Roots Summit 2016
Premier global forum for endodontics takes place in Dubai

By DTI

DUBAI, UAE: This year’s ROOTS SUMMIT, which has drawn dental professionals to various locations all over the world in the past decade, will take place from Nov. 30 to Dec. 3 at the Crowne Plaza Dubai hotel in the United Arab Emirates. Aimed at updating participants about the latest in endodontic treatment, an unparalleled series of lectures and workshops will be held by global opinion leaders in the field.

Although the meeting will focus exclusively on the latest techniques and technologies in endodontics, the organizers have strongly encouraged not only dentists specializing in the field to attend but all who have an interest in endodontics, including general dentists and manufacturers and suppliers of endodontic products. Overall, about 700 attendees are expected.

Over the past 15 years, the ROOTS SUMMIT has grown significantly. The community originally started as a mailing list of a large group of endodontic enthusiasts in the 1990s. After the establishment of a dedicated Facebook group three years ago, membership increased from 1,000 to more than 20,000. Today, the group is composed of members from over 100 countries.

Previous ROOTS SUMMITS have been held in Canada, the US, Mexico, Spain, the Netherlands, Brazil and last year in India. These meetings have been known for the strength of their scientific programs and their relevancy to clinical practice. The lectures, workshops and hands-on courses scheduled for this year’s meeting will be no exception. More than 15 distinguished experts are presenting during the conference.

For the summit in Dubai, the organizers have partnered with Dental Tribune International (DTI) and the Dubai-based Centre for Advanced Professional Practices (CAPP) for the first time. With its international network, composed of the leading publishers in dentistry, DTI reaches more than 650,000 dental professionals in 90 countries through its print, online and educational channels, as well as a number of special events.

Over the past decade, CAPP has been able to establish first-class standards for continuing dental education programs not only in the UAE but also across the Middle East. Since 2012, CAPP has been affiliated with DTI as a strong local partner in the Middle East.

Based on the successes of previous ROOTS SUMMITS, the organizers anticipate a large turnout for this year’s meeting. Various sponsorship opportunities are available, including booth space, as well as sponsorships of workshops, meeting bags and social events.

Online registration for the ROOTS SUMMIT is now open at www.roots-summit.com. Dental professionals are also invited to join the ROOTS Facebook group and like the ROOTS SUMMIT 2016 Facebook page.

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The role of the hygienist in the 21st century

By Victoria Wilson, UAE

Since the recent launch of the Emirates Dental Hygienists’ Club in the UAE, it could not be a more appropriate time to discuss the growing role of the hygienist in the twenty-first century. The prevalence of preventable dental disease within the region prevails, and the need for a focus on the core strategy to overcome such disease needs to be addressed.

The dental hygiene profession was founded over 100 years ago by Alfred Fones in the US for the promotion of oral health and prevention of disease. The fundamental ethical responsibility of the dental hygienist is the pursuit of the promotion and restoration of oral health. The dentist’s role certainly encompasses the promotion of oral health and prevention of disease in diagnosis and operative care; however, it is important to highlight that the main difference is that the scope of practice for a dentist is far greater than for a dental hygienist. This is where the significance lies in the strengths and key focus of these dental care professionals and the key role of both in overall sustainable oral health care for every patient in serving the public.

In a recent survey carried out among dental professionals in the UAE, it became evident that a very small percentage of dentists actually work with dental hygienists. It found further that a limited number of dentists are proactive about integrating hygienists into their practice model. This highlights the potential requirement to further incorporate dental hygiene into dentistry if the existing inequalities of oral disease are to be overcome. This will require an extended workforce of dental hygienists, the expansion of educational facilities and further efforts towards including dental hygienists in existing practices in both public and private health care.

Another recent survey carried out in the region asked dentists how many of their patients are healthy. Regrettably, only a very small percentage reported having patients with good oral health. This again highlights the need for the skill set of the dental hygienist in oral health promotion and prevention of disease.

According to the findings of a further survey in the region, dental hygienists felt that very little of their total skill set was being utilised. This reflects the further need to ensure current dental hygienists’ skills are being used to the maximum potential.

In a European report, it has been identified that the UK, Sweden and Switzerland are ranked as the healthiest in Europe in relation to the low prevalence of severe periodontal disease, supporting the role of the dental hygienist in countries where a facilitative medico-legal framework exists to allow the inclusion of dental hygienists in effective periodontal care. It has also been identified in an international report that oral health needs and the delivery of care are partly mismatched, indicating a further need for the development and integration of the role of the dental hygienist. It has been proposed that advancing education in dental hygiene will achieve better oral and overall health for more people, by transforming the way dental hygiene graduates are prepared for the future to serve the health and wellness needs of society. Increasing clarity on the identity of the profession will affect how it is perceived by the public. In order to reach this point, every member of the dental team needs to be fully on board regarding the role of the dental hygienist and invest time in achieving the optimal success.

