

# Study shows novel immunotherapy approach to fight melanoma

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Melanoma in skin biopsy with H&E stain—this case may represent superficial spreading melanoma. Credit: Wikipedia/CC BY-SA 3.0

In a new study led by Yale Cancer Center, researchers have advanced a tumor-targeting and cell penetrating antibody that can deliver payloads to stimulate an immune response to help treat melanoma. The study was presented today at the American Association of Cancer Research

(AACR) virtual annual meeting.

"Most approaches rely on direct injection into tumors of ribonucleic acids (RNAs) or other molecules to boost the [immune response](#), but this is not practical in the clinic, especially for patients with advanced [cancer](#)," said Peter M. Glazer, MD, Ph.D., Chair of the Department of Therapeutic Radiology at Yale, Chief of Radiation Oncology at Smilow Cancer Hospital, and senior author of the study. "In this study, we can deliver immune stimulatory RNA to tumors in vivo following systemic administration."

RNA is a nucleic acid present in all living cells. Its principal role is to act as a messenger to carry instructions from DNA to control the synthesis of proteins, although in some viruses RNA rather than DNA carry the genetic information. In this study, using mice with [melanoma](#) tumors, members of the Glazer lab at Yale achieved almost complete [tumor](#) suppression upon intravenous injection of antibody/RNA complexes.

"These results are very encouraging," added Glazer. "They highlight a novel approach for the systemic delivery of immunostimulatory RNAs in a targeted manner that may one day offer therapeutic advantages for difficult to treat cancers like melanoma, over current approaches."

Provided by Yale University

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