

ImCheck Publishes Seminal Paper in *Cell Reports* Elucidating How Butyrophilins Activate V γ 9V δ 2 T cell Function Against Tumor Cells

- First published study showing the role and sequential interaction of butyrophilin subtypes in the induction of cytotoxic response from human $\gamma\delta$ T cells
- The results support the potential of therapeutic antibodies binding to butyrophilins as an effective mechanism to engage a directed immune response against tumor cells
- Study illustrates ImCheck's scientific leadership in $\gamma\delta$ T cells modulation via the butyrophilin superfamily of immunomodulators

Marseille, France, July 13, 2021 – [ImCheck Therapeutics](https://www.imchecktherapeutics.com) today announced the publication of preclinical data elucidating the fundamental role of butyrophilins (BTNs) in the activation of V gamma 9 V delta 2 (V γ 9V δ 2) T cells leading to an anti-tumor immune response in the peer-reviewed journal, *Cell Reports*. The publication, titled "[BTN2A1. An Immune-checkpoint Targeting V \$\gamma\$ 9V \$\delta\$ 2 T Cell Cytotoxicity Against Malignant Cells](#)" summarizes the findings of the interaction between specific BTN subtypes that efficiently activate V γ 9V δ 2 T cells, an important subset of cytotoxic $\gamma\delta$ T cells. In addition, the publication demonstrates that an anti-BTN2A1-specific antibody is able to inhibit the cytotoxic function of the V γ 9V δ 2 T cells. The article 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.

"ImCheck was founded to advance fundamental discoveries on the role of the butyrophilin superfamily of immunomodulators in $\gamma\delta$ T cell modulation, and bring a new class of antibody-based therapeutics to patients. Today's publication provides convincing evidence that the interaction of butyrophilins plays a major role in the activation of these crucial cytotoxic T cells," stated **Loui Madakamutil, PhD, Chief Scientific Officer of ImCheck**. "As our lead program ICT01, which targets BTN3A to selectively activate V γ 9V δ 2 T cells, continues to successfully advance in its clinical development and has now demonstrated biological activity to activate V γ 9V δ 2 T cells in tumor patients, we value the recognition from an important journal like *Cell Reports* of the groundbreaking science that supports our mission of developing new therapies to treat cancer."

Gamma-delta ($\gamma\delta$) T cells are an important component of the immune system and exhibit diverse functional attributes including the killing of cellular pathogens or abnormal or cancerous cells. BTNs represent a new super-family of immunoregulators present on the surface of several cell types, including cancer cells. The preclinical results published today provide key evidence that one specific BTN, BTN2A1, forms a complex with all the three isoforms of BTN3A (BTN3A1, BTN3A2, BTN3A3) to trigger the activation of V γ 9V δ 2 T cells. These findings advance the understanding of how BTNs activate V γ 9V δ 2 T cell function against tumor cells. In addition, the results validate ImCheck's leadership in BTNs and the company's development of a novel and disruptive pipeline of antibodies that target BTNs as potential therapies in oncology, autoimmune and infectious diseases.

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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