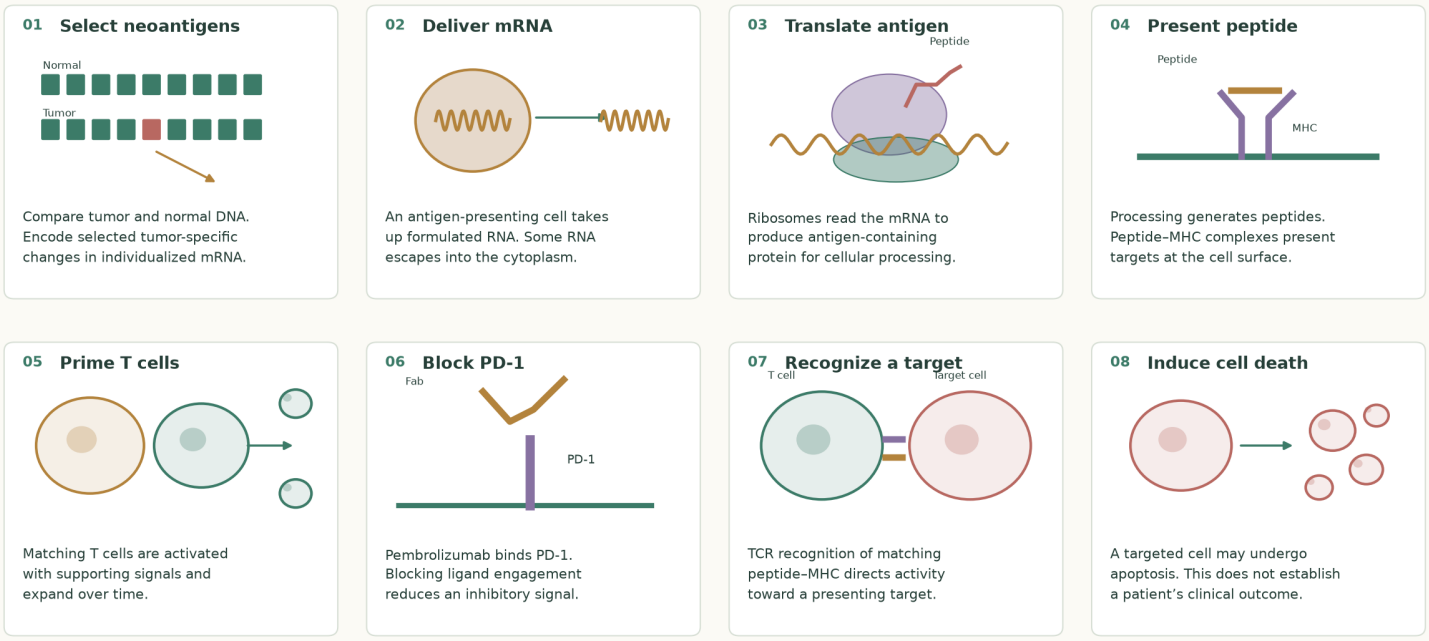
cellular stories

A vaccine tailored to the tumor

Intismeran autogene (V940) + pembrolizumab
Adjuvant treatment research in melanoma after complete surgical resection.

An individualized mRNA vaccine, step by step

Intismeran autogene (V940) + pembrolizumab | Adjuvant melanoma | Mechanism schematic



The vaccine provides individualized antigen instructions; pembrolizumab has a separate checkpoint-blocking role.

Conceptual geometry and compressed steps. TCR and MHC are not patient-specific V940 structures. Costimulation and CD4 help are not drawn.

Sources: Merck / Moderna, 20 January and 19 August 2026; structural context: PDB 7PHR, 8JDM, 5GGS. Full links: figure-sources.md.

The scientific question. Can patient-specific antigen instructions help the immune system recognize residual cancer cells after surgery? The vaccine supplies selected tumor-antigen instructions. Pembrolizumab separately blocks PD-1 signaling.

What the visuals establish. Eight scenes explain the proposed sequence. The experimental 7PHR, 8JDM and 5GGS structures support molecular views; patient-specific sequences, delivery events and cell motion are illustrative. The film does not measure treatment efficacy.

View the full film, explore the eight stages and download the editable figures at cellularstories.com/examples/personalized-mrna-vaccine/.

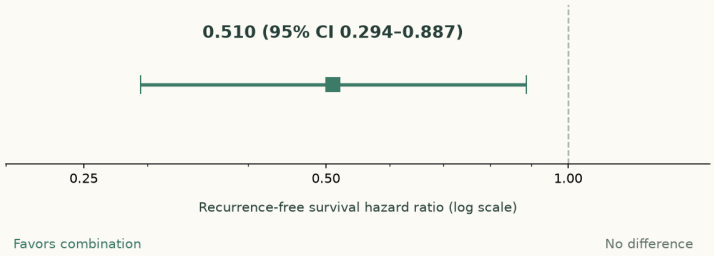
Evidence, uncertainty and sources

Recurrence after surgery: what the evidence shows

Intismeran autogene + pembrolizumab versus pembrolizumab | Evidence reviewed 13 September 2026

A KEYNOTE-942

Randomized, open-label Phase 2b · 157 patients
Resected high-risk stage III/IV melanoma · Median five-year follow-up



A relative hazard comparison

The estimate concerns time to recurrence or death.
It is not a 49-percentage-point absolute improvement
and does not mean 49% of patients were cured.

B INTerpath-001

Randomized, double-blind Phase 3
1,137 patients · Resected stage IIB–IV melanoma

RFS endpoint met

Primary endpoint

DMFS endpoint met

Key secondary endpoint

Overall survival follow-up

Study continues

19 August 2026 topline release

Numerical Phase 3 effect sizes and
confidence intervals were not disclosed.
Do not substitute the Phase 2b estimate.

Investigational therapy. Illustrated target-cell death is not clinical evidence of cure or guaranteed tumor clearance.

Safety: pembrolizumab can cause severe or fatal immune-mediated adverse reactions. The sponsor reported no new safety signals in the Phase 3 topline release; that is not a substitute for the full safety dataset or prescribing information.

Sources: Merck / Moderna, KEYNOTE-942 update (20 January 2026) and INTerpath-001 topline (19 August 2026).
NCT03897881 and NCT05933577. Full source links and endpoint definitions: figure-sources.md.

Interpretation. The Phase 2b hazard ratio and the Phase 3 topline answer different evidence questions. An illustrative target-cell response cannot establish cure, tumor clearance or an individual outcome.

Safety and status. Intismeran remains investigational. Pembrolizumab can cause severe or fatal immune-mediated adverse reactions. This brief is not a complete benefit-risk assessment.

Primary sources.

1. Merck / Moderna: KEYNOTE-942 five-year update, 20 January 2026.
2. Merck / Moderna: INTerpath-001 topline, 19 August 2026.
3. KEYNOTE-942 (NCT03897881). 4. INTerpath-001 (NCT05933577).
5. KEYTRUDA prescribing information.