Moleculomics

Company Profile

Moleculomics is a spin-out company from the Institute of Life Science (ILS) at Swansea University. They have developed powerful computer techniques to produce structural models of proteins and the changes that occur when they interact with molecules. This allows them to use computer models to predict the activity of a potential new drug with its target protein, and critically also to predict whether or not a drug will interact with other proteins, which might lead to toxicity or other unwanted effects. Given that there are several million potential interactions, undertaking this work using computers significantly reduces the time taken for R&D, in addition to helping reduce the use of animals in experiments and allowing companies to predict any adverse effects of potential new drugs.

Collaboration with BEACON

BEACON has worked with Moleculomics on a number of projects, including undertaking laboratory work to test computer predictions of molecule-protein interactions. Comparison of laboratory results with computer predictions allows the approach to be validated and refined, which in turn provides underpinning evidence allowing Moleculomics to attract more customers. BEACON scientists have also worked with Moleculomics to better understand the ways in which fungi become resistant to antimicrobial compounds, with the aim of developing improved fungicidal products.

“Having support from the world-class experimental scientists in BEACON has allowed a synergistic approach for the bioinformatic products offered by Moleculomics, with examples of the research appearing in leading peer-reviewed journals. This not only builds external confidence in the company, but it allows real world testing of molecular predictions.”

Jonathan Mullins
CEO

For further information:
www.moleculomics.com