

Novel anti-biofilm nano coating developed

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Researchers at Ben-Gurion University of the Negev (BGU) have developed an innovative anti-biofilm coating, which has significant antiadhesive potential for a variety of medical and industrial applications.

According to the research published in *Advanced Materials Interfaces*, anti-adhesive patches that are developed from naturally occurring biomaterials can prevent destructive bacterial biofilm from forming on <u>metal surfaces</u> when they are immersed in water and other damp environments.

"Our solution addresses a pervasive need to design environmentally friendly materials to impede dangerous surface bacteria growth," the BGU researchers from the Avram and Stella Goldstein-Goren Department of Biotechnology Engineering explain. "This holds tremendous potential for averting biofilm formed by surface-anchored bacteria and could have a tremendous impact."

The anti-adhesive could be used on medical implants, devices and surgical equipment where <u>bacteria</u> can contribute to chronic diseases, resist antibiotic treatment and thereby compromise the body's defense system. The prevention of aquatic biofouling on ships and bridges is one of the <u>industrial applications</u>. is.

More information: Karina Golberg et al, Novel Anti-Adhesive Biomaterial Patches: Preventing Biofilm with Metal Complex Films (MCF) Derived from a Microalgal Polysaccharide, *Advanced Materials Interfaces* (2016). DOI: 10.1002/admi.201500486



Provided by American Associates, Ben-Gurion University of the Negev

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