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SimuGen's toxicity predictor to cut drug discovery costs

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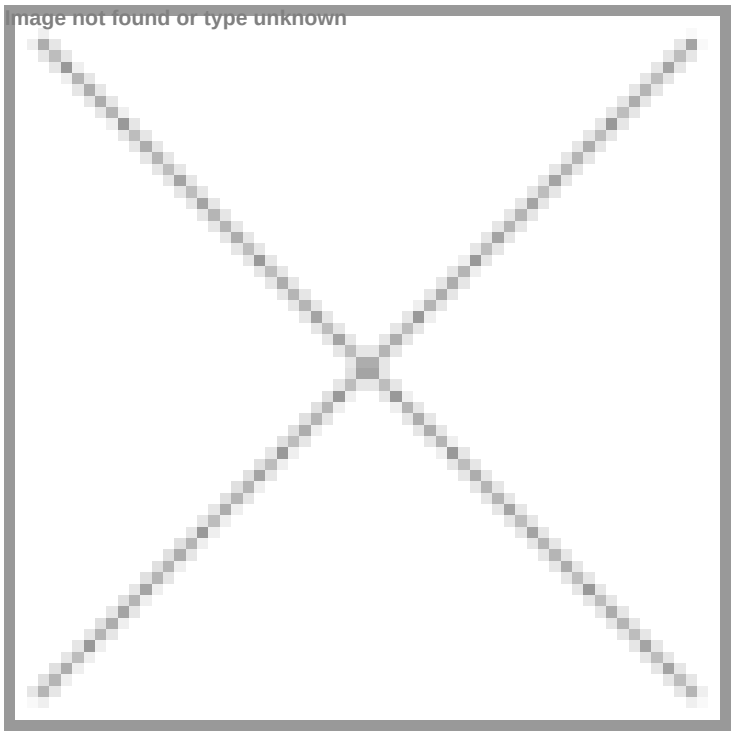

Due to the rising costs in drug discovery and development and a large proportion of drug failure being associated with absorption, distribution, metabolism, and excretion-toxicity (ADME-Tox) issues, the market for ADME-Tox technologies is witnessing a robust growth. Pharmaceutical and biotech companies are adopting new technologies and ADME-Tox screening at an early stage of drug discovery and development to avoid such failures.

SimuGen, winner of BioSpectrum Asia Pacific Bioscience Industry Emerging Company of the Year Award (see selection criteria), has been operating in Kuala Lumpur since 2008 and focuses on predicting human toxicity in drug discovery process.

Dr Brian O'Keeffe, while working as senior vice-president of Malaysian Biotechnology Corporation, realized the need for accurately predicting toxicity in early stages of drug discovery. Since the issue was not adequately addressed by current toxicogenomics, he set up SimuGen, a computational biology company, in Europe in 2006 and then expanded it to Malaysia for the Asian region.

The company combines traditional, genomic, high content (HCS) in vitro screening and traditional cell endpoints to produce high throughput screens for use alongside other early ADME testing. Currently, it offers comprehensive toxicology screening services (HT-X) and high-throughput decision analytics software (HT-Stream) for customers' drug programs.

With more than 20 years of experience in research program management in developing and testing pharmaceuticals, the

team at SimuGen is currently working with established partner companies.

It is expanding partnerships along defined paths that include integration of early-stage ADMET screening labs, application to different cell culture models for multiple target organ toxicities and addressing drug withdrawals from the market due to safety problems.
SimuGen does not rely on traditional hazard identification methods such as 'gene expression signatures', but explicitly models how genes are expressed with increasing toxicity over a wide spectrum of safety concerns. This means risk assessment of clinical endpoints such as fatty liver, zone 3 necrosis or carcinogenesis, within a framework of the drug safety priorities, is now made possible.
While operating in Malaysia, SimuGen also has an office in London to retain close relationships with Europe's leading bioscience and technology pools.

SimuGen has evolved over the last few years into a company at the forefront of early stage toxicology screening services and products.

"The four-stage HT-X screening program is a testament of our capability to translate real customer needs into a fully integrated service that allows customers to make data-rich decisions on compounds in early development. We will continue to innovate and commercialize additional safety screening services and products in the coming period that will contribute to the company's vision to become the leading predictive toxicology player in the industry," says Mr Matthijs van Leeuwen.