Nobel Biocare NEWS

Information for the Osseointegration Specialist

Issue 1/2016

Hear "Yes!" More Often

Realize your ambitions and achieve your goals with the Nobel Biocare Guide to Growth™ program.

Over the years, Nobel Biocare has not only provided its customers with the peace of mind associated with tried and true products and services, it has also successfully helped many of them to revolutionize their practices. In the process, the company has gained great insight into what needs to be done to grow a dental practice today.

By Frederic Love

Nobel Biocare has always delivered the treatment concepts, courses and lectures, hands-on training and expert mentoring necessary to advance a clinician's professional reach.

Today, the company's consulting salespeople also share insights acquired over 50 years of heritage—and 90,000+ customers served—about the importance of promoting patient awareness as a practice management skill essential for increasing patient flow. Nobel Biocare has learned that increasing patient awareness of implant-based treatment increases the rate of treatment acceptance, the important first step on the road to ultimate patient satisfaction.

Guide to Growth™

In the centerfold of this issue of *Nobel Biocare News*, the editors present a detailed overview of Nobel Biocare's new Guide to Growth program. Based on the principal insights into what usually makes an implant-oriented practice successful, this professional program-for-purchase provides a road map to help every member of the treatment team reach his or her professional goals.

Kick-start your growth with your own personal Guide to Growth™ package. Ask your Nobel Biocare team today.

One of the insights upon which Guide to Growth is based—and a key differentiating factor for rapidly growing practices—is that more and more patients expect to return home on the day of surgery with provisional teeth.

Increased patient acceptance

To that end, Nobel Biocare supports minimally invasive protocols for virtually any tooth-loss case. For example, the Nobel Biocare All-on-4® treatment concept has provided a pathway for dramatic growth for many practices.

In the company's well-documented experience, practices that proactively reach out to patients grow more rapidly. A social media presence, a search-optimized website, patient seminars and special patient education events provide just a few of the proven pathways toward increased patient flow.

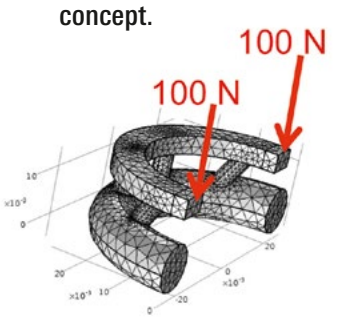
Ever wonder why some dentists find it easier than others to get their patients to say yes to implant treatment? As it turns out, practices that can present a complete patient journey—from initial website visit, to first consultation via treatment itself to follow-up care—find more patients agreeing to implant treatment.

Other factors that have an impact on treatment acceptance include a fixed price for the full treatment, a simple visual presentation of the treatment plan, an introduction to the entire treatment team, well-coordinated staff, and flexible office hours.

Practice growth is an important subject and an interesting topic for discussion. To develop a detailed, personalized practice development plan for you and your team, start the conversation with Nobel Biocare today! <

→ More to explore:
nobelbiocare.com/grow

In this Issue



From the President

Hans Geiselhöringer, President of Nobel Biocare and Dental Imaging

At Nobel Biocare, we are preparing for a new era in patient-focused innovation. We will be pairing our industry-leading implant assortment with a renewed digital dentistry and CAD/CAM offering that will be significantly enhanced.

We are expanding the capabilities of our treatment planning software and—in addition to the improved access we are already giving dental professionals to our CAD/CAM offering—we will have even more exciting developments to disclose at the Nobel Biocare Global Symposium in New York this June.

You can already expect to experience enhancements in key areas like software and new material solutions, including multi-layered full-contour restorations that will help deliver the quality, predictability and efficiency that both you and your patients desire. And there is so much more to come.

Our focus on the patient remains steadfast and constant. With our counterparts at KaVo Kerr Group, we are now in the position to soon unleash a complete offering for every step of patient treatment. From products and solutions to training and education, we look forward to opening up many more possibilities and opportunities for you. <

Nobel Biocare NEWS

Published regularly by
Nobel Biocare Services AG

Vol. 18, No. 1, 2016

Editor-in-chief Frederic Love
Managing Editor Jim Mack
Associate Editor Michael Stuart

Editorial offices
Nobel Biocare News
Herdevägen 11
702 17 Örebro, Sweden

Telephone: +46 19-330680
Telefax: +46 19-330681
email: news.editors@nobelbiocare.com
web: nobelbiocare.com/news

Nobel Biocare Global Symposium

Implant dentistry event of the year: June 23–26, 2016, at the Waldorf Astoria in New York.

"Where would we be without dental implants?" More than a rhetorical question, this phrase embodies an existential issue for many dental practices. In New York, speakers will teach attendees how to make the most of the latest innovations in modern implant dentistry.

At the invitation of Nobel Biocare, osseointegration scholars and professionals from all over the world will be gathering in New York City this summer to explore the scientific and clinical aspects of the meeting's main theme, "Where innovation comes to life."

By Frederic Love

World class speakers, hands-on instruction, master classes, forums and social networking opportunities—all in the heart of one of the great cities of the world—will show you how innovation can play a decisive part in your day-to-day practice.

Ever since a "save the date" announcement was made this winter, registration for the Nobel Biocare Global Symposium 2016 has been strong. Now that the detailed program is available (see "More to explore" at the end of this article), the remaining seats are rapidly being filled.

It's high time, in other words, to register for these remarkable four days of learning.

The symposium's calendar encompasses three main themes: Refining and enhancing treatment; digital dentistry; and achieving clinical excellence in challenging situations.

Each theme has a separate schedule that includes lectures, master classes and hands-on sessions. Thanks to an exceptionally well-organized syllabus, participants who choose to follow only one theme will be able to take part in every single related session.

For others, who may prefer to pick and choose between the different themes and consequently attend individual sessions of special interest in two or more themes, the Global Symposium provides the opportunity to design a unique learning program for each and everyone.

As wide-ranging as it is, the theme-related agenda is only one part of the Nobel Biocare Global Symposium experience.

Social interaction enhances the learning experience

Intertwined with independent study opportunities, Nobel Biocare is arranging a compelling array of forums, including an innovation assembly and a full-day compromised patient forum. Other forums will cover: Partnering for Life; the All-on-4® treatment concept; and dental laboratory workflow. To provide a new generation of dental professionals with their own platform, a NEXT-GEN forum will also be held.

After a busy first day of lectures, master classes and hands-on sessions, a Thursday welcome gathering will provide a perfect opportunity to unwind and to network with peers from around the world. Here you will be able to raise a glass, enjoy some food and see a display of innovative Nobel Biocare products in the beautiful, historical setting of the Waldorf Astoria.

On Friday evening, Nobel Biocare will host the symposium reception off-site at an exciting venue yet to be revealed. Get ready for an evening to remember with an inspiring blend of diversion and education.

Direct impact on the program

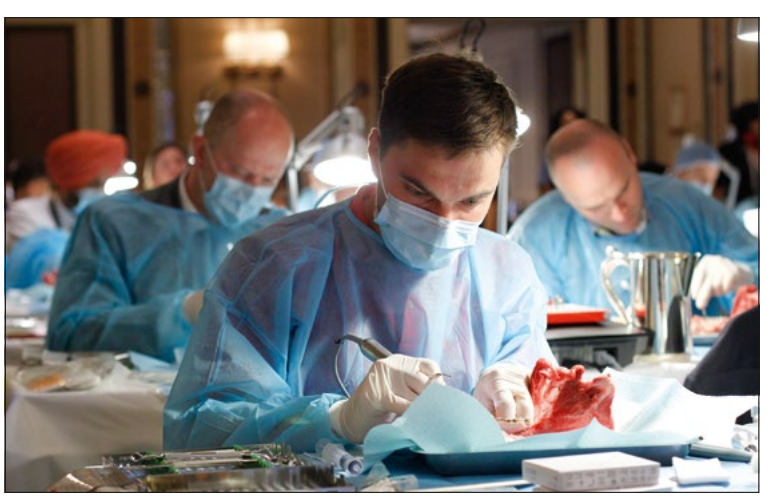
The Scientific Chairmen for the Nobel Biocare Global Symposium 2016 are Drs. Peter Wöhrle of the United States and Bertil Friberg of Sweden. They recently announced that—for the first time at a Nobel Biocare dental event—registered attendees will be able to have a direct impact on the program by voting on various topics and speakers. See the website below for details. The results will be announced a few weeks before the symposium.

Don't miss this opportunity to interact with more than 150 world class lecturers and thousands of colleagues from around the world, while exploring the future of dental implants together.

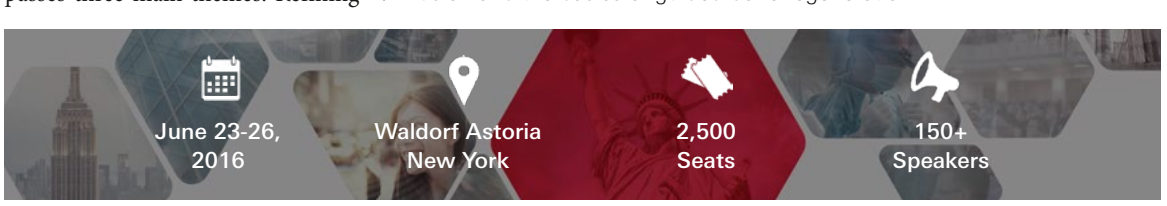
Visit the website below, download the program, and then register for what is sure to be an incomparable experience for everyone involved: the Nobel Biocare Global Symposium in New York! <

Learning can be fun. The Nobel Biocare Global Symposium will provide a variety of forums in which knowledge and experience can be shared in relaxed settings.

