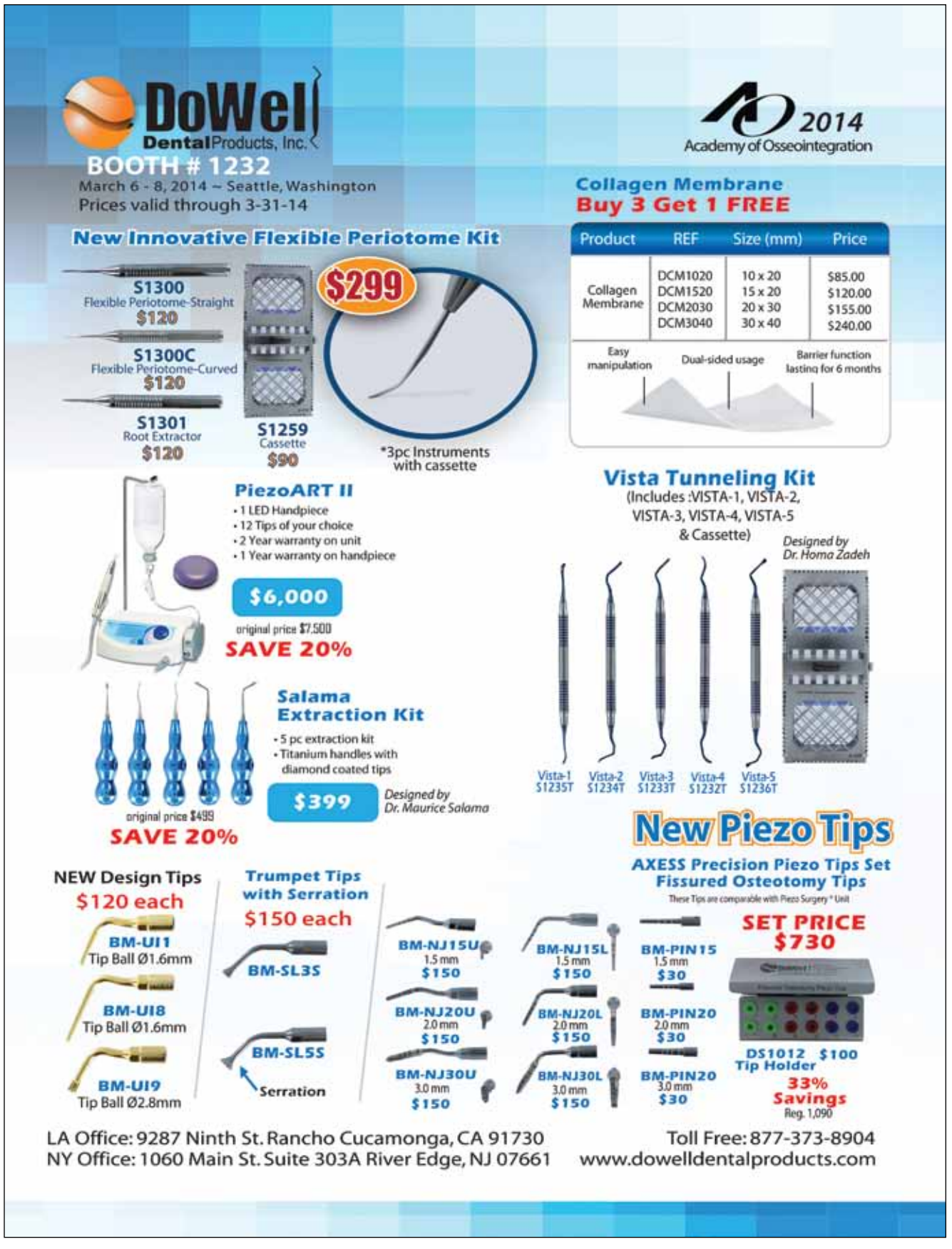
Planmeca will co-develop CAD/CAM products with E4D Technologies and offer these products in North America under the brand names Planmeca PlanScan-E4D Technologies and PlanMill-E4D Technologies. Henry Schein Inc. will continue to be the exclusive distributor in the United States, Canada, Australia and New Zealand.

In addition, Planmeca will expand distribution of the E4D system to more than 120 additional international markets under the Planmeca PlanScan and PlanMill brands. In certain other markets, the E4D brand will remain in use.

