Key factors for

Global dental diagnostic market

In its latest market report, global research firm Technavio forecasts that the global dental diagnostic and surgical equipment market will exceed US$7.5 billion (€6,7 billion) by 2020. According to the analysts, key factors underlying this prediction are the rising demand for oral care, an increasing number of dentists, and the growing edentulous population and incidence of oral disease.

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According to the analysts, efficient oral care, such as minimally invasive procedures, early detection of caries with new laser equipment, treatment of periodontal disease and professional tooth cleaning, will increase the number of patients and dental visits, thereby driving the growth of the field.

Advancing this trend is increasing oral health awareness reinforced through oral health campaigns by governments and private organisations. Furthermore, the demand for budget oral care is likely to boost the dental market globally, states Technavio lead analyst Barath Palada. "Countries like Turkey, Hungary, India, and South Korea are gaining popularity as medical tourism destinations among people seeking low-cost dental care procedures." The complete report, titled Global dental diagnostics and surgical equipment market 2016–2020, can be purchased at www.technavio.com.

Unclear link between

Oral health & cognitive status

A number of studies have suggested that oral hygiene and regular dental visits may play a role in slowing cognitive decline as people age. However, the association between oral health and cognition is not fully understood. A recently published systematic review conducted at Duke University in the US has now shown that the evidence that one causes the other is not definitive. "Clinical evidence suggests that the frequency of oral health problems increases significantly in cognitively impaired older people, particularly those with dementia," said Prof. Bei Wu, a gerontologist at Duke's School of Nursing. "In addition, many of the factors associated with poor oral health, such as poor nutrition and systemic diseases like diabetes and cardiovascular disease, are also associated with poor cognitive function."

Wu and her colleagues analysed 56 relevant cross-sectional and longitudinal studies published between 1993 and 2013. The study, titled "Association between oral health and cognitive status: A systematic review," was published online on April 1 in the *Journal of the American Geriatrics Society* ahead of print.

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Fundamental misconceptions about

Dental implants among patients

Investigating patients' knowledge and perceptions regarding implant therapy, a Chinese study has found that an alarming number of participants had inaccurate and unrealistic expectations about dental implants. Moreover, the study determined that only 18 per cent felt confident about the information they had about the treatment. In the study, the researchers investigated preoperative information levels, perceptions and expectations regarding implant therapy via a questionnaire. Responses from 277 patients were obtained during 2014 and 2015 in three different locations in China (Hong Kong, Sichuan and Jiangsu). The analyses established that about one-third of the participants had mistaken assumptions about dental implants.

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The study, titled "What do patients expect from treatment with dental implants? Perceptions, expectations and misconceptions: A multicenter study", was published online ahead of print on 23 March in the *Clinical Oral Implants Research* journal.

Oral bacteria may indicate

Increased pancreatic cancer risk

Researchers have found that the risk of developing pancreatic cancer is associated with specific bacteria in the mouth. They hope that the findings could enable earlier and more precise treatment of the disease, which is one of the most common causes of cancer death in both men and women and results in more than 40,000 deaths annually in the US alone.

The researchers compared bacterial contents in mouthwash samples from 361 American men and women who had developed pancreatic cancer with samples from 371 people of matched age, sex and ethnic origin who did not. They found that men and women whose oral microbiome included Porphyromonas gingivalis, a major contributor to periodontal disease, had an overall 59 per cent greater risk of developing pancreatic cancer than those whose microbiome did not contain the bacterium. Similarly, people with oral microbiomes containing Aggregatibacter actinomycetemcomitans, which has been associated with severe periodontitis, were at least 50 per cent more likely overall to develop the disease.

Antidepressant use could increase

Implant failure risk

New research has linked antidepressants to dental implant failure. The pilot study conducted at the University at Buffalo found that antidepressants could affect the regulation of bone metabolism, a crucial factor for the healing process and implant success.

In the study, the researchers analysed data from the medical charts of the university's dental clinic patients in 2014. They found that of the few patients who experienced implant failures, 33 per cent used antidepressants. For patients who did not experience failures, only 11 per cent took the drug. Overall, the analysis showed that use of antidepressants increased the odds of implant failure fourfold. Each year of antidepressant use doubled the odds of failure, the researchers stated. Therefore, they advise patients using antidepressants to consult with their physician about the drug's side effects and alternative methods of managing depression, anxiety or pain.

