

Engimmune Therapeutics

Non-confidential company summary

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Engimmune is a platform technology and product development company founded in August 2021 as a spin-off from Prof. Sai Reddy's group at ETH Zurich. The company focuses on T cell receptor (TCR)- based immunotherapies by using an advanced molecular and cellular engineering toolbox comprising a combination of protein engineering, genome editing, high-throughput functional screening, deep sequencing and machine learning.

Engimmune's toolbox has been applied for the development of proprietary drug discovery platforms that enable the company to engineer best-in-class TCR-based immunotherapies. This emerging therapeutic avenue, which is broadly divided into TCR-redirectioned T cells (TCR-T) and soluble TCR biologics (sTCRs), currently leverages TCR recognition of cancer antigens (e.g., tumour-associated antigens) to promote targeted cytotoxicity. Encouraging signs of clinical activity across several advanced solid tumours in the TCR-T setting and the first regulatory approval of a sTCR biologic in metastatic uveal melanoma, a condition with high unmet medical need, have set the stage for establishing TCR-based immunotherapies as an effective modality.

When developing TCR-T or sTCR-I therapies it is, however, technically challenging to identify highly potent TCRs with no relevant off-target activity as well as to ensure durable antitumour responses, including potent activation of effector functions.

Engimmune's platform technologies have been developed to address the multiple challenges affecting the TCR-based therapeutic development process, offering innovative high-throughput solutions to TCR engineering and safety screening. Therefore, Engimmune is uniquely positioned to address key issues in the TCR-based immunotherapy field, most notably through the discovery and development of highly potent and specific TCR-based therapeutic products.