Since 2015, a large number of refugees have made their way to Europe. Coming from countries in which public dental care is often not freely accessible and where oral healthcare is not as much of a focus as it is in most parts of western Europe, the majority of them are in significant need of information and treatment. Researchers at the University of Greifswald in Germany have examined more than 540 refugees and found that the overall oral health status of children and adolescents was comparable to that of Germans 30 years ago. In adults, several untreated carious defects were found. Only 35 per cent of the 12-year-olds still had a healthy natural permanent dentition, while this was the case for 80 per cent of this age group in Germany.

With reference to the study data, the researchers estimated that the cost of treatment for full oral rehabilitation, including all dental specialties, would be between 178 and 1,759 Euro per refugee. To address prevention gaps and to counteract the high caries rates, the researchers advised, among other things, the expansion of prophylactic measures under the German Asylum Seekers Benefits Act.

Become a member of the German Association of Dental Implantology (DGZI) under www.dgzi.de/ueber-uns/mitgliedschaft or scan the adjacent QR code.

Study details poor

Oral health status of refugees

© Cat Act Art/Shutterstock.com

National and international colleagues could

Exchange at the DGZI Presidents Reception

At the eve of the 47th DGZI International Annual Congress, DGZI President Prof. Dr Herbert Deppe and the DGZI board invited more than 50 national and international partners to their “Presidents Reception”. Participants from more than 15 countries followed this invitation. On Thursday evening, one day before congress opening, they gathered to meet colleagues from all over the world in a relaxed atmosphere. Representatives, speakers and participants had the unique opportunity to exchange experiences and discuss about current topics and the upcoming congress in a very special ambience. Many guests also took the chance for personal encounters, since they had been knowing each other for many years already. At the end of the reception, everyone agreed that this was a successful beginning of the DGZI Annual Congress 2017 in the German capital Berlin.

The Japanese delegation during the 47th DGZI Annual Congress.

© Cat Act Art/Shutterstock.com
Stem cells from third molars

Few discoveries hold as much promise of single-handedly expanding medical treatment options as stem cells do. Now, researchers from the University of Nevada, Las Vegas, (UNLV) have developed a new method for extracting tooth root pulp from the third molars that quadruples the number of stem cells that can be harvested and replicated to treat a variety of medical conditions. Having solved the challenge of accessing the root pulp, the researchers sought to determine how many viable stem cells they could recover from the fractured teeth. They dyed 31 fractured teeth pulp samples to highlight any viable stem cells the teeth contained. Dead cells would turn blue when exposed to the dye and living cells would appear clear. Under the microscope, 80 per cent of their extracted cells remained clear after the dye was introduced.

Next, the team isolated the stem cells from the rest of the root pulp. The researchers harvested cells from the pulp and cultured them on a petri dish. Once the cells had covered the dish, they split the culture in half and repeated the process between ten and 20 times. By the end of the culturing, all non-stem cells had expired. The researchers captured the remaining stem cells and collected their RNA, which is converted into proteins that become biomarkers the team could use to characterise each stem cell type and its respective rate of replication. The next logical step in this research would be to test stem cells in humans to treat chronic illnesses such as Alzheimer’s or Parkinson’s disease.

Nobel Biocare and Dentalpoint AG

At the 2017 European Association of Osseointegration (EAO) Congress in Madrid, Spain, Nobel Biocare announced it has entered into a partnership agreement with Dentalpoint AG, a leader in dental technology. As part of the partnership, Dentalpoint AG will introduce a ceramic implant option to Nobel Biocare's leading ceramic implant brand, are intended to help clinicians meet patient demand for metal-free solutions and high-end aesthetics.

A solution featuring this first-of-a-kind technology will be available from Nobel Biocare in early 2018. The introduction of a ceramic implant further extends Nobel Biocare’s comprehensive range of innovative solutions for immediate functions and excellent aesthetics.

Little clinical benefit through untargeted

Provision of vitamin D supplements

An international study of older adults has found that mass, untargeted provision of vitamin D supplements provides little clinical benefit to many when it comes to the common bone disease, osteoporosis. Instead, the study recommends targeting vitamin D supplements at individuals whose levels of this vitamin are markedly reduced. The study was carried out by researchers at the University of Auckland, New Zealand, and Harvard Medical School, Boston, USA.

