

Press Release



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Insilico launches comprehensive portfolio of predictive Digital Twins for cell culture process development

(Stuttgart) – Insilico Biotechnology AG offers a suite of Digital Twins that delivers high quality predictions for accelerating product time to market.

Biopharmaceutical companies have growing drug pipelines which require ever more efficient development processes for each new product without compromising on achieving high product titers and desired quality profiles. In close alignment with customer needs Insilico Biotechnology AG has developed a modular suite of Digital Twins that cover key steps during bioprocess development. The application of these powerful predictive solutions leads to drastically reduced development timelines without a trade-off on titer or quality. Digital Twins enable the exploration of the multi-dimensional design space of cell culture processes by replacing time-consuming and costly wet-lab experiments with virtual experimentation.

The optimization of media components and feeding strategies for maximizing product titer is delivered by the Insilico Composer and the Insilico Feeder set of Digital Twins. These solutions are met by high customer demand and are available for in-house use by technology transfer. Insilico Selector delivers clone selection at an early stage including optimized process conditions for the individual clone. The generation of superior host cell lines with improved specific productivity by identifying suitable gene targets is predicted by Insilico Expresser. Further solution modules for late stage bioprocess development like process characterization and model-predictive control of manufacturing processes are on the roadmap and will be released in the near future.

The modular portfolio of Digital Twins is embedded in Insilico's technology platform for standardized and automated data processing. The platform comprises the cellular metabolic network model, the mechanistic process model as well as machine learning technology for generating a predictive Digital Twin. The integrated Insilico Analyzer allows the identification of metabolic limitations by time-resolved analyses of intracellular fluxes based on extracellular metabolite data.

"Enabling the access to a whole ecosystem of Digital Twins supports the paradigm shift towards biopharma 4.0. We are very enthusiastic and pleased that we can support our customers in their digitalization journey with our predictive solutions." says Klaus Mauch, CEO, Insilico Biotechnology

Customers have the option of either licensing Insilico's Digital Twin solutions for in-house use or request Insilico's services for specific products within their pipeline.

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About Insilico

Insilico Biotechnology AG develops and delivers predictive Digital Twins to advance biopharmaceutical process development and manufacturing. Insilico Digital Twins of cell culture processes lead to superior productivity, product quality and process robustness. Groundbreaking predictive power is achieved by exploiting process data using artificial intelligence and biochemical networks. As a result, Insilico's unique approach substantially reduces experimental effort, costs of goods and time to market. Leading biopharmaceutical companies worldwide use Insilico Digital Twins for cell line development, media design and process control. Founded in 2001, Insilico Biotechnology is a privately held company based in Stuttgart, Germany.

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