SCG CELL THERAPY AND A*STAR LAUNCH JOINT LABS WITH COLLABORATION NEARING S$30 MILLION TO ADVANCE iPSC TECHNOLOGY TOWARDS SCALABLE GMP MANUFACTURING OF CELLULAR IMMUNOTHERAPIES

- Collaboration aims to develop scalable GMP-grade iPSC manufacturing processes and therapeutic candidates to facilitate research leading to translation of novel cellular immunotherapies.
- Launch of the joint labs builds on existing license, research collaboration and Memorandum of Understanding between SCG Cell Therapy and A*STAR.

SINGAPORE, 17 April 2024 – SCG Cell Therapy (SCG) and the Agency for Science, Technology and Research (A*STAR) announced the launch joint laboratories for cellular immunotherapies. This collaboration, at a combined funding of close to S$30 million supported under Singapore's Research, Innovation and Enterprise 2025 Plan (RIE2025), aims to advance the development of induced pluripotent stem cell (iPSC) technology to produce novel cell therapies that meet Good Manufacturing Practice (GMP) standards. The collaboration will also establish a talent development programme to train the next generation of experts in this field, in accordance with current GMP and regulatory requirements.

*Representatives from SCG Cell Therapy and A*STAR at the joint lab launch ceremony.*
*From left to right: Ms Irene Cheong, Executive Director, Innovation & Enterprise Group, A*STAR; Dr Su Xinyi, Executive Director, Institute of Molecular and Cell Biology, A*STAR; Professor Dr Ulrike Protzer, Director, Institute of Virology and Scientific Founder, SCG Cell Therapy; Professor Tan Sze Wee, Assistant Chief Executive, Biomedical Research Council, A*STAR; Mr Frank Wang, Chief Executive Office, SCG Cell Therapy; Professor Dr Otmar D. Wiestler, President, Helmholtz Association; Mr Shen Feiyu, Board of Director, SCG; Professor Koh Boon*

*Tong, Executive Director, Bioprocessing Technology Institute, A*STAR; Ms Clarice Chen, Director, Enterprise Singapore; Mr Stephan Albani, German Parliament.*

The research and application of new technologies are essential for addressing growing healthcare needs and maintaining long-term sustainability. However, turning laboratory innovations into practical clinical solutions poses significant challenges. These often involve developing manufacturing processes, validating analytical methods, and implementing automation and digitalisation to guarantee the stability and scalability of products.

The joint laboratories, established at SCG's GMP facility and A*STAR's research facility, leverage SCG's and A*STAR's proprietary technologies to develop scalable GMP-grade iPSC and therapeutic products. SCG contributes its specialised, automated cell therapy manufacturing technologies, while A*STAR brings its unique monoclonal antibody assets, iPSC banks, and expertise in process scaling and analytics.

This collaboration bridges the expertise between public sector research and development (R&D) and industry, consolidating resources from SCG Cell Therapy and A*STAR's Bioprocessing Technology Institute (BTI) and Institute of Molecular and Cell Biology (IMCB) to advance innovative R&D towards GMP manufacturing. Additionally, it immerses researchers in the rigorously controlled GMP environment, facilitating the progression from research to clinical application.

"Cellular immunotherapies herald a new era of regenerative medicine, offering hope for patients with cancers and other serious illnesses. As a key player in T cell receptor (TCR) T cell therapeutics, SCG has developed in-house cGMP manufacturing capabilities to supply high-quality cell therapy products to patients. Through this first-of-its-kind joint collaboration with A*STAR, we bring together A*STAR's advanced iPSC technology and bioprocessing capabilities with our expertise in GMP cell therapy manufacturing and clinical development, furthering our mission to provide affordable off-the-shelf cell therapy treatment options to patients", said Christy Ma, Chief Strategy Officer of SCG Cell Therapy.

"The discovery of iPSCs has revolutionised regenerative medicine, offering the potential for standardised, off-the-shelf cell therapies. Through this collaboration with SCG Cell Therapy, we aim to accelerate the translation of iPSC research into clinically viable therapies and strengthen Singapore's position as a global leader in cell therapy innovation. By leveraging our complementary expertise and resources, the joint labs will not only advance iPSC technology for scalable, GMP-compliant cell therapy production but also serve as a platform for nurturing the next generation of talent in this transformative field," said Prof Koh Boon Tong, Executive Director, A*STAR's BTI.

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About iPSC

Induced pluripotent stem cells (also known as iPS cells or iPSCs) are a type of pluripotent stem cell that can be generated directly from adult cells. The iPSC technology was pioneered by Shinya Yamanaka's lab in Kyoto, Japan, who showed in 2006 that the introduction of four specific genes encoding transcription factors could convert adult cells into pluripotent stem cells. He was awarded the 2012 Nobel Prize along with Sir John Gurdon "for the discovery that mature cells can be reprogrammed to become pluripotent". Pluripotent stem cells hold great promise in the field of regenerative medicine. Because they can propagate indefinitely, as well as give rise to every other cell type in the body (such as neurons, heart, pancreatic and liver cells), they represent a single source of cells that could be used to replace those lost to damage or disease.

About SCG Cell Therapy

SCG is a clinical-stage biotechnology company focusing on the development of novel immunotherapies in infections and its associated cancers. The company targets the most common cancer-causing infections: helicobacter pylori, human papillomavirus, and hepatitis B, and develops a broad and unique pipeline against infections and to prevent and cure its associated cancers. Established and headquartered in Singapore, SCG combines regional advantages in Singapore, China and Germany, covering the entire value chain from innovative drug research and discovery, manufacturing, clinical development and commercialization. For more information about SCG, please visit us at www.scgcell.com.

About the Agency for Science, Technology and Research (A*STAR)

The Agency for Science, Technology and Research (A*STAR) is Singapore's lead public sector R&D agency. Through open innovation, we collaborate with our partners in both the public and private sectors to benefit the economy and society. As a Science and Technology Organisation, A*STAR bridges the gap between academia and industry. Our research creates economic growth and jobs for Singapore, and enhances lives by improving societal outcomes in healthcare, urban living, and sustainability. A*STAR plays a key role in nurturing scientific talent and leaders for the wider research community and industry. A*STAR's R&D activities span biomedical sciences to physical sciences and engineering, with research entities primarily located in Biopolis and Fusionopolis. For ongoing news, visit www.a-star.edu.sg.

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