

Customer Story



"We have tested several liquid-handling platforms. CyBio FeliX was the best choice for our application."

Dr. Maria Barthmes, Product Manager SURFE²R 96SE
Nanion, Munich

Challenge

- Combination of a complete pipetting platform with measuring chamber for quick and homogeneous liquid delivery

Solution

- Custom OEM Version of CyBio FeliX
- Integration of SURFE²R 96SE with CyBio FeliX
- Creation of a workflow and optimization of the application

Benefits

- Robust and accurate
- Reproducible results
- Access to Analytik Jena vast liquid handling knowledge base

Transporter Protein Research Redefined

High throughput screening of the electrical currents of transporter proteins, which are highly relevant pharmacological targets, was not possible for a long time – until the Munich-based company Nanion Technologies revolutionized the market with the new SURFE²R 96SE platform. A key component of their technology is Analytik Jena's extremely precise liquid handling system.

Automated Screening of Transporter Proteins

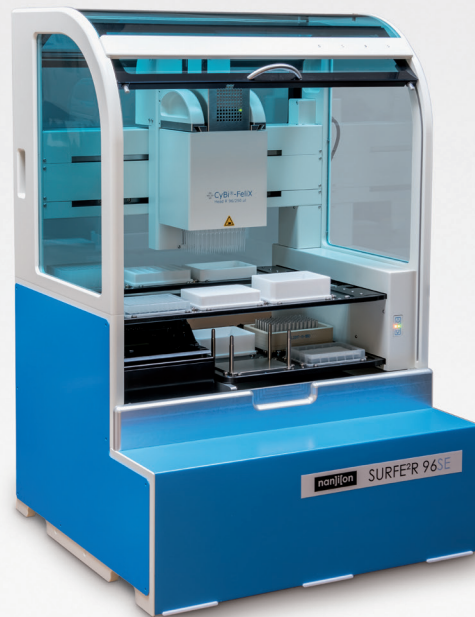
Transporter proteins are membrane proteins that transport soluble substances such as sugars, amino acids or drugs into and out of cells. This makes transporter proteins important for a variety of physiological processes in the body. In drug discovery, transporter proteins have been of great interest for some time because of their potential for the development of new drugs. Until now, there have been very few, low throughput methods available to measure the activities of transporter proteins. The Munich-based company Nanion has found a way to successfully record small electrical currents in real time and in high throughput, which can be used to characterize the transporter proteins for research and screening purposes.

Nanion's platform, the SURFE²R 96SE, is based on two key components: sophisticated recording technology and high-throughput liquid handling. For the latter, Nanion comes to Analytik Jena. Nanion required a liquid handling platform to be directly integrated with the SURFE²R 96SE, a system for high throughput recording of small currents of transporters and pumps. "We have tested several liquid-handling platforms," says Dr. Maria Barthmes, Product Manager at Nanion. "CyBio FeliX was the best choice for our application."

"Thanks to the combined expertise of Nanion and Analytik Jena, we can offer our customers even more options for characterizing test substances."

Dr. Ralf Schwandner

CEO of Assay.Works GmbH and user of Nanion's CyBio Felix-based SURFE²R platform



Management Facts

- Close cooperation with and support from the Analytik Jena team
- Fast and accurate solution applications at a consistent flow rate
- Easy integration of Nanion software thanks to open interfaces
- Excellent service and support

Close Cooperation With and Support From the Analytik Jena Team

In order to record electrical currents of transporter proteins, tested compounds must be applied very quickly and precisely. Otherwise, the signal amplitude can be distorted by disturbances in the flow.

Analytik Jena developed a custom OEM version of the CyBio FeliX based on an open and integrative design approach. Nanion's recording module was integrated directly into the liquid handling platform. With open software interfaces, the developers were able to easily combine Nanion's software routines with the CyBio FeliX control software. The Analytik Jena team developed a solution with Nanion, that perfectly met their requirements. "The amazing team at Analytik Jena didn't just develop a custom pipetting platform for us, they also optimized the application's workflow," explains Dr. Barthmes. "We are very happy with the cooperation."

Nanion's customers have a similar view. "We have been observing the development of SSM-based electrophysiology for a long time," says Dr. Ralf Schwandner, founder and CEO of Assay.Works GmbH, the screening service provider who successfully implemented SURFE²R 96SE. "With Nanion as experts in applied electrophysiology and Analytik Jena as a manufacturer of precise liquid handling instruments, the SURFE²R 96SE has created a basis that enables Assay.Works to offer our customers new options for the characterization of test substances for their membrane transporter targets in physiologically relevant assays. The CyBio FeliX-based SURFE²R 96SE platform fits seamlessly into our existing CyBio automation."

About Nanion Technologies

Nanion Technologies GmbH offers instruments for the pharmaceutical industry and academia. Included in the portfolio of this Munich-based company are systems for ion channel research and screening, safety and toxicology testing, bilayer recordings, and transport protein research. Nanion has a global presence with local subsidiaries in the USA, Japan and China, as well as distribution partners in six other countries. For more information visit www.nanion.de or contact info@nanion.de.