

Speedel Experimenta accelerates discovery with MDL solutions

“Our experience is that MDL software is very easy to use... Because of the flexibility of the ISIS product, we’ve been able to build in a lot of useful customization...”

Robert Mah, senior scientific expert, Speedel Experimenta

Biopharma companies—especially start-up and small-to-medium enterprises—are driven by cutting-edge science and technology, but many lack the deep informatics infrastructure required to power their R&D needs. A customized information and experiment management solution is critical to the success of these companies. MDL® Select is a flexible suite of products and services for managing discovery workflows and a great value for biopharmas that need to get up and running quickly.

One company benefiting from this tailored solution is Speedel Experimenta AG, the medicinal chemistry research unit of the Speedel Group. Founded in 1998 in Basel, Switzerland, Speedel is a biopharmaceutical company with a predominant focus on cardiovascular and metabolic diseases. The company is already a world-leader in the development of renin inhibitors.

“Speedel Experimenta AG was created in 2002 to support the Speedel Group in the areas of medicinal chemistry, pharmacology, and galenical formulation,” says Nick Miles, director of communications and investor relations for the Speedel Group. “We now have approximately 20 scientists and technicians optimizing the synthesis of development compounds.”

Speedel Experimenta selected MDL® ISIS as the underlying informatics environment for representing and searching chemical structures, reactions, and 3D models. For ordering and inventory of chemicals, Speedel’s scientists use MDL® Available Chemicals Directory and MDL® CIMS, a chemical inventory management system developed by MDL consultants. They use MDL® Reaction Browser for reaction searching and a number of MDL synthetic methodology databases for selecting and evaluating synthetic methods. Speedel scientists also use an electronic lab notebook built on the MDL® ISIS/Base desktop application.

Robert Mah, senior scientific expert, explains that Speedel opted for MDL technology “because we wanted a single solution, and many of our scientists were familiar with MDL products from their previous jobs at major pharmaceutical companies.” Hitting the ground running was a top priority



Speedel Experimenta team members rely on MDL solutions in their daily efforts to optimize synthetic routes and pharmacologically active molecules.

for Speedel Experimenta as they established their new, state-of-the-art lab in the Allschwil Innovation Center. “Since our lab is located very close to MDL’s Allschwil office, we simply dropped our hardware off, and MDL technicians quickly installed all the products, including the necessary Oracle® software. As well as training us in the optimal use of the system, MDL was very helpful in fine-tuning the system to archive products and commercial reagents and transfer data between the lab notebooks and CIMS.”

MDL products play a critical role at every stage of the discovery process at Speedel Experimenta. Scientists begin by brainstorming for new molecules and approaches to cardiovascular therapies, capturing new ideas in MDL ISIS/Base. After the modeler has prioritized the ideas, the most pressing targets are assigned to individual chemists who consult reaction databases like ChemInform Reaction Library, which provides information about new synthetic methods, and ORGSYN, which covers proven compound preparations. They turn next to MDL Available Chemicals Directory and CIMS to assess the availability of building blocks and starting materials.

Speedel scientists document ongoing experiments in their MDL electronic lab notebooks and transfer new product information into another ISIS database. After compound testing, the scientists record the biological and chemical results in the same database, so that all structure and associated information is together in one place, ready for yet another brainstorming session that completes the discovery cycle—and frequently launches another one.

“Technology like MDL’s that helps us accelerate and better manage research workflows is crucial in reliably demonstrating the safety and efficacy of drugs.”

Nick Miles, director of communications, Speedel Group, www.speedelpharma.com



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