The study was part of a bigger trial among community-resident adults aged 50–84 years, and followed 418 participants for two years, who were randomised to receive, monthly, either high oral doses of vitamin D or a placebo. The researchers were looking at changes over time to bone density in their lower spines, primarily, and in other commonly tested sites on the body. They were also testing thresholds in the levels of vitamin D already present in the participants and found that that level was significant when it came to the effect of the vitamin D treatment. The researcher concluded that future trials of vitamin D supplements in older adults should focus on those who have baseline vitamin D levels equal to or below 30 nmol per litre.
New technique aims to simplify dental bone graft procedures

It is a common issue that, when performing a bone graft, the graft material will lose its shape during the suturing of the soft tissue. This complication can be prevented with the use of “tenting” screws or tacks to help keep the graft in place. To avoid additional surgeries and increased treatment costs, researchers from the University of Minnesota, Minneapolis, along with the Implant Cosmetic Dental Center in Silver Spring, have introduced a new surgical technique for closing the grafted area.

Termed the Continuous Periosteal Strapping Suture (CPSS) technique, this method uses resorbable sutures and membrane, materials that can be resorbed and assimilated into the body. If implemented correctly, CPSS requires a less complex surgical procedure than currently available techniques. This simpler procedure leads to lower overall treatment costs.

The technique used by the researchers relies on resorbable sutures and membrane and does not include any surgical screws or tacks to help keep the graft in place. Instead, a series of intricate knots made with resorbable sutures surrounding the membrane are used. The knots help to maintain the strength of the sutures, creating a firmer hold on the wound closure area. With the use of resorbable materials, the need for a separate surgery to remove “tenting” screws or tacks can be eliminated.

Dental Wings becomes A fully-owned Straumann Group

The shareholders of Dental Wings Inc. (Montreal, Canada) have signed an agreement to sell their remaining shares in the company to Straumann Holding AG (Basel, Switzerland). As a result, Dental Wings will become a fully-owned Straumann Group company.

Dental Wings products and services will be sold under the Dental Wings, Straumann, and other brands—as they are today—by Straumann and the Dental Wings network of distribution partners around the world.

“Our long-term partnership with Straumann has been exceptional on every level and we are both proud and pleased to become part of the Straumann Group. The energy and passion for digital dentistry has never been stronger at Straumann, so the future is very bright for Dental Wings,” said Dental Wings’ Founder, Naoum Araj.

Dental Wings will be a core component in the new Digital Business Unit that Straumann is establishing under the leadership of Michael Rynerson, who is transitioning from his role as CEO of Dental Wings. This will be one of the most dynamic digital dental teams worldwide, incorporating all aspects of the business: software, scanners, information systems, milling equipment, materials, design services, and production centres active on a global scale.

Intake of caffeine may trigger sugar cravings

Caffeine is a powerful antagonist of adenosine receptors, which promote relaxation and sleepiness. Depressing the effect of the receptors may make people feel more awake, but research has found that it also decreases their ability to taste sweetness—making food and drink seem less sweet, resulting in an increased temptation for sweets.

The study, conducted at Cornell University, demonstrates taste modulation in the real world, said senior author Dr Robin Dando, from the Department of Food Science. “When you drink decaffeinated coffee, it will change how you perceive taste. So if you eat food directly after drinking a caffeinated coffee or other caffeinated drinks, you will likely perceive food differently.”

In the blind study, one group sampled decaffeinated coffee with 200 mg of caffeine added in a laboratory to make the beverage equivalent to a strong cup of coffee and thus consistent with real-life amounts of caffeine. The other group drank decaffeinated coffee containing an equally bitter concentration of quinine. Both groups had sugar added. In a second session on a separate day, the groups were alternated. Panelists rated the decaffeinated brew as less sweet but didn’t report on the effect on bitter, sour, salty or umami perception.

The shareholders of Dental Wings Inc. have signed an agreement to sell their remaining shares in the company to Straumann Holding AG (Basel, Switzerland). As a result, Dental Wings will become a fully-owned Straumann Group company.