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

By Dental Tribune America

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

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

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

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

Da Silva completed specialty training in implant dentistry and prosthodontics at HSDM in 1992. He has been a faculty member there since 1995.
for Hospitals Ltd who were represented by the chairman Mr Elie AbouChedid. CARE are the agents of Planmeca in the Kingdom of Saudi Arabia. Also present at the event was the President of Planmeca Mr Heikki Kyostila and Mrs Kyostila from Finland.

President Riad Bacho gave a brief word and then handed over the presidency medal to President Ali Alehaideb.

President Alehaideb thanked all those present as well as the event sponsors and praised the work of fellow Youssef Talic, the section’s past vice president, who had done the groundwork for the organization of District 2.

Councilor Cedric Haddad also gave an update of the activities of the International Council and of the changes that were taking place in the College.

Mr Elie AbouChedid then introduced his company (CARE) and gave a presentation of the technically advanced services that it provided.

A banquet followed the meeting and gave all those present the chance to socialize, renew acquaintance and exchange ideas.

Fellows at the ceremony: from left Abdulrahim Al Kradees, Bhd Abdallah, Hanu Ounsi, Moustir Silwadi, guest Dr Youssef Al Khoudair, Abdallah Mira, Youssef Talic and Ziad Salameh.

From left, President Alehaideb, Youssef Talic, Riad Bacho, Cedric Haddad, Ibrahim Naasheh, Mrs Kyostila, Mr Heikki Kyostila Mr Elie AbouChedid, and with her back turned, Imtiaz Turkistani.

Dent al tribune Middle East & Africa Edition | March - April 2014

Email: deyanov@cappmea.com

By Petri Kajander

Planmeca makes CAD/CAM easier than ever

The new Planmeca PlanScan® is a digital and powder-free intraoral scanner that scans the patient’s dentition quickly and accurately. The scanner produces real-time digital impressions from one-tooth to full-arch scans. Thanks to the open STL format, the scanned files can be sent to any dental laboratory or design work. This is the world’s first dental unit integrated intraoral scanner that can also be connected to a laptop.

“The scanner has only one cable, so it is extremely easy to move from one place to another, for example between different treatment rooms or clinics”, says Product Manager Petri Kajander. “In addition, the scanner is delivered with a laptop, so the device can be flexibly shared between different users. In other words, Planmeca PlanScan offers value for your investment: it is not a device for just one dentist but can be used by the entire clinic.”

The scanner utilizes blue laser technique. It projects a pattern on the surface of the teeth and then analyses it from different directions while calculating distances. In this way, the device is able to calculate a model that is extremely accurate. “You can view the result as a real-time video image. The video recording and the dental surface identification algorithms make the device extremely flexible to use. Thanks to these features, you can pause the scanning at any time and continue later on at any point from where data is already available.”

The scanner includes a range of exchangeable tips in various sizes, the smallest of these facilitating access to the posterior parts, particularly with small children and trauma patients. The tips can be autoclaved for efficient infection control. In addition, the scanner is extremely durable since it has no other moving parts inside except for a fan that removes warm air. “Thus, the device stays calibrated and is not subject to mechanical wear”, explains Kajander.

Planmeca PlanCAD® Easy – efficient design tool for prosthetics

Planmeca also offers dentists a new kind of open software solution for 3D design. Planmeca PlanCAD® Easy is seamlessly integrated in Planmeca Romexis® software and it is a user-friendly design tool for the design of inlays, onlays, veneers, crowns and bridges.

“The software runs on the so-called floating license basis. This means that it is not tied to just one computer or workstation. Planmeca PlanCAD server will also face cases that require assistance from a dental laboratory. For this reason, Planmeca’s system utilises an open STL file format that allows the work to be sent immediately to a partner via the Planmeca Romexis® Cloud service.

Every dentist designing his or her own prosthetic works will also face cases that require assistance from a dental laboratory. For this reason, Planmeca’s system utilises an open STL file format that allows the work to be sent immediately to a partner via the Planmeca Romexis® Cloud service.

Since Planmeca PlanCAD Easy is integrated in Planmeca Romexis software, soft tissue scans can also be conveniently paired with the patient’s CBCT image. This combined data provides valuable information for imm...
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The new VITA metal ceramic with the familiar layering you're accustomed to.