"Planmeca's investment in E4D Technologies offers us an opportunity to grow our company globally," said Dr. Gary Severance, chief marketing officer for E4D Technologies. "In addition, Planmeca has been a market leader in extra-oral digital imaging for many years, and we look forward to furthering the seamless integration of our CAD/CAM platform with the additional digital solutions offered by Planmeca. Our customers will benefit from the combination of these unique and innovative products and services."

Under the new agreement, Planmeca joins the partnership of Henry Schein and Ivoclar Vivadent, which have been strategic equity partners in E4D Technologies since 2007, along with certain members of E4D Technologies' senior management team.

AD



About Planmeca Oy, Planmeca Group

Planmeca Oy is one of the world's largest dental equipment manufacturers with products distributed in more than 120 countries worldwide. Headquartered in Helsinki, Finland, the company is a global leader in many fields of dental technology, with a product range covering digital dental units, world-class 2-D and 3-D imaging devices and comprehensive software solutions. Planmeca is also the largest privately held company in the field of dental equipment, with a strong commitment to pioneering in-house research and development and design. More information is available *at www.planmeca.com.*

About E4D Technologies

Headquartered in Richardson, Texas, E4D Technologies is a high-tech medical device company focused on 3-D digitizing applications, successful entrepreneurship and commercialization of new technologies. The company has taken the dental profession to a higher level of productivity, patient comfort and convenience with its E4D CAD/CAM restorative systems and restorative software solutions for dental offices, laboratories and teaching institutions. More information is available at *www.e4d.com.*

About Henry Schein Inc.

Henry Schein Inc. (NASDAQ:HSIC) is the world's largest provider of health-care products and services to office-based dental, animal health and medical practitioners. The company also serves dental laboratories, government and institutional health care clinics and other alternate care sites. A Fortune 500® company and a member of the NASDAQ 100® Index, Henry Schein employs nearly 16,000 Team Schein members and serves nearly 800,000 customers. For more information, visit the Henry Schein Web site at *www.henryschein.com.*

About Ivoclar Vivadent

Ivoclar Vivadent, headquartered in Schaan, Liechtenstein, is one of the world's leading manufacturers of innovative material systems for high-quality dental applications. The company's success is based on a comprehensive portfolio of products and systems, strong research and development capabilities and a commitment to training and further education. The company has wholly owned subsidiaries in 24 countries, and it employs more than 3,000 people worldwide. More information is available at *www.ivoclarvivadent.com.*

Popcorn kernels, hard candy or ice... no worries!

BruxZir® Solid Zirconia Full-Arch Implant Prosthesis

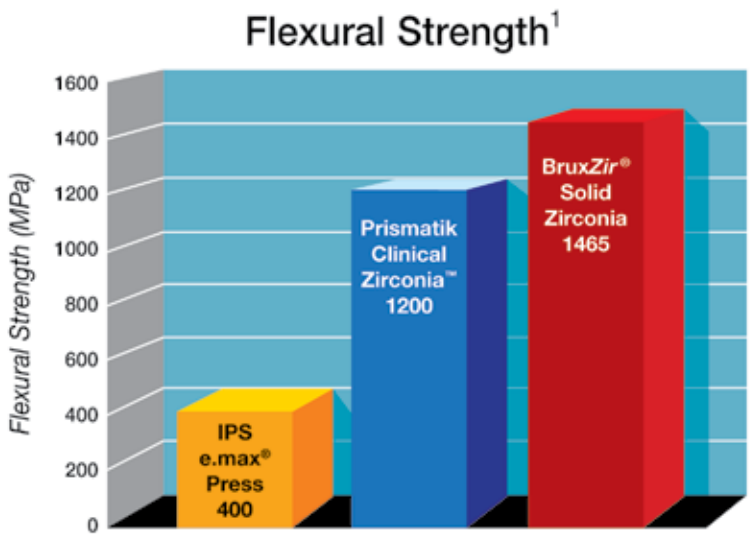
$2,795*

Includes all components

Our toughest implant-supported restoration ever!

*Go online to **www.bruxzir.com** to view or download the step-by-step clinical protocol*

"It's better because it's BruxZir."



Lithium disilicate ceramic has 400 MPa while zirconia materials exhibit a flexural strength of more than 1200 MPa. However, because of post-powder processing, BruxZir Solid Zirconia exceeds that strength threshold, with flexural strengths up to 1465 MPa.