→ More to explore!
Check out the details; then register before it's too late: nobelbiocare.com/global-symposium-2016



In New York, hands-on sessions will cover everything from the All-on-4® treatment concept to the Brånemark Zygoma solution, as well as SmartFusion and the basics of guided bone regeneration.



Science matters

Narrow, safe and reliable

NobelActive 3.0 mm implants demonstrate high implant survival rates and optimal hard and soft tissue results in the anterior. (MacLean et al., accepted for publication in Quintessence International)

Implant placement in the anterior area is technically challenging, given the narrow shape of lateral upper and lower incisors and the high esthetic impact. In this retrospective study, 45 patients received a total of 58 NobelActive 3.0 mm implants for the rehabilitation of mandibular and lateral maxillary incisors.

Both bone level (remodeling: –0.36 ± 0.85 mm) and soft tissue health (pocket probing depth: 1.75 ± 0.58 mm) were preserved at 1-year follow-up.

The implant survival rate was in line with previous reports (CSR 96.4%, two implants lost), but the high number of challenging cases (implant placement in sites with congenitally missing teeth, n=20) and immediate prosthetic loading (n=23) of this study emphasize the successful clinical outcome with NobelActive 3.0 mm implants.

→ www.ncbi.nlm.nih.gov/pubmed/26949759

When four equals six

Both four- and six-implant-based solutions provide predictable clinical outcomes in the rehabilitation of the edentulous maxilla after 5 years. (Tallarico et al., Clin Implant Dent Relat Res. 2015 [Epub ahead of print])

Having reached five years follow-up, the first randomized controlled trial (RCT) comparing outcomes of edentulous maxilla patients rehabilitated with the All-on-4® treatment concept or "All-on-6" implants shows no differences in survival (p=0.246), bone remodeling (p=0.12) nor in biological or technical complications (p>0.10).

All 40 patients were treated using guided surgery and an immediate loading protocol. No failures of the cross-arch fixed dental prostheses occurred and all technical complications were easily resolved chairside. Although not significant, implant survival outcomes were better in patients undergoing the All-on-4® procedure, and bone remodeling was very similar in both groups (1.71±0.42 mm All-on-4® vs. 1.51±0.36 mm).

This RCT provides strong evidence that both approaches represent a predictable treatment option for completely edentulous patients.

→ www.ncbi.nlm.nih.gov/pubmed/26446912

Over 30 years in function

Brånemark implants can support screw-retained prostheses for over 30 years without any major complications. (Turkyilmaz and Tözüm, Implant Dent 2015;24:620–624)

Reports of 30-year clinical outcomes of implant treatments are rare in the literature. This retrospective analysis reports no implant loss (100% implant survival rate) in four women available for follow-up 30 years after receiving a total of 28 Brånemark System implants.

The implants supported five screw-retained fixed dental prostheses (FDPs) and only one FDP needed replacement (80% prosthesis survival rate).

The bone tissue was also maintained healthy and stable (average marginal bone level: 2.6 ±0.5 mm). This study shows that FDPs supported by Brånemark System implants are a good long-term and frequently a life-long solution for patients.

→ www.ncbi.nlm.nih.gov/pubmed/26288163

A Sound Investment in Professional Development

"I always wanted to partner with a global organization."

Dr. Simonas Bankauskas, who will be speaking in the NexGen Forum for emerging leaders at the Nobel Biocare Global Symposium in New York in June, has gone from dental school graduate to head of the largest dental chain in Lithuania within 10 years. The secret to his success? A dedication to developing his skills.

By Michael Stuart

Even though he had not long graduated from dental school, Dr. Simonas Bankauskas was intent on starting with dental implant surgery as quickly as possible.

"I had heard it could help people and be a good opportunity," Dr. Bankauskas recalled. "I saw an introductory implantology course being advertised by Nobel Biocare and I knew I wanted to do it. At that time it was a significant investment, it was almost a choice between learning and eating, but I took the chance."

It was a decisive moment that would mark the start of a career path Dr. Bankauskas has been following ever since.

After presenting him with the certificate for completing the course, the Nobel Biocare representative that arranged the course introduced him to a colleague as the "future number-one dental surgeon in Lithuania." For a goal-oriented young clinician like Dr. Bankauskas, this was further motivation to see how far he could go.

Learning from the best

Dr. Bankauskas began placing implants almost immediately after the course, realizing that there was much more he wanted to learn. He began investing in training around the globe, visiting some of the world's most renowned clinicians in order to gain new perspectives and to find answers to the questions that arose as he made progress in the field.

With words of advice from the likes of Drs. Paulo Malo and Sascha Jovanovic still in his ears, he returned to Lithuania where he began to grow his reputation. Having quickly recouped the money spent on training, Dr. Bankauskas used money he had originally earmarked for a lakeside summerhouse to open a clinic of his own.

Rapid development

A new clinic, of course, added the pressures of practice management to those of clinical work. Again Dr. Bankauskas invested in his own development to obtain the required skills, completing an EMBA.

His thesis looked specifically at how to expand dental clinics. While his tutor considered the plan overly ambitious, Dr. Bankauskas was soon testing his proposals in practice.

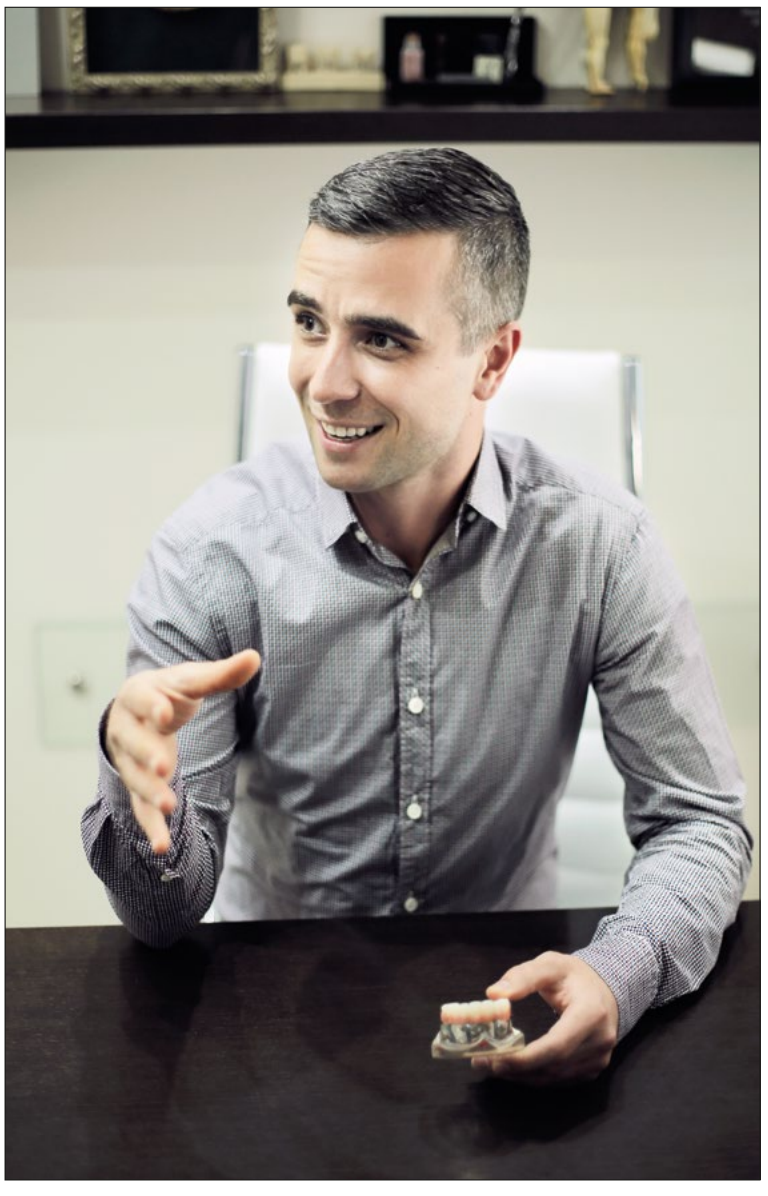
Today Dr. Bankauskas runs seven clinics across Lithuania with more set to open soon. Last year he alone placed around 2,600 Nobel Biocare implants and treated around 400 patients with the All-on-4® treatment concept.

Partnering for success

While his career has evolved at a fast pace, one thing has remained a constant—the partnership between Dr. Bankauskas and Nobel Biocare.

