

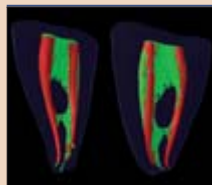
# DENTAL TRIBUNE

The World's Dental Newspaper · Asia Pacific Edition

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No. 7+8 Vol. 10



**Endodontic retreatment**  
Achieving success  
the second time around

▶ Page 11



**Periodontal therapy**  
The latest insights  
on gender aspects

▶ Page 14



**Multiple diastemas**  
Pros & cons of a makeover  
with indirect veneers

▶ Page 15

## Implant treatment woes high among Japanese dental patients

Dental Tribune Asia Pacific

**TOKYO, Japan:** Findings from a recent survey of dentists in Japan have revealed that in 2011 one in four had seen patients with health complications due to dental implant treatment. Over 90 per cent of the dentists surveyed also reported having treated patients last year with problems related to implants placed by a colleague.

Pointing to the general risks of implant procedures, the Director of the Japanese Academy of Maxillofacial Implants Kanichi Seto told the *Asahi Shimbun* newspaper that some of the cases might be related to dentists using clinically unsuitable methods or technologies. He called on patients suffering from problems after implant treatment to seek medical help at dental clinics immediately.

In Asia, Japan has the second highest penetration rate of dental implants after South Korea currently. According to figures from the AstraZeneca Group in



Many patients in Japan seem to experience complications after dental implant surgery. (DTI/Photo Peng Guang Chen)

London, UK, almost half a million implants were placed in the country in 2006, a figure that experts say has further increased in recent years, despite the recession and March 2011 tsunami.

Business figures from leading market players suggest that

Japan's dental implant market is growing by more than two per cent annually.

First dental implants were placed in Japan in the early 1970s. Although not covered by national dental insurance, the procedure has become a wide-

ly accepted treatment method among patients and dentists. The International Team for Implantology, a Straumann affiliate and one of the world's largest providers of dental implant education, recently held its first Japanese congress in Tokyo in June. [DTI](#)

## Zhu to receive first FDI award

The FDI World Dental Federation has announced that China's Minister for Health, Prof. Chen Zhu, will be the first recipient of the Inaugural World Oral Health Recognition Award. The 59-year-old haematologist was selected owing to his contributions to the development of dentistry in China, the organisation said.

Politically independent Zhu was appointed Minister of Health of the People's Republic of China in early 2007. Since then, he has implemented reforms of the country's health care system, which included the expansion of basic health coverage to urban and rural areas, among other things. According to FDI officials, the award will be given to Zhu officially during the opening ceremony of this year's FDI Annual World Dental Congress in Hong Kong in August.

It is the first time that the FDI has awarded an individual for his or her contributions to dentistry. [DTI](#)



Participants of the world's largest dental check queuing at a Church of Christ medical and dental mission in Jakarta. (DTI/Photo courtesy of Iglesia ni Cristo, the Philippines) [▶ ASIA NEWS, page 3](#)

## Europe closer to amalgam ban

A new study, conducted on behalf of the European Commission, has recommended phasing out dental amalgam use over the next few years owing to mercury's negative impact on the environment. The decision to effect a ban would probably be made in 2013, and become applicable five years later, the authors suggested. [DTI](#)

## Mobile phones under scrutiny

Emission from handheld mobile phones like heat and radio frequency radiation can cause functional and volumetric changes in the parotid glands. In tests with heavy users, researchers recently observed an increase in the salivary flow rate and the volume of parotid glands on the side of the head where mobile phones were frequently held. [DTI](#)

## Thyroid drug could detect caries early

Researchers from India have successfully tested a method that could help dentists to identify children who are at risk of developing Early Childhood Caries, the highly virulent form of tooth decay. In clinical tests conducted on pre-schoolers from Mangalore, they reported a link between the children's bitter taste perception of a drug used in the treatment of autoimmune disease and their oral health status.