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VITA shade, VITA made.
Dr. Don T Curtis speaking at a recent event on the occasion of the 50th anniversary of the Kennedy assassination. (DTP/Photo Stephanie Price/ Panhandle-Plains Historical Museum, USA)

Dr. Don T Curtis speaking at a recent event on the occasion of the 50th anniversary of the Kennedy assassination. (DTP/Photo courtesy of Baylor College of Dentistry, USA)

Interview: “Kennedy’s wound was clearly incompatible with life”

By Dental Tribune International

F ew people are granted the opportunity to become an active part of historical events. Seventy-six-year-old Dr. Don T. Curtis, a former dentist from Amarillo in Texas, is one of them. As a surgeon in oral and maxillofacial surgery at Parkland Memorial Hospital in Dallas, he was one of the first doctors to have performed emergency treatment on U.S. President John F. Kennedy after he was shot on 22 November 1963. Dental Tribune ONLINE had the opportunity to speak with him about that day and the reason he thinks that there was more to the assassination than a lone gunman.

Were you aware of the president being in Dallas on 22 November 1963?

I was not aware of that and was surprised when they brought him to the hospital. I had a surgery scheduled for later that day and was on my way to have lunch. The way to the lunch-room however, required me to leave the building and walk across the reception area of the emergency room, where I noticed police cars and the presidential limousine, which had blood on it and roses that were given to the first lady, Jacqueline Kennedy, when she arrived at the airport.

When a policeman asked me whether I was a doctor, I said yes. He then replied that the president was hurt and escorted me to the trauma room where President Kennedy was.

In what condition was Kennedy when you arrived?

When I got there, it was obvious that the president was in extremis. He tried to breathe but was unable to do so. Dr. Charles James Carrico, a Parkland resident surgeon, had placed an endotracheal tube in an attempt at ventilation. However, that did not work because there was a blockage of the president’s airway, so he decided to do a tracheostomy.

I helped the nurse to undo the president’s tie and remove his shirt to prepare him for the procedure. Then Dr. Malcolm Perry, a senior surgeon, came into the room and it was decided that he should do the tracheostomy. Dr. Carrico assisted Dr. Perry, and I performed a cut-down on the left leg to provide for intravenous replacement of blood.

According to eyewitnesses, discussions broke out about who was authorized to do the autopsy. Did you notice any of that?

I did not because I left the trauma room soon after the president had been pronounced dead and went back to the clinic to see my patient in the operating room. However, I found that all scheduled surgeries for that day had been cancelled and all patients had been sent back to the ward. Only a few surgeries were underway at that time, including that of Governor John Bowden Connally, who had also been injured during the shooting.

What were your reasons for doing surgery?

I told my patient that her surgery had been postponed. She understood that. Since there was nothing else for me to do, I then cleared my business and moved to the clinic and went home. There, we spent the weekend watching television and listening to the news on the radio. We were relieved that President Lyndon B. Johnson had made it safely back to Washington and that the government was uninterrupted.

What is the atmosphere in the room?

On your opinion, was there any chance that the president’s life could have been saved? Nothing that we did made a difference. Kennedy’s wound was clearly incompatible with life.

What do you believe happened that day?

I am convinced of the nature of the injury to the president because his head was on a pillow and I could not see a wound. I remember the chief of neurosurgery, Dr. William Kemp Clark, rotating Kennedy’s head to the left, revealing that the posterior part of his skull had been radically fractured. He then said, “Stop this injury is incompatible with life.”

Where do you stand on the president having been the subject of an assassination attempt?

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“It’s my personal belief that there were of course multiple shooters and that Oswald did not do it alone.”

I do not believe that Oswald acted alone by hitting Kennedy with three shots in the back, as concluded by the report of the Warren Commission. I think there needs to be general consensus that the Warren Commission was appointed by the government to investigate the circumstances of the assassination. Did you observe any irregularities between this official version and the events you witnessed?

The Warren Commission’s report reflected what the government wanted to hear, which was that Oswald acted alone and that there was no conspiracy. The doctors of Parkland however when wiping the blood from Kennedy’s neck for the tracheostomy found a single bullet hole that was apparently an entrance wound, which meant that a projectile that entered the president from the front. Because of its nature, another wound on the back of Kennedy’s head was an exit wound, so there must have been at least two bullets that came through the front.

