

News Release

Lonza Launches GS piggyBac™ - A Unique and Versatile Cell Line Engineering Technology

- Combining piggyBac™ transposon technology with Lonza's GS Xceed® expression system results in stable CHO pools with high levels of recombinant protein expression
- The GS piggyBac™ system offers benefits for bioprocessing, particularly for challenging low-expressing proteins, helping to generate high-performing pools for material supply
- Ability to insert large amounts of DNA into the host cell genome makes this system ideally suited to the challenge of expressing an increasing diversity of protein formats

Basel (CH) 27 March 2019 – Lonza announced today the next stage in the evolution of its market-leading GS Xceed® expression platform with the launch of **GS piggyBac™**, a highly efficient gene integration technology. GS piggyBac™ is capable of inserting large DNA cargos into transcriptionally active and genetically stable areas of the genome associated with highly expressed genes. Demonstrating higher yields and enhanced performance, GS piggyBac™ is well suited to support the expression of challenging proteins.

Commitment to innovation

Lonza's GS Xceed® expression system is built on more than 35 years of mammalian expression, process development, technical and manufacturing expertise. A constant focus on improvement ensures a market-leading, robust and scalable mammalian expression platform for producing next generation recombinant therapeutic proteins. The system includes Lonza's proprietary CHOK1SV GS-KO® cell line, vectors and access to optimized cell culture media, feeds and extensive expertise.

Acquiring the exclusive global IP rights to the proven piggyBac™ transposon technology for the bioprocessing sector, reinforces Lonza's commitment to continuous technology advancements of our expression platforms. The launch of GS piggyBac™ allows Lonza to offer customers

best-in-class technology that further enhances the GS Xceed® expression platform and Lonza's clinical development & manufacturing offerings.

Addressing market needs

"Biologic pipelines are evolving toward more-complex protein formats creating a growing demand for the reliable, high titer expression of these challenging biologics," said Sarah Holland, Lonza's Global Head of Licensing. "More than ever before, there is a real need for robust and scalable expression platforms that can keep pace with these requirements. GS piggyBac™ is ideally suited to help our customers address these challenges. The potential of this technology to improve cell line stability and productivity is an area of huge promise."

Keith Hutchison, Head of R&D at Lonza Pharma Biotech added: "The piggyBac™ technology implementation and the subsequent launch of GS piggyBac™ has been a key focus for our R&D team. This new development offers our customers access to enhanced technology platforms for mammalian expression and biomanufacturing."

Lonza can offer access to GS piggyBac™ for new and existing GS System® license holders. Enquiries about licensing GS piggyBac™ should be directed [here](#). Further information is available at the following website: www.pharma.lonza.com/gspiggybac.

Key Dates to Note:

- **3-4 April 2019: BioProcess International, Europe | Cell Line Engineering and Development**, at Messe Wien Exhibition Congress Center, Vienna (AT)
- **10-11 April 2019: PEGS 2019**, at Seaport World Trade Center, Boston, MA (USA)
- **24-25 April 2019: 12th Annual Proteins & Antibodies Congress** at Novotel West, London (UK)

About Lonza

Lonza is an integrated solutions provider that creates value along the Healthcare Continuum®. Through our Pharma Biotech & Nutrition segment and our Specialty Ingredients segment businesses, we harness science and technology to serve markets along this continuum. We focus on creating a healthy environment, promoting a healthier lifestyle and preventing illness through consumers' preventive healthcare, as well as improving patient healthcare by supporting our customers to deliver innovative medicines that help treat or even cure severe diseases.

Patients and consumers benefit from our ability to transfer our pharma know-how to the healthcare, hygiene and fast-moving consumer goods environment and to the preservation and protection of the world where we live.

Founded in 1897 in the Swiss Alps, Lonza today is a well-respected global company with more than 100 sites and offices and approximately 15,500 full-time employees worldwide at the end of 2018. The company generated sales of CHF 5.5 billion in 2018 with a CORE EBITDA of CHF 1.5 billion. Further information can be found at www.lonza.com.

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Additional Information and Disclaimer

Lonza Group Ltd has its headquarters in Basel, Switzerland, and is listed on the SIX Swiss Exchange. It has a secondary listing on the Singapore Exchange Securities Trading Limited ("SGX-ST"). Lonza Group Ltd is not subject to the SGX-ST's continuing listing requirements but remains subject to Rules 217 and 751 of the SGX-ST Listing Manual.

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