

Preface

Current Strategies for Allergen-Specific Immunotherapy at its Centenary

We are celebrating this year the 100 years' anniversary of allergen-specific immunotherapy. In 1911 Leonard Noon published his seminal work "Prophylactic inoculation against hay fever" describing his attempts to achieve active immunity against "grass pollen toxin" by administering increasing doses of grass pollen extract before the grass pollen season to allergic patients. Although it was unknown at that time that allergy represents an immunological hypersensitivity disease, the treatment was effective and many observations made by Noon remained valid until today. Noon noted side effects and that initially increased sensitivity was followed by tolerance which lasted for approximately one year.

Today allergen-specific immunotherapy is well established as the only allergen-specific and disease-modifying treatment for IgE-mediated allergies and has long-lasting effects.

In fact, more than 25% of the population suffer from IgE-mediated allergies which therefore represent a major health burden of our society, particularly because untreated allergy often progresses to severe disabling forms of disease, such as asthma and sometimes kills sensitized people through anaphylaxis.

The pathomechanisms of allergy are meanwhile quite well investigated and the disease-causing allergens are characterized in great detail down to their molecular structures. We are thus beginning to see several new strategies for allergen-specific immunotherapy on the horizon, several of which are summarized in this issue. It thus seems that hundred years after the first experimental attempts to "desensitize" hayfever patients we are now capable of developing powerful and rational forms of immunotherapy which hold promise for curing allergy sufferers and

eventually may allow real prophylactic vaccination against allergy. It is thus quite possible that allergy may become eradicated similar as certain forms of infectious diseases through vaccination.

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