



PRESS RELEASE

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Inhalation Sciences and Karolinska Institutet renew partnership with new validation work and Mars dust study

(Stockholm, Sweden, 12 October 2021) In a renewed partnership Karolinska Institutet (KI) in Stockholm will help validate ISAB's new XposeALI® MP (Micro Perfusion) tool, including using it to test a Mars dust surrogate for the European Space Agency as part of exploring future manned missions to Mars. XposeALI® MP is a highly automated new iteration of ISAB's current cell culturing module and is expected to make *in vitro* lung studies simpler, more consistent and more cost-effective – including for biologics, a key priority area for inhaled drug developers.

On Friday 8 October ISAB renewed its long-standing partnership with KI, installing a Preciselinhale® aerosol generator and an upgraded XposeALI® system at KI's facilities at the Institute for Environmental Medicine (IMM) in Stockholm for a one-year-loan. As part of the new agreement, KI will help validate XposeALI® MP with valuable R&D support. KI has unique in-depth experience of XposeALI®, having published several scientific papers on it and successfully exposing cells on its air liquid interface (ALI) with aerosols from a wide range of substances.

Testing inhaled 'Mars dust'

The new partnership includes a project in which KI will partner with the Human Space Exploration team within the ESA (European Space Agency). KI intends to expose lung cells with a Mars dust surrogate, which will deliver important information for future manned expeditions to Mars.

Market potential for XposeALI® MP estimated at 'several million euros'

XposeALI® MP (Micro Perfusion) is a new highly automated iteration of ISAB's XposeALI® module, with an automated sampling phase, making carrying out experiments simpler and more cost-effective. XposeALI® MP will enable *in vitro* permeability studies for inhaled drugs to be more standardized and physiologically relevant. Currently, research within inhalation drugs is moving towards biologicals, i.e., proteins rather than small molecules; permeability studies carried out on XposeALI® MP could play a vital role in understanding the pharmacokinetics of these larger molecules and how inhaled protein drugs will be absorbed and retained in the lungs.

The estimated market potential for XposeALI® MP of several million euros has been confirmed by several key users and companies in the marketplace.

ISAB CEO Manoush Masarrat: "We really value our relationship with KI. Few groups have such in-depth knowledge of our systems. Being able to harness that expertise in validating this new version of XposeALI® has great academic and commercial benefits for us and we look forward to starting this valuable collaboration with KI."

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About Inhalations Sciences Sweden AB (publ)

Inhalation Sciences Sweden AB (publ) develops and commercializes world-leading instruments and services for research into inhalation. The company's patented lab instruments PreciseInhale® and DissolvIt® enable researchers in the pharma industry to make drug pipeline decisions at an early stage, saving time and resources for R&D departments, and enables researchers in academic institutions to define how aerosols and small particles impact our lungs, and so our health, when being inhaled.