

IntereSTING Mechanism of T Cell Death

Program: Harvard-Amgen Scholars Program

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Source: 2025 Harvard Summer Undergraduate Research Village Abstract Book

Public-facing abstract

STING agonists are exciting because they can wake up anti-tumor immunity, but there is a catch: prolonged STING activation can damage the very T cells that immunotherapy needs. This project separates the helpful immune alarm from a harmful side effect by focusing on STING's proton channel function. In primary human T cells, blocking that channel appeared to rescue proliferation problems and reduce reactive oxygen species. The work points toward a better therapeutic balance: activate immune responses against tumors while protecting the adaptive immune cells that make those responses durable.