"That first Nobel Biocare representative I met on that first training course took such good care of me, gave me the encouragement I needed," Dr. Bankauskas explained. "I always wanted to partner with a global organization—a service provider with true quality control. I work with Nobel Biocare because, like me, they are always focused on the patient." <

→ More to explore!
Combining practice development skills with clinical learning is the focus of Nobel Biocare's new Guide to Growth program. It's designed to help ambitious clinicians fulfill their potential. Find out more at: nobelbiocare.com/grow.



Dr. Simonas Bankauskas runs seven clinics across Lithuania with more set to open soon. Last year alone, he placed over 2,000 Nobel Biocare implants, many of them as part of the All-on-4® treatment concept.

Managing Forces and Avoiding Stress

A glimpse at the biomechanics underlying the All-on-4® treatment concept.

In a recent special-topic section of the *European Journal of Oral Implantology* (Volume 7, supplement 2), the editors presented a report of a consensus conference on the optimal number of implants in the treatment of edentulism. On those pages, John Brunski (Senior Research Engineer at Stanford University and Professor Emeritus at Rensselaer Polytechnic Institute) approached the topic from a biomechanical perspective. He summarizes his findings here.

By Professor John Brunski

Since it was first put into practice in 1998 by Dr. Paulo Malo, the All-on-4® treatment concept approach has been used successfully around the world. A large literature supports the approach (see the "More to explore" section at the end of this article for a link to references). Some of the more biomechanically-focused papers about the All-on-4® treatment concept are also considered in recent articles in *Nobel Biocare News*.

Nobel Biocare's summary of the physiological benefits of using the All-on-4 approach is as follows :

"By tilting the two posterior implants, longer implants can be used. This increases bone-to-implant contact and avoids vertical bone augmentation. In addition, the tilted implants can be anchored in better quality anterior bone, reduce cantilevers, and help avoid important anatomical structures."

It's worth taking a closer look at some of the biomechanical details alluded to in the above statement of Nobel Biocare's rationale. For example, some results from finite element (FE) computer models (Figure 1) indicate ways in which a typical All-on-4® treatment concept approach has important advantages over an upright 4-implant approach.

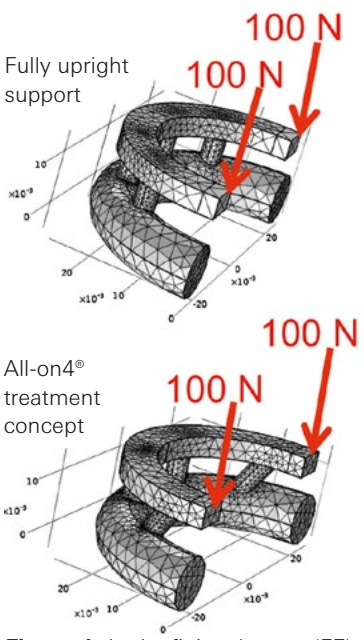


Figure 1. In the finite element (FE) models presented here, the distal ends of the bar are loaded bilaterally by 100 N vertically-downward forces. Please note that the ends of the mandibles are constrained in these FE simulations, as in the images below.

First, some degree of distal tilting of the distal implants (e.g., 30 degrees in this example) in the All-on-4® case has the effect of reducing the length of the cantilever segments of a typical prosthetic bar. (The cantilever segment is the region of the bar between the most distal implant and the distal end of the bar. The bar in this FE simulation is about 4 mm in thickness and 6 mm in width, which is similar to bars in clinical use.)

Consequently, when the distal ends of the bar are loaded bilaterally by 100 N vertically-downward forces, the All-on-4® case shows a substantial reduction (relative to the "upright" 4-implant case) in the maximum tensile bending stresses on the top surface of the bar—e.g., from about 80 MPa to 45 MPa (Figure 2, column A).

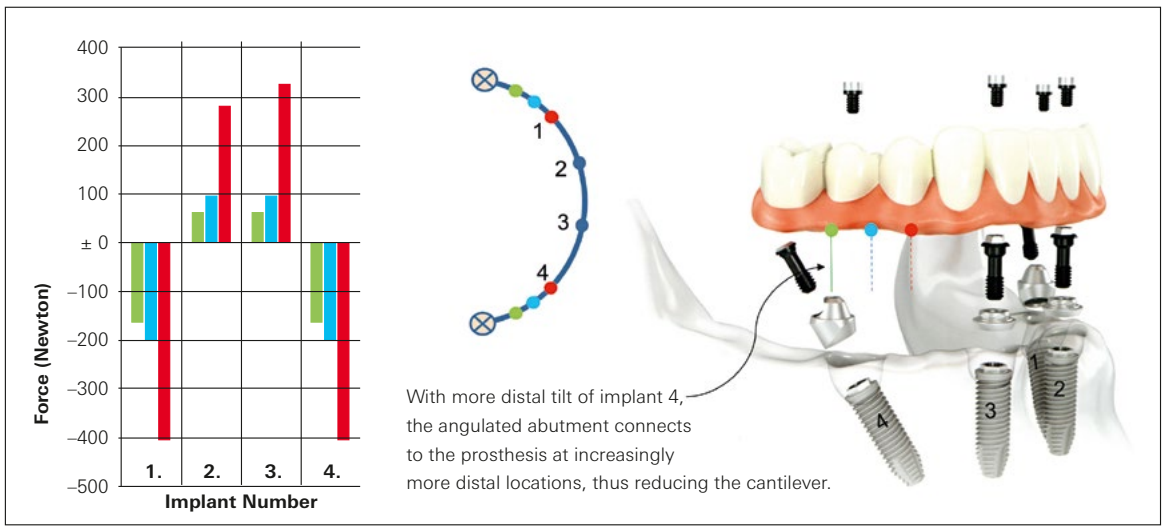


Figure 3. How forces on all four implants change depending on the distal tilt of the posterior implant. (■ = No tilt).

For peace of mind

Now, this is a significant reduction in stress; since the above FE model is linear, a tripling of the 100 N bilateral loading to 300 N—which is a moderately strong but not uncommon level of biting force—causes the maximum tensile stresses in bars of the All-on-4® and "upright" cases to increase to 240 MPa and 135 MPa, respectively.

Assuming the bars were made of commercially pure Titanium—with a fatigue endurance limit of about 300 MPa—stresses of about 240 MPa in the "upright" case would start to provoke concern about potential fatigue fracture of the bar, whereas stresses of about 135 MPa in the All-on-4® case would not cause concern.

This result illustrates an advantage of the All-on-4® arrangement insofar as lowering stresses that relate to fatigue fracture of bars. (The stress reduction also helps in avoiding delamination of acrylic over the bar.)

What's more, an All-on-4® approach can also decrease stresses in the supporting implants. For instance, the maximum tensile bending stresses in the distal (Figure 2, column B) and anterior (Figure 2, column C) implants are lower for the All-on-4® case compared to the "upright" 4-implant case. While this idealized FE model doesn't account for the detailed internal structure of screw joints, implants, and abutments in the system, it nevertheless provides insight into how the All-on-4® arrangement can lead to lower stresses in the implants and related parts.

When it comes to the stresses at the sites where the implant abutments connect to the undersurface of the bar, the All-on-4® situation also shows lower stresses than in the "upright" case (Figure 2, column D).

Reduced stress on all implants

It is useful to look at the vertical forces that develop on the implants together with related stresses and strains in interfacial bone for the All-on-4® vs. "upright" cases.

Concerning the vertical forces: For the same bilateral loading on a bar supported by All-on-4® vs. "upright" implants (see Figure 3), the vertical force

