EAO Annual Scientific Congress 2013 · Dublin · 17–19 October, 2013 Independent news for visitors and exhibitors



(B)

"Prosthodontics is often overlooked" *today international* had the opportunity to speak with congress chairman Dr Brian O'Connell, Professor of Restorative Dentistry at Trinity College Dublin's dental school and hospital.

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Limited by financial uncertainty The dental implant market in Europe was valued €1.18 billion in 2012. Analyst Carmen Chan discusses prospects and why Eastern Europe is poised for the highest growth.



New products in focus

The 22nd Annual Scientific Congress of the European Association for Osseointegration is an excellent opportunity to see state-of-the-art technologies in the field of dental implantology.

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Dublin conference discusses future concepts and trends in dental implant rehabilitation

Thousands expected this week for 22nd Annual Scientific Meeting of the European Association for Osseointegration

Dental rehabilitation using implants has seen significant advancements in the last decade. Trends for the future of the specialty will be discussed when the Convention Centre Dublin opens its doors this morning for the 22nd Annual Scientific Meeting of the European Association for Osseointegration (EAO). According to predictions by the organiser, more than 2,000 dental professionals are expected for the three-day event, which is being held in the Irish capital for the second time. In addition to current issues in the field, like peri-implantitis and the challenges linked to the treatment of an increasing elderly population, the congress will reflect on new developments and methods in the field, such as computer-assisted implant rehabilitation and tissue regeneration.

Moreover, a number of sessions will focus on risk factors, treatment planning and the possibilities of virtual learning techniques. Up to 70 experts from Europe and around the globe will be speaking at the meeting. Furthermore, the latest research will be presented in the form of short oral sessions and poster presentations, which will take place between the scientific sessions.

New products for treatment outcomes that are more predictable and an improved workflow in dental practices and laboratories are going to be presented at the industry exhibition, which is being supported by 87 sponsors this year. Among others, MIS and Henry Schein have announced that they will be showcasing their latest tools for a complete digital workflow. Furthermore, Danish dental solutions provider 3Shape will have its recently launched TRIOS intra-oral scanning system on display. New and improved implant systems will be presented by Implant Direct and a number of other companies.

In 1995, the EAO held one of its earliest meetings in Dublin. Since then, the prestigious event has taken place at 17 locations in 15 countries throughout Europe. Last year's anniversary meeting in Copenhagen saw more than 2,500 professionals participating, the number expected for the 2013 edition in Ireland.

In addition to the Royal College of Surgeons in Ireland and the Oral Surgery Society of Ireland, the meeting has received support from the Irish Society of Periodontology and the Prosthodontic Society of Ireland.

"In 1995, implant treatment was provided by a fairly small number of specialists and access for patients was limited," commented Dr Brian O'Connell, congress chairman and Professor of Restorative Dentistry at Trinity College Dublin's dental school and hospital. "Now implant treatment is available in every part of the country and is provided by a wide range of practitioners. As a result, awareness has really grown among the population."

More information about the meeting, scientific sessions and industry exhibition is available on the EAO congress website. The association has also recently launched an application for mobile devices

and tablet computers that is aimed at giving visitors quick access to congress-related information. Daily news updates, interviews and product reviews from the show floor are available on the Dental Tribune website at www.dental-tribune.com. The newsfeed can also be accessed by scanning the OR code below. \triangleleft



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Implant dentistry is rapidly evolving

New technology and surgical techniques help avoid complex interventions

By Dr Amit Patel, UK

■ "Innovation" and "change" are words that are often used in dentistry. The issue is how to influence clinicians to implement innovations and to make the changes to improve their practice. Implantology is like any other field of dentistry: every year there are new developments and changes in techniques to help us as clinicians to give our patients predicable results. In light of the upcoming EAO congress in Dublin, I would like to share with you my thoughts on the changes in implant dentistry, the ever-expanding digital technology that is available to us and the new surgical techniques that help us avoid complex surgery for our patients.