1. Glidewell Laboratories internal data
2. Clinicians Report, TRAC Research, June 2012

- **STRENGTH:** Solid zirconia — no porcelain overlay, denture teeth or acrylics, just 1,465 MPa BruxZir Solid Zirconia
- **DURABILITY:** No color changes, no odor absorption, no metal frame
- **BIOCOMPATIBILITY:** Solid zirconia is hypo-allergenic and has been shown in clinical studies to be wear compatible with enamel[2]
- **7-YEAR WARRANTY:** If material damage occurs, a free replacement is provided from the stored digital design data

*Price does not include multi-unit abutments, shipping or applicable taxes.

For more information

888-786-2177

www.glidewelldental.com

GLIDEWELL LABORATORIES

Premium Products - Outstanding Value

◂ AO, Page 1

March 6–8 in Seattle, as well as our other educational and professional initiatives such as regional training and consensus conferences. We offer continuing education and actionable advice for all clinicians who perform implant dentistry. All told, AO comprises 6,000 members from 70 countries, including periodontists, oral surgeons, prosthodontists and general dentists.

• Our focus on evidenced-based research, which is presented at our medical meetings and in our International Journal of Oral & Maxillofacial Implants (JOMI).

• Our role as a nexus where specialists and general dentists come together to share best practices and coordinate optimal patient care. Whether general dentists are performing dental implants, referring to specialists or performing long-term maintenance, they are part of the clinical team and need to be knowledgeable about implant dentistry.

AO clinical guidelines

AO published in 2008 its first set of clinical guidelines focused on dental implants. The purpose of the guidelines was to establish guidance based on the provision of patient care and the results of AO's 2006 Consensus Conference on the State of the Science on Implant Dentistry.

In 2010, AO updated the guidelines to provide an update and expansion of its recommendations for safe and effective implant dentistry. The Academy's "Guidelines for the Provision of Dental Implants and Associated Patient Care," which were published in JOMI, are available to download in their entirety via AO's home page at *www.osseo.org*.

Highlights of AO's guidelines include:

• *Training:* Whether a specialist or general dentist, AO is determined to underline the importance of adequate training in the surgical and/or prosthodontic aspects of implant dentistry. Training pathways now exist through monospecialty training programs, as well as a wide variety of courses offered through institutions both in the United States and abroad, and by private individuals and companies.

Training must be comprehensive enough to not only meet legal standards of care, but also to ensure optimal patient outcomes and maintain a positive public image of implant dentistry. At minimum, clinicians who place, restore and/or maintain dental implants should be well-versed in implant dentistry techniques, technologies and best practices for basic to complex cases; diagnosis and clinical care plans; patient selection and education; surgical protocols; minimizing risk and treating complications; ethical considerations; and maintenance and long-term management. In addition, because the field of implant dentistry is always advancing and changing, clinicians must be committed to ongoing training and education.

• *Legal standard:* The law holds that any practitioner (generalist or specialist) undertaking any surgical and/or prosthodontic procedure, particularly one deemed to be of a complex nature, should do so to the same standard of care expected of a specialist; or in the case of a specialist, to a standard equal to a reasonable body of his/her peers. In particular, the ability of a practitioner to predict, recognize and treat complications arising from treatment is of paramount importance.

2010 Guidelines of the Academy of Osseointegration for the Provision of Dental Implants and Associated Patient Care

In 2008 the Academy of Osseointegration (AO) published its first document to provide guidelines for the provision of dental implants.[1] The purpose of this document was to establish guidance based on the provision of patient care and the results of AO's 2006 Consensus Conference on the State of the Science on Implant Dentistry.[2] The current document is aimed at providing an update and expansion to these guidelines that should be of value to both specialist and general dentist alike.

Implant dentistry has become a recognized method for tooth replacement that should now be considered a standard of care in particular when related to the treatment of the atrophic mandible, according to the ADA Council on Scientific Affairs,[3] and the McGill Consensus statement.[4] As such dental implants should be presented to patients as an alternative to replacing missing teeth, since the Council recognizes that evidence-based care requires the judicious use of current best evidence. It is nonetheless recognized that much of the current evidence base lacks consensus[2] and, to this end, implant dentistry is often practiced on the basis of best anecdotal evidence, which may or may not be supported by lower echelon studies and/or case reports. As such, there is a responsibility for individual clinicians to avail themselves of the parameters for patient care for the safe and effective provision of dental implants and to continue to avail themselves of ongoing documentation. This paper is intended to provide the AO's position on these parameters while recognizing that the reader should also consider recommendations set out in comparable documents offered by other specialist bodies and organizations.[3,5-8]