According to the researchers, children who reacted to 6-n-propylthiouracil showed a greater dislike of sweet foods compared with those who could not taste the compound. They also had fewer dental problems than those who did not react to it. [DTI](#)



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AD



# Unlicensed dentists plague the Republic of Fiji

Daniel Zimmermann  
DTI

**SUVA, Fiji:** Locals and visitors to the Fiji islands have been warned by the country's consumer council to be aware of fake dentists or those practising without a proper licence after several cases of dental malpractice were reported throughout the island state in which patients were left with pain or lost their teeth owing to unprofessional treatment.

The Ministry of Health also released information recently about a Chinese couple who had been operating an illegal dental surgery for years in their home near the capital Suva. According to the Department of Immigration, they are currently being investigated and could face deportation owing to breach of the Immigration Act, despite the woman being a dental officer in her home country.

Prior to this, a woman from Canada had one of her front teeth extracted by an employee of a dental clinic who did not have a licence to practise dentistry but had posed as a dentist.

"The council is urging the public to be mindful of such unscrupulous dentists and run background checks on them before seeking their services," the council advised in a press release. "People must ask the name of the dentist who is to perform the procedures on them



Several cases of dental malpractice were recently reported to Fijian authorities. (DTI/Photo Teerawut Masawat)

and also ask to see his or her registration certificate."

Dental professionals wishing to practise in the Fiji islands have to register with the Fiji Medical and Dental Council. In recent years, however, an increasing number of dentists have not renewed their annual licence, a circumstance that forced the regulatory body to run a widespread public campaign recently and threaten unwilling practitioners with disciplinary action. According to the council, they were also informed of a number of cases of dental graduates being employed by dental clinics and practices without them first being registered.

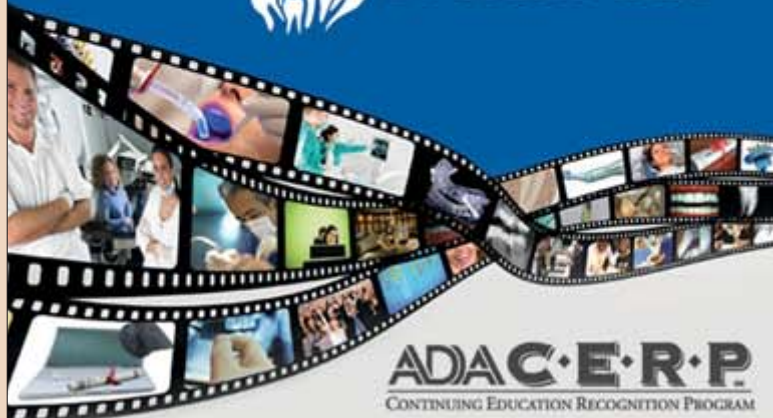
Fiji currently has slightly over 100 dentists, most of whom work for the government. Costs for dental treatment have increased in recent years owing to expensive imports of dental equipment, according to the Fiji Dental Association, which makes the cost of regular treatment prohibitively high for most patients.

The results of the last oral-health survey conducted in 2004 indicate that caries prevalence among all age groups in the country is high.

Statistics from a new campaign launched in 2011 are expected to be released later this year. ■

AD

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Dr David Paquette

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- Identify prescription drugs that increase risk for xerostomia and related oral sequelae.
- Describe appropriate interventions for patients experiencing drug-induced xerostomia to reduce oral disease risks.
- Describe drug classes known to alter taste.
- Discuss medication-induced oral soft tissue alterations, including mucositis, aphthous stomatitis, lichenoid drug reaction, and gingival hyperplasia.
- Describe medications associated with causing extrapyramidal effects that alter oral muscular function resulting in hard tissue damage

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Group Editor/Managing Editor DT Asia Pacific

Daniel Zimmermann  
newsroom@dental-tribune.com  
Tel.: +49 341 48474-107

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Online Editor  
Editorial Assistance

Magda Wojtkiewicz  
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Claudia Duschek

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Holbeinstr. 29, 04229, Leipzig, Germany  
Tel.: +49 341 48474-302 · Fax: +49 341 48474-175  
Internet: www.dental-tribune.com E-mail: info@dental-tribune.com

#### Regional Offices

Asia Pacific

DT Asia Pacific Ltd.  
c/o Yonto Risio Communications Ltd, 20A, Harvard Commercial Building, 105-111 Thomson Road, Wanchai, Hong Kong  
Tel.: +852 5115 6177 · Fax: +852 5115 6199