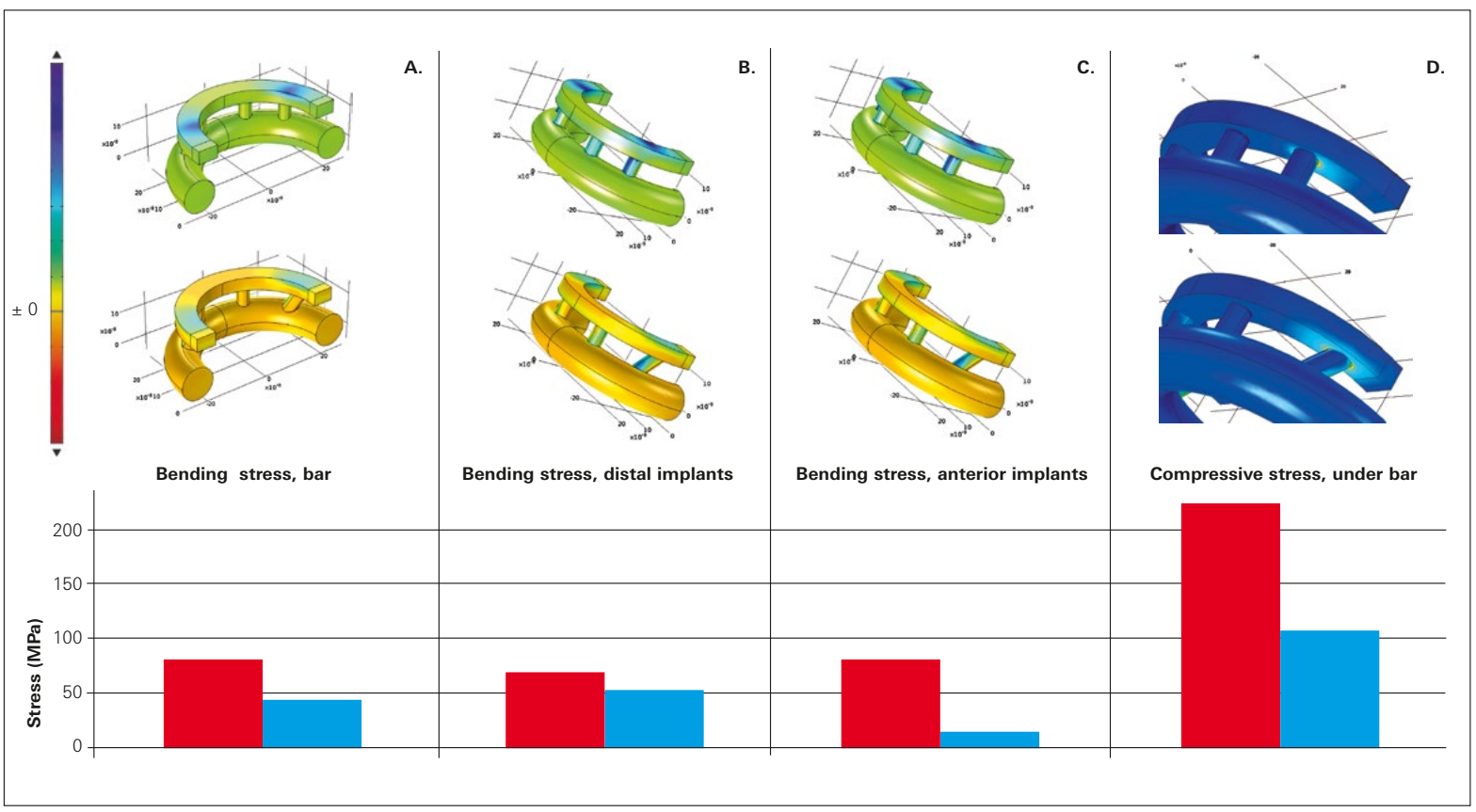


Figure 2. Comparative stresses in different locations of the bars, implants and abutments of an upright 4-implant model vis-a-vis an All-on-4® treatment concept model. Key: ■ = Upright 4-implant. ■ = All-on-4® treatment concept.

continued on page 11

Upcoming Events

Meet Nobel Biocare at events around the world. These professional gatherings provide a great opportunity for catching up with the latest innovations and scientific research.

Osteology Symposium
April 21–23
Monaco, France

SEPA Annual Meeting
May 12–14
Valencia, Spain

Scandefa
April 28–29
Copenhagen, Denmark

ODA Annual Spring Meeting
May 5–7
Toronto, ON, Canada

APTPD Congress
May 6–7
Lisbon, Portugal

SEPA Annual Meeting
May 12–14
Valencia, Spain

CDA Presents Convention
May 12–14
Anaheim, CA, USA

JSP Annual Meeting
May 20–21
Kagoshima, Japan

Quintessenza Congress
May 26–28
Verona, Italy

EAED Annual Spring Meeting
June 2–4
Copenhagen, Denmark

SFPIO Congress
June 2–4
Lyon, France

ISPRD Symposium
June 16–19
Boston, MA, USA

Nobel Biocare Global Symposium 2016
June 23–26
New York City, NY, USA

AAED Annual Meeting
August 3–5
Dana Point, CA, USA

FDI Congress
September 7–10
Poznan, Poland

CDA Presents Convention
September 8–10
San Francisco, CA, USA

Dental Bern
September 9–11
Bern, Switzerland

AAP Annual Meeting
September 10–13
San Diego, CA, USA

AAOMS Annual Meeting
September 18–23
Las Vegas, NV, USA

EAO Annual Congress
September 29 – October 1
Paris, France

→ More to explore
For the most recent updates, visit: nobelbiocare.com/events

Five Reasons Many Practices are Trending Toward Social Media

Followers on Facebook and Twitter soon turn into patients in the waiting room.

If you're not already an active user, the wealth of social media options can easily feel intimidating. Facebook pages, Twitter accounts, blogs—the list goes on and on. According to media experts, "How will my practice benefit?" and "What if I'm too busy to post updates?" are two questions that invariably pop up when clinicians consider social media tools for the first time.

By Dr. Scott MacLean

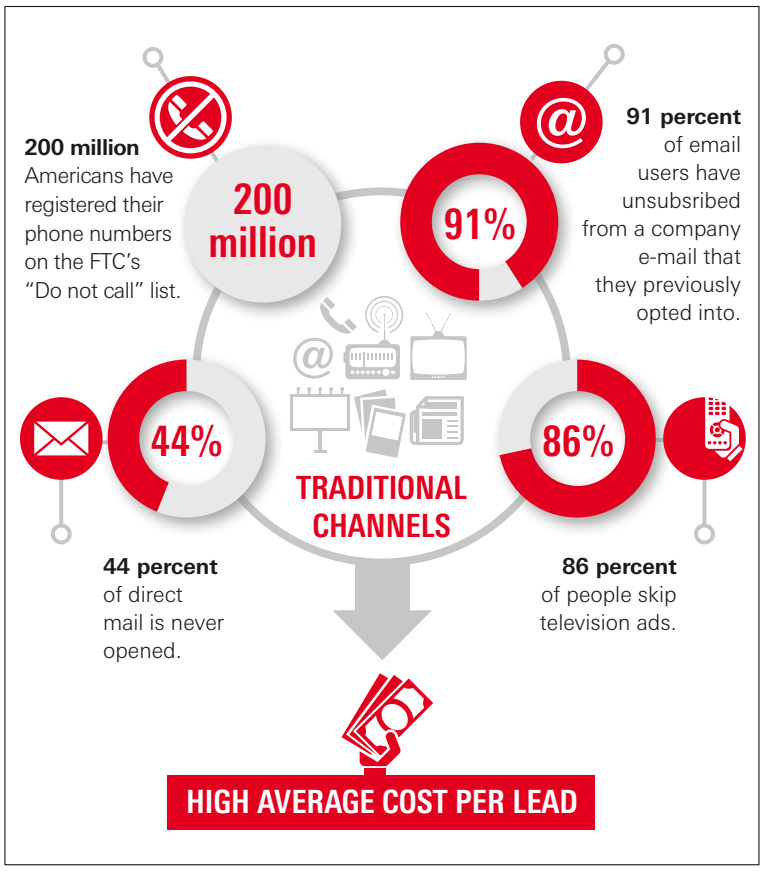
While it's true that some effort and thought are required to start—and more importantly, maintain—a social media presence, the return on your investment in time can be very worthwhile. Social media networks such as Facebook, Twitter, and LinkedIn present a great marketing opportunity to promote your practice. If you're not already building your online social network, here's five reasons why you should start.

1. It's where your patients are talking about you.

Social media channels have become a normal part of people's everyday lives. Facebook alone is used by 890 million users around the world every day. In the US, over half of online adults use not just one, but multiple social media sites. This makes them arguably the most powerful marketing tool available to any business today, including dental practices. Social networks give you access to incomparable, voluntary patient engagement and allow for powerful one-to-one communication.

Plus, with over two-thirds of online adults actively using social networks, your patients are probably talking about you on social media anyway. Eight out of ten US Internet users search for health information online, and 74% of these people use social media.

The social phenomenon is no longer restricted to the young either. Those over 50 are joining the networks on a large scale and are increasingly turning to social media for health advice and exchange with peers. More than half (56%) of all online adults 65 and older in the US use Facebook, for instance.



Finding a large following with traditional communication channels is an increasingly difficult and expensive task. Messages sent to potential customers via direct mail, radio broadcasts, TV commercials, flyers or telemarketing are becoming ever less likely to generate cost-effective leads.

Unless you're part of the online conversation you'll miss out on being able to see, and address patients' concerns and taking advantage of any affirmative conversations to promote your services.

2. It's free!

All it costs to get started with social media is time. Of course, that's at a premium, but once you've set up your Facebook page or Twitter account, monitoring what's going on and posting regular updates doesn't have to take up a lot of your day. All major social media channels have mobile-friendly apps, so you can quickly add a post from your phone between appointments or during a coffee or lunch break.

3. Your old marketing methods aren't working.

You're probably familiar with the more traditional or "outbound" marketing methods. Messages are sent to potential customers via mailers, radio broadcasts, TV commercials, flyers or telemarketing. With the right amount of investment and market research, outbound marketing can lead to a number of good, high-quality prospects. But the rapid growth of the Internet leads more and more people to turn instead to online media for product and company information. This makes finding a large following with traditional channels an increasingly difficult and expensive task, as the above infographic illustrates.

4. Social media boosts your online presence.

Social media can help you influence the public and improve oral healthcare. Currently 72% of dentists in the US use Facebook as a marketing tool, and they've also reported higher revenues.

Demonstrating that you're on top of the latest technological developments increases your image as a high-quality provider and, consequently, patient flow to your practice. By sharing patient-friendly updates on the latest dental techniques and research, or commenting on news stories that are getting attention, you underline your status as an expert.