While all the doctors’ testimonies, including mine, were interrogated, Dr. Perry and I performed a cut-down on the left leg to provide for intravenous replacement of blood. Dr. Charles James Carrico, a Parkland resident surgeon, had placed an endotracheal tube in an attempt at ventilation. However, that did not work because there was a blockage of the president’s airway, so he decided to do a tracheostomy.

“We learned that the suspect, Lee Harvey Oswald, had been shot, which indicated that there was something going on in addition to just alone shooter.”

What were your reasons for doing surgery?

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While all the doctors’ testimonies, including mine, were interrogated, Dr. Perry and I performed a cut-down on the left leg to provide for intravenous replacement of blood.
The current laboratory fabrication process follows a very linear progression: model fabrication, day one; waxing, day two; finishing, day three; ceramics, day four, etc. Average production time for an all-ceramic or porcelainfeld-to-metal restoration is approximately five to seven working days based on this fabrication method.

Once the impression is received at the laboratory, the impression can be scanned and data sent to several digital production stations at the same time. This will potentially allow the model, the restorations (both framework and waxup) and the final ceramic restoration to be completed at the same time (Fig. 6).

Digital diagnostic and treatment planning The basis for all long-term success in restorative dentistry is a comprehensive diagnosis and treatment plan. The ability to preview a case from start to finish, communicate and co-diagnose with other specialists and specialties about dental patients via the virtual world is the true power and capability of digital dentistry.
Sirona Group receives another Top Employer Award

In a multi-phase analysis and auditing process, the Top Employer Institute (formerly CRF Institute) designates outstanding employers around the world every year. Some of the key criteria include excellent working conditions, promoting talent, and continuous development of human resource management. Sirona China was given the highest award “Top Employer China 2014” along with 40 other employers. Michael Elling, Vice President Corporate Human Resources of the Sirona Group, expressed his satisfaction: “Our employees are the heart of our company. The Top Employer Award for Sirona China is an acknowledgment of our local and global efforts to support our employees. It is part of our global growth strategy, it increases our attractiveness as employers, and it motivates our employees to work at Sirona in Germany and abroad.”

Growth and development at Sirona China

In 2006, Sirona began to develop the business in China with just 30 employees. Today, eight years later, there are more than 150 employees here – a success story, also with respect to personnel development. “Employee satisfaction is the basis of our success at Sirona China. This is why we find it important to have an excellent team, promote team spirit, and motivate continuing development among our employees. It is rewarding to see how many employees successfully climb the career ladder,” explains Henning Müller, Vice President China and South East Asia. A strong growth that is reflected in the market, Sirona China is the number one company for dental treatment chairs. Digital dentistry and CAD/CAM products have also made significant gains in the past two years.

Employee success stories

Sirona offers many opportunities and promotes young talent among students as well. For example, the German student Verena Schütter spent four months at Sirona in Asia during her International Business studies at Baden-Württemberg Cooperative State University. There she became familiar with the international company and the Shanghai location, and she helped develop the Singapore office. This was opened in November 2015. A career opportunity open to all employees at Sirona fostered by the Talent Excellence Program encompasses individual advanced training, project assignments across positions and locations, and targeted international postings and career advancement in one of its worldwide subsidiaries.

Contact Information

Sirona Dental GmbH
Sirona Straße 1
A-5071 Wals bei Salzburg
Austria
P +43 (0) 662 / 2450-0
F +43 56 2450 609050
contact@sirona.com
www.sirona.com

By Sirona

SALZBURG, Austria: Since receiving the Top Employer Awards for Germany, Austria and Engineers in 2015, Sirona’s excellent human resources policy and very good working conditions have also earned it international recognition in 2014. In an award ceremony in Shanghai, Sirona China was given the “Top Employer China 2014” award in mid-January. The company’s German employees have also been successful at the Chinese site.

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< Page 35

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www.sirona.com

< Page 35
So saliva collected at a constant flow rate for 2 minutes will have a different composition from saliva collected at the same flow rate for 10-15 minutes.

