

THE
NOBEL
PRIZE

MEDICINE PRIZE 2025



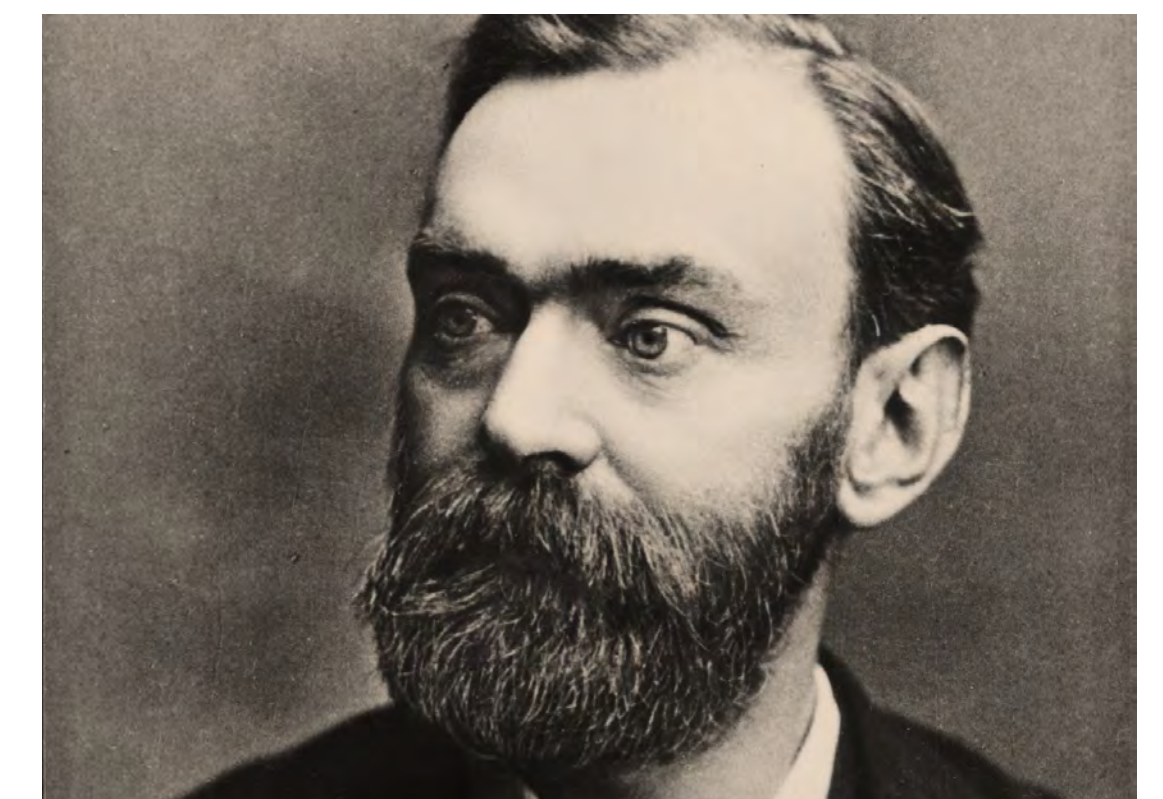