Social media will also boost traffic to your website. By including links to your website in your social media posts, you can drive more visitors to your practice's site. This also works the other way around if you place a prominent link to your social media activities on your web pages.

Having a social media presence can also improve your website's ranking in search engines, meaning patients looking for your services online can find you faster.

5. You can see it working – immediately.

Social media channels offer immediate feedback which you can use to improve your marketing efforts. Perhaps you get more likes and comments for posts with short videos? Maybe your followers are more likely to share your content with others if there's a special offer, or practical advice on caring for their teeth? You can see the responses as they happen, evaluate, and use the information to inform your future posts.

Just a few things to keep in mind

While social media channels have the potential to give a big, cost-effective boost to your practice, there are a few common pitfalls to avoid. Never forget that your social media presence is a reflection of you.

This is a great advantage for building relationships with new and existing patients, but only if you always maintain high ethical standards and compliance. If you wouldn't say something to a patient in person, don't put it on social media. Post cautiously and with respect, keeping your personal and professional lives separate.

Some people outsource their social media tasks to an impersonal service provider—which might not be the best choice, however. Your patients want to get to know their practice, not a consultant. Finally, once you're up and running, keep at it to make sure your social media presence is always up to date.

Stick to these guidelines—remembering to abide by your local privacy, data collection and compliance laws—and you'll quickly see positive results. <

→ More to explore!
A free ebook, *Why Social Media?*, is available free of charge from Nobel Biocare. Read it to learn how to create and maintain a flow of online content that engages both prospective and existing patients.
nobelbiocare.com/ebook

Achieve Your Goals

Clinicians engaging with Nobel Biocare's Guide to Growth™ activities grow up to 3x faster.*

Getting your implant practice to reach its full potential doesn't have to be just a dream. Nobel Biocare can help you turn that ambition into reality by developing your clinical expertise and ability to increase patient acceptance with the new Guide to Growth program.

By Jim Mack

For clinicians looking to increase the number of patients they treat with dental implants, the Guide to Growth program combines courses, tools and personal support to develop both clinical and practice-management skills.

Expert insight

Those who purchase the in-depth program gain access to unique insights based on input from our most successful customers together with the tools to apply them to their own practices. In many markets, program attendees are also supported by experienced mentors.

Progressive treatment

The clinical components of Guide to Growth include immediate implant placement, immediate provisionalization and minimally invasive protocols from single-tooth replacement to edentulous cases and focuses on "shorter time-to-teeth," a key differentiator for rapidly growing practices.

Increased acceptance

Growing treatment acceptance starts with growing treatment awareness. Guide to Growth provides an extensive library of online and offline tools to promote implant treatment options. The program also provides support for arranging educational events for patients, referral partners and the wider treatment team—which specifically aims to improve treatment awareness, acceptance and, ultimately, advocacy among patients.

Backed by results

The principles behind the Guide to Growth program are proven. By combining training that's backed by scientifically supported advanced clinical protocols with practice promotion and patient communication techniques, you'll be on the road to improving treatment efficiency and enhanced outcomes while increasing treatment acceptance and patient satisfaction. <

Set your practice up for success

Kick start your growth with Nobel Biocare's Guide to Growth program. Based on experience from our most successful customers, it offers unique insights that will help you provide more patients with dental implant treatment.

PROACTIVE PATIENT COMMUNICATION

Increase patient flow

Increasing your patients' knowledge about implant treatment options sets you apart from competition. Not only does it lead to higher treatment acceptance, it also brings more patients to your practice.

Practices that proactively reach out to patients grow more rapidly (e.g., through social media, websites, search engine optimization, patient seminars, patient education advertorials, PR events etc.).

ONE POINT OF CONTACT

Make it easy for the patient

The entire treatment team must work hand-in-hand to provide a holistic experience for the patient—from first contact to treatment acceptance and aftercare.

Efficient collaboration is especially important in referral models, where the distance between treatment partners can be significant.

HIGH TREATMENT ACCEPTANCE AND ADVOCACY

Hear "Yes!" more often

Practices that have consciously arranged every step of the patient journey, from patient arrival through consultation, treatment and aftercare, have more patients agree to implant treatment.

Key factors in treatment acceptance include: a fixed price, simple explanation of the treatment plan, flexible hours, well-coordinated staff and provisional teeth on the day of surgery.

* Data on file: comparing annual increase in customer net sales (2014–2015) for those customers that did practice development activities versus those that did not; [2] Savage, R.R.; Galvan, R. "Patient-centric marketing," Dental Economics (online); [3] Data on file: comparing annual increase in customer net sales (2013–2014)

ADVANCE YOUR CLINICAL SKILLS

ADVANCE YOUR PRACTICE MANAGEMENT SKILLS

Treatment concepts

Courses and lectures

Hands-on sessions

Expert mentoring

Patient satisfaction

Treatment acceptance

Patient flow

Patient awareness

PROGRESSIVE IMPLANT TREATMENT

Shorten time-to-teeth

Progressive protocols include immediate implant placement, immediate provisionalization and minimally invasive protocols for everything from single-tooth replacement to edentulous cases.

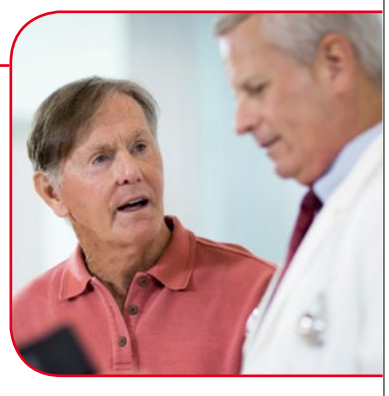
Patients increasingly expect to leave your office with (provisional) teeth on the day of surgery, which is a key differentiating factor for rapidly growing practices.

81%

of patients come to you by word-of-mouth referral.[2]

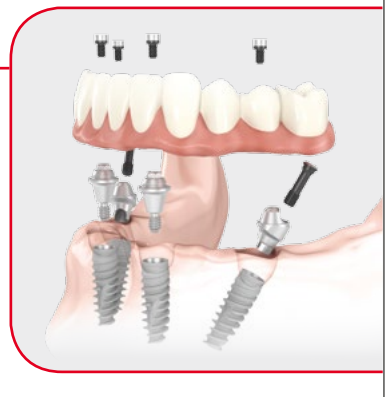
17%

of Nobel Biocare dental professionals that held a patient seminar in 2013 grew their number of implants placed by more than 50% the following year.[3]



24%

of dental professionals that attended a Nobel Biocare All-on-4® course in 2013 grew their number of implants placed by more than 50% the following year.[3]



FIND OUT MORE

Kick-start your growth with your own personal Guide to Growth package. Scan the QR or visit: nobelbiocare.com/grow

A Nuanced Perspective on Peri-implantitis

"We see bone remodeling and bone loss for very different reasons," says osseointegration pioneer.

One of the most widely quoted scientists in dental implantology, Professor Tomas Albrektsson, worries that peri-implantitis is increasingly used as an alarming label for benign marginal bone loss around implants. On a recent visit to Zurich, Switzerland, he took questions from Dr. Stefan Holst, Nobel Biocare's Vice President of Implant Systems and Research, on this topic.

By Dr. Stefan Holst

According to some widespread yet crude definitions, peri-implantitis can be characterized by a peri-implant bone loss of as little as 1.0 mm in the first year after initial treatment. Since some post-treatment bone loss is all but inevitable during initial bone remodeling in even the most successful and long-lasting cases, such definitions lead, as a matter of course, to controversy.

Dr. Stefan Holst: Peri-implantitis is currently a prominent discussion topic at various events and congresses. Is the nature of these discussions beneficial for the implantology community or could it be a threat to our reputation?

Prof. Albrektsson: When incorrect biological reasoning is done, it is always a threat. When we look at the clinical outcomes in long-term studies, they are so much better than many of those that we are hearing and reading about. I'm very critical of this. It is trying to make problems of things that may not be that problematic.

The frequency of peri-implantitis has been grossly exaggerated in the literature. All bone loss that happens in the first year is definitely not peri-implantitis.

We see bone remodeling and bone loss for very different reasons. This bone loss is benign in that it doesn't threaten the implant.

Then we have a disease called peri-implantitis which, with controlled implants placed by properly trained individuals, is a rare disease, but still one of some magnitude. With 1–2% of modern controlled implants showing clear signs of disease at 10 years or more of follow-up, we can't ignore it. But we are not helped by the exaggeration of the figures. There are 13 different definitions available for peri-implantitis. And we can be without the great majority of those.

M&R
Myths and Reality

Holst: How does a clinician determine whether bone loss is a natural physiological reaction or that caused by disease?

Albrektsson: From the clinician's standpoint, we should take all types of marginal bone loss seriously—even if the great majority of implants with some bone loss will never develop peri-implantitis. The problem is that we don't know which ones.

For example, one reason for problems with bone loss is cement remnants in the soft tissue. If you remove that in time, the bone loss stops. The implant can function happily ever after, without any problems. But there is also the possibility that if you leave the cement remnants in place for 10, 15 or 20 years, then peri-implantitis may follow with the same implant.