**Nature of the stimulus** – Different stimuli have an effect on salivary composition, mainly because of their effect on the rate of flow. Acid is the most potent stimulus for saliva. Acid is mainly because of their effect on salivary composition, but only at high flow rates, when it is an important buffer against acid produced by dental plaque. Its concentration varies from less than 1 mmol/l in unstimulated parotid saliva to almost 60 mmol/l at very high flow rates, with whole saliva elicited by chewing gum having a bicarbonate concentration of about 15 mmol/l. Thus, in unstimulated saliva, the level of bicarbonate ions is too low to be an effective buffer. Additionally, salivary pH is dependent on the bicarbonate concentration, an increase in which results in an increase in pH. At very low flow rates, the pH of parotid saliva can be as low as 5.5, rising to 7.8 at very high flow rates. Individuals with hyposalivation will thus have a low salivary pH and a low salivary buffering capacity because of the low bicarbonate concentration.

**Conclusion**
Saliva not only plays a pivotal role in the maintenance of a healthy homeostatic condition in the oral cavity, but contributes to one’s overall health and wellbeing. Components from saliva interact in different ways with the dentition to protect the teeth. Patients who lack sufficient saliva suffer from many oral diseases, of which caries is only one. To alleviate discomfort they are advised to use saliva stimulants and substitutes which have the function of lubricating the oral surfaces. Chewing gum is increasingly being viewed as a delivery system for active agents that could potentially provide direct oral care benefits, as it promotes a strong flow of stimulated saliva.

The fourth edition of Saliva and Oral Health is available at www.shancollsLtd.com. A full list of references is included in the book.

*Underwriting costs for this Saliva and Oral Health edition were provided by Dr. Michael Dodds and The Wrigley Company.*

**References**

Biological and conservative root canal instrumentation with BT-Race file system

**Fig. 1:** Median canal diameters.

**Fig. 2:** Benefits of Race files.

**Fig. 3:** BT and normal tip: localization of the cutting point.

**Fig. 4:** Efficiency of the normal tip and the BT in the canal: the path of the tip, with a guide.

**Fig. 5:** BT-Race sequence.

**Fig. 6:** BT-Race XL for finishes at sizes 40 and 50.

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**By Drs Gilberto Debelian & Martin Trope**

Root canal instrumentation is one of the major tools for ensuring the long-term success of root canal therapy. The aim is to mechanically disrupt as much biofilm as possible so that with the addition of irrigants and/or intra-canal medicaments a very low microbial count can consistently be achieved before the filling of the root canal. Another aim or challenge of root canal instrumentation is to achieve the microbial reduction goals mentioned above without unnecessarily weakening the root by over-instrumentation, for example through the reduction of the dentinal wall thickness. Preservation of native structure, especially in the cervical region of the tooth has been demonstrated to correspond to better long-term survivability from a loading and restorative standpoint. It is well established that as the remaining dentine thickness decreases so does the root’s resistance to fracture.

In evaluating anatomical studies, it is striking that they are consistent. Figure 1 best summarises the anatomical aims for a mandibular molar. The mesiobuccal and mesiolingual canals are at the 1mm measurement from the apical foramen, which corresponds most closely to the dentinoenamel junction. In the mesiodistal direction, the diameters are 0.21 and 0.28mm respectively, thus finishing at a 25 file would appear to be sufficient when viewed on a periapical radiograph, since the mesiodistal direction is what we see on the radiograph. However, when we look in the buccolingual direction, the correct files sizes are between 35 and 40. For the distal canal, a size 35 would appear adequate on the radiograph (mesiodistal view) but the correct size would be 50. In order to achieve the goals mentioned above, we should aim for 35, 40 or 50 apical sizes with no more than a 0.04 taper. These biological sizes with the addition of an adequate irrigation protocol will ensure a consistently low microbial count for maximal success.

**BT-Race system**

BT-Race files (FKG Dentaire) are sterilised in individual blisters so that sterility is maintained for every file. The biological sizes mentioned above can be achieved with three files every time once a glide path has been established. The system was designed in such a way that these sizes are attained with minimal removal of dentine coronally to maintain the strength of the root. Moreover, the Race file has a non-screw-in design and triangular cross-section to increase flexibility and cutting efficiency. It is also electropolished to decrease the effects of torsional and cyclic fatigue (Fig. 2).

The Booster Tip (BT, Fig. 5) is the key feature of these files however. It allows them to follow curvatures in canals without undue stress on the file or the root.
The BT starts as a non-cutting tip from 0–0.15 mm diameter and the cutting edges start from 0.15 mm and upwards on the file (Fig. 4). Essential steps for the successful use of the BT-Race sequence are the following:

**Glide path**
In order to guarantee a minimal number of file breakages, a glide path to size 15.02 is essential. Hand files can usually achieve this aim. However, if a 6 or 10 file is extremely difficult to take to working length, ScoutRace files allow one to achieve this requirement more quickly.

