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New antiviral molecules from *Phyllocaulis boraceiensis* mucus

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Terrestrial gastropods exude mucus by the body surface, when traveling, to protect its body from mechanical injury, desiccation or contact with harmful substances. Mucus of mollusks has been studied as a source of new natural compounds with diverse biological activities as its capability of inducing proliferation and remodeling tissue and their antiviral capacity. Fungus and viruses are related to a range of infectious diseases in humans and animals. Viruses cause worldwide outbreaks and pandemics in humans and animals every year with considerable morbidity and mortality. The molecular diversity of secondary metabolites extracted from mollusks is a good alternative for the discovery of novel bioactive compounds with unique structures and diverse biological activities. *Phyllocaulis boraceiensis* is a hermaphroditic slug that exudes mucus, in which was detected some molecules that exhibited potent antiviral activity against Measles, Influenza, Herpes, Rubella and Zika virus. In order to identify, isolate, purify and sequence molecules present in the mucus of the land slug *P. boraceiensis* with antiviral action "*in vitro*" were used fragmentation by chromatography and mass spectrometry in order to determine the active molecules and assay of biological activity, qPCR and immunofluorescence labeling to determine the biological activity.

Biography

Ana Rita de Toledo Piza is the CEO/Scientific Director of Limace Biotecnologia, the first Brazilian company to develop pharmaceuticals and cosmetics from natural molluscan products. She has completed her PhD in Biotechnology from the Institute of Biomedical Sciences of the University of São Paulo and Master in Sciences by the Coordination of Disease Control (SES/SP). She has experience in the field of macromolecule chemistry and bioprospecting active compounds from molluscs. She also works in the areas of zoology, microbiology, biochemistry, cell biology, virology and molecular phylogeny.

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