Antidepressant use has been associated with a number of side effects, including osteoporosis, akathisia, bruxism and dry mouth, all of which affect the implant healing process and are of concern for dentists with regard to oral and bone health, the investigators noted.

Further Education at the

DGZI International Annual Congress in Munich

As the most traditional European society for dental implantology, DGZI is going to hold its 46th Annual Congress in Munich, German from 30 September to 1 October 2016. Renowned speakers from Germany and abroad, representatives of associated societies and, of course, participants from Europe, the USA, Asia and the Arabic countries will once more contribute to and profit from an exceptional further-education event. This year, the congress will take place parallel to the annual congress of the German Society for Laser Dentistry (DGL), the Munich Forum of Innovative Implantolgy and the Oral Hygiene Day, resulting in additional pools of information for our participants.

The congress aims at providing first-rank, practice-oriented further education and building a bridge to the latest scientific findings via introducing industrial innovations and their implementation in the daily practice. Lectures will cover the complete spectrum of modern implantology, furthermore illustrating significant interfaces with other relevant areas of expertise. The congress programme is completed by workshops by manufacturers of implants, membranes and bone substitutes as well as separate topics on the dental assistance in implantology.

As the congress will be held on the Octoberfest's final weekend, all interested colleagues are encouraged to plan their participation in time.

Source: DGZI e.V.

USA to expect

Growing dentist shortage

The demand for dental care services in the US is projected to grow on a national level, mainly owing to demographic changes. However, a new report has forecast that all 50 US states will have a shortage of dental professionals in the near future. Based on dental workforce data from 2012, it is predicted that the excess growth in demand in relation to dentist supply will result in a national shortage of approximately 15,600 dentists in 2025.

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According to the Health Resources and Services Administration (HRSA), an agency of the US Department of Health and Human Services, which issued the report in February, over 46 million people in the US currently live in areas with a shortage of dental health professionals, and thus lack basic access to dental care. It is estimated that a total of about 15,600 additional dentists may be required to meet the actual demand in 2025. The report, titled "National and state-level projections of dentists and dental hygienists in the US, 2012–2025," was published online on the HRSA website.

Caries treatment may prevent

Pneumonia in Parkinson's patients

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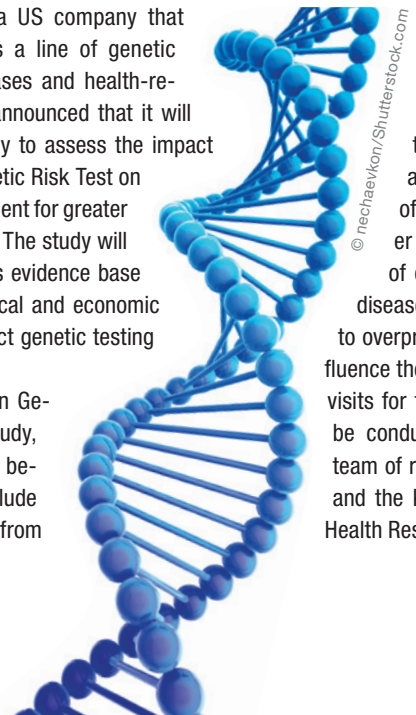
Pneumonia is a common condition in patients with Parkinson's disease. A new study that explored risk factors for pneumonia development has now found that patients treated for dental caries had a reduced risk of pneumonia compared with patients who had not been treated.

The study included 2,001 participants newly diagnosed with Parkinson's disease between 2000 and 2009. Over a mean follow-up period of about six years, 19 per cent of the patients were hospitalised for pneumonia. With regard to oral health status, the researchers observed that dental diseases were among the most common co-morbidities. About 48 per cent of the patients in the study had dental caries and over 44 per cent periodontitis. Moreover, the data analysis showed that the incidence of pneumonia in patients who had received treatment for dental caries was lower. They thus concluded that maintenance of good oral hygiene and control of oral biofilm formation reduce the number of potential respiratory pathogens, thereby lowering the risk of pneumonia, especially in elderly men. The study, titled "Risk factors for pneumonia among patients with Parkinson's disease: A Taiwan nationwide population-based study", was published on 27 April in the *Neuropsychiatric Disease and Treatment* journal.

