

Press Release



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Insilico presents new solution for the automated analysis of bioprocesses

(Stuttgart) – Insilico Biotechnology AG has developed an innovative enterprise software, Insilico Inspector™, which is unique in that it can carry out a metabolic analysis of bioprocesses automatically and directly from process data for the very first time. The software can be used not only for the time-resolved quantitative analysis but also for the graphically supported comparison of the performance of fermentation processes, strains and cell lines.

There is a steady increase in the amount of molecules for industrial use as well as drugs which are now being produced using biotechnological methods, and it is no longer unusual for a company to carry out thousands of fermentations per year. This poses an enormous challenge in terms of handling and especially analysing and interpreting the mass of process data.

Insilico's vast experience in the design and optimisation of microbial and mammalian cell-based production processes has given rise to the development of an innovative enterprise software which tests process data automatically, then analyses them quantitatively and finally compares them with one another for evaluation purposes. The new software owes its name to its task – i.e. the quantitative "inspection" of processes – becoming Insilico Inspector™.

The software feeds process data as soon as they have been recorded in a central database into a computer model which represents the biochemical reaction network of the host cells. By simulating the metabolic processes, users can diagnose the physiological state of the cells in each phase of the production process quantitatively, using extracellular data to look inside the cells.

This innovative enterprise software relieves technicians, researchers and project managers of the time-consuming task of looking through and processing vast amounts of process data and provides decision-makers with an objective and easy-to-grasp form of comparison for choosing the best strain, clone or process conditions. "Our main aim was not just to reduce the efforts and expenses involved in process development but also to improve how results can be communicated," explains Florian Kirchner, Head of Insilico's Software Engineering Department, describing how to access data company-wide. "This makes it easy to share the data and results with colleagues no matter where they are based," continues Kirchner.

With the Insilico Inspector™, Insilico has augmented its technology platform with another important component which can be used by a wide range of industrial customers. Insilico's CEO Klaus Mauch is convinced that "the enquiries we received from customers straight after release show that we are on the right track with our innovative solution."

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Insilico Biotechnology is a market-leading company providing solutions and software for the simulation of living cells. An interdisciplinary team of experts offers customised solutions for the efficient manufacturing of biotechnological products and for the testing of pharmaceuticals by using high-performance computing and Insilico's proprietary software platform. For world-leading companies from the chemical and pharmaceutical industries, Insilico's technology lowers time, risk and costs of development processes. Founded in 2001, Insilico is a privately held company based in Stuttgart, Germany. For further information, please visit www.insilico-biotechnology.com.

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