



Iconovo relies on the perfect combination of form and function right from the development stage.



Design made in Sweden

Iconovo specializes in the product development of customized DPI devices – and utilizes an integrated approach.

Cross-border networking as a recipe for success – the Danish-Swedish Medicon Valley is a prime example. Countless pharmaceutical, medical technology and biotech companies established themselves on both sides of the Öresund and benefit from their geographic prox-

imity and close cooperation. One of them is Iconovo, a start-up with headquarters in Lund specializing in dry powder inhalers (DPI). The company is committed to providing customers with the optimum combination of inhalation device and formulation, and to paving the way for the market launch of their

product with a variety of service offerings.

“An effectively inhaled drug therapy requires a well-designed inhaler and an appropriate powder formulation. The design of the device must be coordinated with the formulation of the drug,” explains Dr. Orest Lastow, co-founder,

CEO and Head of Research & Development at Iconovo. “Our customers, which include many generic drug manufacturers, often do not have the necessary resources to carry out the lengthy, cost-intensive and risky development work in-house. This is where our long-standing experience in inhalation, in some instances spanning several decades, comes into play.”

Four platforms

Lastow and his 14 employees have developed ultra-modern DPI devices that are precisely tailored to the formulation to be administered and then licensed to customers. The product portfolio currently comprises four platforms, mainly focusing on drugs for the treatment of respiratory diseases: ICOcap (capsule based), ICOpre (disc based) and ICOone (for single use).

The flagship however is ICOres, a reservoir-based device for multiple applications. “Not only can we provide customers with device and formulation, but with a total package that includes analytical testing, documentation and, together with proven partners, the entire supply chain,” he explains.

Harro Höfliger is also a part of the company’s network. When Iconovo was looking for a laboratory device for manual, exact dosing of free-flowing powders into reservoirs, they did not have to search long. “Several of my colleagues and I have a long history with Harro Höfliger, and many of our customers have selected them as their supplier of equipment. Harro Höfliger is the first choice in the inhalation industry and a guarantee for high quality,” says Lastow. When developing the dosing principle, inspiration had already struck his team to use a filling technique similar to loading a rifle with gunpowder. Harro Höfliger continued to develop this idea, as always with a view to a potential scale-up. The result is a table-top unit with a special micrometer screw.

Well equipped for the future

ICOres has two reservoirs, which can be filled with up to two different active ingredient formulations. A counter accurately indicates the remaining number of inha-

lation doses. With ICOres, Iconovo feels well positioned for future products (NCE). “Today, it is usually two drugs in one inhaler that you inhale at the same time. In the future, there will be three, or maybe four,” says Lastow.

Does he see himself more as a CEO or a scientist? The answer comes promptly: “I have worked in the inhalation field for over 25 years and I think I see myself primarily as a product developer. I’m a problem solver, constantly trying to find better solutions.”

“An open discussion”

Marco Laackmann, Director Inhalation Technology at Harro Höfliger, in conversation with Orest Lastow.

Why did you specialize in the field of inhalation?

Personally I started with inhalation by accident. I did my PhD in aerosol technology and inhalation is an important application of that. Iconovo was founded to be an inhalation company since myself and many of my colleagues have worked with the development of inhalation product for a long time.

You are a member of MVIC (Medicon Valley Inhalation Consortium). How is it supporting Iconovo?

I was actually the founder of MVIC and used to be CEO for two years. MVIC is a fantastic network of 70 experts and companies specialized in inhalation and a partner in many of our customer projects.

What is the role of Harro Höfliger?

We have a long history and a very good cooperation. We have an open discussion about all aspects of manufacturing inhalation products and about technical solutions. Harro Höfliger is very generous with their experience and advice. ■



Inhalation experts: Marco Laackmann and Dr. Orest Lastow (right).

State of the art



A unique feature of ICOres is that it has two reservoirs which can be filled with the same dry powder formulations or with different formulations. This allows for the simultaneous delivery of up to four different active ingredients.