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Novel Approach to Induce Protection against Respiratory Viruses

Activates innate immune cells to trigger rapid antiviral protection, boosting CD8 T-cell response and survival.

Researchers at Purdue University have developed a new method for protecting against respiratory viruses by activating inherent immune response. The technique is virus-specific, promoting adaptation to specific viral strands such as influenza, SARS-CoV-2, respiratory syncytial virus (RSV), and others. This innovative method has been tested in vitro with human innate lymphoid cells (ILC) as well as in mice in vivo, exhibiting strong CD8 T-cell response. By increasing ILC response in the lungs of mice, a 60% survival rate was observed. Vaccination kits can be created using these results to protect against respiratory viruses.

Technology Validation:

-In vivo testing on mice

-In vitro testing on human ILC cells

Advantages:

-Rapid Immune Response

-Improved Survival Rate in Mice

Potential Applications:

-Virus Research

-Biotechnology

-Vaccinations

TRL: Biotechnology

Intellectual Property:

Technology ID
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Category
Biotechnology & Life Sciences/Cell & Gene Therapy Platforms
Pharmaceuticals/Drug Discovery & Development

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