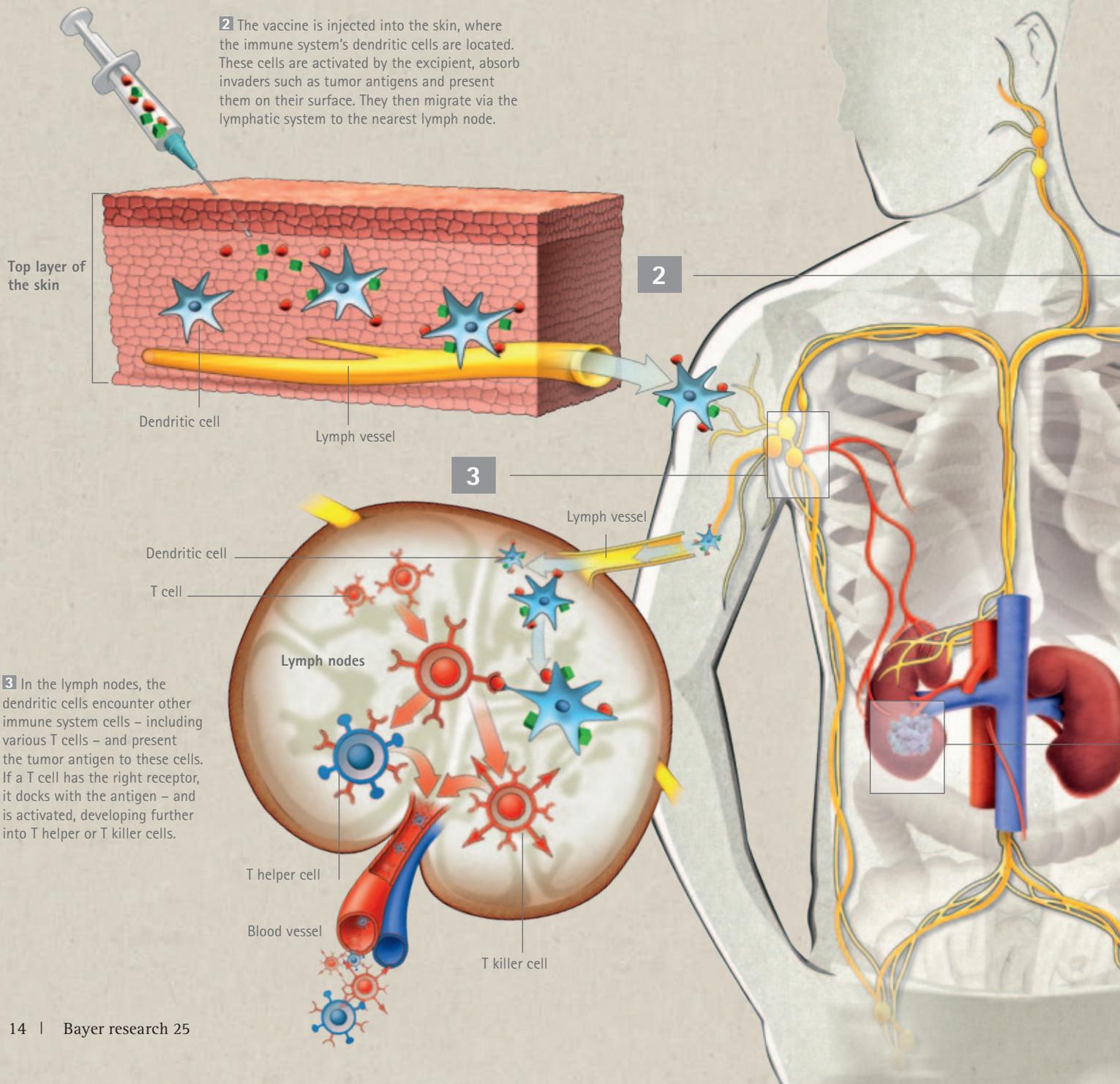
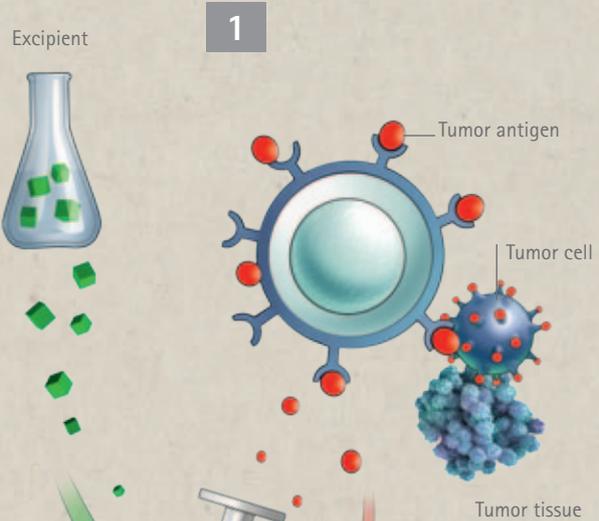


