



PRESS RELEASE

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‘Advanced automation gives usability and flexibility’: Visiting researcher on DissolvIt®

Inhalation researcher Snezana Radivojev from Graz University’s Research Center for Pharmaceutical Engineering (RCPE) has completed a month’s onsite contract research at ISAB’s labs in Stockholm working with the advanced *in vitro* solution tool DissolvIt®. As an *in vitro* specialist she has spent four years researching a wide range of lung models. How did DissolvIt® measure up, and how does her own experience of asthma feed into her research?

“I’ve used a wide range of *in vitro* lung modelling techniques in my research and ISAB’s state-of-the-art DissolvIt® is definitely one of the most promising,” says Snezana Radivojev, a visiting research scientist specializing in *in vitro* and *in silico* lung modeling and dissolution as part of her doctorate in inhaled biopharmaceuticals. Inhalation Research Services (IRS) carries out advanced respiratory research for a wide range of pharmaceutical and toxicology clients at its Stockholm labs, as well as hosting visiting scientists, as in Snezana’s case.

The two standout benefits of DissolvIt® for Snezana are the system’s advanced automation, and its life-like technique using exactly measured fractions of API (Active Pharmaceutical Ingredient) on the simulated lung lining: “With DissolvIt® you use the fractions of API required” she says, “this closely mimics the reality of what happens in the lung. Sometimes with other technologies, you need to use a lot more API - then you’re not fully sure what is really happening in the lungs and what effect is from the larger amount of substance, so you might have to compensate.”

Because the fraction collection is automated too it reduces human error. “Most other *in vitro* modelling tools aren’t automated,” Snezana says “I really appreciate that DissolvIt® is, it makes it straightforward and easier to use than other *in vitro* technologies, and it lets you work more flexibly, you don’t have to constantly stand next to the machine all the time monitoring.”

With both preclinical project work and academic research work to carry out during a busy month, Snezana appreciated the flexibility of PreciseInhale, the multi-modular aerosol generator platform that DissolvIt® connects to. “With PreciseInhale® and Inhalation Sciences

everything is connected,” she says “I had mostly worked previously with other impactors available so PreciseInhale® was very different. But again, it offers a lot of flexibility, because you can connect to different modules, like DissolvIt® or XposeALI or others, and it’s very easy to learn and pick up.”

With a BSc in Chemical Engineering and an MSc in Chemical and Pharmaceutical Engineering, Snezana began specializing in inhalation when the RCPE invited her to carry out her Master’s thesis in particle engineering with a pharmaceutical company developing inhaled therapies. “I was instantly fascinated,” she says, “I myself have asthma, and I wanted to find out everything about the latest treatments and studies in the field.”

The ISAB team has many decades of combined hands-on experience with inhaled contract research. How did Snezana find working with the team? “It was so positive!” she says, “I was in the lab *all the time*, and it reminded me again of what research is really all about – that the learning curve is not linear, that you always hit curveballs and bumps in the road. I saw that the ISAB team was so motivated and so open to challenges, when you didn’t get the results you wanted they would always ask “OK, so why is that, what does that tell us?” – they were always improving, always improving. For me it was a really positive experience.”

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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 inhale them.