BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Junshi Biosciences receives IND approval in China's for DotBio's first multi-target oncology candidate

September 7, 2023 | News

JS207 is a next-generation cancer antibody against VEGF and PD-1 with broad applicability in multiple oncology indications; JS207 imbibes DotBody technology developed by DotBio



Singapore headquarterd biopharmaceutical company DotBio, excelling in antibody therapeutic modalities announced that its partner, Junshi Biosciences has received approval of its Investigational New Drug (IND) application from China's National Medical Products Administration (NMPA) for the Phase I clinical trial of JS207, which incorporates DotBody technology.

JS207 is a recombinant, humanized, bispecific antibody for advanced malignant tumours that combines an anti- Vascular Endothelial Growth Factor (VEGF) DotBody module and Junshi Biosciences' anti-Programmed Death-1(PD-1) antibody. DotBio and Junshi Biosciences entered into a commercial licensing agreement in 2022, under which Junshi Biosciences obtained licenses to develop and commercialise DotBody modules against oncology targets.

"We are thrilled to see the first molecule containing a DotBio-engineered DotBody module receive approval to enter the clinic, an important validation of our DotBody platform technology. JS207 is an exciting, highly targeted, next-generation cancer therapy that was rapidly designed using our platform technology and is just one example of how we can apply our modular approach to antibody discovery and progress it into the clinic," said Ignacio Asial, Chief Executive Officer of DotBio.

"This very specific combination of anti-VEGF and anti-PD-1 addresses tumour growth and the tumour's immune evasion tactics simultaneously. JS207 could provide a much needed new treatment option for cancer patients."

DotBio's anti-VEGF module was discovered through the company's patented DotBody technology platform. The platform enables the generation of multi-specific antibodies in record time, through prefabricated modules which are optimised for high stability and easy integration into more complex antibody molecules.

The modularity of the DotBody platform powers a rapid prototyping engine that compares thousands of antibody prototypes in parallel before the ideal candidate is selected for an indication. JS207 is the first next generation cancer therapy enabled by the DotBody technology to receive regulatory approval to enter clinical development.

JS207 was engineered by combining DotBio's anti-VEGF module and Junshi Biosciences' anti-PD-1 antibody into a single therapeutic agent, binding to both PD-1 and VEGF with high affinity. VEGF is overexpressed in most solid tumour types,

leading to an angiogenic ‘switch’ where new blood vessels form around a tumour and allow it to grow exponentially. Many tumours overexpress the proteins PD-L1 or PD-L2, which suppress the immune system by binding to PD-1 present on certain immune cells. A dual-action mechanism allows JS207 to harness the benefits of combination immunotherapies and anti-angiogenic treatments to achieve more powerful anti-tumour activity. At the time of this announcement, there is no bispecific antibody drug with similar targets that has received regulatory marketing approval.