For some time now, we as implantologists have had CBCT at our disposal. The 3-D view of a treatment site provides greater accuracy of implant planning and therefore greater predictability and success (Fig. 1). The development of custom-made surgical stents was another evolution from CBCT scans, again allowing the clinician greater control to place implants in a far more restoratively driven way. Utilising a guided surgical protocol makes placing implants in very difficult and high-risk sites easier and far more predictable.

Recently, there have been developments in the use of intra-oral scanners to make taking impressions of dental implants more accurate and therefore simpler to restore. There are many intra-oral scanners on the market, such as the 3Shape TRIOS and Invisalign iTero scanners (Fig. 2). A very good friend of mine, Dr Nick Fahey, a specialist in prosthodontics, has been a proponent of the use of digital technology in implant dentistry and dentistry in general. For several years, he has been pushing the boundaries to see how he can use the new technology to make the treatment process far more efficient for his patients.

Nick has trained his staff to use the intra-oral scanner to scan the teeth to plan the surgery from a virtual model. Then combining the CBCT scan and the virtual model allows him to plan a virtual surgical guide for the implant placement. He invested in a digital printer to produce the custom-made surgical guides. When all these processes have been completed, the patient is then brought in for a surgical appointment for the placement of an implant utilising guided surgery if the implant has good stability-this is assessed using an implant stability meter with a high ISO value. The implant head is scanned at the time of implant placement, and the data is transmitted and stored by the dental technician for construction of the implant crown.



[^] Fig. 1: CBCT scan of lower jaw identifying the inferior alveolar nerve and planning implant placement LR65 (teeth 46 and 45). (DTI/Photo courtesy of Dr Amit Patel, UK)



^ Fig. 2: Intra-oral scanning of scan bodies and prepared teeth. (DTI/Photo courtesy of Dr Nick Fahey, UK)

practice, which makes patients both happy and willing to spend more because they can see the benefits of the digital technology he is implementing, as well as the efficiency of the final result (Figs. 3a & b).

Another new developing technology in implant dentistry is the availability of genetically engineered human-derived growth factor. For me, this is an amazing development. It allows us to avoid creating a second surgical site, from which to harvest bone from the ramus or the mental region to augment a future implant site, thereby reducing morbidity for our patients. graft is converted into vital bone very rapidly.

I recently saw a 72-year-old male patient who wanted implants to replace teeth 11 and 12. There was an unerupted tooth 13, which would have had to have been surgically removed were implants to be considered. No bone buccally or palatally for the placement of implants was available. A titanium mesh was fixed to the buccal aspect and rolled palatally. A bovine bone graft (Bio-Oss, Geistlich) mixed with PDGF was placed under the mesh and allowed



^ Figs. 3a & b: Scan of tooth 21 and final restoration. (DTI/Photo courtesy of Dr Nick Fahey, UK)



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 This special edition of today international will
 Matthias Abicht

This special edition of *today international* will appear during the 21^{th} annual congress of the European Association for Osseointegration (EAO), Dublin, 17–19 October, 2013.

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Our patients want a replacement tooth at the end of day. They usually want it in the fewest appointments possible and expect the results to be good. Nick has found that utilising a digital workflow and involving all his staff allow for fewer visits to the

It is interesting to think to oneself how many patients that one performs a block graft would recommend to their friends that they undergo the same procedure? I would say none. The development of platelet-derived growth factor (PDGF) and bone morphogenetic proteins has changed the way I practise and my patients have been happy to use these new technologies that are available. While bone morphogenetic proteins are not available in the European Union, PDGF, which is used in a site mixed with either demineralised allograft bone or bovine bone, is. The PDGF initiates angiogenesis and is mitogenic for osteoblast cells, which means the bone to heal for a period of four months. (Figs. 4a&b) On re-entry, very little Bio-Oss was found, and the bone was vital when the implants were placed.

