



## **Global Industry Leaders Join Genomatica Advisory Boards**

*Scientific Advisory Board adds BASF leader and metabolic engineering researcher;  
Engineering Advisory Council adds Air Products veteran*

**SAN DIEGO, December 17, 2009** – Genomatica, a sustainable chemicals company, announced today that Bernard Hauer and Jens Nielsen have joined the company’s Scientific Advisory Board, and Rakesh Agrawal has joined the Engineering Advisory Council. Each new advisor brings unique industry experience to continue Genomatica’s development of cost-advantaged sustainable chemical processes.

“From the start, Genomatica has integrated the advice of researchers and industry experts into our product development and commercialization,” said Genomatica CEO and co-founder Christophe Schilling. “We are drawing on the best minds in chemical engineering, biochemistry and metabolic engineering to commercialize a technology that has the potential to revolutionize the chemical industry.”

### **Scientific Advisory Board**

Bernhard Hauer, the director of the Institute for Technical Biochemistry at the University of Stuttgart, joins Genomatica’s Scientific Advisory Board. For more than 25 years, Hauer served as a research scientist and executive at BASF, one of the world’s leading chemical companies. He retired as BASF’s vice president of research earlier this year. Hauer is a published expert in the screening, development and application of enzymes and microorganisms as biocatalysts for chemical intermediates. He has authored more than 100 papers and patent applications on biocatalytic processes for the production of chemical intermediates, and won the BASF Innovation Award in 1997.

Jens Nielsen, a leading researcher in the field of metabolic engineering and systems biology, also joins the Scientific Advisory Board. Nielsen is currently a professor in the chemical and biological engineering department at Chalmers University of Technology in Goteborg, Sweden. His specialty is the application of mathematical models for data analysis and prediction of phenotypic behavior, specifically integrated analysis of the metabolism of microorganisms.

The Scientific Advisory Board has been a valuable contributor to Genomatica’s research and development process since the company was founded in 2000. Continuing members of the board include Harvey Blanch, George Church, Lee Hood, Jay Keasling, Sang Yup Lee and company co-founder and SAB chairman Bernhard Palsson. The SAB has advised Genomatica researchers in many areas including molecular biology, metabolism, protein engineering, genetic and metabolic engineering and flux analysis.

### **Engineering Advisory Council**



Rakesh Agrawal brings decades of chemical industry experience to Genomatica's Engineering Advisory Council. Agrawal is currently the Winthrop E. Stone Distinguished Professor at Purdue University in Indiana. He worked at Air Products, a Pennsylvania-based chemical producer, for more than 20 years. As an Air Products Fellow, he was responsible for linking research, development, process engineering and commercialization efforts. He established a state-of-the-art process synthesis group to evaluate, develop and commercialize separation processes.

As a researcher, Agrawal developed novel separation processes using distillation, membranes and adsorption. He is an inventor or co-inventor on hundreds of U.S. and overseas patents, which have been applied to more than 100 operating plants worldwide. Agrawal's experience with commercial-scale separation processes will support Genomatica's process engineering team as they refine the process design to cost-effectively separate commercial-grade BDO in the final step of the manufacturing process. In June 2009, Genomatica [announced](#) that researchers had produced BDO from sugar and refined it to greater than 99 percent purity using a proprietary and cost-effective recovery process.

The Engineering Advisory Council provides advice and guidance to Genomatica's process engineering team as they prepare Genomatica's breakthrough bio-manufacturing processes for commercial production of industrial chemicals. The council serves as a sounding board for process development ideas and plans, and provides process design, modeling and experimental advice and guidance.

The council is composed of preeminent engineering leaders from both industry and academia, including distinguished chemical engineers Frank Bates, Page Shirtum and Matt Tirrell. Today's additions to the Council bring additional engineering expertise in chemical and bioprocess development.

### **About Genomatica**

Chemicals are essential to all major industries and make up the world in which we live. Genomatica is a sustainable chemicals company developing groundbreaking technologies to transform chemical production processes through bio-manufacturing. With a proven, proprietary technology platform, Genomatica is creating a robust pipeline of bio-manufacturing processes that targets chemicals with large existing markets. These processes are aimed to compete head-on with current petrochemical processes, delivering compelling cost advantages and sustainability through renewable feedstock sourcing and less energy intensive processes.

A privately held company, Genomatica is backed by top Silicon Valley venture capital firms Mohr Davidow Ventures, Alloy Ventures and Draper Fisher Jurvetson. Genomatica is based in San Diego.

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