The Americas

Dental Tribune America, LLC  
116 West 25<sup>th</sup> Street, Suite 500, New York, NY 10001, USA  
Tel.: +1 212 244 7181 · Fax: +1 212 224 7185

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DENTAL TRIBUNE

The World's Dental Newspaper - Asia Pacific Edition



# Christian organisation in the Philippines breaks dental world record

Daniel Zimmermann  
DTI

**MANILA, the Philippines:** Recently, a medical and dental mission organised by the Church of Christ in Manila in the Philippines broke the world record for the most people involved in a dental health check. Over 4,100 people were examined within eight hours

by the mission in the Philippines' capital in the second weekend of July, according to Guinness World Records in London.

The previous record was 3,377 people, checked during an oral health event organised by the Indian Dental Association and

Wrigley in Mumbai in October 2009. With 66,322 people checked, India still holds the world record for the most people involved in a dental examination in multiple locations since November 2010.

Guinness currently recognises a couple of dental records,

including the longest tooth extracted and the oldest person to have received dental implants.

In addition to the most dental checks performed on one day, the Manila mission also broke two other records in the most blood pressure readings and blood

glucose level tests categories. According to Guinness representative Tarika Vara, it was the first time that three records were broken simultaneously. She remarked that the standard of the health checks was very high and of great benefit to all those involved.

Over 1,000 medical and dental professionals are reported to have taken part in the event, which saw overall attendance by 100,000 people. The mission also provided medication, minor surgical treatment and relief food packs. [D](#)

AD

## Dental workers get a breather

DT Asia Pacific

**JAKARTA, Indonesia:** The Indonesian ministry of health has delayed the deadline for a new law that could mean the end for thousands of small dental businesses in the South-East Asian country. The regulations, originally intended to take effect in April, are aimed at preventing dental technicians, also called *tukang gigi*, from performing dental procedures on patients.

The postponement is the ministry's response to the protests by thousands of dental workers, who claim that the ban will force them out of business. It has announced that it will use the six months for providing training opportunities to the affected workers in order to improve the situation and lessen the risk of maltreatment of patients.

An estimated 75,000 dental technicians are currently working in Indonesia, of which a large portion have been offering basic dental procedures, such as extractions and fillings, in addition to dentures, without a licence from the health authorities. In recent years, many low-income households who cannot afford regular treatment have become dependent on *tukang gigi* as their only means of receiving some form of dental care.

According to figures from the World Health Organization in Geneva, Indonesia has a current shortage of approximately 4,000 dentists. The situation is the most severe in many rural parts of the country, where oral health care is almost non-existent.

Representatives of dental technician organisations welcomed the decision to postpone the deadline but said that the six-month period would be too short to be able to improve the situation and that the government's intentions beyond September still remain unclear.

They called on the ministry to develop a long-term plan for the profession, rather than punishing them for the misconduct of a few. [D](#)

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# Dear reader,



Daniel Zimmermann  
DTI

The latest figures from Japan about complications due to dental implants are indeed alarming. While officials seem quick to downplay the issue, blame cannot be easily transferred to only a few bad examples in the dental community.

Of course, there are problems with training when clinicians with no former surgical experience are able to gain certificates for placing implants through courses that run over just a single weekend. The other side of the coin is the dental implant industry, whose interests are not always compatible with those of the patient.

