

Radiation-killed bacteria vaccine created

July 25 2006

U.S. scientists say vaccines made with bacteria killed by gamma irradiation, rather than by heat or chemical inactivation, may be more effective.

Researchers supported by the U.S. National Institute of Allergy and Infectious Diseases say vaccines made from gamma-irradiated bacteria also might not need to be kept cold -- an advantage in settings where refrigerating vaccines is impractical or impossible.

In experiments with mice, scientists including Eyal Raz, Sandip Datta and Joshua Fierer of the University of California-San Diego School of Medicine demonstrated a vaccine made from irradiated *Listeria monocytogenes* bacteria -- unlike a vaccine made from heat-killed bacteria -- provides protection against live *Listeria*.

The irradiated bacteria also stimulated a protective response from immune system cells called T cells. Previously, only vaccines made from live, weakened *Listeria* bacteria were believed capable of eliciting a T-cell response.

A report on the research appears in the current issue of the journal *Immunity*.

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