

Letter to the editor

We have read with great interest the review article entitled 'Food allergy in adulthood', recently published by Crespo and Rodriguez in *Allergy* (2003;**58**:98–113).

We wish to make the following comments on the diagnostic evaluation of food allergy.

We agree with Crespo and Rodriguez that in a stepwise approach to confirming food allergy *in vitro* tests are only one part of the diagnostic procedure. Proof of allergen specific serum immunoglobulin (Ig)E has played a key role in *in vitro* diagnosis for many decades. However, we would like to stress that *in vitro* testing is not purely confined to measuring specific IgE. Over the past years there have been a number of publications showing that allergen induced basophil activation is associated with an increased expression of the cell surface marker CD63 (1, 2). The CD63 based basophil activation test (BAT) comprises stimulation of the basophils with the putative allergen including a positive and negative control and labeling with a fluor-

escent antibody recognizing basophils (usually anti-IgE) and another one recognizing activated basophils (usually anti-CD63). Finally, analysis by flow cytometry yields the percentage of activated CD63+ basophils. This method has been evaluated in different fields of allergy such as allergy to hymenoptera venom, drug, latex and inhalation allergens (3). The CD63 based BAT has proved to increase overall sensitivity of *in vitro* diagnosis. Although this test has the potential to become a routine method many questions remain yet to be answered, for instance the optimal cut-off for a range of common allergens using receiver operating characteristics (ROC) curves (3). ROC curves are used to assess the optimal cut-off for a positive test. A ROC is a plot of a test's sensitivity (on the y-axis) versus its false positive rate (that is, 1-specificity, plotted on the x-axis) for different decision thresholds for defining positive and negative results.

To date studies evaluating the CD63 based BAT in food allergy are yet confined

to only very few publications (4, 5). Moneret et al. showed for the first time that this method is feasible in children with allergy to different foods (4). We could demonstrate that in adults with pollen associated food allergy to carrot, celery and hazelnut the BAT was more sensitive than measurement of specific IgE by the CAP method (5). We concluded that this test is particularly helpful in cases with a suggestive history of food allergy, however lacking proof of allergen specific serum IgE.

Although this method needs further evaluation in food allergy in particular we among others see a role for the CD63 based BAT in supplementing routine tests for *in vitro* diagnosis of IgE-mediated allergy in the future.

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