When considering placing dental implants, the practitioner has a legal and ethical responsibility to choose a medical device which has a sufficient outcome assessment based on published data and, to this end, the Food and Drug Administration (FDA),[9] the American Dental Association (ADA),[3,10] and the European Union's Medical Devices Directive (EUMDD)[11] have all provided established guidelines for safety and efficacy in the use and application of dental implants. On March 21, 2010, the EUMDD 2007/47/EC amended previous versions requiring manufacturers to fulfill more stringent "essential requirements which implantable medical devices must satisfy in order to be lawfully placed on the market" and recently the FDA established a new accreditation to identify dental devices that are proven to maintain marginal bone levels at significantly improved levels than previously recognized by the Albrektsson et al criteria of 1986.[12]

In addition to outlining parameters for patient care, dental professionals may find answers to critical questions regarding their approach to implant therapy in the following guidelines, which have been developed by the AO.

TRAINING

Whether a specialist or general dentist, the AO is determined to underline the importance of adequate training in the surgical and/or prosthodontic aspects of implant dentistry. Training pathways now exist through monospecialty training programs, as well as a wide variety of courses offered through institutions both in the United States and abroad, as well as by private individuals and companies. Training guidelines have been proposed by some individuals for basic implant surgery,[13] in order that dentists can make fully informed decisions regarding their course of study, as well as how they might incorporate implant surgery into their existing practices. Furthermore, the document aims to help dentists determine if the courses they might be considering meet the legal standard of care.

The following headings are covered in this document and the reader is directed to this publication if they require further information:

1. Understanding Implant Dentistry
2. Patient Selection, Patient Education, Documentation, and Risk Management
3. Diagnosis, Treatment Planning, Radiographic Techniques, and Presurgical Work-up
4. Fundamental Surgical Procedures, Anesthesia, and Sterile Protocols
5. Surgical Procedures for Basic Cases
6. Complications, Long-term Management, and Analysis
7. Overview of Advanced and Complex Surgical Procedures and Prosthetic Treatment Options
8. Postinstruction Written Evaluation, Ethical Considerations, and Recommendations for Additional Training

LEGAL STANDARD

The law holds that any practitioner (generalist or specialist) undertaking any surgical and/or prosthodontic procedure, particularly one deemed to be of a complex nature, should do so to the same standard of care expected of a specialist or, in the case of a specialist, to a standard equal to a reasonable body of his/her peers. In particular, the ability of a practitioner to predict, recognize, and treat complications arising from treatment is of paramount importance.

Patients in need of tooth replacement MUST be informed about the potential benefits of dental implants in light of alternative options, the long-term survival, risks, and potential complications. In addition, they should be informed about the importance of maintenance and long-term follow-up, including their specific responsibilities regarding these matters. Once again, practitioners are directed to the evidence-based research available that dental professionals may utilize to inform their patients.

Full copies of the Academy of Osseointegration's guidelines are available for download at *www.osseo.org*.

• *Therapeutic goal:* Implant dentistry should be a restoratively driven therapy whereby the therapeutic goal determines the treatment plan and subsequent surgical placement of dental implants. Assisting in the ongoing maintenance of the remaining intraoral and perioral structures and tissues remains part of the therapeutic goal.

• *Pretreatment considerations:* It is important to emphasize that the need for a dental implant is a prosthodontic diagnosis and the prescription of a dental implant is part of a restorative treatment plan. This will involve a number of stages, which can be distilled into the following headings:

• Appropriate medical and dental history

• Thorough intra- and extra-oral examination

• Appropriate radiographic examination and any other relevant investigations

• Provision of a comprehensive report, treatment plan (including schedule) and estimate of treatment cost

• *Diagnostics:* The following aids are recommended for use in reaching a presurgical diagnosis to assist in determining the complexity of the case as well as the number, location, type and angulation of the implants and abutments to be placed:

• Mounted diagnostic casts

• Imaging techniques

• Radiographic guides and templates

• Computerized planning software

• *The at-risk patient:* Possible contraindications to implant therapy and risk factors for implant failure include: smoking, diabetes, periodontal disease, osteoporosis and certain types of radiotherapy.