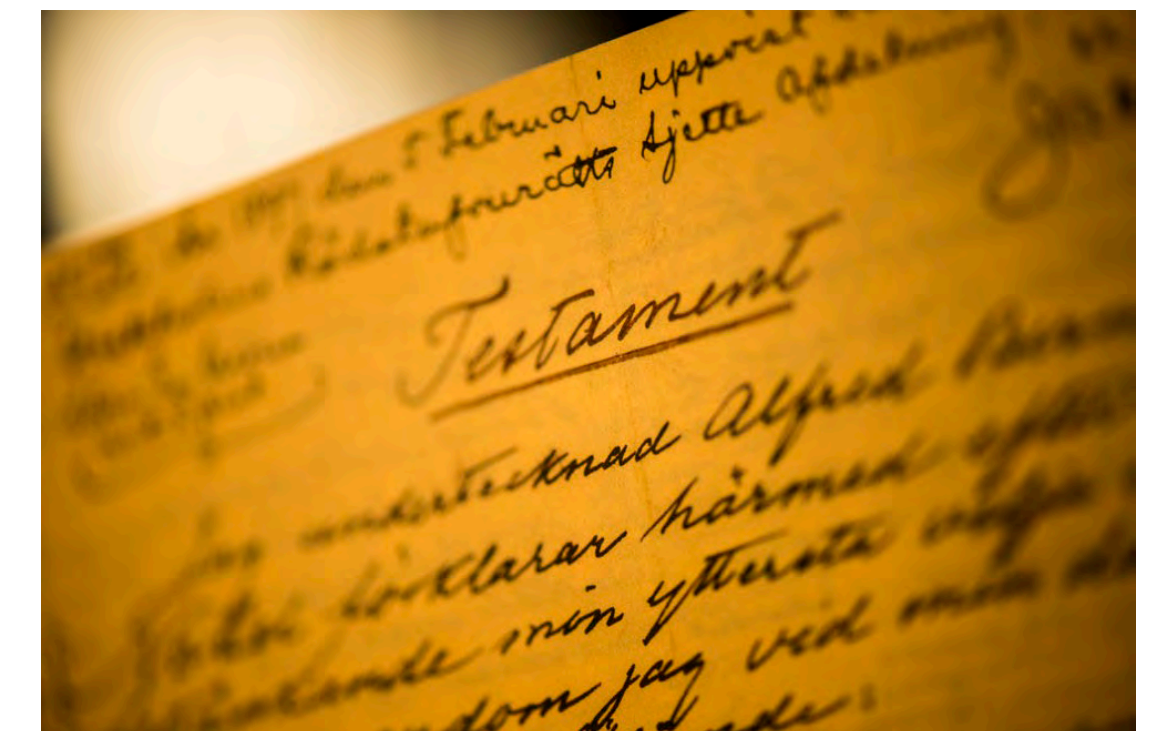
Nobel Prize lessons