US company to study

Genetic test for periodontal disease



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Interleukin Genetics, a US company that develops and markets a line of genetic tests for chronic diseases and health-related conditions, has announced that it will conduct a clinical study to assess the impact of its PerioPredict Genetic Risk Test on dental patient engagement for greater preventive dental care. The study will build on the company's evidence base in support of the medical and economic value of the PerioPredict genetic testing platform.

According to Interleukin Genetics, the clinical study, which was expected to begin on May 1, will include 800 dental patients from 20–30 general dentistry clinics who routinely visit their dentist only once a year although they are entitled to two visits a year by their insurance coverage. The overall aim of the study is to assess whether knowing their increased risk of developing severe periodontal disease owing to a genetic tendency to overproduce inflammation might influence the frequency of preventive care visits for these patients. The study will be conducted in collaboration with a team of researchers at Duke University and the Kaiser Permanente Center for Health Research in the US.

18-year-old suffers from

Inexplicable tooth loss

Smiling has become a difficult task for 18-year-old Linzi Grant from England: the teenager has been suffering for years from a dental nightmare. Starting when she was 14 years old, her teeth have become so unstable that even sneezing can cause them to fracture. In addition to the constant pain, blood and puss often occur in the resulting gaps, prompting nausea, continuous discomfort and repeated infections as well as frequent stays in hospital.

Doctors assume the reason for this is her diabetes type 1 and recommend complete extraction. To finance the expensive surgical treatment which may cost up to 20,000 BP, Linzi has reached out to the public and contacted the media. In addition, she is looking for an alternative diagnosis and treatments. Find out more via www.gofundme.com\letlinzismileagain.

Source: ZWP online

PETA urges orthodontic society to

Move event from SeaWorld

People for the Ethical Treatment of Animals (PETA), the world's largest animal rights organisation, has called upon its followers to join a campaign urging the American Association of Orthodontists (AAO) to relocate the opening ceremony of its 2016 Annual Session from SeaWorld Orlando. According to PETA, SeaWorld, which owns all but one of the orcas held captive in the US, has a long history of mistreating animals and forcing them to perform unnecessary tricks for entertainment. As part of the campaign, PETA further highlighted that at least 38 orcas have died to date on SeaWorld's watch. In addition, nearly all the orcas at SeaWorld are suffering from advanced dental trauma as a result of biting the metal gates and concrete sides of their small tanks. In order to prevent orcas from dying of infection owing to fractured teeth, marine parks often drill holes into the pulp cavity of broken or worn teeth to open the cavity enough to be flushed and cleaned daily, for the rest of the animal's life. This is often done without anaesthetics. Therefore, the animal advocacy organisation has called upon its members and followers to ask the AAO to move its event away from SeaWorld, by writing e-mails or posting to AAO's social media accounts.

Increase in caries rates after

Fluoridation cessation

Community water fluoridation is a matter of debate around the globe. While it is used widely in North America, many European countries have stopped the practice. Owing to a lack of contemporary research on fluoridation cessation, however, researchers in Canada have now investigated its impact on dental caries experience.

In Canada, community water fluoridation has been in place since 1945. In a recently published study, researchers at the University of Calgary therefore compared changes in caries experience in schoolchildren in Calgary with those in Edmonton, which has fluoridated its community water since 1967. In examining datasets from the school years of 2004/2005 and 2013/2014, the researchers observed an overall increase in primary tooth decay in both cities, but the absolute magnitude of the increase was greater in Calgary. In their analysis, the researchers focused on smooth tooth surfaces, where fluoride is most likely to have an impact. The study, titled "Measuring the short-term impact of fluoridation cessation on dental caries in Grade 2 children using tooth surface indices," was published online on Feb. 17 in the *Community Dentistry and Oral Epidemiology* journal ahead of print.