Ithink it is important that as a profession we should evolve with the new technologies available to us. This is the only way we can improve our skills and give our patients the best results. I always use this analogy when I speak to my patients on oral hygiene technique. When I ask if they use an electric toothbrush the answer is usually no but when I ask them if they own a smartphone the answer is usually yes. I then ask why they do not have an electric toothbrush. It is important for our profession to accept innovations and to see how they can help improve and change our daily practice. I have now

[•] Figs.4a&b:Surgical removal of unerupted 13. Titanium mesh placed to reconstruct buccal wall. Second image shows situation four months post grafting. (DTI/Photo courtesy of Dr Amit Patel, UK)

invested in a CBCT and an intra-oral scanner. \blacktriangleleft



Dr Amit Patel is a specialist on periodontology and implant dentistry. He currently works as an associate specialist in periodon-

tics at the University of Birmingham's School of Dentistry in the UK.

A dental specialty with tradition

The Irish perspective of the practice of and training for oral rehabilitation with osseointegrated implants

By Prof. David Harris, Ireland

Osseointegrated dental implants were first used in Ireland in 1983. This early adoption of the innovative clinical technique occurred when our own team, based at the Blackrock Clinic, was invited by Prof. P.-I. Brånemark to become one of a small number of pioneer teams worldwide to introduce his techniques into clinical practice. The Blackrock Clinic in Dublin, in association with Trinity College Dublin and Prof. Daniel van Steenberghe at KU Leuven in Belgium, became a centre for the provision

istration in Ireland, does not permit the registration or the use of the term "implant specialist". A view has been taken in Ireland that

the range of competencies required to provide the full spectrum

selected single-implant cases to full mouth rehabilitation involving advanced surgical procedures, such as large autogenous bone

grafts and zygomatic implants, is too wide to allow for this. The suc-

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[•] Prof. David Harris, Ireland

of advanced courses given by Prof. Brånemark, with colleagues from over 40 countries attending. This collaboration continued over the years in the areas of research, teaching and the treatment of patients with large maxillofacial defects and at the European Osseointegration Training Center based in Leuven.

Today, oral rehabilitation by means of osseointegrated implants is widely available in both private clinics and academic institutions in the Republic of Ireland. Specialists, prosthodontists, periodontists, oral surgeons and maxillofacial surgeons are extensively involved in the provision of basic and advanced treatments. A small number of general dental practitioners carry out implant surgery and a larger number choose to provide restorations on implants placed by specialists. In the vast majority of cases, a team approach is encouraged and favoured, with only a small number of practitioners carrying out both aspects in more straightforward cases.

of treatment, both prosthodontic and surgical, from straightforward

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In Ireland, implant dentistry is not recognised as a specialty in its own right, nor is there any proposal to do so at the moment. It is appreciated that in some European countries such a specialty exists and, occasionally, some of these dentists from the European Union set up practice in Ireland. The Dental Council of Ireland, who is the competent authority for reg-

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cessful treatment of some patients will require all the skills and training of collaborating specialists to provide optimum patient care.

Training programmes in implant procedures are available from various sources in Ireland. Implantology is, however, considered a postgraduate subject. Comprehensive training in implant procedures is an important compo-



nent of the specialty training programmes provided by universities.

Undergraduates have access to lectures and demonstrations. They are also assisted in the treatment of patients and many may have a supervised opportunity to carry out a restoration on an implant. The focus is to provide undergraduates with a thorough understanding of

⁴ Continuing education in dental implantology is centered at Trinity College. (DTI/Photo Pavel L/Shutterstock) the role of implants in dental practice and the range of skills that may be required for successful diagnosis, treatment and maintenance. This allows them to understand what will be involved in continuing their training after graduation. The emphasis is always on the value of a team approach in providing the best care for patients.

Basic training courses for general practitioners are available as well. They are often sponsored by different companies and are provided by specialists. These events include short courses on restoration and extended courses on surgery. Some practitioners choose to travel abroad for training, whereas others prefer to avail of local training with specialists who usually provide a mentoring service or membership of a study group to help with diagnosis and determining the suitability of cases for treatment. This latter approach is particularly helpful to the novice surgeon or prosthodontist, as it allows for a gradual, ongoing transfer of knowledge as experience builds up.