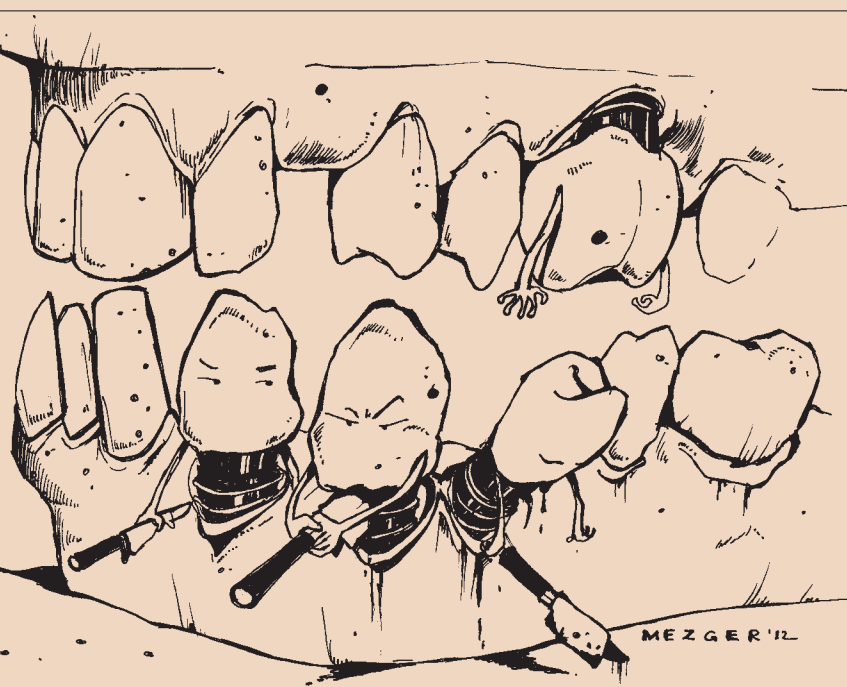
While big manufacturers invest a great deal in clinical testing, a number of smaller companies have entered the market in recent years that simply duplicate designs. Therefore, it is not an exception that nowadays a number of implants are thrown on the market with only a few months of clinical testing or even no testing at all.

Unfortunately, with most of these implants, patients have more or less become guinea pigs for medical devices on the edge. Dentists should be aware of this before considering treatment. ■

Yours sincerely,

Daniel Zimmermann  
Group Editor  
Dental Tribune International

*Cases of seppuku are reportedly increasing in Japan*



## Evaluate the dental work force system



Dr Diah Ayu Maharani  
Indonesia

Last year, the Indonesian government announced legislation to stop dental technicians from performing dental treatment. This regulation was originally planned to come into force six months later in order to give the government time to implement short- and long-term planning and to reach consensus among all stakeholders on this issue.

The first law on dental technicians, introduced in 1969, legalised this profession and issued them with the authority to provide patients with removable full and partial acrylic dentures only. This regulation, however, was never really enforced for unknown reasons. Therefore, it has become common for dental technicians to also place fillings, fabricate and place fixed dentures, and perform orthodontic treatment and

even extractions without the necessary education. As a result, no new registrations of dental technicians have been permitted since 1989.

Although political stakeholders still argue over the real cause of the dental health crisis in Indonesia, it might be the result of a complex interrelation of factors. Socio-economic disparity has created an imbalance in accessing dental care, resulting in services that are focused on income rather than actual need. The costs of dental treatments have exploded owing to the absence of pricing regulations, forcing disadvantaged parts of the population to rely on dental technicians to maintain their stomatognathic function, and resulting in often illegal practices. Recent reports have also described the high, unmet demand for and persistent inequality in dental care in Indonesia owing to the dental work force shortage, as well as geographical and economic barriers. A lack of commitment to preventive community-based dental health promotion might also be a factor. Prevention is still very far

from being appreciated. Needless to say, investment in prevention is still rare in this country.

The Indonesian government has demonstrated its willingness to improve the nation's dental health by committing itself to the establishment of a universal health-care coverage system. However, it is also time to evaluate the dental work force system and start distinguishing clearly between the authorised roles of dentists, hygienists and dental technicians. Moreover, resisting globalisation is like defying the law of gravity; therefore, increasing the quality and quantity of the dental work force based on need is necessary for competing in the global market. ■

### Contact Info

Dr Diah Ayu Maharani is a researcher at the University of Indonesia's Faculty of Dentistry in Jakarta. She can be contacted at [diah.ayu64@ui.ac.id](mailto:diah.ayu64@ui.ac.id).

