

Solvay's KetaSpire® PEEK Chosen by BGI for High-Throughput Genome Sequencer BGISEQ-500

SHANGHAI, China, Apr. 24, 2016 – Solvay Specialty Polymers, a leading global supplier of high-performance thermoplastics, announced today that its KetaSpire® polyetheretherketone (PEEK), one of the highest performing semi-crystalline thermoplastics commercially available, has been chosen by BGI, the world's largest genomics organization based in Shenzhen, China, for use in its next-generation sequencing platform, BGISEQ-500. This is a milestone development for Ketaspire® PEEK, marking its first application in the genomics research industry.

"Traditionally, glass is used for the flow cell chip holder, but it is easily broken and difficult to process. The toughness and injection molding capabilities of Solvay's KetaSpire® PEEK solved this problem perfectly," said Jing Wang, R&D manager of BGI. "KetaSpire® PEEK also demonstrates excellent biocompatibility, no absorption or interaction with reagents, and excellent dimensional stability, which enables highly accurate assembly in the flow cell."

In October 2015, BGI launched the BGISEQ-500, a desktop high-throughput sequencing system powered by combinatorial Probe-Anchor Synthesis (cPAS) and improved DNA Nanoballs (DNB) technology. "Accuracy, flexibility, speed, simplicity, and expandability make the BGISEQ-500 sequencer a high-throughput, open sequencing platform that provides a one-stop solution," explained Qiang Shi, Product Manager at BGI.

Unlike other commercial systems, the BGISEQ-500 sequencer can process two different chips (FCL and FCS) in a single run, consistently producing highly accurate data. This avoids the need for several sequencers and makes genome sequencing more affordable and accessible for all users.

"We are very pleased to collaborate with Solvay. Their polymer knowledge, expertise and responsive technical support helped us meet critical performance requirements", commented Jing Wang.

"Solvay's experience as a key materials supplier to the healthcare industry spans more than 25 years. With our broad product portfolio, we are firmly positioned as a strategic supplier to the Chinese healthcare market," added Dr. Luke Du, managing director Asia, and executive vice president of Solvay Specialty Polymers.

KetaSpire® PEEK is one of the industry's most chemically resistant plastics and offers excellent strength, superior fatigue resistance, and a continuous-use temperature of 240°C (464°F). It can withstand more than 1,000 cycles of steam sterilization without significant loss of properties and is also compatible with other sterilization methods, including ethylene oxide, vaporized hydrogen peroxide, and gamma radiation. Based on biocompatibility testing as defined by ISO 10993-1, KetaSpire® PEEK demonstrates no evidence of cytotoxicity, sensitization, intracutaneous reactivity or systemic toxicity.

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About BGI Genomics

BGI was founded in 1999 as a non-profit research organization. Over the years, BGI has grown into a multinational company with significant global operations. With more than 5,000 employees across the globe and R&D, manufacturing, and commercial operations around the world, we are committed to providing solutions to address the research, pharmaceutical, and clinical markets. Our focus has centered on improving human health and empowering large-scale human, plant, and animal genomics research.

About Solvay

Solvay Specialty Polymers manufactures over 1500 products across 35 brands of high-performance polymers – fluoropolymers, fluorioelastomers, fluorinated fluids, semi-aromatic polyamides, sulfone polymers, aromatic ultra-high performance polymers, high-barrier polymers and cross-linked high-performance compounds – for use in Aerospace, Alternative Energy, Automotive, Healthcare, Membranes, Oil and Gas, Packaging, Plumbing, Semiconductors, Wire & Cable, and other industries. Learn more at www.solvayspecialtypolymers.com.

An international chemical and advanced materials company, **SOLVAY** assists its customers in innovating, developing and delivering high-value, sustainable products and solutions which consume less energy and reduce CO₂ emissions, optimize the use of resources and improve the quality of life. Solvay serves diversified global end markets, including automotive and aerospace, consumer goods and healthcare, energy and environment, electricity and electronics, building and construction as well as industrial applications. Solvay is headquartered in Brussels with about 30,000 employees spread across 53 countries. It generated pro forma net sales of €12.4 billion in 2015, 90% of which was made from activities where it ranks among the world's top 3 players. Solvay SA (**SOLB.BE**) is listed on Euronext in Brussels and Paris (Bloomberg: **SOLB.BB** - Reuters: **SOLB.BR**).

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Desktop BGISEQ-500 High-Throughput DNA Sequencing Platform

Photo courtesy BGI Genomics



Flow Cells Photo courtesy BGI Genomics