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DGL-Einführungskurs 2019

„Laser in der Zahnheilkunde“ neu aufgelegt

Nach wie vor ist der Einsatz von Lasergeräten in der zahnmedizinischen Therapie, trotz inzwischen fast dreißigjähriger Nutzung in Deutschland, kein Bestandteil des zahnärztlichen Curriculums an bundesdeutschen Universitäten. Die Deutsche Gesellschaft für Laserzahnheilkunde e.V. (DGL) hat es sich zur Aufgabe gemacht, Laser in das zahnärztliche Therapiespektrum zu integrieren und den Einsatz dieser modernen Behandlungsmethode zu verbreiten. In diesem Zusammenhang wird ein Einführungskurs an mehreren Terminen im kommenden Jahr gehalten. Ziel des Kurses ist es, die Teilnehmer produktneutral über die Einsatzmöglichkeiten und Indikationen verschiedener Dentallaser zu informieren. Neben der Vermittlung physikalischer Grundlagen und der biophysikalischen Interaktion der aktuellen Wellenlängen mit unterschiedlichen Geweben werden vor allem die klinische Anwendung und der Mehrwert für Patient und Behandler in dieser Fortbildung herausgestellt. Eine Vielzahl an Fallbeispielen und ein Hands-on-Training an Präparaten sollen den direkten Bezug zur Praxis sicherstellen. Neben der Vermittlung von Basiswissen wird mit allgegenwärtigen Vorurteilen aufgeräumt und durch erfahrene Spezialisten die Chancen und Behandlungsoptionen des Lasereinsatzes dargestellt. Zielgruppe sind Studierende der Zahnmedizin, Assistenzärzte und interessierte zahnärztliche Kollegen.

Deutsche Gesellschaft für dgl. laser Zahnheilkunde e.V.

Zur Auswahl stehen folgende Kurstermine:

- **22. März 2019** (Köln)
- **29. März 2019** (Berlin)
- **06. September 2019** (Köln)
- **20. September 2019** (Berlin)
- **12. Oktober 2019** (Erwitte)
- **15. November 2019** (Grimmen)

Anmeldung

Die Kursdauer wird pro Termin etwa 4 Stunden betragen. Bestandteil sind eine kurze Lernkontrolle und ein Hands-on-Training. Gemäß den DGZMK-/BZÄK-Richtlinien wird dieser Kurs mit 6 Fortbildungspunkten bewertet. Der Kostenbeitrag liegt bei 30 Euro, allerdings ist die Teilnahme für Studierende mit einem gültigen Studentenausweis frei. Die Kursanmeldung erfolgt über die Geschäftsstelle der DGL, das Anmeldeformular ist entweder auf dgl-online.de oder über den anbei stehenden QR-Code zu finden. Falls Sie teilnehmen möchten, senden Sie uns bitte das ausgefüllte Anmeldeformular entweder per E-Mail an sekretariat@dgl-online.de oder especk@ukaachen.de, per Fax an 0241 803388164 oder per Post an folgende Adresse: Uniklinik Aachen, Abt. für ZPP/DGL, Frau Eva Speck, Pauwelsstraße 30, 52074 Aachen.

Quelle: Deutsche Gesellschaft für Laserzahnheilkunde e.V.

Commensal flora to play key role

In fighting periodontal infections

The development of an animal’s immune system relies on commensal flora—microorganisms such as bacteria present in certain parts of the body. In the case of immunity against periodontal diseases—infections of the areas surrounding teeth—it is unclear, however, what exactly the role of commensal flora is. Now, Professor Manabu Morita from Okayama University and colleagues have investigated the relation between commensal flora in the mouth and the immune response to a bacterium called *Porphyromonas gingivalis (P. gingivalis)*, which contains lipopolysaccharide (LPS), a known periodontal pathogen. The researchers tested the immune response of mice after the application of *P. gingivalis*/LPS. Two types of mouse were used in the experiments: germ-free and specific-pathogen-free mice. The former are free of any microorganisms, including commensal flora; the latter are mice guaranteed to be free of certain pathogens—in this case, periodontal pathogens—but not of commensal flora. The response to the bacterium was assessed by the amounts of particular types of cells that are characteristic of immune system activation. The scientists observed that exposure to *P. gingivalis* led to an increase in the number of a certain type of cell associated with immune system activity in the specific-pathogen-free mice, after three hours, indicating that application of the bacterium, indeed, triggered the immune system. At the same time, the germ-free mice did not show similar increased levels of these cells, suggesting that commensal flora contribute to the development and functioning of the periodontal immune system.

