

Genomatica Expands Bioengineering Solutions Business

Proven platform helps industrialize bioprocesses in chemicals, health, wellness, food and beverage

San Diego, CA, April 12, 2016 – [Genomatica](#) announced they are expanding their [Bioengineering Solutions](#) business across the chemical, health (e.g. active pharmaceutical ingredients, natural products), wellness (e.g. nutraceuticals, personal care) and food and beverage industries. Genomatica’s offerings will now enable a broader range of customers to complement their in-house expertise and more rapidly and reliably deploy commercial biobased processes.

The expansion of Genomatica’s Bioengineering Solutions group follows more than ten projects to their credit. These projects span the product development lifecycle, are spread out internationally, involve both bacteria and yeast, for both large and small companies. In addition, the company added two new customers in the last month focused on yeast fermentation processes for producing a food ingredient and a nutraceutical. The group’s solution offerings include:

- *Evaluation studies*: assess new bioprocess ideas using techno-economic analysis and computational biology tools, vetting a customer’s business case before they commit significant R&D dollars; next steps may include a proof-of-concept demonstration;
- *Strain diagnostics*: provides a ‘view inside the cell’ to gain deep understanding of metabolism using systems modeling, omics, quantitative small-scale (QSS) technology and precision fermentation; provide recommendations to rapidly overcome metabolic pathway bottlenecks;
- *Pathway enzyme engineering*: develop enzymes that work in the context of a whole metabolic pathway for improved *in vivo* performance; including high throughput screening for activity and specificity on non-natural substrates, using ‘smart’ assays/libraries;
- *Scale-up preparedness*: enable reliable fermentation scale-up and/or contract manufacturing; improve strain and process robustness for successful technology transfer;
- *Integrated strain and process development*: apply Genomatica’s complete set of bioengineering capabilities and technology platform to help enable new business opportunities or improve existing fermentation processes.

“Genomatica has proven its ability to industrialize multiple processes and continues to deliver bioengineering innovations,” said Christophe Schilling, CEO of Genomatica. “Savvy customers beyond licensees of our existing product lines sought us out and benefited. A common thread has been to apply our diagnostic tools and systems approach to break through tough spots in a development process and de-bottleneck projects. Now, we’re pleased to leverage our platform and bioengineering approach to add value to more firms, with expanded market applications that include health, wellness, and food and beverage.”

Proven, integrated platform and bioengineering approach provide unique advantages

Genomatica has developed a unique, proprietary platform that intertwines advanced computation (biological modeling, computer aided design, optimization, complex systems analysis), metabolic engineering (genetic manipulation, synthetic biology), and a bioengineering approach and tools (see '[Harnessing Biotechnology: A Practical Guide](#),' *Chemical Engineering*, April 2016) to support optimal design and development of complete, scalable bioprocesses. Through this platform, Genomatica offers the following distinctive, core capabilities to customers:

- a) 'commercial-scale-first' thinking: we envision what's needed for real commercial deployments, and design strains and processes with the end in mind;
- b) 'systems design' mindset: our integrated platform enables a holistic approach to co-optimization of complex problems, where the right issues are addressed in the right sequence;
- c) 'industrial-strength' engineering of microorganisms: proven abilities to develop commercially-deployable strains;
- d) expertise in scale-up and, equally important, scale-down: using both modeling and precision experimentation, we can reliably translate lab performance to commercial scale (e.g. >600 m³ fermentors), effectively reducing the time and cost of scale-up;
- e) technology transfer skills: Genomatica has deployed and/or transferred various parts of its process technologies to a dozen sites around the world, across varying equipment, countries, languages, and cultures – a skill honed by working with licensees of its processes for high-volume intermediate chemicals;
- f) track record: consistent history of delivering on challenging targets, on-time and on-budget.

“Genomatica’s Bioengineering Solutions business enables our customers to deliver better products faster and more reliably than by doing it all themselves,” said Schilling. “The industry has learned that it’s the ‘*whole process*’ that counts, and Genomatica can help at specific points while always focusing on the end result. We are bringing our track record of commercial success, and translating it into a positive impact for products and customers outside of our core product lines – all by collaborating with Genomatica.”

Potential customers should contact Solutions@genomatica.com for more information.

About Genomatica

Genomatica is a widely-recognized leader in bioengineering. It develops biobased process technologies and helps customers develop solutions that enable a 'better way' to produce chemicals, from a range of alternative feedstocks, and with better economics, sustainability and performance. Partners include ENI Versalis, Braskem, BASF, Novamont and Cargill. Genomatica is distinctive in its 'total-solutions' approach, supported by its bioengineering platform, which intimately intertwines and co-optimizes microorganism design, bioprocess design and economics.



Genomatica has earned widespread acclaim for its scientific, engineering and commercialization achievements. Awards include the [Kirkpatrick Award](#), for 'the most noteworthy chemical engineering technology commercialized in the world,' and the [2015 World Economic Forum Technology Pioneer](#) award. To learn more, see www.genomatica.com.

For more information:

Steve Weiss, sweiss@genomatica.com, +1.858.210.4424