• *Implant placement:* The surgical approach should be based on the pretreatment evaluation and the type of implants and/or graft procedure to be utilized. The surgical risk should be assessed and classified according to the Surgical Classification System (scale 1 to 4) as set out in the "Parameters of Patient Care" document of the American Association of Oral and Maxillofacial Surgeons (AAOMS).

• *Grafting procedures:* For the purposes of classification, grafting can be categorized as dentoalveolar or anatomical.

• *Postoperative management:* It is a central requirement in all patient care documents that a patient be provided appropriate instructions for postoperative care. These instructions may be verbal, but a written, individualized, instruction sheet is recommended with information on bleeding, pain control, swelling, the need for antibiotics, the use of chlorhexidine or similar mouthwashes, etc.

• *Prosthodontic considerations:* Implant dentistry is a restoratively driven therapy, and as such, the prescription of implants will have been taken in light of all other prosthetic considerations — including an evaluation of the preexisting condition of teeth adjacent to edentulous spans, alternative methods of tooth replacement, and the condition of the soft tissues which may be critical to the anticipated results.

• *Management of implant and peri-implant tissues:* Periodic evaluation of implants is a requisite component of patient care. The responsibility to perform this evaluation falls on the providing clinician(s). In the case of a team approach, an agreement should be in place as to whether one or both members of the team (i.e., surgeon and/or prosthodontist or general dentist) will follow the patient.

Recall appointments should involve a careful examination of the suprastructure, the surrounding peri-implant tissues, and an assessment made of the patient's oral hygiene.

Considerations recommended by the American Academy of Periodontology (AAP) in the evaluation of implants at recall are:

• Oral hygiene status

• Clinical appearance of peri-implant tissues

• Bleeding on probing and/or presence of exudate

• Pocket probing depths and alveolar bone level

• Radiographic appearance of implant, peri-implant bone and alveolar bone levels relative to the implant abutment junction

• Stability of prostheses and assessment of occlusal screws or cement

• Assessment of veneering material for presence of fractures

• Occlusal assessment

• Patient comfort and function

• Assessment of appropriate maintenance intervals

• *Outcomes assessment:* The desired outcome of successful implant therapy is not only the achievement of the therapeutic goal but also the maintenance of a stable, functional and esthetically acceptable tooth replacement for the patient.

While AO's guidelines provide information and recommendations, they are not intended to be all-inclusive. Clinicians also should consider recommendations set out in comparable documents offered by other specialist bodies and organizations.

As with any specialty, new studies and recommendations regarding implant dentistry are always evolving. As such, AO constantly evaluates emerging research, technology and techniques to ensure its members have the most important and timely information to apply in their practices.

AO is focused on providing objective, unbiased clinical information and providing its members the valuable tools and qualifications they need to succeed with implant dentistry. Implant dentistry has changed significantly since its inception and will continue to evolve — and it's important that we change with the times, too.

About the author

STEPHEN L. WHEELER, DDS, board-certified oral and maxillofacial surgeon, earned his undergraduate degree from Stanford University in 1974 and completed his postgraduate and residency training at the University of Southern California School of Dentistry, graduating in 1981. He specializes in the field of implant reconstruction, which presently involves 80 percent of his time. During the past 30 years, he has placed thousands of implants of various types on patients of all ages and has become an international lecturer on grafting and implant placement. Wheeler is the president of the Academy of Osseointegration (*www.osseo.org*) until the AO 29th Annual Meeting in March, at which time he will assume the role of immediate past president.

© MIS Corporation. All rights reserved.

AO | Booth
733

MGUIDE

Unique open design

surgical template allows
for optimal irrigation and
excellent line of sight

MGUIDE MORE

No software investment

Live one-on-one web conferencing with a MCENTER specialist puts you in control of your case through shared screen technology

Surgical Kits

Innovative keyless instrumentation allows for simple access and versatility for a fully guided procedure.

FOR THE ULTIMATE GUIDED PROCEDURE

MAKE IT SIMPLE

MCENTER USA is proud to announce MGUIDE. our virtual implant planning and guided implantology system designed to enhance simplicity, accuracy and safety. This efficient system combines modern 3D implant planning with an innovative surgical template and unique keyless surgery kit. The result is a simple guided implantology procedure that benefits the clinician and the patient. To learn more, visit our website: www.mcenterusa.com or call us: **866-797-1333 (toll-free)**

MIS USA
MCENTER