Hunting down the silent foe

An effective treatment for various types of cancer – with virtually no side effects: researchers at the biotech firm immatics are working on the first therapeutic cancer vaccination with a multi-peptide vaccine. The concept was developed by Professor Hans-Georg Rammensee, and in 2013 won him the Hansen Family Prize, awarded by Bayer to honor researchers for pioneering achievements in medically oriented research.





1 The vaccine consists of several components: an excipient that activates the immune system and tumor antigens that are characteristic of the targeted cancer cells. They are specially identified from the patient's tumor tissue and then recreated for the vaccine.

HANS-GEORG RAMMENSEE



Photo: picture-alliance/dpa

research spoke to Professor Hans-Georg Rammensee, Head of the Immunology Department at the Interfaculty Institute of Cell Biology at the University of Tübingen and co-founder of immatics.

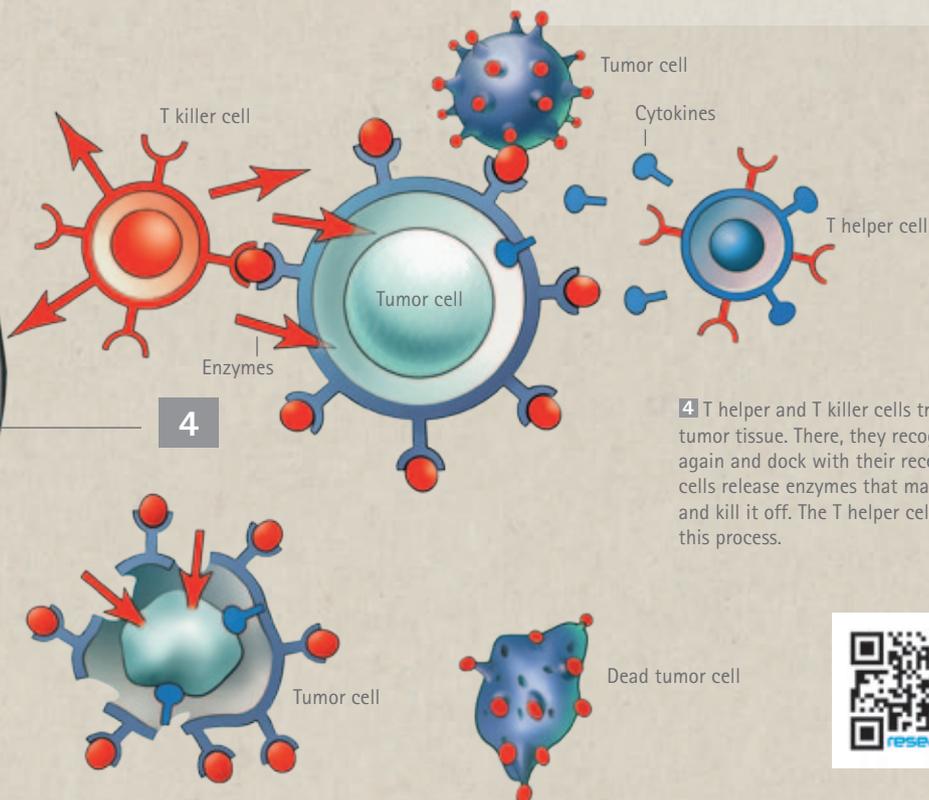
“Fewer side effects”

When did you first have the idea of developing a vaccine for cancer?

It first occurred to me when I was doing my national service on a cancer ward in Tübingen. I got the impression that the doctors could not really help their patients, so I decided to get the body's own immune system to do something against cancer. I'm pleased to see that my 34 years of research have now achieved something.

What successes have you been able to achieve with the vaccine?

Our study in patients with advanced cancer of the kidney has already shown good results. We discovered that people with a particularly strong immune response lived at least a year longer than the control group. Compared with standard chemotherapies, the vaccine's effectiveness is in a different league – not to mention the fewer side effects.



4 T helper and T killer cells travel via blood vessels to the tumor tissue. There, they recognize the tumor antigens again and dock with their receptors. As a result, the T killer cells release enzymes that make the tumor cell porous and kill it off. The T helper cells play a supporting role in this process.



Hansen Family Prize
<http://bayer.com/re2501>