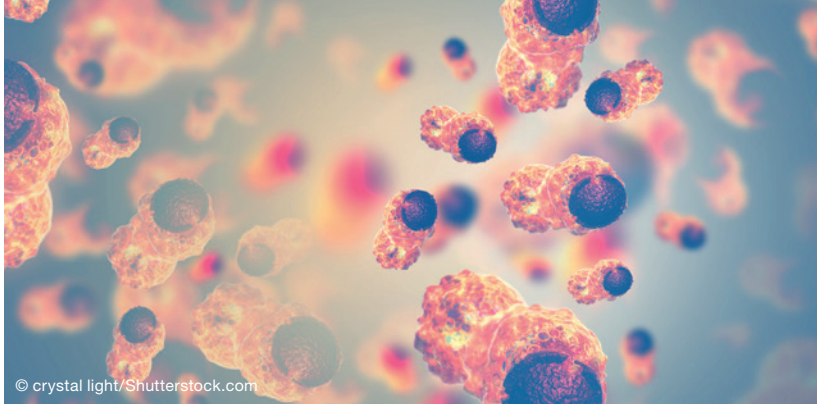
Source: Okayama University



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Neutrophil and cancer cell "crosstalk"

Underlies oral cancer metastasis



An abnormal immune response or "feedback loop" could very well be the underlying cause of metastases in oral cancers, according to Dr Marco Magalhaes, assistant professor at the University of Toronto's Faculty of Dentistry and lead researcher in a study published in the journal *Cancer Immunology Research*. Magalhaes has unearthed a significant connection between the inflammatory response of a very specific form of immune cells, neutrophils, and the spread of this deadly disease. "There's a unique inflammatory response with oral cancers," explains Magalhaes, citing the growing body of evidence between cellular inflammation and cancer, "because the oral cavity is quite unique in the body. A great many things are happening at the same time." Magalhaes focused attention on neutrophils, immune cells commonly found in saliva and the oral cavity but not widely researched in relation to oral cancer. Like other immune cells, neutrophils secrete a group of molecules, including TNFa, that regulates how the body responds to inflammation. The study noted that oral cancer cells secreted IL8, another inflammatory mediator, which activates neutrophils, effectively establishing a massive immune-response buildup or "feedback loop". Ultimately, the researchers found, the immune-response loop resulted in increased invasive structures known as "invadapodia", used by the cancer cells to invade and metastasize. "If we understand how the immune system interacts with the cancer, we can modulate the immune response to acquire an anti-cancer response instead of a pro-tumor response," Magalhaes argues. While the study points to the possibility of one day creating targeted, personalised immunotherapies for patients with oral cancer that could effectively shut down the abnormal immune response, the team is currently expanding upon their study of inflammation and oral cancer.

Source: DTI

Application form

Join DGL!

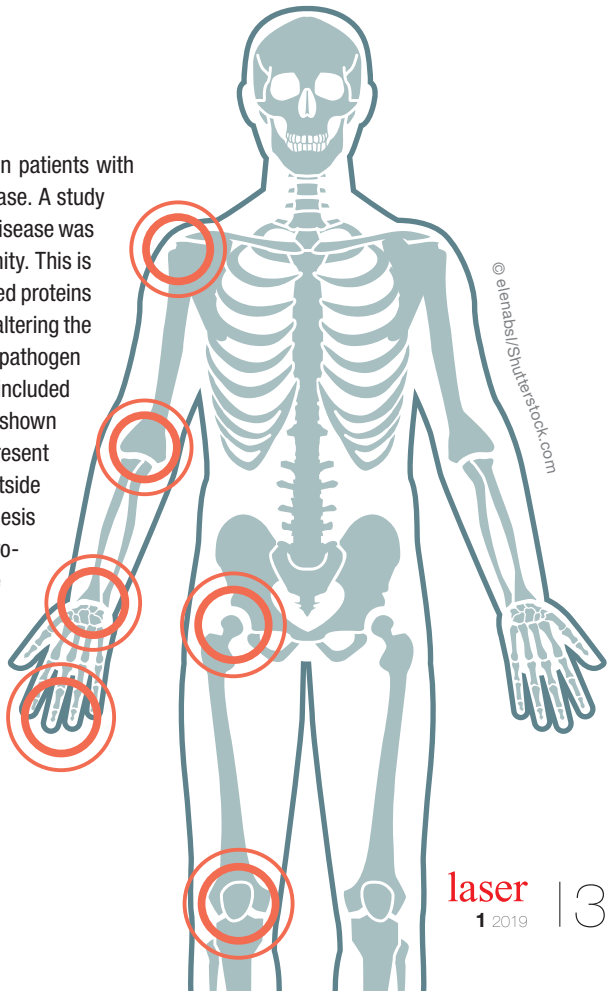
Register now at **www.qr.oemus.com/6152** or scan the QR on the right and become a member of the German Association of Laser Dentistry (DGL).