## To the Editor

Re: "A keener eye on post-market activities" (Dental Tribune Asia Pacific, Vol. 10, No 5, page 4)

This looks like one of the cases in which a few companies will suffer some financial losses, but hopefully many more will benefit from the new changes to the regulations. As dental tourism continues to grow, it is always nice to hear that the bar is being raised around the globe. We at the Johns Hopkins Dental Group concentrate exclusively on the Costa Rican market, but we realise what happens abroad may have an impact on the entire industry. ■

Howard Siegler, 04.06.2012

Re: "Un-cosmetic dentistry" (Dental Tribune Asia Pacific, Vol. 10, No 6, page 15-17)

I agree with most of what you have said. At two feet, you cannot distinguish between porcelain and well-done composite. In my 36 years of working as a GP, I have seen a lot of less-than-desirable composite and C & B. It does not take much extra time to do it well and that is your best advertising in the long run.

In the last few years, I have removed some bonding that was done 20 years ago and simply bleached the teeth and we were done. Bleaching 20 years ago was not what it is today. I still have my Union Broach heating instrument with its heating paddle. We used 35 per cent superoxol with a rubber dam and cotton soaked in superoxol and heated it. It worked but was tedious and slow.

The best part of removing old bonding is that the teeth are never cut, and I often see decent-looking teeth that only need a little whitening but in the wrong dental chair would be sliced and diced. ■

Terry Shaw, 10.06.2012

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# Father of CT scanner dies

Daniel Zimmermann  
DTI

KENSINGTON, Md. & WASHINGTON, D.C., USA: One of the pioneers of CT scanning technology for use in medicine has died at the age of 86. Robert S. Ledley, a trained dentist turned biomedical researcher from New York City, passed away in July, family members told US media.

Ledley had suffered from Alzheimer's disease. He died in a nursing facility in Kensington, Md., near Washington, D.C., leaving his wife, two sons and four grandchildren, according to the notice of death.

Ledley started work on CT scanning technology while he was working as a professor in the Department of Physiology and Biophysics at the Georgetown University Medical Center's School of Medicine. There, he presented the first functional device able to perform a full-body scan to the public in 1973. The original is currently on display at the Smithsonian Institute in Washington, D.C.



Ledley presenting at a dental exhibition in 1952.

In addition to his achievements in the field of CT scanning, Ledley also helped to develop the Film Input to Digital Automatic Computer, an image-scanning technology used in the analysis of chromosomes, as well as a diagnostic device to assist in the diagnosis and study of neurological and ophthalmic disorders called the Computerized Electro Neuro Ophthalmograph.

He was also founder of the National Biomedical Research Foundation, a non-profit organization intended to support the development of computer technology for use in biomedical research.

"Bob's intellectual span and pioneering always amazed me," radiologist and Editor-in-Chief of Computerized Medical Imaging and Graphics, a scientific journal Ledley founded in 1976, Stephen Wong told *Dental Tribune*. "His relentless efforts in applying electronics, computing, and mathematics to improve medicine not only made lasting impacts to the fields of medical imaging, bioinformatics, and health informatics, but also has inspired many generations of scientists, engineers, and researchers, including myself, to dedicate their lives to this profession."

"Bob lived a wonderful and productive life. He certainly will be missed," Wong added.

Ledley held a dental degree from the New York University College of Dentistry received in 1948. During his dental career, he served both at the Walter Reed Army Medical Center of the US Army Dental Corps and at the former National Bureau of

Standards' Dental Materials Section, where he developed a system to optimise the fitting of dentures.

For his scientific work, Ledley was awarded the National Medal of Technology, among other honours. He is also an inductee of the National Inventors Hall of Fame since the year 1990. [DTI](#)



Robert S. Ledley posing with the world's first CT scanner at the National Museum of American History/Smithsonian Institutes.

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<sup>1</sup> M. Kern et al. "Ten-year results of three-unit bridges made of monolithic lithium disilicate ceramic"; Journal of the American Dental Association; March 2012; 143(3):234-240.

<sup>2</sup> Mean observation period 4 years IPS e.max Press, 2.5 years IPS e.max CAD.

See the IPS e.max Scientific Report Vol. 01 (2001–2011).

