

For Immediate Release

Synthon Installs TESCAN VEGA SEM for Drug Discovery & Development

TESCAN VEGA SEM is used to analyze active pharmaceutical ingredients in the development of new drugs

Brno, Czech Republic, June 15, 2022—TESCAN ORSAY HOLDING a.s. announces the installation of the TESCAN VEGA scanning electron microscope (SEM) at Synthon, an international, science-centered pharmaceutical company that specializes in developing, manufacturing and out-licensing complex high-quality generic and hybrid medicines. Synthon will use the SEM for drug analysis at its R&D and manufacturing facility in the Czech Republic.

“After a long search for an SEM that addressed our specific pharmaceutical needs, we decided on the TESCAN VEGA G4, which met all of our requirements,” said Pavel Kalivoda, specialist in the Analytical Research Group at Synthon. *“Moreover, TESCAN customized the microscope and software specifically for our workflow. We are now able to analyze many more samples in a shorter period of time and at much higher resolution than ever before.”*

Synthon is using the SEM for the analysis of active pharmaceutical ingredients (APIs) in the formulation of new drugs during the developmental process. Synthon’s drug samples are predominately organic and composed of light elements like carbon, nitrogen, and oxygen. These are commonly brittle and extremely sensitive to an electron beam. The TESCAN VEGA G4 features a low vacuum mode and is specially equipped with a [gaseous secondary electron detector](#) (GSD) for this application.

“We are analyzing lyophilization cakes, which involves a cross-section of the cake and then it is imaged using SEM to see the top, bottom, and center of the sample. Our experts in this field are able to evaluate the quality of the lyophilization process based on the microphotographs taken on our TESCAN VEGA G4,” said Kalivoda. *“TESCAN’s Image Snapper tool, which enables the stitching of high-magnification images into one panorama image, has been specially modified for our use case so that we can take automated measurements and increase efficiency.”*

“We are proud to be a partner for Synthon and support their strategic pharmaceutical development,” said Ondřej Šulák, product marketing director for Life Sciences. *“This mutual cooperation is very beneficial—Synthon can benefit from our application support in workflow optimization and development, and for TESCAN, it is absolutely essential for us to constantly collect important feedback from our customers and learn from their experience. With this cross collaboration we are able to continually enhance our solutions across all of our application fields.”*

For more information about TESCAN’s solutions for pharmacology and toxicology, please click [here](#).

About Synthon

Synthon is an international, science-centered pharmaceutical company specialized in developing, manufacturing and out-licensing complex high-quality generic and hybrid medicines for patients around the world.

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Synthon's innovative R&D and proven ability to manufacture and distribute high-quality pharmaceuticals position the company well for the future. In November 2019, funds advised by BC Partners acquired a majority stake in Synthon International Holding B.V. For more information visit: www.synthon.com.

About TESCAN

TESCAN enables nanoscale investigation and analysis within the geosciences, materials science, life sciences and semiconductor industries. The company has a 30-year history of developing innovative electron microscopy, micro-computed tomography, and related software solutions for customers in research and industry worldwide. As a result, TESCAN has earned a leading position in micro- and nanotechnology. For more information visit: www.tescan.com.

TESCAN ORSAY HOLDING was established in 2013 as a result of long-term expansion and establishment of subsidiaries worldwide, including France-based ORSAY PHYSICS, a world leader in customized focused ion and electron beam technology. TESCAN ORSAY HOLDING maintains its headquarters, production and R&D in Brno, Czech Republic. Every TESCAN microscope is expertly produced in Brno and shipped to customers worldwide.

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