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Medigene AG expands patent portfolio in Japan for iM-TCR Technology

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iM-TCR technology controls mechanism to regulate the efficacy and safety of its T cell receptor engineered T cell (TCR-T) therapies



Medigene AG, an immuno-oncology platform company focusing on the discovery and development of T cell immunotherapies for solid tumors, has been issued a patent by the Japan Patent Office protecting its inducible Medigene T cell receptor (iM-TCR), a control mechanism to regulate efficacy and safety of its T cell receptor engineered T cell (TCR-T) therapies.

“The ability to control the level of TCR activity with our iM-TCR technology after dosing has the potential to deliver more individualized efficacy and safety for patients. This patent grant is further validation of this innovative iM-TCR technology,” said Selwyn Ho, CEO at Medigene.

The iM-TCR is a key example of the breadth of our technologies within our End-to-End Platform, that also includes multiple proprietary armoring and enhancement technologies. Combining our optimal 3S (sensitive, specific and safe) TCRs with technologies such as our iM-TCR technology is part of our ambition to deliver innovative solutions that can optimize safety and efficacy of TCR-T therapies.”

TCR-T therapies have demonstrated that they can effectively kill tumor cells. However, excessive activation of T cells may lead to premature exhaustion or cell death, as well as unwanted overactivity and potential development of inflammatory responses in the body.

The iM-TCR technology modifies the TCR to achieve control of TCR surface expression, allowing for fine-tuning of activity against tumor cells and thereby reducing potential inflammatory responses in the body. This property is of potential benefit to sensitive organs damaged by a sustained inflammatory response of T cells, such as with brain or liver cancer.