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From left: G. Ubassy, Dental Technician, France | M. Roberts, Dental Technician, USA | M. Temperant, Dental Technician, Italy | D. Hombrook, Dentist, USA | O. Brix, Dental Technician, Germany | U. Brodbeck, Dentist, Switzerland | G. Gürel, Dentist, Turkey | C. Coashman, Dentist, Ceramist, Brazil | A. Shepperson, Dentist, New Zealand | A. Bruguera, Dental Technician, Spain | S. Katakaka, Dental Technician, Japan | S. Kim, Dentist, Brazil



# Boys genetically more prone to mercury-induced neurobehavioral effects

DTI

SEATTLE, Wash., USA: According to the World Health Organisation, neurological and behavioural disorders may be observed after inhalation or ingestion of different mercury compounds. Researchers from

the University of Washington's Department of Environmental and Occupational Health Sciences have now suggested that children and boys in particular are susceptible to the effects of mercury from dental amalgam fillings owing to their genetic predisposition.

They hypothesised that CPOX4, a genetic variant of the enzyme coproporphyrinogen oxidase, which increases sensitivity to the neurobehavioral effects of mercury in adults, also influences the neurotoxic effects of mercury in children.

In order to evaluate the neurobehavioral effects of mercury from amalgam tooth fillings, they assessed neurobehavioral performance and urinary mercury levels in 330 schoolchildren (164 boys and 166 girls) at baseline and at seven subsequent annual intervals after initial placement.

According to the researchers, performance in all five tested domains of neurobehavioral decreased with increasing mercury exposure in males with the CPOX4 variant. Significant mercury dose-response effects were observed in 11 of the 25 test outcomes, all in the direction of impaired performance. In contrast, no such relationship was found in girls, who performed similarly in two tests only.

Among boys, diminished performance was observed in tests of attention, suggesting possible impairment of attentional vitality and flexibility. Significant effects on tests of learning and memory and of visual acuity were also found, suggesting possible decrements of verbal learning and memory, as well as of perceptual cognition.

"These findings are the first to demonstrate genetic susceptibility to the adverse neurobehavioral effects of mercury exposure in children," the researchers concluded. Since neither mercury nor CPOX4 alone substantially affected neurobehavioral performance in same-age girls, the researchers think that sex-related genetic predisposition affects susceptibility. They recommended that these observations be taken into consideration in risk assessment and prevention, especially in children.

The WHO lists mercury and its compounds as one of the top ten groups of chemicals of major public health concern. In 2009, the organisation recommended a global amalgam phasedown by promoting disease prevention and alternative dental fillings.

