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Takeda announces multiple cell therapy collaborations

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New collaborations expand Takeda's commitment to pursue the discovery of novel cell therapy approaches to treat blood cancers and solid tumors.

Takeda Pharmaceutical has announced new research collaborations in immuno-oncology (I-O), an area of key strategic focus for the company. Through these collaborations, Takeda seeks to accelerate the discovery of next-generation cancer immunotherapies, including novel cell therapy approaches that may provide important opportunities for addressing the needs of patients with hard-to-treat cancers.

"We are excited by the recent momentum in oncology R&D, especially around the curative potential of cell-based therapies through our growing partnership network," said Phil Rowlands, Ph.D., Head, Oncology Therapeutic Area Unit, Takeda. "We look forward to continuing to collaborate with some of the leading pioneers in the field to fuel research and discovery with the aim of targeting novel mechanisms of action in the cancer-immunity cycle to help us fulfill our aspiration to cure cancer."

- Takeda will collaborate with Memorial Sloan Kettering Cancer Center (MSK) to discover and develop novel chimeric antigen receptor T-cell (CAR-T) products for the treatment of multiple myeloma, acute myeloid leukemia and additional solid tumor indications. The broad, multi-faceted collaboration will be co-led by CAR-T therapy pioneer Michel Sadelain, M.D., Ph.D., Director of the Center for Cell Engineering at MSK and scientific founder of Juno Therapeutics.
- Takeda exercised an option under its existing research collaboration with Noile-Immune Biotech Inc. (Noile), which originated in September 2017. Due to the success of the collaboration, Takeda exclusively licensed NIB-102 and NIB-103 for the treatment of various solid tumor indications, and will co-develop these CAR-T cell therapies with Noile utilizing the company's proprietary "Prime" (proliferation inducing and migration enhancing) CAR-T platform. The company plans to gain regulatory approval for human testing of NIB-102 by the end of this year.
- Takeda's exercised option for an exclusive oncology-targeted Humabody® license from Crescendo Biologics will allow Takeda to additionally evaluate these Humabody® VHs for the development of novel CAR-T therapeutics. The development will leverage the unique properties of single-domain tumor-targeted binders as an alternative to conventional single-chain variable fragment (scFv)-based approaches.

Takeda's diversification into next-generation cell therapy builds directly on its three strategic pillars in oncology: hematologic malignancies, lung cancer and immuno-oncology. Through collaboration with external partners and its newly established translational cell therapy engine, Takeda plans to deliver a rich pipeline of early-stage assets in the coming years.

Takeda has established a new internal translational cell therapy engine with bioengineering, chemistry, manufacturing and control (CMC), clinical and translational expertise. The group aims to rapidly translate innovative and differentiated cell therapy concepts in to the clinic under the leadership of Stefan Wildt, Ph.D., Head of Pharmaceutical Sciences and Translational Engine, Cell Therapies.

"There's an incredible opportunity to combine promising external innovation with the power of a fit-for-purpose translational cell therapy engine to accelerate the development of truly novel cell therapies," said Stefan Wildt. "We have assembled a very talented team with deep and relevant cell therapy development experience who will help us achieve this goal."