

environment / in'vai.rən.mənt

Noun

The **AIR**, **WATER** and **LAND** in, or on which people, animals and plants live. Includes biotic factors such as humans, plants, animals & microbes and abiotic factors such as light & soil

Environmental Probiotics have been researched in Hospitals & can provide the following benefits in a **Probiotic Cleaning & Hygiene System (PCHS)**:

- less pathogens & less HAI's
- less antimicrobial resistance, less use of antimicrobials & lower costs

Infect Drug Resist. 2019 12:501-510. Impact of a probiotic-based hospital sanitation on antimicrobial resistance and HAI-associated antimicrobial consumption and costs: a multicenter study. E Caselli et al

Bacillus subtilis is known to produce its own biosurfactant (surfactin), which has been shown to be effective against various enveloped viruses

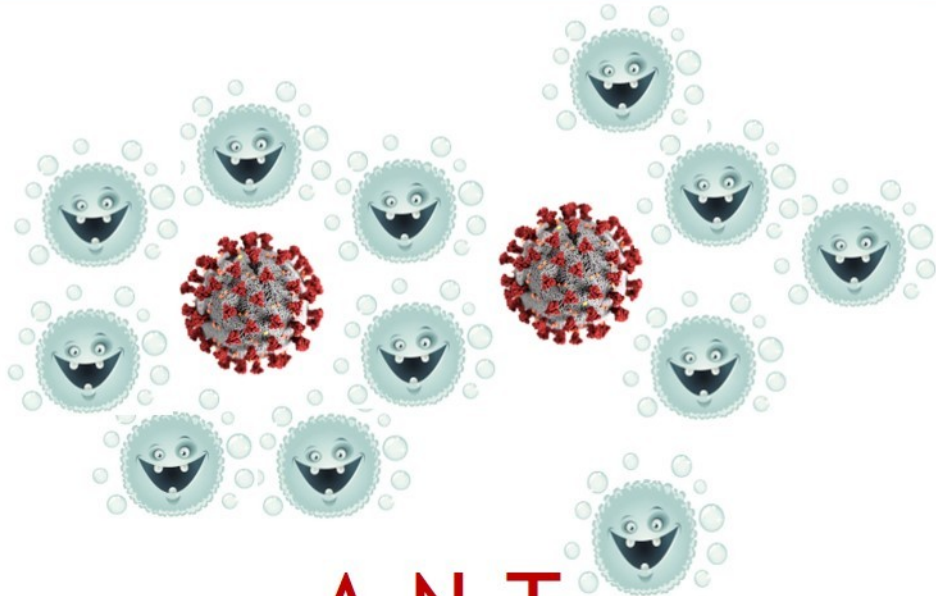
J Virol. 2018 Oct 12;92(21). Surfactin Inhibits Membrane Fusion during Invasion of Epithelial Cells by Enveloped Viruses. Yuan L, Zhang S, Wang Y, Li Y, Wang X, Yang Q.

Bacillus subtilis has also been shown to stimulate the immune system in both humans & animals

Immunity & Ageing volume 12, Article number: 24 (2015). Bacillus subtilis stimulates immune system of elderly during common infectious disease period. Marie Lefevre et al
Exp Ther Med. 2018 Jun;15(6):5189-5198. Effects of intranasal administration with Bacillus subtilis on immune cells in the nasal mucosa and tonsils of piglets. Yang Y, Jing Y, Yang J, Yang Q



Umsinsi Health Care (Pty) Ltd
No 1 Main Street, Founders Hill
Lethabong 1609, Gauteng
Tel: 0861 888 842
Fax: 0861 888 843
Web: www.uhcare.co.za
Info: info@uhcare.co.za



A.N.T.

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*Suitable for Mistng / Spraying / Fogging / Humidifiers & Diffusers

*Contains Bacillus subtilis

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