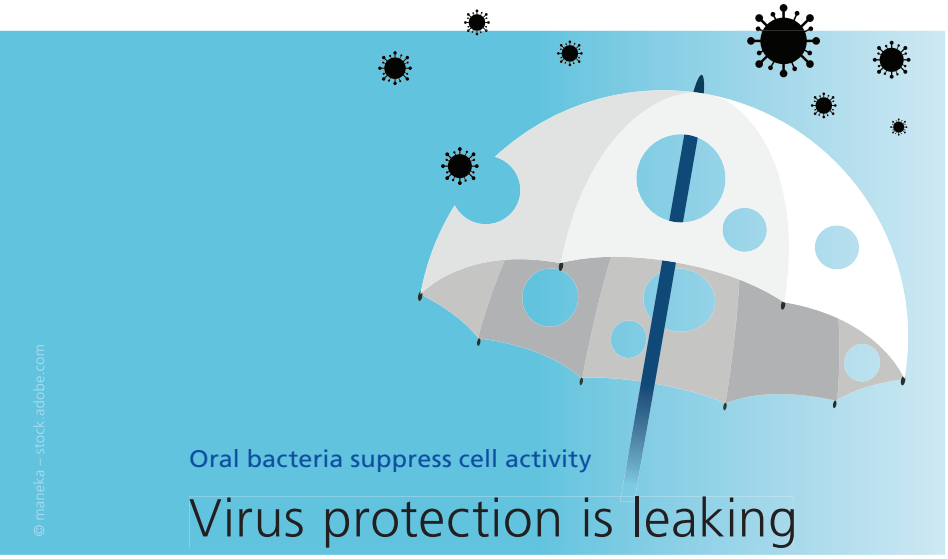
Europe Ticker +++



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Oral bacteria suppress cell activity

Virus protection is leaking

Researchers from the University of Louisville School of Dentistry and their colleagues have discovered details of how proteins produced by oral epithelial cells protect humans against viruses entering the body through the mouth. They also found that oral bacteria can suppress the activity of these cells, increasing vulnerability to infection.

A family of proteins known as interferon lambdas produced by epithelial cells in the mouth serve to protect humans from viral infection, but the oral bacteria *Porphyromonas gingivalis* reduces the production and effectiveness of those important frontline defenders.

"Our studies identified certain pathogenic bacterial species, *P. gingivalis*, which cause periodontal disease, can completely suppress interferon production and severely enhance susceptibility to viral infection," said Juhi Bagaitkar, assistant professor in the UofL Department of Oral Immunology and Infectious Disease. "These resident oral plaque bacteria play a key role in regulating anti-viral responses."

The mouth often is a gateway into the body for viruses that infect the gastrointestinal tract and lungs such as SARS-CoV-2, human immunodeficiency virus (HIV), herpes simplex and cancer-causing viruses such as human papillomavirus (HPV).

P. gingivalis, a common oral bacterium that causes periodontal disease, has been linked to numerous other diseases, including Alzheimer's disease and rheumatoid arthritis. Recent clinical studies have shown that immune suppression in patients with periodontitis can enhance susceptibility to HIV, herpes simplex and HPV.

Source: University of Louisville, USA

Literature: Carlos J. Rodriguez-Hernandez, Kevin J. Sokoloski, Kendall S. Stocke, Himabindu Dukka, Shunying Jin, Melissa A. Metzler, Konstantin Zaitsev, Boris Shpak, Daonan Shen, Daniel P. Miller, Maxim N. Artyomov, Richard J. Lamont, Juhi Bagaitkar. Microbiome-mediated incapacitation of interferon lambda production in the oral mucosa. Proceedings of the National Academy of Sciences, 2021; 118 (51): e2105170118 DOI: 10.1073/pnas.2105170118

ECDC to provide EU-wide coordination

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Teamwork in health crises

The European Parliament has given final approval for closer cooperation on health threats such as the COVID-19 pandemic at the EU level. At the beginning of October, MEPs endorsed by a large majority a regulation previously agreed between the EU states, according to the Parliament's press service. The EU health authority ECDC will cooperate more closely with the European Commission, national authorities, EU institutions and international organisations. To this end, the European Centre for Disease Prevention and Control (ECDC) is to coordinate the collection and dissemination of data—for example on the infection situation—at the EU level. The European Commission will also be able to formally recognise a public-health emergency at EU level, "This will trigger stronger intra-EU cooperation and allow for the timely development of medical countermeasures and stockpiling of medical supplies." In addition, the ECDC will closely monitor the health care systems of member states in the future. Under the new rules, the agency will assess whether EU countries are able to detect, prevent and respond to disease outbreaks. The ECDC is also to develop health indicators diseases and provide recommendations to member states. The EU member states still have to formally approve the project.

