

Allergies



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William Frankland, who popularized the pollen count and who died earlier this year aged 108, likened the role of an allergist to that of a detective. Superior powers of observation, chance encounters and the rejection of evidence that initially seems compelling have all delivered breakthroughs in allergy medicine.

For instance, for many years, guidelines advised that parents should avoid giving foods containing peanuts to babies. Now, early oral exposure to peanuts is seen as a key strategy for preventing peanut allergy – a change that was triggered in part by one researcher's hunch and an encounter with a family on the shores of the Sea of Galilee in Israel (see page S14). And the case of a puzzling allergy to meat was cracked when researchers in Australia and the United States realized they were on the trail of the same culprit (S17).

Some mysteries, however, are yet to be solved. The rate of food allergy in high-income countries has been rising since the 1990s. Many specialists think that cleaner households are responsible, and are investigating how early exposure to microbes forms a person's response to potential allergens (S11). Researchers are also working on eliminating allergies to family pets by targeting the animals themselves. The cornerstone of existing immunotherapy treatment for cat allergy is to inject people with Fel d 1, a protein that cats smear onto their bodies during regular tongue baths. But the rise of CRISPR gene-editing technology has provided the opportunity to make a hypoallergenic feline that never produces the offending protein (S7). Genetic engineering could also deliver allergen-free peanuts that do not provoke a reaction (S10).

But the impact of allergy is so much greater than the adverse reactions people experience. Many children with food allergies contend not just with the omnipresent risk of a potentially fatal encounter with a foodstuff, but also with bullying by classmates (S4). As one allergist puts it, sometimes the psychological repercussions of food allergy are more serious than the allergy itself.

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David Payne

Managing Editor, Careers and Supplements

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**On the cover**

A range of options is needed to counter the risks of allergy.
Credit: Sam Falconer

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