

Allergy battle could be won in five years, says scientist

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Allergies such as asthma, eczema and hay fever could be snuffed out within five years thanks to pioneering work at The University of Manchester.

Researchers, working with colleagues at St George's, University of London, are developing drugs designed to stop allergens from entering the body, so rendering them harmless.

Professor David Garrod said the research – recently shortlisted for the Northwest Regional Development Agency's Bionow Project of the Year – takes a completely new approach to the treatment and prevention of allergies.

“The technology is based on our earlier discovery of how allergens, the substances that cause allergy, enter the body through the surface layer of cells that protect the skin and the tubes of the lungs,” he said.

“Allergens from pollen or house dust mites are inhaled and then dissolve the binding material between the cells that form these protective linings; they can then enter the body by passing between the cells to cause an allergic response.

“The drugs we are developing – called Allergen Delivery Inhibitors (ADIs) – are designed to disable these allergens so they can no longer eat through the protective cell layer and block the allergic reaction before it occurs.

“The effect will be like avoiding allergens altogether. Removing carpets and rigorous cleaning of homes are established ways to avoid allergens, but they are only partially effective because their effects do not ‘travel’ with allergy sufferers.

“ADIs promise to be significantly better because taking a medicine is easier than rigorous housework and pills are portable.”

Professor Garrod, who is based within Manchester’s Faculty of Life Sciences, said work on the first ADI chemical was well advanced and potential drugs could enter clinical trials as early as 2010.

If successful, the drug would treat established symptoms already found in adult sufferers and, in due course, could be used to prevent allergies in children.

“Prevention of allergies has never before been possible,” said Professor Garrod. “Current medicines don’t act against the allergen at this early stage – they only ease the symptoms – so the development of these ADIs would be a major breakthrough in our fight against allergies.”

The study has already received nearly £450,000 from the Wellcome Trust but up to £3 million will be needed to develop the drugs to the clinical-trials stage.

Professor Garrod is now seeking investment to take the research to the next stage of development and a potential \$26 billion market.

Source: University of Manchester

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