



PreciseInhale delivers exceptional precision in ground-breaking inhalable nicotine study

September 24, Stockholm, Sweden. In a ground-breaking publication on inhalable nicotine PreciseInhale aerosol technology revealed new data on the drug's pharmacokinetic behavior that until now was unobtainable. ISAB CEO Manoush Masarrat: "The strategic value of data of this precision is immense. It enables drug developers to establish a failsafe strategy for their inhaled medications from day one."

The preclinical study, by Philip Morris International, analyzed and measured the Pharmacokinetics of two formulations of dry powder nicotine intended for inhalation delivery. As a water-soluble substance, nicotine is transported and dissolved so quickly over the lung's air blood barrier that much vital data, including Cmax and Tmax curves, have until now not been able to be captured using conventional *in vivo* experiments.

With PreciseInhale's *in vitro* DissolvIt, *ex vivo* IPL (isolated perfused rat lung IPL) and *in vivo* IT module, voluminous, detailed data including Tmax and Cmax curves was delivered. It enabled scientists to test the substances and build up their PK profile across the three modules, using the same test aerosol—generating detailed comparative data but no translational errors.

CEO Manoush Masarrat: "Being able to closely compare results *in vitro* and *ex vivo* demonstrates how powerful DissolvIt is as a screening tool for early stage formulations. With all three modules combined, drug developers get an incomparably precise, detailed picture of their substance locally in the lung and how it distributes in the blood circulation. This kind of data this early on are hugely valuable for drug developers! It means they can put safe, credible strategies in place for formulation before crucial time and money has been spent in-clinic."

Read the whole paper, "Respirable aerosol exposures of nicotine dry powder formulations to *in vitro*, *ex vivo*, and *in vivo* pre-clinical models demonstrate consistency of pharmacokinetic profiles." [HERE](#).

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About Inhalations Sciences Sweden AB (publ)

Inhalation Sciences Sweden AB (publ) develops and commercializes world-leading instruments for research into inhalation. The company's patented lab instrument, PreciseInhale®, enables researchers to characterize, with high precision, how aerosols and small particles impact our lungs, and so our health, when we breathe them in.