Continuing professional development in implantology is well catered for with the provision of excellent lecture programmes at Trinity College Dublin, University College Cork and the Faculty of Dentistry at the Royal College of Surgeons in Ireland, often with the help of a prestigious international faculty. Additionally, implant dentistry features regularly in the scientific programmes promoted by the Irish Dental Association and the various specialist societies. Many specialists have completed their training abroad in USA, the UK and other regions in Europe. This has greatly enriched the knowledge pool for teaching and practice. Irish dentists are also enthusiastic attendees and contributors at the larger overseas implant meetings in both the USA and Europe, especially the EAO.

Over the years, implant companies have always been encouraged to support the organisations listed above rather than providing direct training courses themselves and this has worked to the advantage of all concerned. From time to time, companies will have open meetings with overseas speakers to promote a new product or technique.

Patients and dentists in Ireland have benefited from the early involvement in this exciting treatment modality, as well the gener ous and helpful collaboration with many of the implant pioneers over the years. Ireland was among the first countries to host an EAO meeting and the return of EAO to Dublin in 2013 is especially welcome. The training and regulatory structures outlined above have worked well for the small country. It has ensured a high standard of treatment and care for patients, as well as professional and excellent collaboration between the various dental professionals and laboratories involved.



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Prof. David Harris is the Clinical Director at Blackrock Clinic Dental Specialties in Dublin. He also serves as Scientific Chairman of this year's EAO Annual Scientific Congress. ◀ © MIS Corporation. All Rights Reserved.





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C Céad Míle Fáilte—A hundred thousand "welcomes"

A welcome message by Oisín Quinn, Lord Mayor of Dublin

■ I welcome all those attending the 22nd Annual Scientific Congress of the European Association for Osseointegration here in the capital of Ireland and express my gratitude on behalf of the city to you for choosing Dublin as the

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2013 destination for your prestigious event in the field of dentistry. This important conference will highlight real and emerging issues for an ageing population, including the long-term maintenance of dental implants. I extend this welcome to the 70 international speakers and 3,000 delegates who are attending from all corners of the world. I understand it may well be the first time that many of you will be visiting Dublin. So, in our Irish language I call out a Céad Míle Fáilte (a hundred thousand "welcomes") to you all.

Dublin has changed immeasurably over the past decades. There has been a dramatic transforma-



^ Oisín Quinn, Lord Mayor of Dublin. (DTI/ Photo courtesy of the City of Dublin, Ireland)

tion of the city landscape with a fusion of old and modern architecture. The venue for your congress, the Convention Centre Dublin, is a recent addition to our city but has already achieved iconic status in the landscape of the city. These days Dublin ranks among the top tourist destinations in Europe, and our vibrant city is a very special historic and exciting capital city, renowned for its warm and welcoming people. The medieval, Georgian and modern architecture provides an intriguing backdrop to



[^] The Convention Centre Dublin was officially opened in 2010. (DTI/Photo courtesy of CCD, Ireland)

this cosmopolitan city, famous for its musical, theatrical and literary traditions. In July 2010, Dublin became the fourth UNESCO City of Literature and it is a designation in which we take great pride. I hope you have the opportunity to experience all that Dublin has to offer and enjoy the craic for which we are world famous.

I hope that all of you will return to your respective practices enriched by this congress and your experience of Dublin. It is a wonderful opportunity to learn about new products and the latest innovations developed by the top dental implant companies worldwide. A congress like this provides excellent opportunities to meet, interact and share views with your peers from around the world, and I hope it will prove to be a successful event for you all.