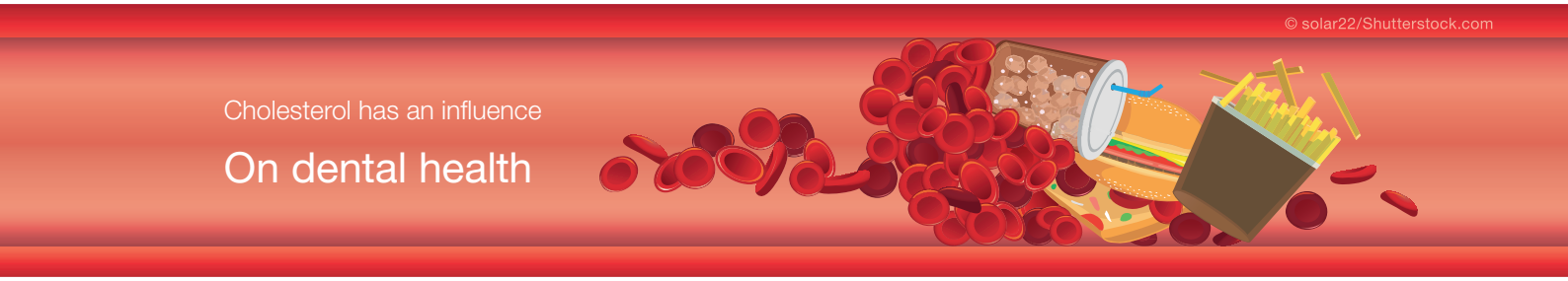
Periodontal disease may be

Key initiator of rheumatoid arthritis

For some years now, there is an increasing attention on aspects of oral health in patients with rheumatoid arthritis (RA), especially related to associations with periodontal disease. A study conducted at the University of Leeds, UK, found that the prevalence of periodontal disease was increased in patients with RA and could be a key initiator of RA-related autoimmunity. This is because autoimmunity in RA is characterised by an antibody response to citrullinated proteins in which the amino acid arginine has been converted into the amino acid citrulline, altering the proteins' structure. The oral bacterium *Porphyromonas gingivalis* is the only human pathogen known to express an enzyme that can generate citrullinated proteins. The study included 48 at-risk individuals, 26 patients with RA and 32 healthy controls. "It has been shown that RA-associated antibodies, such as anti-citrullinated protein antibodies, are present well before any evidence of joint disease. This suggests they originate from a site outside of the joints," said study author Dr Kulveer Mankia. "Our results support the hypothesis that local inflammation at mucosal surfaces, such as the gums in this case, may provide the primary trigger for the systemic autoimmunity seen in RA." "We welcome these data in presenting concepts that may enhance clinical understanding of the key initiators of rheumatoid arthritis," said Prof. Robert Landewé, Chairperson of the EULAR 2018 Scientific Programme Committee. "This is an essential step towards the ultimate goal of disease prevention."

Source: DTI




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Cholesterol has an influence

On dental health

Interrelations between systemic diseases and periodontitis have been known for a long time. In addition, an increased cholesterol level as a result of gum disease can lead to tooth loss, as reported by newdelhitimes.com. Various studies have provided evidence that high cholesterol levels weaken the gums and cause problems such as inflammation and deeper gum pockets. Previous articles by ISRN Dentistry and BMC Oral Health have linked cholesterol to periodontitis. German and Finnish scientists had tested the effects of statin medication, which is commonly used to lower cholesterol, in various studies. In both studies, the participants showed significant positive developments in their periodontal inflammation, for example the number of gingival pockets could be reduced by more than one third.