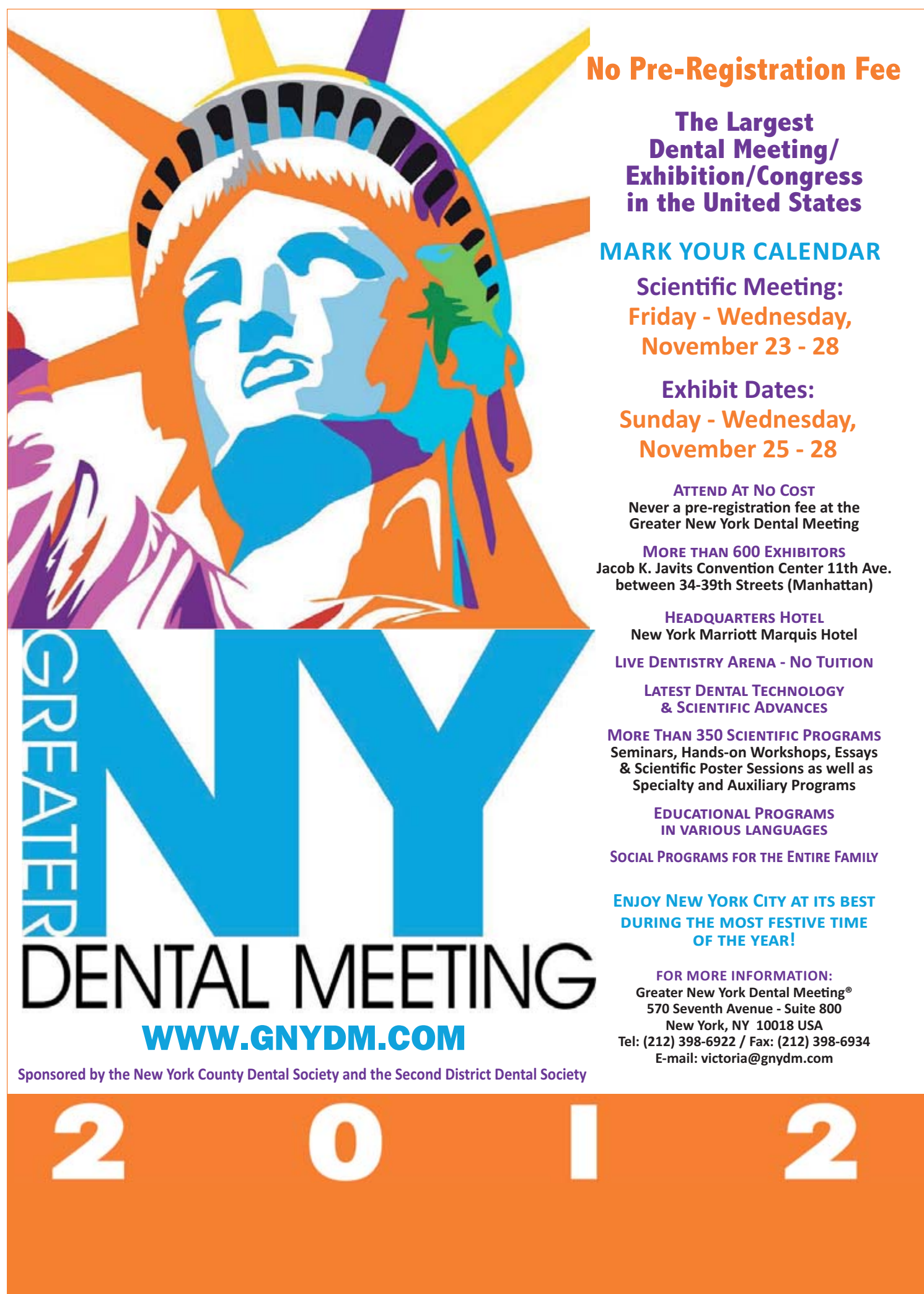
While some European countries, such as Norway, Sweden and Denmark, have banned the use of dental amalgam in recent years, its use is still widespread.

The US Food and Drug Administration recognises that high levels of mercury vapour exposure from elemental mercury are associated with adverse effects in the brain and the kidneys. However, owing to low levels of mercury vapour associated with amalgam fillings, the organisation considers them safe for adults and children aged six and above, except for certain risk groups like pregnant women and people with known allergies.

Study data was obtained from the Casa Pia Study of the Health Effects of Dental Amalgam in Children, conducted between 1996 and 2006 with 507 pupils aged 8 to 12 in the Casa Pia school system in Lisbon, Portugal.

The article was published online on July 2 in the *Neurotoxicology and Teratology* journal ahead of print. [DOI](#)

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# DENTAL TRIBUNE

— The World's Dental Newspaper —



# Schein Dental expands into Asia

## Dental equipment provider also buys US ortho and lab biz



Left: Stanley M. Bergman (DTI/Photo Henry Schein, USA) — Right: View of Bangkok's business district. (DTI/Photo Natapong Paopijit)

Daniel Zimmermann  
DTI

**BANGKOK, Thailand:** In a recent acquisition spree, Henry Schein has bought a major share in dental products provider Accord from Bangkok. While financial details of the deal were not disclosed, the Thai company is expected to add US\$15 million in sales to Schein's global dental business and expand its position in the growing Asian dental markets.

In addition to its purchase of Accord, the world's largest supplier of medical and dental prod-

ucts has bought Ortho Technologies, a provider of orthodontics supplies, to facilitate the growth of its orthodontics offering. In a third buy, Henry Schein also acquired medical laboratory service provider MLS in Bakersfield, California.

The partial takeover of Thailand's largest dental dealer may come as a surprise for some, as Henry Schein had earlier announced that it was pursuing growth opportunities in Asia but mentioned expansion into India and China as its first priority. Chairman and CEO Stanley M. Bergman said in a statement that

the latest acquisition of Accord will not only give his company the opportunity to establish its presence in the fifth largest dental market in Asia, but also serve as an anchor for further expansion into South-East Asia.

According to figures from the US Commercial Service in Bangkok, the heavily import-driven dental market in Thailand was estimated to be worth more than US\$120 million in 2008.

