



## PRESS RELEASE

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### **Inhalation Sciences: five key features driving DissolvIt market launch**

**Inhalation Sciences recently shipped two newly commercialized DissolvIt® units to two customers—in just one week. What are the new and optimized features in this final market version that help make DissolvIt® so much in demand? ISABs *in vitro* specialist and Director of Projects Maria Malmlöf explains.**

#### **ONE: USABILITY**

“I’ve run the new system many times now and it feels very smooth-running and luxurious compared to the prototype” says Maria Malmlöf, ISAB’s Director of Projects, “it’s easier to handle, looks far better in design, and there’s precision and automation in every step and component—this is a far more usable system.”

#### **MEET MARIA MALMLÖF AND TAKE A TOUR OF DISSOLVIT [HERE](#)**

Malmlöf’s work has been critical to the development of ISAB’s preclinical *in vitro* dissolution tool. She has worked with DissolvIt for ten years on extensive Contract Research in over twenty CRO projects, including teaching visiting research collaborators how to use DissolvIt. The automation of key processes in the new system, she says, has improved usability.

#### **TWO: AUTOMATION**

“The more automation the less deviation, the less chance of the operator influencing the data” Malmlöf says. “In this market version everything (the start of the experiment, the start of the pump, the fraction collector and the photo capture) is steered by a computer. Having all commands automated and available in the same place contributes to increased control, increased precision and lower Standard Deviation data,” says Malmlöf.

The automation of the Fraction Collector is highly improved, enabling precise repeatable sample periods down to 5 seconds, or 35 microliters to be set.

#### **THREE: STANDARDIZATION**

Every component in the commercial release has been precision-engineered to exacting standards, to reduce risk of deviation and increase user control. “In prototype versions we often tried out different materials, in this final market version every component has been standardized, documented and manufactured to exact specifications” Malmlöf says.

#### **FOUR: SOFTWARE**

The new tool’s processes are steered by its suite of four optimized software programs. Three of the software programs have been customized and developed from 10 years of extensive

feedback, both from internal users and collaborative researchers who have worked onsite at ISAB and operated the prototype by themselves.

Each DissolvIt experiment is activated and controlled by four onscreen software programs: the *DissolvIt control*, (steers the experimental start and the temperature regulation), the *Perfusate Control* (steers the pumps), the *MicroFrac* (steers programming and start of Fraction Collector) and *ImageView* (the Microscopy camera program). “All these programs are highly usable and add control and precision to the experiment. They also aid training, making it easier for customer to train new technicians to use the tool.”

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### **FIVE: NEW DISSOLUTION CHAMBER**

At the heart of DissolvIt are its dissolution chambers. New systems include an initial package of 12 disposable units, with new packages available on request. “In our prototype these chambers were made by a sole trader working with two other small companies, now they’re made in large volume by a single specialist plastic manufacturing company all under one roof” says Malmlöf. “The dissolution chambers are at the heart of the system, they are where the dissolution actually happens, again standardizing the manufacture and supply ultimately helps reduce deviation.”

CEO Manoush Masarrat: “Precision and control are the hallmarks of ISAB technology. In every feature of our new, commercialized DissolvIt module is optimized to increase control and precision and eliminate deviation. DissolvIt has long been seen by many in the industry as the first tool that can seriously show *In Vitro-In Vivo* correlation (IVIVC). For developers of inhaled drugs, gaining precise, predictive, preclinical IVIVC data early on reduces risk, reduces development costs and increases speed of development. DissolvIt has already received advanced orders as more researchers realize that whatever their challenge, they can solve it with DissolvIt.”

### **DissolvIt key benefits and features:**

- ✓ Ranks substances according to solubility
- ✓ Monitors absorption as well as dissolution
- ✓ Identifies successful, effective Drug Candidates early on
- ✓ Delivers exceptionally detailed data incl.  $C_{max}$  and  $T_{max}$  curves
- ✓ Optical microscopy shows real-time dissolution of particles
- ✓ Customizable, programmable Fraction Collector for flexible sampling

### **For more information about Inhalation Sciences, please contact:**

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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 being inhaled.

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