



Technology Available for License

New Compound Activates Broad Spectrum Lung Immunity

The new compound triggers rapid production of lymphoid tissue in the lung to prevent or treat a range of pulmonary diseases including influenza.

New Compound Triggers Rapid Pulmonary Immune Response

Montana State University researchers have developed a compound that accelerates the onset of effective primary antibody responses, clearing a rapidly proliferating infectious agent before it causes disease. The compound rapidly initiates a key natural defense system of the lung known as inducible bronchus-associated lymphoid tissue (iBALT). iBALT is known to provide broad-spectrum immunity sites within the lung. The MSU compound is biologically derived and can be easily produced by fermentation. The compound alone triggers iBALT formation but also can be used to augment vaccines or therapies or as an adjuvant. MSU researchers have shown significant protection against influenza in mouse lung that previously was administered the new compound. The ability of the iBALT to protect broadly can allow the new MSU compound to be administered as a vaccine for unknown threats such as air borne bioterrorist microbes or against diseases with no known vaccine such as avian flu.

Applications

- Vaccine for lung diseases including influenza
- Therapy for lung diseases
- Countering bioterrorism threats such as airborne microbes
- Augment vaccines or therapies or use as an adjuvant

Benefits

- Broad spectrum protection by activating the iBALT natural lung immunity
- Effective against unknown or untreatable microbial threats such as avian flu or bioterrorism
- Simple to produce
- Can be used in combination with other compounds
- Can be administered nasally

Technology Transfer and Development Status

A patent is pending and research is ongoing.

Contact for licensing or further details

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<http://tto.montana.edu/technologies>

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MSU has been designated as one of only 94 research institutions in the nation with “very high research activity” by the Carnegie Foundation for the Advancement of Teaching.