Smart sensors and innovation are the future of oral healthcare at Philips

By Philips Sonicare

Dubai, UAE: Royal Philips will be launching its latest innovation in oral healthcare that uses Smart Sensor technology to help patients identify the areas of the mouth missed in their current brushing routine. The advanced toothbrushes synchronize with the Philips Sonicare app via Bluetooth® to track brushing habits in real time.

In a world where there is a building threat that periodontitis (gum disease) plays a role in increasing the risk of diabetes, cardiovascular disease and stroke – amongst other conditions Philips believes advancements in sensors will create meaningful data and be key in helping consumers look after their long-term oral health.

Dr Germán Gómez (DDS, MD, PhD), founder of the European Institute of Dental Education, explains the term oral health.

By DTI

COLOGNE, Germany: Held hierarchically, the International Dental Show (IDS) in Cologne is the largest and most important event for the dental profession and industry. Next year’s IDS, which will take place from 21 to 25 March, will focus on prevention, professional and home prophylaxis, as well as imaging and microbiological diagnostics, the organisations have announced.

Over the last decades, the global dental market has seen a shift from restorative-based treatment to a preventive approach in dental practice, mainly driven by an increasing awareness of the likely implications of untreated dental disease for overall health, as well as the growing number of older populations worldwide, and consequently, the need for maintaining natural dentition for a lifetime.

Oral prophylaxis, including home prevention measures and professional dental scaling, and education is thus one of the most important pillars of long-term oral health. During IDS 2017, dental professionals will be updated on the most recent techniques and product innovations in this area.

Participants will receive information on the latest oral hygiene products for use at home and on a large variety of new manual curette instruments, as well as sonic, ultrasonic and air polishing devices and air-scales. In addition, innovative diagnostic tools for targeted oral prophylaxis and interdisciplinary collaboration, such as high-resolution intra-oral cameras, camera-supported fluorescence and infrared technologies, as well as analogue and digital radiographic and computer tomography systems, will be on display at IDS.

During the event, participants will have the opportunity to enter into discussion with distinguished prophylaxis specialists and representatives of various dental companies.

"Prophylaxis is a dental core competence. IDS offers the entire team a unique opportunity: dialogue with specialists of exhibiting companies, discussions with experienced users, the entire spectrum of modern prophylaxis concepts, current diagnostical prophylaxis and therapy trends in one location. Every two years, it offers a unique experience, which I am personally most looking forward to," emphasised Dr Markus Hesbach, Executive Director of the Association of German Dental Manufacturers.

Study: Bacteriocin inhibits P. gingivalis and stimulates tissue healing

By DTI

ÖREBRO, Sweden: In investigating novel methods for diagnosis and prevention of periodontal infections, a Swedish study has examined the effects of the bacteriocin FLNC8 αβ, an antimicrobial peptide produced by Lactobacillus plantarum strain NCR. The analysis showed that FLNC8 αβ inhibited the growth of P. gingivalis and simultaneously stimulated the release of growth factors from cells involved in tissue and wound healing.

Bacteriocins are proteinaceous toxins that are secreted by bacteria and are able to kill other susceptible and frequently related bacterial strains. In light of growing numbers of infections caused by antibiotic-resistant bacteria, bacteriocins could be considered an effective alternative to traditional antibiotics and may help to solve the major problem of antibiotic resistance, research has suggested.

In the current study, Szuyza Nakka, a doctoral student at the School of Medical Sciences at Örebro University in Sweden, investigated the effect of FLNC8 αβ on the periodontitis pathogen P. gingivalis. She found that FLNC8 αβ inhibited the growth of P. gingivalis, while stimulating the release of growth factors from cells involved in tissue and wound healing. Moreover, she observed no cytotoxic effects on human cells in the study.

"The anti-bacterial and proliferative effects of FLNC8 αβ suggest a potential ability of these peptides in prevention and treatment of P. gingivalis infection," Nakka concluded.

However, further studies are needed to clarify the mechanisms involved and to demonstrate the therapeutic applications of these agents in clinical use, she emphasised.

Expanding on her research, Nakka now plans to investigate the bacteriocin’s effects on other types of infections. In addition, she will start testing the application of antimicrobial peptides in clinical trials.

Nakka’s doctoral thesis, titled Development of Novel Tools for Prevention and Diagnosis of Periodontal Diseases, can be accessed here.