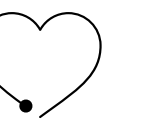


The Nobel Prize in Physiology or Medicine

“to the person who made the most important discovery within the domain of physiology or medicine”

Alfred Nobel (1833–1896)





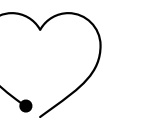
The 2025 medicine prize – The immune system's security guards



The 2025 medicine prize recognises discoveries that have increased our understanding of how the immune system works.

The laureates discovered a previously unknown immune cell called regulatory T cell (TREG).

What do you know about the
immune system?

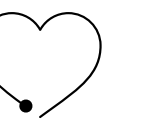


The immune system – one of the masterpieces of evolution



PHOTO: SHUTTERSTOCK

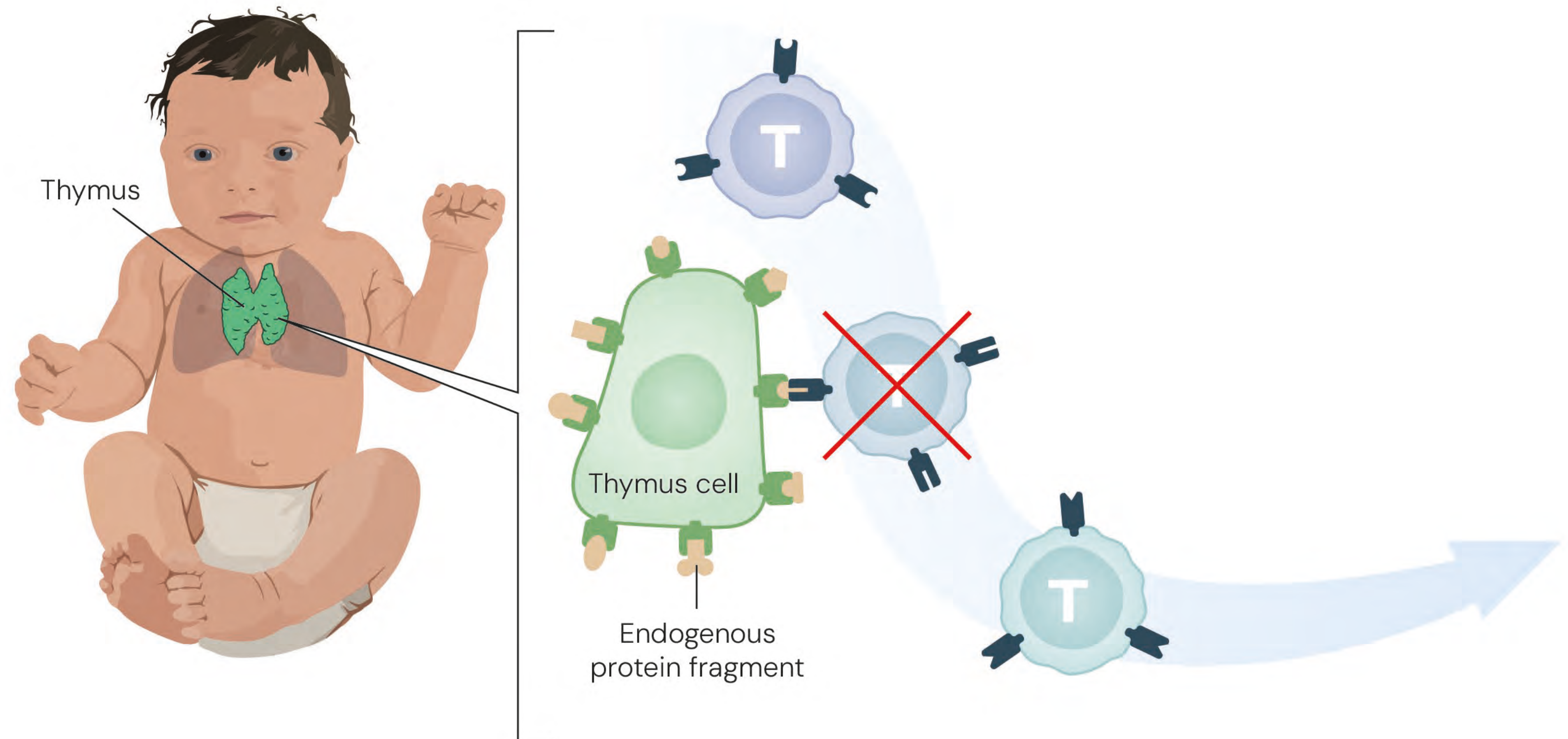
The purpose of the immune system is to identify various infectious agents and distinguish them from the body's own cells. The immune system is meant to eradicate everything that is foreign.

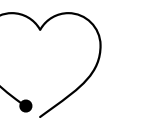


T cells learn what to protect and what to attack

The research carried out by the laureates is about a certain type of immune cell called T cells.

These are taught to distinguish the body's own cells from foreign substances. Cells that fail this test are eliminated.