A global re-evaluation of requirements is needed to ensure that there is greater utilisation of hygienists in the provision of dental care with efficient and effective use of health care resources. Through evaluating the dental profession’s ability to provide care within the core skill sets, it is mandatory that the necessary steps be taken to ensure maximum effectiveness of an integrated dental and health care profession to optimise on reducing the prevalence of preventable dental disease.

It has been advised in a recent extensive report that future public health care policies will be orientated towards recommending behavioural support and adopting the common risk factor approach for oral health promotion. Dental hygienists in public health care settings can positively affect patients by offering preventive care outreach services. Improvement in the quality of life for individuals was noted through improved health outcomes.

Victoria Wilson currently lives in Dubai working as a Dental Hygienist at Dr. Fones & Associates Dental Clinic. She is also founder and president of the first official Dental Hygienists Organisation in the Middle East, under the Emirates Medical Association and Dubai Dental Society. Wilson can be contacted at victoria@dradubai.com.
New dental alert system aims at improving patient safety in Europe

By DTI

STRASBOURG, France: Requiring dental regulators in countries within the European Economic Area (EEA) to inform each other once a dental professional has been prohibited or restricted from practising, the newly implemented European Alert Mechanism aims at improving transparency in European dentistry.

The new EU legislation, which came into effect on 18 January, provides that a Europe-wide alert be issued within three days of a decision to prohibit, suspend or restrict a professional’s practice—even on a temporary basis—in another EEA state.

As a minimum, national regulatory bodies, such as the General Dental Council in the UK or the National Board of Health and Welfare in Sweden, will need to include the respective professional’s name, as well as his or her date and place of birth, in order to allow other regulators to identify that individual. Furthermore, the alert must indicate the period for which the restriction applies, including the date on which this decision was made.

Although the alert must not contain any background information or justification of the restriction, concerned regulators may request further information.

“We are delighted that this system has come into effect; it gives patients much greater visibility and security when it comes to their oral health,” commented Dr Nigel Carter, OBE, Chief Executive of the British Dental Health Foundation, on the new legislation. “This will hopefully lead to an improvement in standards of dental practice Europe-wide and more public trust in dentistry.” In this context, Carter pointed to the increasing trend of dental tourism and the potential pitfalls associated with it.

Although some countries still do not have any formal system of registration for dentists, Carter expressed his belief that “mechanisms such as this make for a much more transparent profession and greater patient protection.”
“We will be able to treat pretty much everything in the future”

An interview with Dr Graham Gardner, UK, President of the European Aligner Society

The European Aligner Society is an international organisation established in 2013 that aims to promote education and research in aligner therapy. Dr Graham Gardner, UK, President of the European Aligner Society, has been running his own private practices in the UK since 2008. In an interview with Dental Tribune Asia Pacific Edition, he shares his ideas and views about the importance of aligners in orthodontics and about the EAS, which he believes will become the society for aligner therapy.

Dr Graham Gardner: From the beginning of my career in the early 1990s, a time when ceramic brackets and lingual braces became available, I was certainly aware of the fact that aesthetic appliances were going to be the future of orthodontics.

In 2001, I was fortunate to attend a certification course for Invisalign, which was truly a watershed moment in my orthodontic career because I saw the value and potential of aligner therapy for both dental professionals and patients. In my opinion, aligner therapy opened the door for a huge cohort of patients who would not have considered orthodontic therapy in the past.

When aligners were first introduced to the market, there were some limitations and we could only treat mild malocclusions. However, aligner therapy has come of age and is now a genuine appliance system with which confirm biomechanics in a far more in-depth way than ever before. Orthodontics is now catching up with the high-tech world we live in—it is twenty-first-century orthodontics.

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Today, I treat over 75 per cent of patients with Invisalign in my practices.

In recent years, clear aligners have become a favourable treatment alternative to fixed appliances, and the global orthodontic supplies market is expected to reach about US$3.9 billion (€3.6 billion) by 2020. In your professional opinion, how will this market develop in the near future?

Over the past decade, aligners have become mainstream orthodontics and I definitely see this trend continuing and expanding. With the technological advancements, including 3-D and CAD/CAM, that allow the clinician to diagnose, plan the treatment and we can treat the majority of malocclusions. At the moment, however, aligner therapy is still a fairly expensive form of orthodontics. Thus, I hope that improvements in materials and 3-D printing will render manufacture and the product itself more cost-effective. For example, 3-D printers could allow individual practices to print their own aligners in the future.

Overall, with technological advancements and increasing patient acceptance, we will be able to treat pretty much everything in the future in my view.

How have developments in the European and the overseas market differed?

Dentistry as a profession is very conservative and dentists in the US, for example, are perhaps a bit more progressive. However, with regard to aligners, I no longer really see a great difference between Europe and America. The movement is global and I suspect the advancements we are now seeing in Europe will match those in America and Asia, where aligner therapy is also very popular. There are always regional differences, also partly related to legal restrictions, but the trend towards aligner therapy is a global phenomenon.