Source: finanzen.net (DE)

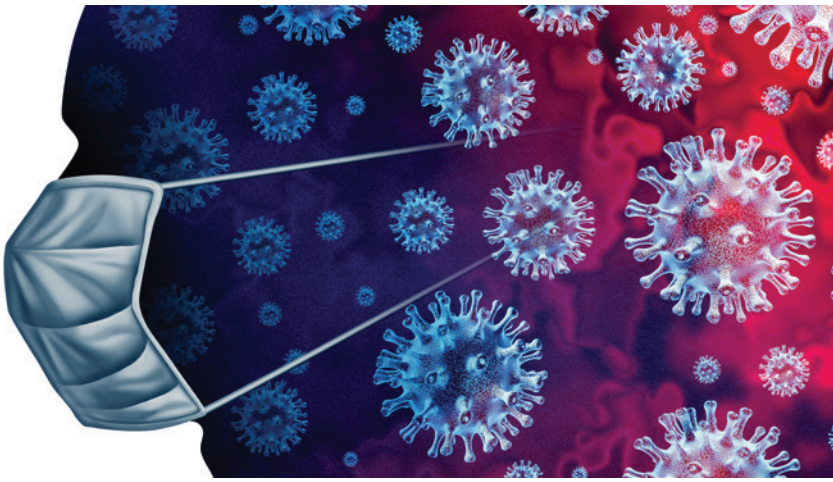
Pilot project in the UK

Pharmacies issue prescriptions

A pilot project by the National Health Service (NHS) will start in England in 2023, allowing pharmacies to issue prescriptions. Officials praised the measure as a "game changer".

Initially, only pharmacies directly affiliated with care centres will participate in the project. "The project is a good opportunity for pharmacists to demonstrate their medical expertise", says David Webb, pharmaceutical director at NHS England. He expects a positive effect for the upcoming negotiations rounds to change the framework for the profession's activities in the coming years. Until then, pharmacists will have to prove that they can help to relieve the general medicine sector of the NHS by providing care for the chronically ill as well as acute and preventive care. All details on the specific implementation of the project are not yet known, so it is still unclear specifically which indication areas will be covered by the service, according to the *Pharmaceutical Journal* (PJ). What is certain, however, is that pharmacists must take continuing education courses to become a so-called "pharmacist independent prescriber". As reported by the German publication *Pharmazeutische Zeitung*, these free courses, of which the NHS will offer around 3,000 starting this autumn, will cover the following: supporting patients from diagnosis to prescribing, counselling and follow-up and preparing pharmacists to provide clinical care. The Pharmaceutical Services Negotiating Committee (PSNC) touted the project as an "NHS commitment to pharmacy workforce development".

Source: The Pharmaceutical Journal (UK); zm



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European Centre for Disease Prevention and Control (ECDC)

Coronavirus update

For mid-November, ECDC reported a continued decline in COVID-19 case rates at the EU level—including among persons 65 years and older and including mortality rates. Hospital and ICU admissions/occupancy had either remained stable or declined. Uptake of the second booster vaccination remains relatively low in most countries and target groups. It remains necessary for ECDC to continue monitoring the epidemiological situation, especially given the increasing share of the BQ.1 variant. The reported EU-wide number of COVID-19 cases in persons aged 65 years and older dropped by 23% from the previous week. The overall reporting rate (for all age groups) decreased by 21%. It should be noted, however, that case projections are considered increasingly unreliable due to changes in testing criteria and reporting procedures. All current forecasts, especially case forecasts, should therefore be treated with caution.

Source: ECDC

Oral Health Foundation UK

Mouth cancer rates hit record high

New cases of mouth cancer in the United Kingdom have risen to a record high, according to the findings of a new report. Figures collected by the Oral Health Foundation show that 8,864 people in the UK were diagnosed with the disease last year, an increase by 34% compared to 10 years ago. The findings are part of the charity's new State of Mouth Cancer UK Report 2022 and have been released to coincide with November's Mouth Cancer Action Month. One in three mouth cancers (33%) are found on the tongue; almost one in four (23%) are discovered on the tonsil. Other locations to check for mouth cancer include the lips, gums, inside of the cheeks, as well as the floor and roof of the mouth. Survival rates for mouth cancer have barely improved in the last 20 years. One of the key reasons behind this is that far too many mouth cancers are diagnosed too late. More than half (53%) of all mouth cancers diagnosed at stage IV—where the cancer is at its most advanced.

Sources: Oral Health Foundation (UK)