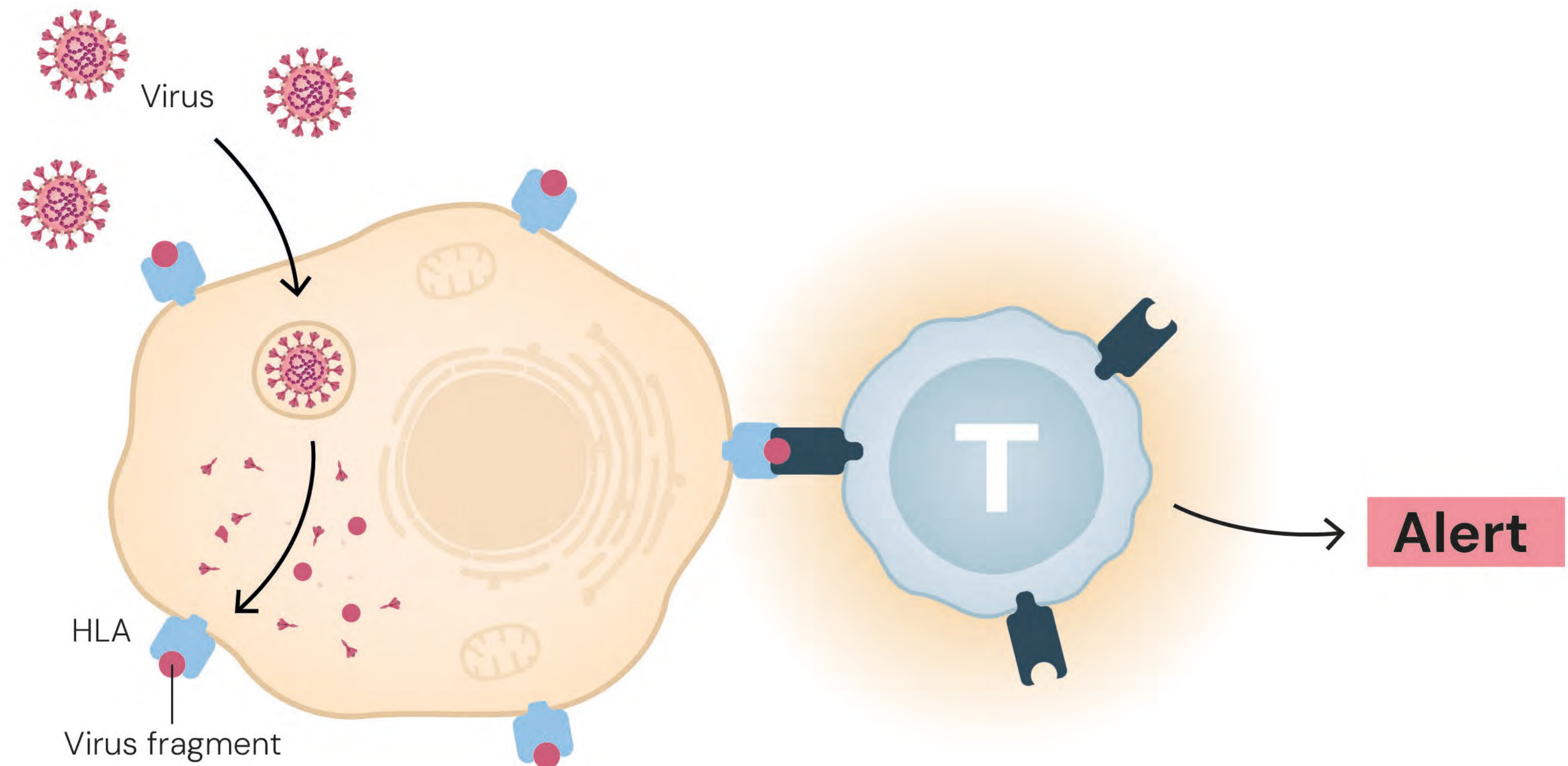


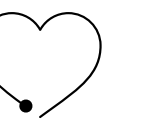
Helper T cells and killer T cells

If a helper T cell detects an infected cell, it attaches itself to the virus fragment found on the cell surface.

