BioProcessors' SimCell™ Platform Demonstrates Potential to Increase Amgen's Cell Culture Experiment Capacity

Results to be Presented in Poster Session at Biochemical Engineering XIV Show

WOBURN, MA, U.S.A. – July 12, 2005 – An announcement at *Biochemical XIV Show* disclosed the completion of an important phase of a long-term joint project with Amgen (NASDAQ:AMGN) aimed at evaluating BioProcessors' SimCell™ MicroBioreactor technology. This technology has the potential to increase Amgen's mammalian cell culture process development capacity. The evaluation demonstrated the ability of BioProcessors' MicroBioreactor Arrays to scale-down fed batch cell culture processes demonstrating its potential as a high-throughput process development solution capable of enhancing industrial systems. BioProcessors' SimCell™ MicroBioreactor solutions enable biotechnology and pharmaceutical companies to increase cell culture experiment capacity by orders-of-magnitude with greater data quality, faster cycles and lower costs than conventional biopharmaceutical processing methods.

"Existing high-throughput systems emphasize miniaturization at the expense of performance and data generation, in most cases limiting the usefulness of such high-throughput tools to only a screening function," said Dr. Andrey Zarur, CEO and President, BioProcessors. "This paradox is clearly visible in the area of cell culture where 96 well plates and shake flasks are used as high-throughput screens for cell line selection, media and process optimization. In all but the simplest of processes these systems are at best only a crude approximation of a working bioreactor and hence provide little reliably scalable cell culture process information. Poor scalability and, in the case of shake flasks, insufficient experimental power to provide complete full factorial process development DOEs limits researchers 'real-time' ability to identify robust processes capable of operating at their global optima," Dr. Zarur added. BioProcessors' SimCell™ MicroBioreactors address this process development "data gap" by integrating microfluidics with remote monitoring and control, enabling high-throughput process development through the miniaturization of bioreactors that accurately simulate full scale manufacturing processes.

BioProcessors has demonstrated the performance of the SimCell™ system through a series of collaborative experimental protocols on Amgen cell lines. Throughout this series of evaluation experiments, over 1,500 MicroBioreactors successfully ran for periods up to 14 days in both batch and fed batch modes. Data generated for the conditions tested to date indicate good correlation to stirred tank reactors and hence the scalability of the SimCell™ system. BioProcessors and Amgen intend to continue evaluation of SimCell™ applications.

See BioProcessors and Amgen at the Biochemical Engineering XIV Show July 10-14 at Harrison Hot Springs, BC, Canada

Brett Schreyer, Ph.D., Director, Technology and Applications Engineering, BioProcessors and Prof. Charles A. Cooney, Professor of Chemical and Biochemical Engineering, Massachusetts Institute of Technology, will co-chair the session titled "Advances in the Miniaturization of Bioreactor Technology" on July 13th. The session will review recent progress in addressing the engineering challenges in measurement, control and data acquisition in microbioreactors. Amgen will also present at the

conference's Poster Session II titled "High-Throughput Cell Culture Experimentation with BioProcessors' SimCell™ Platform" which will reveal further details on the project between Amgen and BioProcessors.

About BioProcessors

BioProcessors' SimCell™ solution provides biotech and pharmaceutical companies with a proven process to exponentially increase experiments and to scale-up candidate drugs to production fermentation yields. SimCell's MicroBioreactor solution delivers results at a fraction of the time and cost inherent in existing process development methods. Its market leading system stores and retrieves a robust quantity of reusable, verifiable and reproducible experiment data.

SimCell's high-throughput, multi-factorial design (full DOE) capability accelerates the development of robust economic processes and reduces the time-to-market to deliver production level drugs for biotechnology and pharmaceutical firms, minimizes investor risk when shifting and scaling-up into production and allows predictable and increased quality cell growth to meet market demand.

BioProcessors' SimCell solution suite provides a complete robotic automation platform, powerful integrated experimental design and data analysis software capable of fully automating the development process. SimCells are the novel and proprietary MicroBioreactor technology. SimCell Automation and Management System is the complete robotic and system capability to predictably and consistently control the environment (oxygen, temperature, pH) and reach the desired cell culture level. This allows scientists to design, manage and monitor thousands of cell culture experiments simultaneously. SimCell Insight provides the data and the software for thorough and historic technology evaluation and analysis. SimCell KnowledgeSource is a comprehensive set of methodologies, best practices, and instructional material that makes microbioreactor biopharmaceutical development a practical reality. KnowledgeSource is embedded in the technology and ingrained in the scientific staff of BioProcessors, which it shares and continues to develop with its partners and clients.

Customers such as Amgen (NASDAQ: AMGN), Novo Nordisk (NYSE: NVO) and others are now able to meet the expanding consumer demand for new drugs without curtailing revenue and profits by minimizing the inherent weaknesses built into anemic drug production processes. SimCell is being implemented, and is easily integrated, by other leading biotechnology and pharmaceutical firms into their existing process development structure. SimCell can be either purchased for in-house use or fully utilized on an outsourced or trial basis.

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