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PharmAbcine uses Avacta instrument for R&D

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Singapore: Scientists at Korean biotech company PharmAbcine are completing formulation and stability studies based on Optim 1000 microvolume protein analysis and characterization instrument from Avacta Analytical.

PharmAbcine was established in Korea in 2008 specifically for the development of human monoclonal antibodies into drugs for the treatment of human diseases, including cancer and inflammatory diseases.

With one product already undergoing clinical trials for blocking angiogenesis in glioblastomas, and a second monoclonal in development stages, the Company is keen to use high throughput technologies where possible, as Dr Weon Sup Lee, head of the R&D center at PharmAbcine, explained.

Dr Lee, "High throughput is very important in the development of drug formulations, especially for a small company like PharmAbcine. With the Optim 1000 we can simultaneously check conformational change and the aggregation status of our molecule. We now use it routinely for looking at formulation and stability, and for developing purification processes taking many different combinations of factors - pH, buffers, adjuvants - into account. The Optim 1000 is easy to use and requires small sample volumes, which is a real advantage. Unlike techniques such as dynamic light scattering, the samples do not need any pre¬treatment in order to get good results, so we save time and costs there too."

Dr Lee concluded, "For our first product we used spectrophotometers and HPLC for the preformulation studies and it took several months. In contrast, the same process for our second molecule was completed within a week using the Optim 1000 with DOE (Design of Experiment). It is simply very fast and reliable."