Source: ZWP online

Launch of the Oral Reconstruction Foundation

Research Award 2018/2019

The Oral Reconstruction Foundation announced that it is now accepting applications for the 2018/2019 Oral Reconstruction Foundation Research Award, which is presented every two years and is open to all young, talented scientists, researchers, and dedicated professionals from universities, hospitals, and practices. Eligible scientific papers include those that have been published or accepted for publication in an English peer-reviewed journal that addresses one of the following topics in implant dentistry, oral reconstruction, or related areas: diagnostics and planning, hard- and soft-tissue management, sustainability of implant-supported prosthetics, physiological and pathophysiological aspects, or advances in digital procedures. The recipient of the Oral Reconstruction Foundation Research Award 2018/2019 will have the opportunity to present his or her work at the Oral Reconstruction Global Symposium, which takes place in New York City from 30 April to 2 May 2020. Furthermore, the authors of the three best contributions will receive prizes of EUR10,000, EUR6,000, and EUR4,000 respectively. To be considered a candidate for this award, visit www.orfoundation.org/awards to download the mandatory registration form and to review the eligibility requirements. The registration deadline is 30 November 2019.

ORAL RECONSTRUCTION FOUNDATION

Source: Oral Reconstruction Foundation

Poor toothbrushing habits

Linked to heart disease

Numerous studies have established a link between periodontal disease and heart disease, but few have looked specifically at whether toothbrushing habits are associated with the latter group of conditions. For a new study, a team of researchers from Hiroshima University's Institute of Biomedical and Health Sciences led by Dr Shogo Matsui examined the toothbrushing behaviour of 682 participants. After adjusting for various factors, they found that those who reported brushing less than twice a day for less than two minutes at a time had a threefold increased risk of developing cardiovascular disease compared with those who brushed their teeth for at least two minutes twice daily. In response, the Oral Health Foundation, a leading charity working to combat oral disease in the UK, stressed the importance of taking charge of one's oral health, stating that it can provide benefits that go far beyond the mouth. "Findings like this may sound slightly scary to hear but it could prove to be just the push we need to take better care of our oral health," said Dr Nigel Carter, OBE, CEO of the Oral Health Foundation. "This study adds to the growing scientific evidence that this is a strong link between the health of our mouth and that of our body."


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Source: DTI

Tooth infections could be the source

Of chronic sinus problems


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According to Dr Michael J. Lewis, a root canal specialist, chronic sinus infections are sometimes caused by an underlying tooth infection. “In short, sometimes the roots of one’s teeth become infected, and that infection can spread to their sinuses,” Lewis said. This medical condition Lewis referred to is called maxillary sinusitis of endodontic origin (MSEO). The roots of the upper back teeth often extend quite close to a hollow, air-filled space located behind their cheekbones called the maxillary sinus. If one of these upper back teeth becomes infected, the infection can spread rather easily out of the end of the tooth’s root and spread into the maxillary sinus. Patients suffering with MSEO will often exhibit low-grade sinus or nasal symptoms, including post-nasal drip or general sinus congestion, which they may think is due to seasonal allergies. Some patients may even experience recurring sinus infections, which are often treated by their physician with antibiotics. While antibiotics will resolve the patient’s sinus symptoms for a period, the antibiotics are incapable of reaching the source of the infection inside the tooth. Once the antibiotics are ceased, the infection will slowly re-emerge from the tooth and spread back into the sinus and the symptoms will often recur many months later. Ironically enough, patients with MSEO often do not exhibit any tooth pain. This absence of dental symptoms can make it very difficult for both the patient and their medical doctor or general dentist to recognise that there is even a tooth infection present. As a result, patients often suffer from this condition for many years before it is recognised. While the diagnosis of MSEO can be difficult to arrive at, endodontists are specially trained and equipped to diagnose and treat this condition.

Source: DTI

Processed starch linked

To dental caries

A recent review commissioned by the World Health Organization has shown that a diet rich in wholegrain carbohydrates is less likely to negatively impact oral health than a diet high in processed carbohydrates. The findings come from a review of 33 papers on starch and oral health, conducted by researchers at Newcastle University. The analysed papers were studies of foods containing rapidly digestible starches, such as white bread, cake and pretzels, or slowly digestible starches, such as legumes and whole grains, and these foods’ relationships with dental caries, oral cancer and periodontal disease. The researchers found that there was no evidence to suggest an association between the amount of starch eaten and dental caries. However, rapidly digestible starches were linked to an increased risk of dental cavities, since amylase, a component of saliva, is able to break these starches down into sugars. Further findings from the review suggested that slowly digestible starches might offer protection against periodontal disease and lead to a lower risk of oral cancer.

Source: DTI


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