



ImCheck Publishes Comprehensive Overview of the Development
Results of Its First-in-class Cancer Immunotherapeutic
Targeting BTN3A to Activate V γ 9V δ 2 T Cells
in *Science Translational Medicine*

- Publication underscores ImCheck's pioneering role in V γ 9V δ 2 T cell-based immunotherapy capable of bridging to the adaptive antitumor immune response through a novel family of immune checkpoint targets
- Evaluation details ICT01's progression from bench to bedside describing factors that enabled ICT01 to overcome limitations of prior efforts to activate V γ 9V δ 2 T cells for the treatment of cancer

Marseille, France, October 20, 2021 – [ImCheck Therapeutics](#) announced today the publication of the preclinical to clinical development of its lead immuno-oncology program, [ICT01](#). The publication in the medical journal *Science Translational Medicine* details ImCheck's butyrophilin (BTN)-based immuno-oncology approach and positions ImCheck as a pioneer in a nascent field of immunomodulation. ICT01 is a fully-humanized anti-BTN3A monoclonal antibody designed to selectively activate gamma 9 delta 2 (V γ 9V δ 2) T cells through all three isoforms of BTN3A (1/2/3), which are expressed on the surface of innate and adaptive immune cells and overexpressed on the tumor cells of a number of solid and hematologic cancers.

The article, titled "[Development of ICT01, a first-in-class, anti-BTN3A antibody for activating V \$\gamma\$ 9V \$\delta\$ 2 T cell-mediated anti-tumor immune response](#)" describes the molecular mechanism of how ICT01 activates V γ 9V δ 2 T cells in a pAg-independent and BTN3A isoform-agnostic manner, overcoming the two key limitations of prior efforts to activate V γ 9V δ 2 T cells. In the first-in-human EVICTION Phase I/IIa clinical trial, ICT01 demonstrated selective activation of V γ 9V δ 2 T cells, causing them to rapidly migrate out of the circulation and into tumor tissue. Furthermore, ICT01-activated V γ 9V δ 2 T cells secrete IFN γ and TNF α that expands the anti-tumor immune response by recruiting CD3 and CD8 T cells into tumors.

"This very comprehensive publication describes the bench-to-bedside story of ICT01 and presents in detail ImCheck's novel and differentiated immunotherapeutic approach," said **Paul Frohna, PharmD, Chief Medical Officer of ImCheck**. "ICT01's unique design circumvents prior limitations of activating V γ 9V δ 2 T cells in cancer patients, making it a promising candidate for the treatment of a broad range of cancers. We look forward to building upon these published results in an upcoming presentation at the SITC 2021 Annual Meeting."

"Our mission is to apply our scientific expertise and clinical leadership with the BTN superfamily of immunomodulators to bring innovative therapeutics to patients. The publication of these findings in *Science Translational Medicine* exemplifies our leadership in BTN research as a promising avenue of investigation for cancer immunotherapy and supports the further development of our pipeline of other BTN-targeted programs," stated **Pierre d'Epenoux, Chief Executive Officer of ImCheck Therapeutics**.

The publication was authored by ImCheck scientists in collaboration with the laboratory of Prof. Daniel Olive, Professor of Immunology and Director of the Oncology Research Programs at Aix Marseille University and the company's scientific founder.

About ICT01

ICT01 is a humanized, anti-BTN3A (also known as CD277) monoclonal antibody that selectively activates V γ 9V δ 2 T cells, which are part of the innate immune system that is responsible for immunosurveillance of malignancy and infections. The three isoforms of BTN3A targeted by ICT01 are overexpressed on a number of solid tumors (e.g., bladder, colorectal, melanoma, ovarian, pancreatic, lung) and hematologic cancers (e.g., leukemia & lymphoma) and also expressed on the surface of innate (e.g., $\gamma\delta$ T cells and NK cells) and adaptive immune cells (T cells and B cells). BTN3A is essential for the activation of the anti-tumor immune response of V γ 9V δ 2 T cells.

As demonstrated in EVICTION data presented at AACR, ICT01 selectively activates circulating V γ 9V δ 2 T cells that leads to migration of V γ 9V δ 2 T cells out of the circulation and into target tissue (e.g., tumors), while also activating the tumor-resident V γ 9V δ 2 T cells to directly kill malignant cells, which is accompanied by secretion of two key inflammatory cytokines, IFN γ and TNF α , that contribute to the expansion of the anti-tumor immune response. ICT01 has been shown to have anti-tumor activity against a range of cancers in *in vitro* and *in vivo* tumor models.

About the EVICTION Trial

EVICTION is a first-in-human, dose escalation (Part 1) and cohort expansion (Part 2) clinical trial of ICT01 in patients with various advanced relapsed or refractory solid or hematologic cancers that have exhausted standard of care treatment options. Part 1 is a basket trial designed to characterize the preliminary safety, tolerability, and pharmacodynamic activity of ICT01 as monotherapy (Group A: solid tumors; Group B: hematologic tumors) and in combination with pembrolizumab (Group C: solid tumors). Group A includes bladder, breast, colorectal, gastric, melanoma, ovarian, prostate, and pancreatic cancer patients, Group B includes acute myeloid leukemia, acute lymphocytic leukemia, follicular lymphoma, and diffuse large B cell lymphoma patients, and Group C includes bladder, head and neck squamous cell carcinoma, melanoma, and non-small cell lung cancer patients. Basket trials are a clinical trial design that allows new drugs to be tested rapidly in a range of indications, providing initial data on multiple parameters that can contribute to an accelerated development timeline. More information on the EVICTION trial can be found at [clinicaltrials.gov](https://clinicaltrials.gov/ct2/show/study/NCT04243499) (NCT04243499).

**

About IMCHECK THERAPEUTICS

ImCheck Therapeutics is designing and developing a new generation of immunotherapeutic antibodies positioned at the crossroads of two high-potential immunological fields: $\gamma\delta$ T cells and butyrophilins (BTN), a novel super-family of checkpoint molecules.

Due to their mechanism of action, and notably their ability to simultaneously modulate innate and adaptive immunity, ImCheck's "first-in-class" activating antibodies may be able to produce superior clinical results as compared to the first-generation of immune checkpoint inhibitors and when used in combination to overcome the resistance to this group of agents. In addition,

preclinical experiments with ImCheck's antagonist antibodies are being evaluated as potential treatments for autoimmune diseases.

Co-founder of the Marseille Immunopole cluster, ImCheck benefits from support from Prof. Daniel Olive (INSERM, CNRS, Institut Paoli Calmettes, Aix-Marseille Université), a worldwide leader in $\gamma\delta$ T cells and butyrophilins research; from the experience of an expert management team; and from the commitment of leading US and European investors.

For further information on ImCheck: <http://www.imchecktherapeutics.com> and [@ImCheckThx](https://twitter.com/ImCheckThx)

Press contacts

US and EU

Trophic Communications

Gretchen Schweitzer

+49 (0) 172 861 8540

imcheck@trophic.eu

France

ATCG PARTNERS

Céline Voisin

+33 (0)9 81 87 46 72 / +33 (0)6 62 12 53 39

imcheck@atcg-partners.com