Run by the Charnsethikul family since 1976, Accord currently distributes dental products, including well-known brands from global manufacturers like Shofu, Planmeca and the GC Corporation, to over 5,000 customers in Thailand. Through the acquisition, the family will still retain 25 per cent of its former business, while Henry Schein will hold the remaining 75 per cent, both companies said last week.

Henry Schein maintains other business operations in the Asia Pacific region through affiliates and subsidiaries in Australia (Henry Schein Halas) and New Zealand (Henry Schein Shalfoon). Since last year, the company has also distributed its dental portfolio through Aniam Biomedical to customers in Hong Kong and the People's Republic of China.

Worldwide, Henry Schein operates in 26 markets with a focus on North America and Western Europe. Last year, the company reported record sales of US\$8.5 billion through its medical, dental and veterinary businesses. [DTI](#)

## CAD/CAM systems market in Japan to gain momentum

DTI

**TORONTO, Canada:** Manufacturers of dental CAD/CAM systems will have to look towards the Far East, as growth in this industry segment in countries like Japan is expected to outpace traditional markets in Europe and North America, a report by Millennium Research Group predicts.

According to the paper released by the Canadian market intelligence provider in July, CAD/CAM markets in Europe will not show improvement before 2014, while Japan will see dramatic growth in this segment owing to under-penetration in dental offices and increasing interest by dentists in investing in the technology. In addition, decreased reimbursement for conventional metal restorations by national health insurance is expected to increase the competitiveness of new materials for manufacturing prosthetics like dental ceramics, the report states.

Despite its recent economic troubles, Japan is currently the largest market for dental CAD/CAM and prosthetics in the Asia Pacific region after Australia and South Korea.

Since the country has to import much of its CAD/CAM technology from abroad, the field is largely dominated by European and US manufacturers, such as Sirona, Nobel Biocare and 3M ESPE.

A few domestic companies have launched their own systems in recent years, such as Kuraray Noritake Dental's KATANA system, which is now distributed worldwide.

Millennium Research Group predicts that the global market for dental CAD/CAM will exceed US\$540 million by 2016, to constitute over one tenth of the overall market for dental equipment. With over 60 per cent, chairside systems like intra-oral scanners will have the largest share in this segment, the company said. [DTI](#)

## DTI signs new partners in Vietnam and South Korea, sees visit by FDI executive

DTI

**BERLIN, Germany:** The FDI World Dental Federation and DTI have announced the strengthening of their efforts to lead the world to optimal oral health. During the eighth Dental Tribune International Publishers' Meeting in Berlin, joined by FDI Executive Director Jean-Luc Eiselé, they discussed joint strategies to address changes and future challenges in dentistry, including the FDI's Global Caries Initiative.

With this campaign, launched in 2009, the dentists' organisation aims to facilitate the development and implementation of a new universal approach with regard to caries classification and management. The Dental Tribune International Publishing Group will support these efforts through an exclusive media partnership and educational materials produced via the Dental Tribune Study Club, which will be presented for the first time to 190 members of the World Dental Parliament at the upcoming Annual World Dental Congress in Hong Kong.

"With these efforts, Dental Tribune and the FDI will again lead the change in dentistry,"



DTI's licence partner meeting in June was held for the eighth time. (DTI/Photo Daniel Zimmermann, DTI)

DTI president and CEO Torsten Oemus said.

Both organisations have been collaborators since 2005, when Dental Tribune was appointed official media partner for the FDI's Annual World Dental Congress in Montreal in Canada. Since then, the German-based dental media company has published the FDI's official daily congress newspaper, *Worldental Daily*, at its congresses in Dubai, Stockholm and Singapore, among others.

This year marks the eighth time that international partners of the Dental Tribune International network have gathered

for the annual licence partner meeting since the group was founded in 2002. It saw the launch of new projects in markets like South Korea, Australia and the Middle East. DTI's global operations have grown significantly in the last decade and now include media businesses in 30 countries around the world. Besides a large portfolio of general and specialised dental publications, the group also offers dental education through its sister company DT Study Club in various markets.

The next meeting is to be held during IDS Cologne in March 2015. [DTI](#)