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How does the EAS address the current trends in orthodontics?

Aligner therapy has seen huge advancements over the past decade, with an increasing number of manufacturers offering different systems today. Thus, the main motivation behind the foundation of the EAS was to establish a neutral body—an international society that is independent of any information about aligner therapy and that members can consult for guidelines. Research is our third column, which is currently lagging behind. Eventually, we hope to have our own aligner journal or magazine and grant annual awards for excellence in aligner therapy.

Can dental professionals look forward to another EAS congress next year?

Based on the success of the inaugural event over the past weekend, we definitely want the congress to become a regular event in the calendar. While we are planning to hold the EAS congress every two years, we will be organising smaller regional forums on a continuous basis throughout every year.

Thank you very much for the interview.
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American Dental Association seeks exemption for dental offices

By DTI

WASHINGTON, USA: In 2015, the Environmental Protection Agency (EPA) proposed a set of regulations for the management of hazardous waste pharmaceuticals by health care facilities, in order to strengthen environmental protection while reducing regulatory burden on businesses. The rules proposed by EPA aim to streamline the current regulations governing such waste and to reduce the amount of pharmaceuticals entering waterways. The American Dental Association (ADA) has now urged the agency to exempt dental care facilities from the rules.

According to EPA, more than 6,400 tons of hazardous waste pharmaceuticals enter waterways annually through health care facilities. Hazardous waste generated by dental offices includes photographic processing waste, chemical sterilant waste, and amalgam waste.

Although the ADA has praised the agency’s concern for safe disposal of hazardous waste, the association stated that dental offices generate very little hazardous waste and even lower quantities of hazardous waste pharmaceuticals.

“In the ADA’s view, the Proposed Management Standards For Hazardous Waste Pharmaceuticals rule fails to take into account the specific factual circumstances facing (and resource limitations applicable to) the dental community. As a result, the costs exceed the benefit and EPA seeks to impose requirements that exceed EPA’s legal authority,” the ADA wrote.

In addition, the ADA has asked that EPA exempt dental amalgam from the definition of pharmaceuticals. “The ADA believes that it is not EPA’s intention to include dental amalgam within the definition of pharmaceuticals in the proposed rule,” wrote the ADA. “Dental amalgam has not traditionally been considered a pharmaceutical. Neither the rule, the preamble nor other documents in the administrative record express an explicit intention to cover dental amalgam,” the association stated.

Moreover, the ADA has called upon EPA to work with the association to develop voluntary options or guidance for dentists regarding the disposal of pharmaceutical waste.
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Ann Arbor, Mich., USA: A new technology developed by researchers at the University of Michigan could help dentists improve treatment of patients with bone loss. The scientists have developed a polymer sphere that delivers a specific molecule to bone wounds that tells cells already at the injury site to repair the damage. Therefore, the nanotechnology could improve implant treatment or help patients with periodontal disease.

MicroRNA, a small noncoding RNA molecule found in plants, animals and some viruses, has shown promise in clinical research as a therapeutic agent for various diseases, such as cancer and inflammatory diseases. It might also be able to enhance bone regeneration, the current study has found.

When delivered into endogenous stem cells, the microRNA in- structs the cells to switch on their healing and bone-building mechanisms, explained Dr. Peter Ma, Professor of Dentistry and lead researcher on the project. It is typically very difficult for microRNA to breach the cell wall, Ma said. However, the polymer sphere developed by Ma and his colleagues enables the RNA molecule to easily enter the cell and encourage bone repair.

The advantage of this new technology is that it uses existing cells to repair wounds and therefore reduces the need to introduce foreign cells, which is a very difficult therapy and can result in the host rejecting the foreign cells or the development of tumors.

Bone repair is especially challenging in patients with healing problems. Millions of patients worldwide suffer from bone loss and associated functional problems, but growing and regenerating high-quality bone for specific applications is still very difficult with current technology, according to the researchers.

"The new technology we have been working on opens doors for new therapies using DNA and RNA in regenerative medicine and boosts the possibility of dealing with other challenging human diseases," Ma explained. There are several possible applications in dentistry and maxillofacial surgery. Moreover, it could help patients with osteoporosis, as well as those undergoing bone surgery or joint repair.

"For patients with low bone quality, it’s often hard to utilize implants to restore dental functions. This technology can potentially regenerate bone in patients with poor healing capacity, enabling implantation," Ma told Dental Tribune. He added that patients with periodontitis could also benefit from his findings. "Periodontal disease often ultimately results in tooth loss due to diminishing tooth supporting bone. This technology will potentially lead to a therapy to restore the tooth-supporting bone and retain or strengthen otherwise falling teeth in such patients," he stated.

The paper, titled “Cell-free 3D scaffold with two-stage delivery of miRNA-26a to regenerate critical-sized bone defects,” was published online in the Nature Communications journal on Jan. 14.