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Esco Aster, A* Star's to advance BioProcessing technologies for cell and gene therapies

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This Centre of Excellence (COE), located at Centros building in Biopolis, was inaugurated at the 11th Asian Federation of Biotechnology (AFOB) Regional Symposium 2019 by Prof. Lam Kong-Peng, Executive Director of Bioprocessing Technology Institute, A*STAR and Mr. Lin Xiangliang, Chief Executive Officer of Esco Aster.

Esco Aster, a contract development and manufacturing organisation (CDMO) of Esco Group, has announced the official opening of the BTI–ESCO ASTER Centre of Excellence in Bioprocessing in Biopolis, Singapore. The company has entered into an agreement with A*STAR's Bioprocessing Technology Institute (BTI) to adopt an Industry 4.0 integrated bioprocessing platform.

This COE marks a significant milestone to advance the development of safe and effective cell and gene therapies. Underscoring such translational efforts, Esco Aster shall:

- **Accelerate** research and development using linearly scalable, cost-effective manufacturing technologies into closed-system operation. Researchers can potentially utilise Esco Aster's upstream high cell density bioreactors, downstream purification processing, fill and finish processing in an aseptic containment isolator; via its proprietary closed-transfer processes;
- **Support** customised requirements by providing small batch-size production, making it as easy as possible for clinicians to outsource preclinical development work and move quickly from product concept into first-in-human studies;
- **Train** the next generation of thought leaders and cultivate interest in bioprocessing with institutions, specifically for the biopharmaceutical industry;
- **Establish** a biomanufacturing roadmap towards a PIC/S (Pharmaceutical Inspection Convention/ Co-operation Scheme) GMP (Good Manufacturing Practice) compliant pilot incubation facility at JTC LaunchPad @ one-north BLK 67 where bioprocess suites and ISO (International Organization for Standardization) classified cleanrooms will be fully accessible to bioentrepreneurs;

- **Reengineer** processes to de-risk the design space posed by complexity of products/ single-use technologies from process development to plant design – and then validation, enabling a cost-effective manufacturing process.

"We have come full circle with this Centre of Excellence partnership driven by upstream viral vector biomanufacturing and downstream purification," said Lin Xiangliang, Chief Executive Officer, Esco Aster. "We are keen to contribute to the global reach of this field, and to anticipate bioprocess technological disruptions that will certainly shape the future of cell and gene therapies."

"We are pleased to be a partner in setting up this Centre of Excellence. It will leverage BTI's expertise in bioprocessing science and engineering and affirms our commitment to work with local enterprises to develop innovative biomanufacturing solutions and meet the demands of the high-value cell and gene therapy space", said Prof. Lam Kong-Peng, Executive Director, Bioprocessing Technology Institute, A*STAR.