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Vaxcellbio signs MoU with Seoul National University for macular degeneration treatment

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Vaxcellbio is currently developing a patient-friendly next-generation macular-degeneration therapy

Vaxcellbio, a South Korea-based immuno-oncology company, has entered into a strategic Memorandum of Understanding (MoU) with the Integrated Research Institute of Pharmaceutical Sciences at College of Pharmacy, Seoul National University (SNU) to co-develop a drug delivery system (DDS) formulation for antibody-based therapies targeting macular degeneration.

Under the agreement, the two parties will establish a broad collaborative framework that covers- Joint research on DDS platforms for antibody therapeutics; Shared use of equipment, technology, and market intelligence; Administrative and technical support for collaborative research projects.

Macular degeneration is one of the three leading causes of blindness worldwide. Current standard treatment primarily involves intravitreal injection of VEGF-inhibiting biologics directly into the eye. While effective, this invasive delivery route often causes fear and discomfort for patients, leading to poor adherence.

Vaxcellbio is currently developing VCB-1502, a patient-friendly next-generation macular-degeneration therapy that may replace injectable formulations. VCB-1502 is based on nanobody antibody technology, which offers significantly smaller molecular size than conventional antibodies. This enables superior intraocular permeability and more versatile DDS-based administration routes.

In addition, its microbial production system is expected to provide efficient and scalable manufacturing. VCB-1502 blocks the binding of vascular endothelial growth factor (VEGF) to its receptor (VEGFR), thereby inhibiting pathological neovascularisation. Preclinical studies have confirmed VCB-1502’s strong binding affinity to VEGF and demonstrated potent suppression of VEGF-mediated neovascular formation in vivo.

Vaxcellbio is building an integrated platform for next-generation therapeutics encompassing immuno-oncology, bispecific antibodies, and DDS-based drug development. Recently, the company obtained the world’s first approval for “Vaxleukin-15,” an immune-adjuvant therapy for canine mammary tumours. Its NK-cell therapy for hepatocellular carcinoma has completed Phase 2a clinical studies, and received additional expanded-access approval from the Ministry of Food and Drug Safety (MFDS) of Korea.