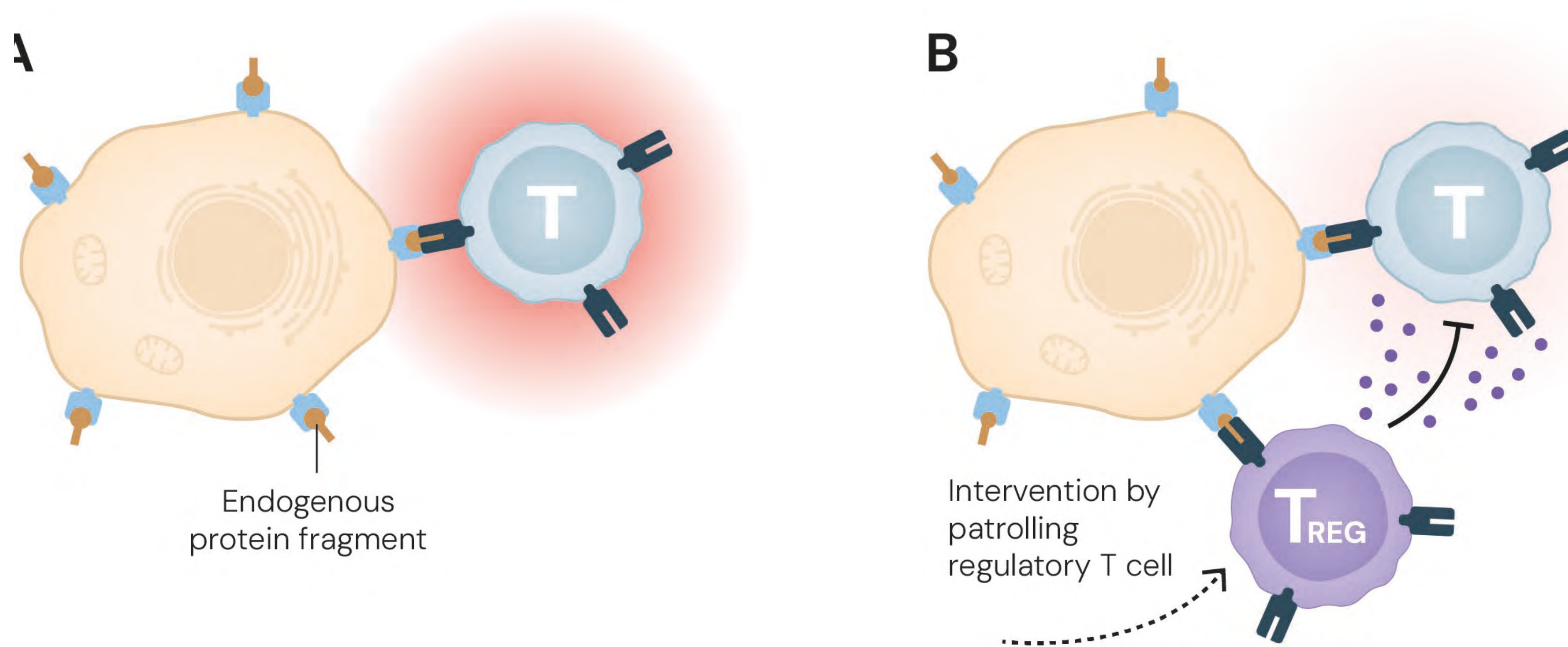
Once attached, it alerts other immune cells that the body is under attack.

This, in turn, leads to killer T cells attacking the infected cells.





Regulatory T cells



The laureates discovered a previously unknown type of T cells acting as the immune system's security guards. These so-called *regulatory T cells* prevent other immune cells from attacking our own body.



