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## **GlaxoSmithKline, AstraZeneca and other Pharmaceutical Leaders Reduce R&D Time and Costs Using AspenTech's Software**

*Industry Collaboration Results in Newly Patented Technology that Helps Drug Companies Comply with Latest Regulatory "Quality by Design" Initiatives*

**BURLINGTON, Mass. – July 19, 2010 -- [Aspen Technology, Inc.](#)** (NASDAQ: AZPN), a leading provider of software and services to the process industries, today announced that GlaxoSmithKline, AstraZeneca and other pharmaceutical industry leaders are reducing their research and development time and costs using newly patented technology that is part of AspenTech's aspenONE Process Development for Pharmaceuticals software.

- The solubility modeling technology – developed in collaboration with pharmaceutical companies – provides “Quality by Design” (QbD) capabilities that help manufacturers comply with the latest industry regulatory initiatives.
- Using the aspenONE software, GSK is able to thoroughly understand the solubility properties of new chemical entities (NCE) to assess more quickly risks and improve confidence during the development of new pharmaceuticals. As part of the [aspenONE<sup>®</sup> for Pharmaceuticals](#) suite, drug companies can also ensure a highly repeatable manufacturing process.
- This simulation modeling technology optimizes crystallization design workflow by allowing pharmaceutical companies to:
  - Save time and money. By quickly evaluating the solubility properties of a NCE, laboratories can focus precious experimentation efforts in areas that have a high likelihood of success based on the simulation results. Drug solubility is a critical factor in determining efficient manufacturing processes for a candidate drug.
  - Conduct clinical trials earlier. Begin process development activities sooner using the predictive modeling capabilities of the software to quickly design optimized manufacturing and purification processes.
  - Reduce cost of goods and supply disruptions. Enable informed design of the final Active Pharmaceutical Ingredient (API) manufacturing processes so they are optimized to produce less waste and higher yield.
- AspenTech received the patent for creating a nonrandom two-liquid segment activity coefficient (NRTL-SAC) model that provides a simple yet scientific basis to predict drug solubility. This is the latest of dozens of patents issued to AspenTech for innovative solutions in process optimization.

**Supporting Quotes:**

*Stephen Carino, Investigator – Solid Form Sciences Group, GlaxoSmithKline*

“Screening for crystalline forms is an essential component in pharmaceutical drug development. In our high-throughput screening workflow, we have utilized NRTL-SAC in Aspen Properties to predict the equilibrium solubility of the drug in single- and multi-component solvent systems. The predicted solubility values are used in selecting an appropriate set of solvent systems that are explicitly unique for each of the crystallization modes. This rational solvent selection coupled with the systematic screening approach has allowed us to assess risk around solid forms and improve our confidence in the robustness of the API processes.”

*Jamie Hintlian, Vice President of Pharmaceuticals, Aspen Technology, Inc.*

“Solubility is essential in evaluating drug candidacy and manufacturability. Without predictive tools, many organizations are forced to fly blind when it comes to this mission-critical information. Solubility modeling and prediction adds value by enabling greater efficiencies, better decision making, faster process development, and better process performance. For the pharmaceutical industry leaders involved in its development, and other potential users, this is a powerful screening protocol for the drug development process.”

**Supporting Resources:**

- [aspenONE for Pharmaceuticals](#)
- [aspenONE Customer Testimonials](#)
- [USPTO – NRTL-SAC Patent Approval](#)

**About AspenTech**

AspenTech is a leading supplier of software that optimizes process manufacturing – for energy, chemicals, pharmaceuticals, engineering and construction, and other industries that manufacture and produce products from a chemical process. With integrated aspenONE solutions, process manufacturers can implement best practices for optimizing their engineering, manufacturing and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs and become more energy efficient. To see how the world’s leading process manufacturers rely on AspenTech to achieve their operational excellence goals, visit [www.aspentech.com](http://www.aspentech.com).

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