

Allergies & asthma, allow me to introduce you to nanoparticles...a potential cure to your inflammatory responses

Opinion

Very exciting news for individuals with asthma and allergies has surfaced. "The findings represent a novel, safe and effective long-term way to treat and potentially 'cure' patients with life-threatening respiratory and food allergies," said senior author Stephen Miller, the Judy Gugenheim Research Professor of Microbiology-Immunology at Northwestern University Feinberg School of Medicine. "This may eliminate the need for life-long use of medications to treat lung allergy".¹

According to Proceedings of the National Academy of Sciences, biodegradable nanoparticles may be a possible "carrier" to a site specific delivery of biomolecules in the body. The nanoparticles have an adaptable formulation that allows one to measure a sizable amount of pollen or protein into the nanoparticles properties, which act as hidden "cargo." The cargo is then absorbed by a macrophage which is basically a vacuum cleaner cell. This vacuum cleaner cell introduces the antigen or allergen into the immune system and instead of inducing an attack or reaction the immune system shuts down the attack on the allergen, returning the immune system to its natural state.

This approach has been used in autoimmune diseases such as celiac disease as well as multiple sclerosis but it is the first time the method has been used in mice to treat allergies and asthma.

The findings are promising, but lack of proficiency in pharmaceutical research and development would probably present trust issues manifesting in avoidance of administering this type of treatment to uncooperative individuals any time soon. Like my son. The possibilities are endless and I will continue to track this development.

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