Researchers have been working for years to find a means of treating peanut allergy with various degrees of success, as we wrote about here [1]. Unlike allergy to milk and some other foods, peanut allergy doesn’t usually disappear on its own as a child grows up. Peanut allergy represents a real risk to life if an allergic individual eats even traces of the allergen and goes into anaphylactic shock. Thus parents of such children face the task of not only eliminating all traces of peanuts from their homes, but also figuring out how to have their child be safe when at school or visiting others’ homes.

But hope is on the horizon, as Australian researchers have followed up on their earlier attempt to outfox the allergy by combining a probiotic bacterium with a peanut desensitization protocol. Four years ago they published data(1) indicating that their protocol could successfully desensitize peanut-allergic children, and now they have published data [2] demonstrating that the effects of that protocol are long-lasting.

To recap: The earlier work involved giving the probiotic bacterium, *Lactobacillus rhamnosus* in combination with oral peanut therapy (PPOIT) to allergic children aged 1-10 years. They demonstrated that 2 to 5 weeks post-treatment, nearly 90 percent of the allergic children given the active treatment became unresponsive to peanut allergen. In a group of allergic kids given placebo treatments only 7 percent had been desensitized.

In their follow-up study the investigators, led by Dr. Mimi L.K. Tang of the Murdoch Childrens Research Institute in Melbourne, VIC, Australia, examined the status of children who had participated in the original study. They compared the persistence of allergen desensitization in those who had undergone the earlier treatment with that of children given placebos. There were 24 participants in each group.

Skin prick tests of these participants revealed differences in their reactions to peanut allergens — the wheals (raised areas in response to injected allergens) were smaller in the treated group (8 mm on average) than in the placebo group (13 mm). Eighty-three percent of treatment group
reported having had no reactions to peanuts in the intervening years, compared to 75 percent of the placebo group. In addition, the treated individuals had lower levels of antibodies against peanuts (IgE) than did the placebo group — another indication of desensitization.

Some of the participants also took part in a food challenge — they eliminated peanuts from their diets for 8 weeks, followed by a peanut challenge. Again, the group that had originally been treated with PPOIT were significantly more likely to maintain unresponsiveness after the peanuts were reintroduced.

Thus, these new data indicate that the PPOIT treatment was not only effective, but maintained desensitization for at least 4 years in most allergic children. The authors stated: “the finding that sustained unresponsiveness was maintained without the need to follow a regular prespecified ingestion schedule provides a compelling argument that PPOIT induced immune tolerance.”

This is not the end of the story, of course — this was a 'proof of concept' study that must be replicated in larger populations. However, it provides real hope that this dangerous allergy can soon be mastered.