**Speed of 800–1,000 rpm**
A high speed reduces the risk of breakage due to torsional fatigue. As these files are for use with individual patients only, the possibility of breakage from cyclic fatigue is also reduced.

**BT1 (10.06 file)**
This file (Fig. 5) establishes the final glide path and determines the coronal diameter. In any canal in which a 15.02 glide path has been established, the file will contact mainly the coronal third of the canal. At 12 mm from the working length, the diameter will be 0.82 mm. These files have no BT, since the tip diameter is already 0.10 mm and smaller than the glide path established with a 15.02 K-file.

**BT2 (parallel 35 file with BT)**
The BT2 file (Fig. 5) is used to prepare the apical third of the canal. It is extremely flexible owing to its non-tapered design, yet penetrates into the narrow canal easily and efficiently with the BT.

**BT3 (35.04 file with BT)**
This file (Fig. 5) is used to join the coronal and apical preparations created by the BT1 and BT2 files and thus create a 35.04 final shape that allows maximal irrigation and a tight cone fit. The file is able to go to working length with minimal stress, since the coronal third has been cleared with the BT1 file and the apical third with the BT2 file. Important in this canal, the maximum diameter at the 12 mm level is 0.85 mm. Consequently, the removal of coronal dentine is minimal, allowing for the strongest root possible after restoration.

**BT-Race xL: BT 40 (40.04 file) and BT 50 (50.04 file), 600–800 rpm**
These two instruments (Fig. 6) enable finishes at ISO 40 and 50 when adequate apical sizes require larger sizes. If even larger apical preparations than ISO 50 are required, the Race range of instruments is recommended in the required sizes, preferably with a small taper of 0.02. With this unique file system, all canals can be conservatively instrumented to the correct biological sizes while maintaining maximum cervical tooth structure.

The BT ensures that the original canal shape is maintained, thus keeping even the larger files centred in the canal. Through this advantage, in addition to the minimal taper required to achieve these biological sizes, the canal is maximally cleaned without weakening or stressing the root.

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**Contact Information**
For more information on the Dubai training center: med@fkg.ch or get in touch with your local FKG Dentaire distributor, for all other enquiries: FKG Dentaire SA, Crêt du Locle 4, 2304 La Chaux-de-Fonds, Switzerland T +41 32 924 22 44, info@fkg.ch / www.fkg.ch
KaVo Dental GmbH: Success at AEEDC

By KAVO

Dubai, UAE: For 5 consecutive days, KaVo Dental GmbH MEA took part in the 18th Edition of AEEDC Dubai 2014. We displayed a brand new Patient simulator for Universities that will be launched in spring 2014 as well as the complete range of ESTETICA treatment units. Guests were also invited to gain valuable hands-on experience with the new Leica M520 microscope with full HD integrated camera with Mrs. Natalia Lebedeva, Commercial Manager for Leica Microscopes.

And to further demonstrate the high tech product range of KaVo, the CAD/CAM systems, Arctica and Everest were also showcased by our product manager, Mr. Mohammad Abdallah, KaVo Dental GmbH Middle East & Africa. We also hosted several exciting lectures with Dr. Heinz-Theo Laebers, head of the Dental Radiology Dpt. of the University of Zurich; who enlightened us about CBCT technology. As part of our dental imaging portfolio, we showcased the Gendex GXDP-700 3D machine with Pan + Ceph, Pan + 3D, and Pan + Ceph + 3D, options that make it suitable for any dental imaging purpose.

In addition, Dr. Thorsten Wegner from Germany introduced the DIAGNOcam for modern carries detection without X-ray, which has recently received an innovation award from the German magazine “ZahnarztWoche” and Planmeca.

The stand attracted the attention of a diverse crowd of professionals in the dental industry and it was a pleasure for us to meet all of them.

Contact Information
KaVo Dental GmbH
Alexia Valera
9th Floor Rotana Arjaan Tower
Dubai Media City, UAE
Tel. +971 4 4332186
Mob. +971 56 1757141
E-Mail: alexia.valera@kavo.com
www.kavo.com/MEA

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