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Korean firms Shaperon and Dong-A ST sign MoU for nanobody-based new drug development

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Shaperon, a South Korea-based biopharmaceutical company specialising in immune therapeutics, has signed a Memorandum of Understanding (MoU) with Dong-A ST for the development of nanobody-based new drugs.

This MoU aims to leverage Shaperon's nanobody development platform technology and Dong-A ST's expertise in antibody commercialisation to increase development speed and commercialisation potential. Shaperon plans to select the most effective nanobodies in mouse models with human tumour transplants by the end of this year.

Since 2021, the two companies have collaborated on developing triple nanobody antibodies for cancer treatment. This involves using nanobodies to bring killer T-cells and cancer cells into proximity by binding to targets on both cell types. Shaperon will advance nanobody development using its full-cycle platform, while Dong-A ST will leverage its antibody commercialisation expertise for global biopharmaceutical development.

Nanobodies, about one-tenth the size of conventional antibodies, are gaining attention for next-generation immune checkpoint inhibitors due to their high stability, solubility, and production yield. Shaperon, the only domestic company with a full-cycle platform for nanobody production, development, and analysis from alpaca immunisation, is developing a diverse pipeline targeting inflammation and cancer, including immune checkpoint dual antibodies and nanobody-based therapeutics.

Shaperon is also exploring nanobody-based protein therapeutics, such as antibody-drug conjugates (ADCs) and radiopharmaceutical therapies.