The 2025 Nobel Prize laureates in physiology or medicine

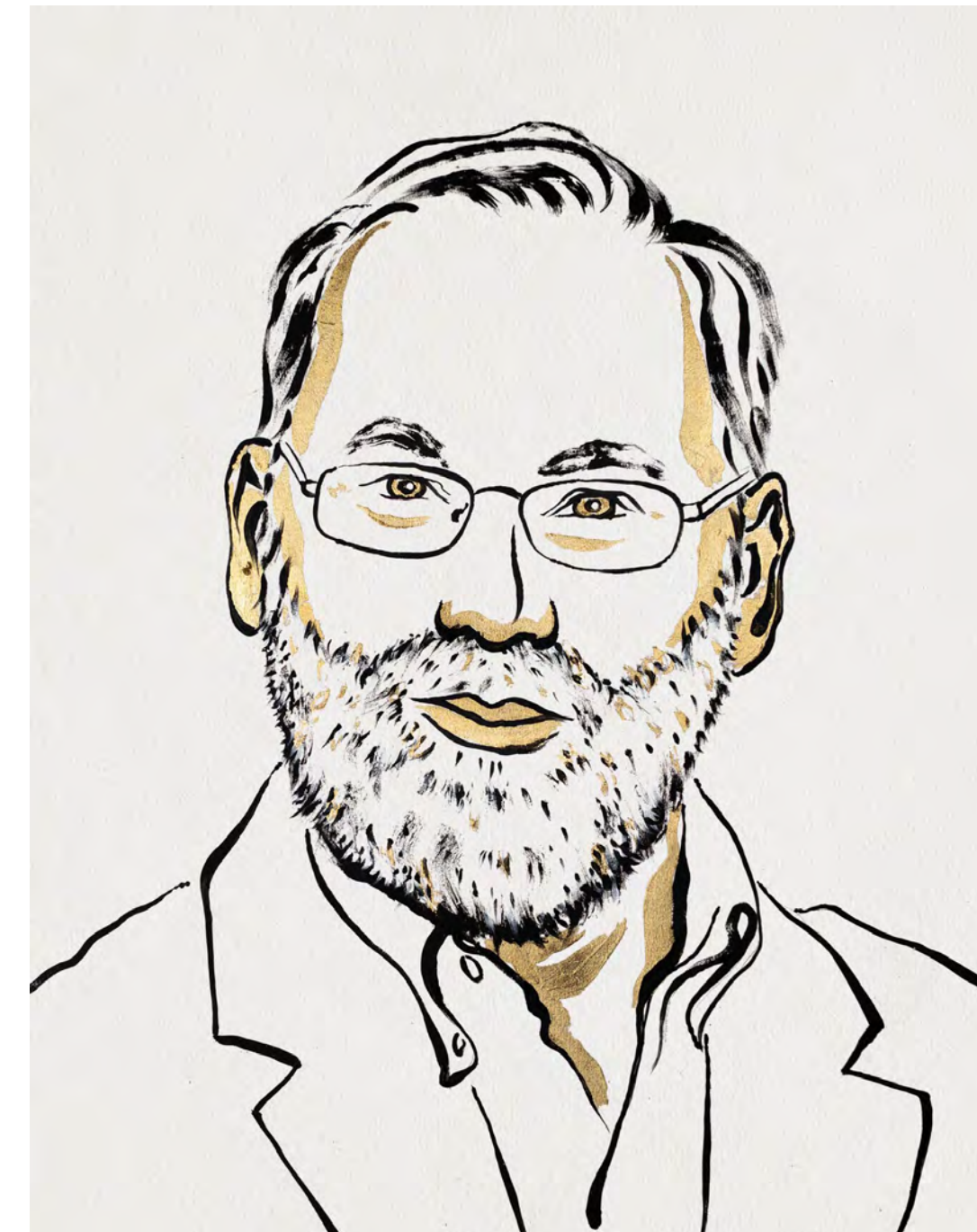
“for their discoveries concerning peripheral immune tolerance”

“It takes a bunch of different brains, all working on it together, for sure!”

Mary Brunkow



Mary Brunkow
Born: 1961



Fred Ramsdell
Born: 1960



Shimon Sakaguchi
Born: 1951

For the greatest benefit to humankind



The discoveries made by the Nobel Prize laureates have been crucial to our understanding of how the immune system works and why not everyone suffers from serious autoimmune diseases.

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BENEFIT TO
HUMANKIND

Nobel Prize lessons