A clinician should always take action when he or she sees marginal bone loss or rather the preface of it, which is called mucositis. Mucositis is only the first sign of an immunological reaction; it has nothing to do with anything else but immunology, which is unfortunately not understood by many of our clinical colleagues.

Professor Tomas Albrektsson: "The frequency of peri-implantitis has been grossly exaggerated in the literature. All bone loss that happens in the first year is definitely not peri-implantitis."

Holst: Recent studies based on the Swedish population imply that implant brand plays a role in peri-implantitis. Is this not misleading given that so many factors influence treatment outcomes?

Albrektsson: Many of the figures that are being quoted, be that in the recent Swedish publication or others, are lamentably unrealistic. They have used the most liberal definitions they can find of what they call a disease when in reality it is no such thing.

Our own studies of long-term follow-up on implants demonstrate very clearly a similar, small percentage of implants that are hit by peri-implantitis, they are between 1% and 2%, whether you prefer one of the major implant systems or the other, is no difference.

But implant systems that say they are similar to other documented implants, and therefore need no documentation of their own, are not to be trusted. Clinicians need to pick an implant system that has its own documentation published in peer-reviewed papers. If that doesn't exist, don't buy it. Never forget that buying a cheap implant that is undocumented can prove to be very expensive.

Holst: Based on your clinical experience, what are the factors that play a role?

Albrektsson: It is complications to treatment that cause bone loss. We call it the "Triad of Poor." First, poor implant systems. As mentioned, these exist and are sold at a cheap price. Again, you should avoid these implant systems.

Second is poor clinical handling by clinicians without the right skills. Finally there is what we can term poor patients—those patients that are difficult to treat. These are the causes of bone loss, that in rare, but in some cases, may in the long-term lead to peri-implantitis, but in most cases not.

Holst: So what can we as dental implant professionals do to prevent the proliferation of misinformation about peri-implantitis?

Albrektsson: I'm increasingly irritated with people calling benign bone loss a disease. Those who are doing so have to read the new research that's out and realize they are wrong.

And the profession must, in a united manner, protest against alarming reports in a much stronger manner than we have done to date. But at the same time we must of course continue to take patients very seriously. We cannot ignore bone loss, even if it proves to be benign. We have to be active all the time and work to the best of our knowledge for our patients. <

→ More to explore!
For more to read about this and related topics—such as findings about screw vs. cement retention—please visit: nobelbiocare.com/news.

Stick with the original. "Implant systems that say they are similar to other documented implants, and therefore need no documentation of their own, are not to be trusted."

Holst: "What can we do to prevent the proliferation of misinformation about peri-implantitis?" **Albrektsson:** "We must protest against alarming reports in a much stronger manner than we have done to date."

Driving in the Fast Lane

He has made a place for himself on two different kinds of podiums.

Both a periodontist and a prosthodontist, Dr. Arturo Llobell speaks on the advantages of implants from two different, yet related, perspectives.

Dr. Arturo Llobell likes a challenge. Right from the start of his dental career, one specialty wasn't enough. He opted to become both a periodontist and a prosthodontist, so no two days would ever be the same. It paid off. Today, Llobell enjoys a busy and varied dental practice in Valencia, Spain.

By Michael Stuart

Though just 28, Arturo Llobell's first career was not dentistry. To say his previous vocation was also fast-paced would be an understatement. As a junior racing driver Llobell was among the best in the world, twice being named Spanish national champion and finishing fifth in international competition.

Many of Llobell's former opponents became Formula 1 stars, and he previously tested cars alongside Sebastian Vettel and Lewis Hamilton, both of whom went on to be World Champions.

A former champion racecar driver turned implantologist, Dr. Arturo Llobell has established himself as a respected clinician in his native Spain and sought-after speaker at major dental events around the world.

Patient care comes first

Eventually there came a time when Llobell had to choose between a career as a clinician and trying to make the step up to Formula 1. A bad crash, among other factors, led Llobell to opt for dentistry, and he hasn't looked back since. Interestingly, he says the two fields are not as different as one might think.

"In both racing and dental surgery you need a significant amount of preparation," Llobell explained.

"Then, during the task at hand, you need a high level of concentration and attention to detail. You also need to react to changing variables if you are to succeed."

Today, Llobell has swapped one podium for another. He now speaks at implantology events around the world and has recently accepted faculty positions at the University of Valencia in Spain and the University of Pennsylvania in the United States.

Dual specialties, one implant provider

At the heart of Llobell's progression are the positive treatment outcomes he achieves for his patients. A Nobel Biocare customer since the start of his career, Llobell says the company's products have helped give him the confidence to use increasingly progressive treatment protocols.

"I started working with Nobel Biocare during my residency in both periodontics and periodontal prostheses. I chose Nobel Biocare because it is both an established and leading implant company that offers products for both specialties.

"A number of important clinicians use their products on a daily basis, and that gives me confidence in the brand."

"Primary stability without surprises"

Llobell is particularly impressed with the new NobelParallel Conical Connection implant.

"I find the NobelParallel Conical Connection implant easy to use in multiple clinical scenarios. It has a straightforward drilling sequence, which makes it easy to maintain the direction during insertion, while also giving me the chance to achieve primary stability without surprises.

"Being able to achieve adequate primary stability permits me to opt for immediate loading protocols more often than before."

A leader of tomorrow

Llobell was named as a member of the Emerging Leaders Program by the Foundation for Oral Rehabilitation (FOR), which he says helped him develop as a speaker.

"Being part of FOR's Emerging Leaders group was a great experience for me as I had the chance to get in touch with world-renowned clinicians who were more than happy to give me—and the other young clinicians involved—a hand in every aspect of clinical dentistry, as well as lecturing advice."

With its new Guide to Growth program, Nobel Biocare is hoping to help more aspiring implantologists follow Llobell's example. Combining advanced clinical training with practice management advice, Guide to Growth seeks to help ambitious clinicians fulfill their potential by growing their implant practices.

Llobell is proof that with the right skills, partners and advice, the sky is the limit. This June, he will appear on stage at Nobel Biocare's 2016 Global Symposium in New York as part of a lineup that reads like a *Who's Who* of implant dentistry.

"To be sharing the podium with some of Nobel Biocare's top speakers is an honor. I'm really looking forward to it." <

→ More to explore!

Don't miss Dr. Llobell at the Nobel Biocare Global Symposium in New York, June 23–26, 2016: nobelbiocare.com/global-symposium-2016

Moving Forward

FOR launches second ebook: The Temporomandibular Joint

FOR's digital textbook provides in-depth knowledge of both temporomandibular joint anatomy and disorders.

FOR SCIENCE EDUCATION HUMANITY
FOUNDATION FOR ORAL REHABILITATION

Temporomandibular joint disorders are highly prevalent conditions in the modern world, their early diagnosis and treatment being key to the prevention of treatment complications and to patient satisfaction and quality of life.

Edited by Dr. Edwin L. Christiansen, a professor at Loma Linda University's school of Dentistry—and under the oversight of FOR's Educational Chair, Dr. Charles Goodacre—the highly didactic digital textbook provides the dental professional with:

- A comprehensive, evidence-based review of the anatomy of the temporomandibular joint (TMJ), including bones, articular disc, periarticular soft tissues and muscles associated with the joint;
- Comparison of normal and dysfunctional conditions present in the TMJ, supported by a richly illustrated chapter on diagnostic imaging;
- A review of the oral and extraoral characteristics exhibited by patients with temporomandibular disorders;

- World-class animations of the joint and muscles and an exceptional collection of images (cadaver specimens, histologic images, (CB)CT and MRI images);
- Over 300 scientific and literature references; and
- Self-assessment "Validate Your Learning" statements throughout the text and end-of-chapter self-assessment quizzes.

Designed for both pre- and post-graduate students, and for the practicing dentist, this richly-illustrated ebook can be viewed online or downloaded to iOS or Android tablets, thereby providing anytime/anywhere access to both the text and richly displayed visual content with a simple click of a link.

"With an incredible collection of images that enhances understanding and explores the intricate anatomic characteristics of the TMJ, this ebook is an exceptional resource," said Brian Volken, who served as FOR Center's senior project manager on this ebook, as well as FOR.org's popular first digital release, *Single Tooth Implants and Their Restoration*. "Those who study and use this digital resource will come away with an expanded appreciation of the TMJ and an enhanced ability to visualize its intricacy in 3D."

The digital textbook can be accessed under the "Learn" tab on the FOR.org website.

→ for.org/en/digital-textbooks/temporomandibular-joint

Your Lab Can Become the Prosthetic Provider of Choice

CAD/CAM implant bars on demand with NobelProcera® Services

With more than 300 million edentulous patients worldwide, the opportunity for dental professionals to improve patients' quality of life is huge; and with dental implant treatment offering a more efficient and comfortable alternative to traditional full dentures, demand for implant bar overdentures is set to grow.

By Michael Stuart

With the NobelProcera Scan and Design Service, labs can receive a range of high-quality, precision-milled implant bars, simply by sending a model to NobelProcera.

As a result of growing demand, dental laboratories that can provide high-quality implant bars to support overdentures will find new business knocking at their doors. Ramping up implant bar production, however, can require a significant investment in equipment, time and staff training, which many labs simply cannot afford. That's where NobelProcera Scan and Design Services can help.

