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★ The Grand Prize Winning Essay will be published in Science; a brief abstract of the Runner-Up Essay will be published in Science.

The 2016 award ceremony will be held in San Francisco, on 23rd June, 2016.

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3D Structure-Based Design
Optibrium has launched version 6.3 of its StarDrop software platform, which includes a new module providing seamless access to best-in-class, structure-based design technologies, based on BioSolveIT’s SeeSAR package. The addition of intuitive visualization of 3-dimensional (3D) protein-ligand interactions to StarDrop results in a fully integrated environment for analysis and visualization of compound data, coupled with a comprehensive range of ligand- and structure-based design capabilities that guide the optimization of high-quality compounds. The new SeeSAR module for StarDrop provides a state-of-the-art, scientifically rigorous approach to understanding the binding of compounds in their protein targets in 3D. Users can import ligand and protein structures derived from crystal structures or predicted with any docking software, and visualize the key interactions driving potency. This is seamlessly linked to StarDrop’s cheminformatics methods based on 2D-compound structure and its unique Card View approach to interpreting the resulting structure-activity relationships.

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Streptavidin Microcolumns
The new MSIA Streptavidin EVO microcolumns have been designed to bring the novel mass spectrometric immunoassay (MSIA) affinity purification technology to Tecan's Freedom EVO series of robotic platforms that are equipped with a 96-multichannel arm (MCA96). When combined with the Tecan Freedom EVO robotic platform, MSIA Streptavidin EVO microcolumns enable fast, accurate isolation of target analytes from complex biological matrices. Housed within a pipette tip, the proprietary monolithic columns are densely coated with streptavidin for analytical affinity purification of any biotinylated affinity ligand, even at low concentration. Because this technology is incorporated into a pipette tip, users can analyze sample volumes as low as 10 µL, saving precious samples. Furthermore, when compared to traditional resin- and bead-based methods, MSIA technology provides lower background noise and improved analytical sensitivity, while the simple workflow enables easier method standardization and transfer between labs.

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