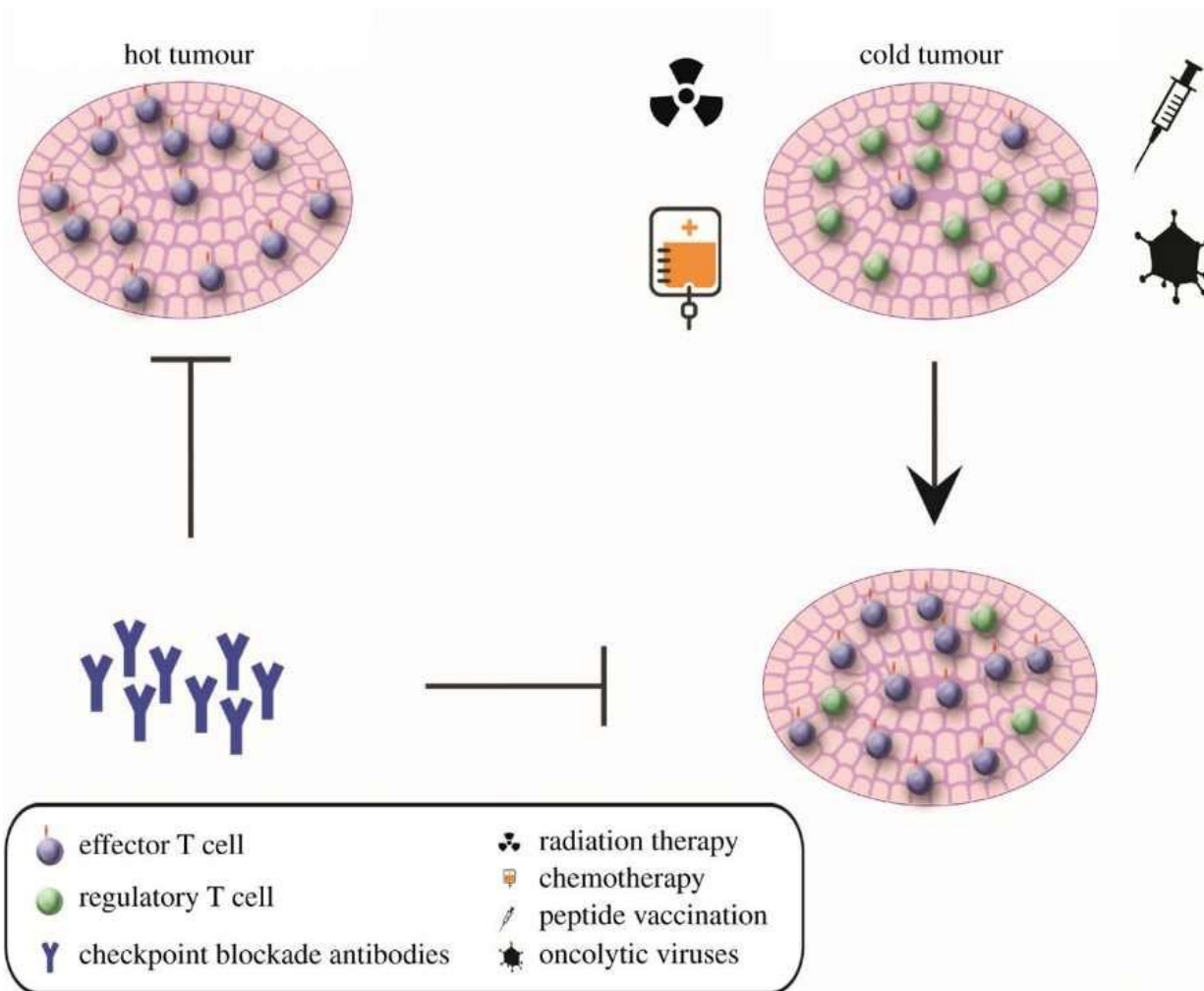


# Cancer immunotherapy—broadening the scope of targetable tumours

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Credit: The Royal Society

The field of cancer immunotherapy has experienced alternating periods of success and failure in recent years. *Open Biology* has published a Review on cancer immunotherapy, which looks at therapies that have revolutionised the way we treat cancer. The first author of the review, Jitske van den Bulk, tells us more.

## **Tell us about yourself and your research?**

I am a first year Ph.D. student working at the Pathology department of the Leiden University Medical Centre (Leiden, The Netherlands). During a Master internship I encountered the Immunogenetics group, led by Noel de Miranda, where I now conduct my research. The group dedicates most of its investigation to colorectal [cancer](#), the third most common cancer type diagnosed worldwide. My project focusses on the development of immunotherapeutic strategies for low mutation colorectal [patients](#), since this is the largest colorectal cancer patient group, with the worst clinical prognosis. We aim to employ [tumour](#)-mutated antigens (neo-antigens) as tools to stimulate immune responses that support cancer treatment in these patients. Our research involves a close collaboration with other research groups and clinical departments, including Medical Oncology and Surgery.

## **What promoted you to work in this field?**

Cancer is such a widespread disease that everyone knows someone who has been affected by it. For many tumour types treatment options are limited, especially in case of metastatic or recurrent disease. In recent years immunotherapeutic strategies made a breakthrough in the field of cancer therapy, providing new opportunities for many patients. The fast developing field of [cancer immunotherapy](#) inspires and encourages me to be always up-to-date and to also make the most of the technological developments that can be applied in research. By increasing our

knowledge worldwide and with establishing strong collaborations I hope that the survival and quality of life of cancer patients could be improved substantially.

## **Can you provide a brief summary of your paper?**

In recent years, cancer immunotherapy has experienced great advances. Especially tumours with a high mutation burden have shown to be good targets for e.g. T cell checkpoint blockade therapies. Thereby, neo-antigens became the centre of attention as T cell and immunotherapeutic targets. While insensitive to current therapies, tumours with low mutation burden might also display neo-antigens to the immune system and therefore could also benefit from immunotherapeutic strategies. Besides giving an overview of different cancers with low mutation burden which seem to elicit autologous immune responses, additional therapeutic strategies are discussed that might be considered in this group of patients.

## **Tell us about your review and what are the key messages or findings?**

Our key message is that one should not only focus on high mutation burden tumours anymore, but consider all tumour types for its applicability for immunotherapeutic strategies. This does not mean that immunotherapy will be applicable to all patients, but inspecting the biologic responses of different tumours could guide us in determining which tumours might be susceptible so that we can broaden the scope of targetable tumours.

## **What made you submit to *Open Biology* and tell us about your experience of submitting to the journal?**

Prof. David Glover was extremely kind to invite us to write this review. During the writing and submitting procedure the editors were very helpful and available for any queries. We are also extremely thankful for the invaluable contribution of the reviewers that resulted in a substantial improvement of the quality of our paper. Finally, we are always very keen in sharing our work in open access journals.

**More information:** Jitske van den Bulk et al. Cancer immunotherapy: broadening the scope of targetable tumours, *Open Biology* (2018). [DOI: 10.1098/rsob.180037](https://doi.org/10.1098/rsob.180037)

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