Send a model, receive unrivaled bars

To use the service, the lab simply prepares the case materials as normal, noting the details of the case on a short accompanying form before sending it to be scanned and designed by NobelProcera's team of skilled technicians.

From receipt of the model the scan and design part of the process typically takes one day.

Given the extensive range of platforms covered in the Scan and Design offering, labs with a NobelProcera System can use the scan-only version of the service to increase their platform options while retaining control of the design.

The scan is sent back to their NobelProcera Software so they can complete the design themselves. Alternatively, those looking to take advantage only of high-quality centralized milling can send a completed wax-up of a bar direct-to-production.

Premium production and peace of mind

Once the technician is happy with the design, the bar is sent for milling. As NobelProcera produces implant bars only from solid blocks of surgical grade titanium, possible weaknesses relating to soldering or laser welding are avoided. Two or three days later, the precisely manufactured bar is shipped to the lab together with a material authenticity certificate and a five-year product warranty.

Investing in quality, not equipment

This flexible approach to outsourcing offers many benefits for labs. Primarily, it means they can offer precision-fitting bars in NobelProcera's renowned high quality without needing to invest in a NobelProcera CAD system or purchase and maintain expensive production technology.

It also means that implant bar cases can be accepted even when the lab is working at full capacity or if the required skill in this particular area is not yet present in the lab.

The breadth of the NobelProcera Services offering is also an advantage of the service. NobelProcera's wide range of both fixed and fixed-removable implant bar solutions caters to a variety of clinical needs and preferences, with the Scan and Design Service available for over 170 implant platforms.

Outsource means opportunity

By removing the need for investments and offering unrivaled results, NobelProcera's Scan and Design Service lets labs take advantage of requests for high-quality implant bars that they might otherwise be forced to pass up. In other words, it affords labs the flexibility to take opportunities that they can't afford to miss. <

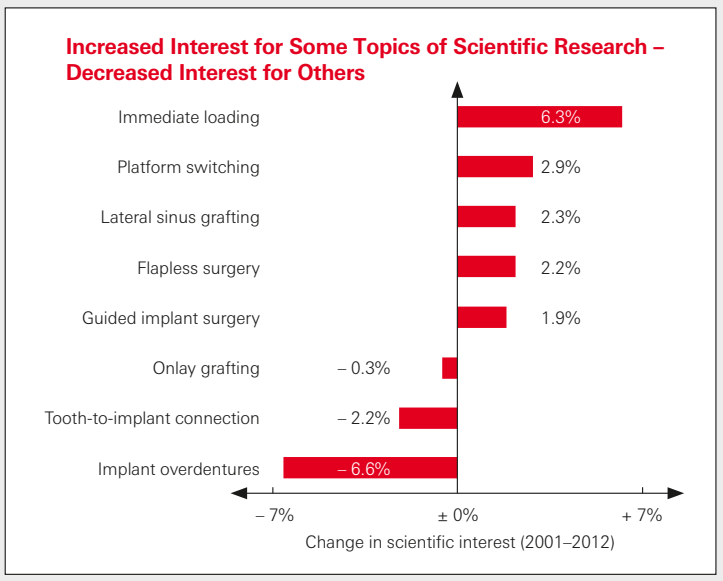
→ More to explore!
Full references for this article are available online at: nobelbiocare.com/news.

This is how it works. NobelProcera's Scan and Design Service makes it possible for labs to take advantage of requests for high-quality implant bars that they might otherwise be forced to pass up.

In Brief

Nobel Biocare innovations drive scientific research trends

The primary research focus in implant dentistry has shifted since Professor Brånemark's early days. Now that the average implant survival rates have successfully exceeded 97%, research focuses on reducing treatment time, enhancing comfort and improving esthetics.



Hundreds of scientific articles are published every year on oral implantology and prosthodontics. A recent study analyzed how the thematic trends in implant science are evolving and showed that today the highest interest is in advancing current solutions for better patient satisfaction.

Realizing that patients expect not only a life-long solution, but also short treatment times, low discomfort and high esthetic outcomes, Nobel Biocare has pioneered treatment concepts such as immediate loading, which is today not only the most researched topic (14.3%), but has also shown the greatest increase in literature coverage in the past 15 years (+6.3%). The figures speak for themselves. Nobel Biocare remains at the forefront of patient-focused, science-based innovation.

→ www.ncbi.nlm.nih.gov/pubmed/26315310

Brånemark Osseointegration Award to Dr. Ole T. Jensen

The Nobel Biocare Brånemark Osseointegration Award is given annually by the Osseointegration Foundation (OF), the philanthropic arm of the Academy of Osseointegration (AO). It honors an individual whose impact on implant dentistry is exemplary in one or all of the Foundation's mission categories: research, education, and charitable causes.

According to OF President Dr. Mollie Winston, who recently presented the award at the AO meetings in San Francisco, "Dr. Jensen is the ideal recipient of this award because he truly carries on the tradition of putting our patients first. He is a distinguished clinician, researcher and osseointegration educator who is quite worthy of this honor."

Acknowledging the work of others, Dr. Jensen said, "We're engaged in a collective effort, one which no single individual can claim to achieve on their own. The Brånemark tradition reminds the profession of dentistry of where we have been and where we might go in our humble quest to help restore our fellow human beings."

Previous Nobel Biocare Brånemark Award winners include Drs. Stephen Parel, William R. Laney, George A. Zarb, Daniel van Steenberghe, Ulf Lekholm and Tomas Albrektsson.

Meet NobelDesign™ in New York – Intuitive CAD Software for Dental Restorations

Here's a peek at a new product that you'll get to see first-hand in June at the Nobel Biocare Global Symposium.

NobelDesign is one of a number of innovative new products that will be exhibited at Nobel Biocare's Global Symposium in New York, from June 23–26, 2016.

By Jim Mack

Nobel Biocare has just announced the introduction of NobelDesign: efficient and intuitive software for the computer-aided design of NobelProcera dental restorations.

By combining advanced CAD tools with access to a wide range of NobelProcera restorations, NobelDesign will help dental professionals offer a greater range of superior prosthetic solutions to patients.

Powerful CAD tools without complexity

NobelDesign incorporates intuitive exocad® CAD tools for the efficient design of both cemented and screw-retained restorations. Multiple cases are simple to manage in the easy-to-navigate virtual cockpit.

The software offers time-saving virtual tooth setup and mirroring features as well as a virtual articulator function that helps optimize occlusal contact points. These capabilities are particularly valuable in combination with NobelProcera's range of translucent full-contour zirconia solutions.

Fredrik Strömberg, Global Head of the NobelProcera Business Unit: "The most recent product to emerge from Nobel Biocare's extensive pipeline of digital innovations, NobelDesign is based on decades of experience in the field."

NobelDesign also incorporates exocad® TruSmile technology that visualizes designs in a photo-realistic rendering, meaning the technician can assess how tooth shape and fissure design will appear in the patient's mouth.

Other options include an angulated screw channel function for improved esthetics and accessibility, and partial cutback tools that aid in the design of veneering support. As the intuitive interface adapts to the user's preferred way of working, efficiency increases over time.

Access to an increasing number of restorations

NobelDesign users will access new NobelProcera innovations as new product releases become available in NobelDesign.

NobelDesign is accessible only in combination with the highly accurate NobelProcera 2G Scanner, and is available on an annual subscription basis. This gives users added flexibility, and avoids a significant one-off payment upfront.

NobelDesign incorporates intuitive exocad® CAD tools for the efficient design of both cemented and screw-retained restorations.

According to Fredrik Strömberg, head of the company's NobelProcera business unit, "NobelDesign Software has been developed to increase efficiency and improve patient care. The most recent product to emerge from Nobel Biocare's extensive pipeline of digital innovations, it is based on decades of experience in the field.

"NobelDesign's powerful and intuitive CAD tools are sure to be appreciated by dental technicians, while the excellent results it makes possible will be valued by clinicians and patients alike." <

→ More to explore!
nobelbiocare.com/news

NobelDesign is available in regions outside the United States and Canada as of February 2016.
In the United States and Canada, NobelDesign is currently pending clearance from the respective health authorities.

... Avoiding Stress

continued from page 4

on each implant is actually less in the All-on-4® case. (This result is predicted by FE methods as well as by Skalak's analytical model as discussed in reference 4 under "More to explore".)

Concerning the stresses and strains in the bone: Generally speaking, smaller forces on an implant mean smaller stresses and strains in the bone around the implant. This follows from the general notion in mechanics that stress is equal to a load (force) divided by the load-supporting area. (This is why stress has the dimensions of force per unit area, and is measured in units such as the megapascal, MPa, which equals 1 Newton per square millimeter, i.e. N/mm^2.)

Therefore, if one has two implants with the same bone-implant contact area, but one implant is heavily-loaded and the implant with the lighter load will produce the smaller stress and strain in the surrounding bone. And since excessively large stresses and strains lead to bone microdamage, it's an advantage to limit interfacial stresses and strains to levels below such danger thresholds.

