BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Computer simulated skin to be used in allergy testing

02 April 2013 | News | By BioSpectrum Bureau

Pune: Bio-Modeling Systems (BMSystems) and Persistent Systems entered into a joint systems biology R&D initiative. The strategic initiative is the world's first collaborative effort that marries non-mathematical heuristic modeling with mathematical modeling designed to increase the success rates of drug discovery and formulation development by pharmaceutical and cosmetic industries.

A key deliverable of this joint initiative is the development of a predictive in silico or computer simulated skin model that will help eliminate the need to use animals in contact allergy testing. The initiative follows on the heels of the European Union's ban on the import and sale of cosmetics containing ingredients tested on animals, offering the industry a highly effective and essential alternative.

Bio-Modeling Systems' team of highly skilled biologists will combine the outputs of its CADI proprietary heuristic modeling platform with a powerful new software platform, Cell-in-Silico, developed by Persistent, resulting in the first heuristic model of skin cell interplay mechanisms to be enhanced through mathematical modelling. This strategic collaboration harnesses the scientific and bioinformatics capabilities of Bio-Modeling Systems and the information technology and scientific capabilities of Persistent Systems to provide the first ever truly holistic systems-based drug discovery solutions.

"Bio-Modeling Systems and Persistent Systems have come together to develop a much needed solution that will address the pharma and cosmetic industries' need for predictive modeling of skin in silico," said Dr Anand Deshpande, managing director and CEO, Persistent Systems. "Bio-Modeling Systems scientists have pioneered heuristic biological modeling with their CADI platform. By coupling this with Persistent Systems' strength in mathematical modeling and IT, we will develop a viable in silico alternative to animal testing."

"We are delighted to partner with Persistent Systems' life sciences experts, as together we can bridge the gap and powerfully link complementary heuristic and mathematical modeling," said Mr Manuel Gea, CEO, Bio-Modeling Systems.

"For the first time ever, mechanistic modeling and dynamics engineering will be merged, bringing a whole new level of understanding to the multi-scale biological space, enabling us to develop a fully integrated, outstanding set of solutions to previously intractable biotechnological problems," said Dr FranÃ§ois Iris, CSO, Bio-Modeling Systems. "We look forward to addressing the industry's challenges head-on with this powerful offering."