
© Lightspring/Shutterstock.com

New organic toothpaste may

Inhibit harmful bacteria

A Seoul dentist has developed an all-natural toothpaste that aims to reduce the health risks posed by *Streptococcus gordonii*, an oral bacterium that initiates dental plaque formation. Once in the bloodstream, which it may enter though bleeding gingivae, for example, the bacterium also causes blood clots, which can lead to life-threatening conditions such as infective endocarditis, heart attack or stroke.

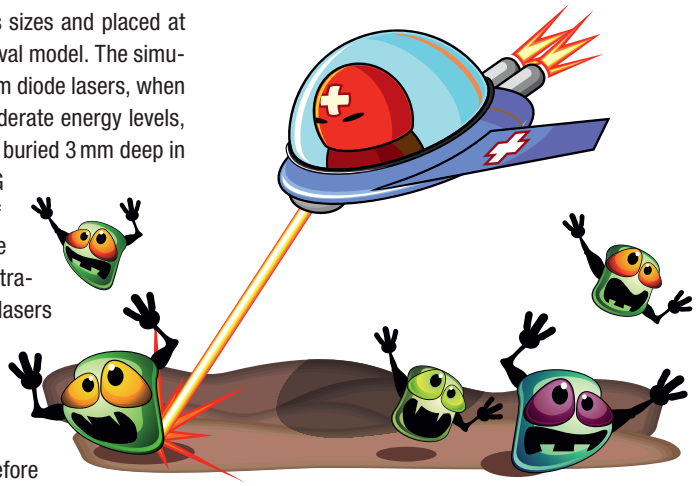
South Korean dentist Dr Hyung-Joo Moon, head of the Moon Dental Hospital in Seoul, recently obtained the patent for his bacteria-inhibiting organic formula from the Korean Intellectual Property Office. Inspired by a joint study by the Royal College of Surgeons in Ireland and the University of Bristol, which found that *S. gordonii* can trigger an infection of the inner lining of the heart when entering the bloodstream, Moon started developing a toothpaste that especially inhibits the growth of these bacteria.

The toothpaste's anti-inflammatory ingredients include neem and castor oil, herbal extracts made from psyllium seed, Japanese star anise, and Japanese cornelian cherry. As the oral mucosa is very susceptible to absorbing harmful substances into the body, it is especially important to use natural ingredients for oral care products, he emphasised. Tested among his patients, the toothpaste's formula proved to help relieve inflammation, as well as sore gingivae and toothache. The toothpaste is not available for purchase yet, but Moon is working on releasing it to market soon.

Computer simulations show

Lasers effective in killing oral bacteria

A team of researchers at the New York Institute of Technology in the US has developed a computer model that demonstrates how dental lasers attack oral bacterial colonies in gingival tissue. Based on the optical characteristics of gingival tissue and pathogenic microorganisms, the researchers developed a mathematical model that simulates the periodontal procedure of laser sulcular debridement. The virtual colonies, consisting of *Porphyromonas gingivalis* and *Prevotella intermedia*, were of various sizes and placed at different depths in the gingival model. The simulations indicated that 810 nm diode lasers, when set to short pulses and moderate energy levels, are able to destroy bacteria buried 3 mm deep in the gingival tissue. Nd:YAG lasers with a wavelength of 1,064 nm also proved to be effective with similar penetration depth. Moreover, both lasers spare the healthy tissue, the researchers found. Their simulations showed minimal heating of the surrounding tissue and therefore minimal thermal damage, which leads to faster healing, Reinisch explained. According to him, the simulations validate the effectiveness of dental lasers in removing oral bacteria and contributing to better oral health after periodontal treatment. The study, titled "Selective photoantisepsis," was published in the October issue of *Lasers in Surgery and Medicine*, including video depictions of the computer simulations.


© Mjak/Shutterstock.com

Japanese company introduces

Five-minute dental screening

New saliva test from Japan analyses various oral parameters in a matter of minutes. According to Lion Corporation, which developed the Salivary Multi Test together with Aichi Gakuin University's School of Dentistry, the device can identify markers associated with oral health, such as the quantity of cavity-causing bacteria and number of white blood cells, using just a small sample of saliva. In addition to the Salivary Multi Test Meter—the actual measuring instrument—a computer, a printer, test paper and software (available for Windows and macOS) are needed for analysing the saliva samples. After applying the saliva to the test paper, the patient's individual results are visualised in a radar chart on the computer monitor.

Items tested include salivary acidity, leukocyte count, ammonia values and the presence of fungi. According to Lion, six items can be measured simultaneously in one analysis and test results can be obtained within 5 minutes. More information about the system is available on the company's website, lionpro.lionshop.jp (in Japanese only), through which the system is exclusively sold.


© PeJo/Shutterstock.com

NEUERSCHEINUNG

Jahrbuch Laserzahnmedizin 2017

Interdisziplinär und nah am Markt

BESTELLUNG AUCH ONLINE MÖGLICH

www.oemus.com/abo



Lesen Sie im aktuellen Jahrbuch folgende Themen:

- Klinische Fallberichte
- Aktuelle Forschungslage
- Gesamtübersicht Detallasermarkt
- Vorstellung Dentallaser/ Photodynamische Systeme

Weihnachtsaktion

Preis pro Jahrbuch 2016

ab **24,50 €***

statt ab 49 €

gültig bis 31.12.16

Fax an **0341 48474-290**

Senden Sie mir folgende Jahrbücher zum angegebenen Preis zu:

Bitte Jahrbücher auswählen und Anzahl eintragen.

_____	Laserzahnmedizin 2017	49,00 Euro*
_____	Endodontie 2017	49,00 Euro*
_____	Digitale Dentale Technologien 2016	24,50 Euro*
_____	Prävention & Mundhygiene 2016	24,50 Euro*
_____	Implantologie 2016	34,50 Euro*

*Preise verstehen sich zzgl. MwSt. und Versandkosten. Entsiegelte Ware ist vom Umtausch ausgeschlossen.

Name / Vorname

Telefon / E-Mail

Unterschrift

Praxisstempel

laser 4/16

OEMUS MEDIA AG

Holbeinstraße 29 · 04229 Leipzig · Tel.: 0341 48474-308 · grasse@oemus-media.de