



Press Release

19 September 2012

Genedata and Insilico Biotechnology Integrate Industrial Biotechnology Platforms

Integrative bioinformatics platform will streamline and accelerate production strain optimization for fermentation-based applications

(Munich/Stuttgart) – Genedata, a leading provider of advanced software solutions for industrial biotechnology, drug discovery and life science research, and Insilico Biotechnology, a premier provider of advanced solutions for genome-scale simulations, today announced the integration of their technologies, which creates an end-to-end platform for industrial biotechnology research.

The platform integrates Genedata Selector™ for comprehensive genome management and data analysis with Insilico Discovery™ simulation software. SysEnCor, a German research consortium, will use the integrated platform to analyze the energy metabolism of *Corynebacterium glutamicum*, a key organism for bioprocessed amino acids used in food and feed production.

“By integrating our respective platforms, Genedata and Insilico Biotechnology offer a solution that empowers companies to combine quantitative biotechnology with hypothesis generation with experimental validation,” said Klaus Mauch, CEO of Insilico Biotechnology. “The integration of Insilico Biotechnology and Genedata Selector software paves the way for innovative strain optimization and fermentation processes in areas such as feed and food additives, care specialties, and therapeutic precursors,” noted Dr. Othmar Pfannes, CEO of Genedata.

SysEnCor Innovates Strain Development

Cost factors in large-scale biotechnological production processes include feedstock, the efficiency of microorganism conversion to product, and the ability to quickly obtain high yields. *C. glutamicum* optimization requires a comprehensive understanding of genetic make-up, functional characterization of macromolecules and their interactions, and identification of underlying metabolic and regulatory networks controlling strain growth and productivity. SysEnCor applies advanced systems biotechnology to quantify, understand and design energy metabolism in developing novel production strains.

Co-funded by the German Federal Ministry of Education and Research, SysEnCor is comprised of Evonik Degussa, Genedata, Insilico Biotechnology and seven academic institutions. Using mathematical modeling and simulation, high-throughput molecular profiling, and innovative data analysis for next-generation sequencing data, SysEnCor is pioneering stress-tolerant and efficient microbial strains for the synthesis of amino acids such as arginine and



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histidine. Collaborating with SysEnCor and its industrial partners, Genedata is integrating Genedata Selector – the only system for complete mapping of all omics and pathway data – with Insilico Discovery, the only system for obtaining fluxome data and dynamic network simulations. The resulting platform will significantly enhance genome-wide dynamic models of *C. glutamicum* while streamlining and accelerating strain development cycles.

“Integrating Insilico Discovery software and Genedata Selector provides an organism-agnostic and comprehensive software platform that handles everything from strain genome information management to bioprocess modeling,” continued Dr. Pfannes. “Our collaboration with Insilico Biotechnology and involvement with SysEnCor reflects our long-standing and continuously expanding presence in the industrial biotech sector, and underscores the companies’ commitment to innovative industrial biotech solutions.”

Genedata transforms data into intelligence with a portfolio of advanced software solutions, which make research data accessible and understandable and research processes more efficient. These solutions are used worldwide by leading pharmaceutical, industrial and agricultural biotechnology companies as well as academic research organizations. Genedata innovations enable scientific discovery that fights disease and improves health and quality of life worldwide. Founded in 1997, Genedata is headquartered in Switzerland, and has offices in Germany, Japan, and the US. www.genedata.com.

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 development of drug test systems by using high-performance computing and Insilico's proprietary software. 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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