The detailed analyses behind this issue are complicated, but the general notion of a) using slightly longer, tilted implants (as noted in Nobel Biocare's remark about the All-on 4® treatment concept at the start of this article) plus b) reducing the loading per implant (as explained above) is an advantageous way to decrease interfacial stresses and strains. <

→ More to explore
For a complete list of references, please visit: nobelbiocare.com/news

Entering the National Pantheon

America's most exclusive circle of inventors now includes the father of osseointegration.

January 29, 2016 marked the 25th anniversary of the granting of the United States patent for "an implant fixture for tooth prostheses." In recognition of the impact of that patent on millions of people around the globe, Per-Ingvar Brånemark has been awarded membership in the National Inventors' Hall of Fame. He will be posthumously inducted into this celebrated circle of innovators at a ceremony to be held in Washington, DC, on May 5, 2016.

By Frederic Love

Some people call it the Oscars for inventors, but for others, the grand event is more reminiscent of the Nobel Prize awards ceremony. Every year, a distinguished group of men and women whose technological innovations have made a significant impact on the world are inducted into the National Inventors' Hall of Fame. It's an exclusive club that includes the likes of Thomas Edison and Nikola Tesla—and now includes the late Professor Per-Ingvar Brånemark.

Fitting for an awards ceremony of this stature, Brånemark will be formally inducted at a ceremony on May 5, 2016, hosted by "CBS Sunday Morning" correspondent Mo Rocca, and set against the background of the National Portrait Gallery and the Smithsonian American Art Museum.

> *"Brånemark not only changed the field of implant technology, but his observation that the human body could tolerate titanium revolutionized the fields of dental, maxillofacial and orthopedic rehabilitation, improving the quality of millions of people's lives around the world."*
> — National Inventors' Hall of Fame

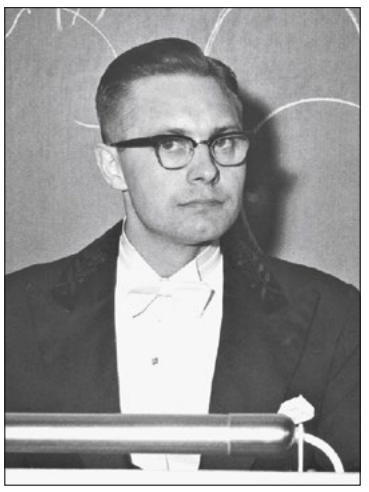
The honor being bestowed on Brånemark is, according to the Hall of Fame, "in recognition of scientific achievement that has moved beyond the research lab and made a tangible impact on society."

Barbro Brånemark, Professor Brånemark's wife and chief surgical nurse, will be accepting the award in Washington on his behalf.

"Naturally, I will be very proud to accept this award for Per-Ingvar, she says. "For decades, we worked extremely close together, and I got to see how he changed the world around him for the better. It's been an amazing journey—and an amazing life."

First in Europe and then in America

Back in 2011, the European Patent Office (EPO) presented Professor Brånemark with the organization's lifetime achievement award for his discovery and development of osseointegration. Brånemark said at the time that—among the hundreds of honorary degrees, prizes and decorations that he had received over the years—it was the award that meant the most to him because it recognized "the importance of scientific innovation in modern society."



Per-Ingvar Brånemark (depicted here early in his career) discovered how, under carefully controlled conditions, living bone and titanium might be coaxed into becoming all but inseparable.

"Induction into the National Inventors' Hall of Fame is a similar sort of acknowledgement," says Mrs. Brånemark. "This collegial recognition, in a country where he did so much good work—as he shared his insights into osseointegration—would have meant the world to him."

The word "Osseointegration" summed it up

He made a ground-breaking discovery in the 1950s, coined a word in the 1960s, and by surrounding himself with some of the best minds in this nascent field, Brånemark made osseointegration a clinical reality.

In 1965 he treated his first implant patient. In 1977 he held his first clinical course and—thoroughly documenting his work at every step—established the veracity of his claims in critical academic circles during the 1980s. When the Brånemark System implant patent was issued in the United States in 1991, the door to widespread commercialization of the clinical products sold by Nobel Biocare (then known as Nobelpharma) opened wide.

An inventor, of course, but foremost a humanitarian.

From his first visit to Brazil in 1988, he began carrying out the reconstructive surgery of maxillofacial defects in Bauru in 1992. By the turn of the century, he had established collaboration with the University Sagrado Coração for both dental and maxillofacial rehabilitation; and in 2005, the non-profit P-I Brånemark Institute Bauru was established.

In every aspect of his professional life, Per-Ingvar Brånemark took it upon himself to continuously challenge the *status quo*, and thus learn more about the world around him. <

The faces of Thomas Edison and Abraham Lincoln are featured on the medal that will be presented to Barbro Brånemark on behalf of her late husband and colleague, Professor Per-Ingvar Brånemark. Lincoln once famously quipped, "The patent system added the fuel of interest to the fire of genius." This was certainly true of both Edison and Brånemark.

→ More to explore!

To read more about the National Inventors' Hall of Fame and this year's awards, please visit: invent.org.

Nobel Biocare NEWS

Printed on non-chlorine bleached FSC-certified paper.

Read us online at:
nobelbiocare.com/news

Headquarters

Nobel Biocare Services AG
P.O. Box
8058 Zürich-Flughafen, Switzerland

Offices:
Balsberg, Balz-Zimmermann-Strasse 7
8302 Kloten, Switzerland
Phone +41 43 211 42 00
Fax +41 43 211 42 42

Web contact: www.nobelbiocare.com/contact

Europe and Russia

Austria
Nobel Biocare Austria
Phone: +43 1 892 89 90

Belgium
Nobel Biocare Belgium
Phone: +32 2 467 41 70

Denmark
Nobel Biocare Denmark
Phone: +45 39 40 48 46

Finland
Nobel Biocare Finland
Phone: +358 20 740 61 00

France
Nobel Biocare France
Phone: +33 1 49 20 00 30

Germany
Nobel Biocare Germany
Phone: +49 221 500 85 590

Hungary
Nobel Biocare Hungary
Phone: +36 1 279 33 79

Ireland
Nobel Biocare Ireland
Phone: toll free 1 800 677 306

Italy
Nobel Biocare Italy
Phone: +39 039 683 61
Cust. support: toll free 800 53 93 28

Lithuania
Nobel Biocare Lithuania
Phone: +370 5 268 3448

Netherlands
Nobel Biocare Netherlands
Phone: +31 30 635 4949

Norway
Nobel Biocare Norway
Phone: +47 64 95 75 55

Poland
Nobel Biocare Poland
Phone: +48 22 549 93 50
Cust. support: +48 22 549 93 52

Portugal
Nobel Biocare Portugal
Phone: +351 22 374 73 50
Cust. support: toll free 800 300 100

Russia
Nobel Biocare Russia
Phone: +7 495 974 77 55
Cust. support: toll free 8 800 250 77 55

Spain
Nobel Biocare Spain
Phone: +34 93 508 8800
Cust. support: toll free 900 850 008

Sweden
Nobel Biocare Sweden
Phone: +46 31 335 49 00
Cust. support: +46 31 335 49 10

Switzerland
Nobel Biocare Switzerland
Phone: +41 43 211 53 20

United Kingdom
Nobel Biocare UK
Phone: +44 208 756 3300

North America

Canada
Nobel Biocare Canada
Phone: +1 905 762 3500
Cust. support: +1 800 939 9394

USA
Nobel Biocare USA
Phone: +1 714 282 4800
Cust. support: +1 800 322 5001

Central/South America

Brazil
Nobel Biocare Brazil
Phone: +55 11 5102 7000
Cust. support: 0800 169 996

Chile
Dental Biocare Chile
Phone: +56 2 2706 5843

Colombia
Hospimedics S.A.
Phone: +57 1 620 9410
Cust. support: +57 1 620 9410

Mexico
Nobel Biocare Mexico
Phone: +52 55 524 974 60

Asia/Pacific

Australia
Nobel Biocare Australia
Phone: +61 2 8064 5100
Cust. support: toll free 1800 804 597

China
Nobel Biocare China
Phone: +86 21 5206 6655
Cust. support: +86 21 5206 0974

Hong Kong
Nobel Biocare Hong Kong
Phone: +852 2845 1266
Cust. support: +852 2823 8926

India
Nobel Biocare India
Phone: +91 22 6751 9999
Cust. support: toll free 1 800 22 9998

Japan
Nobel Biocare Japan
Phone: +81 3 6717 6191

New Zealand
Nobel Biocare New Zealand
Phone: +61 2 8064 5100
Cust. support: toll free 0800 441 657

Singapore
Nobel Biocare Singapore
Phone: +65 6737 7967
Cust. support: +65 6737 7967

Taiwan
Nobel Biocare Taiwan
Phone: +886 2 2793 9933

Africa

South Africa
Nobel Biocare South Africa
Phone: +27 11 802 0112

Europe and Middle East

Distributor Markets

Bahrain, Bulgaria, Croatia, Cyprus, Czech Republic, Greece, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Malta, Oman, Romania, Saudi Arabia, Serbia, Slovakia, Slovenia, Turkey, United Arab Emirates and Qatar

Phone: +48 22 549 93 56
Cust. support: +48 22 549 93 55