I know for some of you this conference will also be an opportunity to present your original research and clinical developments through the media of posters, presentations and research competitions, and I wish you all the best with your work. As Lord Mayor, I look forward to welcoming you back to Dublin and Ireland again. **(4**)



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A true Irish landmark

Once a home for retired soldiers, the Royal Hospital Kilmainham in Dublin is now a centre for the arts

By Daniel Zimmermann, DTI

At the Royal Hospital Kilmainham in Dublin, military discipline was strictly observed. When a secret passageway to a nearby pub was discovered in the Royal Hospital in 1736, it was quickly walled up, according to contemporary witnesses, preventing the pensioned soldiers from sneaking a quick pint between drills. Despite being denied this occasional jaunt, however, life for retired British soldiers at the hospital was comfortable. In contrast to the struggles of daily life in the rest of the Ireland, residents were well fed, and had proper accommodation and a regular income of two pence a week until the facility ceased operation in 1929.

Since then, the building was considered for many purposes, including housing the Oireachtas,

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(DTI/Photo Gabriela Insuratelu, Romania)



the Irish parliament, and a school for creativity by German performance artist Joseph Beuys. Nowadays, it not only houses the Irish Museum of Modern Art, but is also regularly used as banquet venue for corporate events, like the European Association for OsseointegraLouis XVI, the building served as a home for pensioned soldiers who had helped the Duke and his predecessors maintain English rule in Ireland until the early 1920s, when it was finally handed over to the Irish Free State after the Irish Civil War had ended. Originally considered for the seat of the newly formed Irish parliament under Prime Minister W.T. Cosgrave, it was decided to leave this role to Leinster House at Kildare Street, a former ducal palace in Dublin's city centre, which has remained the seat of Ireland's parliament until this very day. Although the Royal Hospital was used as the headquarters of Ireland's police force, An Garda Síochána, during most of the 1930s to 1940s, it was finally abandoned in the early 1950s and slowly deteriorated.

From there, it took more than 30 years before it found a new purpose as the new National Centre for Culture and the Arts. The opening of the Irish Museum of Modern Art, which regularly exhibits works by contemporary artists from Ireland and around the world, was celebrated in 1991, but not without controversy owing to several structural changes to the building itself done by the City of Dublin. In recent years, the venue has increasingly been used for concerts and other cultural events. Among other ensembles, Britpop band Blur played here recently, as well as legendary Italian composer Ennio Morricone. The building's military

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(DTI/Photo William Murphy, Ireland)

tion's gala dinner, which will be taking place tonight in the historical building. The hospital's name, which is also the name of the west Dublin area surrounding the compound, was derived from the Early Christian Saint Maighneann and the seventh-century monastery dedicated to him that was located at the site before it was demolished during the Norman invasion of Ireland in order to make place for a medieval hospital, on which foundations the current building stands today. Several burial grounds were also laid out at the site, including one of Dublin's oldest cemeteries, where the shaft of a large tenth-century granite cross can still be viewed. Built for the First Duke of Ormonde, James Butler, an English nobleman and Lord-lieutenant of Ireland to King Charles II, at the city gates of seventeenth-century Dublin, the classic continental building complex, which also features a French-style formal garden, is still considered by many as one of the most impressive structures in Ireland. Modelled on the L'Hôtel national des Invalides, which was completed a few years earlier in Paris under the patronage of King past is still kept alive, as a wreath is laid in the courtyard every year in memory of all Irishmen and Irishwomen who have died in past wars on the National Day of Commemoration, the anniversary of the truce that ended the Irish War of Independence.

On a lighter note, having a pint at the nearby Black Lion pub in Emmet Road in Inchicore however is no longer considered improper benaviour.

While free guided heritage tours of the premises are only available during the summer season, a permanent exhibition can be visited all year round. Reopened last week after refurbishments, the Irish Museum of Modern Art is open to visitors all week until 17:30, except on Mondays. Current exhibitions include those of British-Mexican surrealist painter Leonora Carrington and Eileen Gray, one of the most celebrated and influential designers and architects of the twentieth century. Admission is free for those with a valid Dublin Pass, which can be purchased online and at the tourism centre in Suffolk Street near Trinity College Dublin. 4



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