ALLERGY

ALLERGY, VITAMIN D RECEPTOR AND PARABACTERIODES

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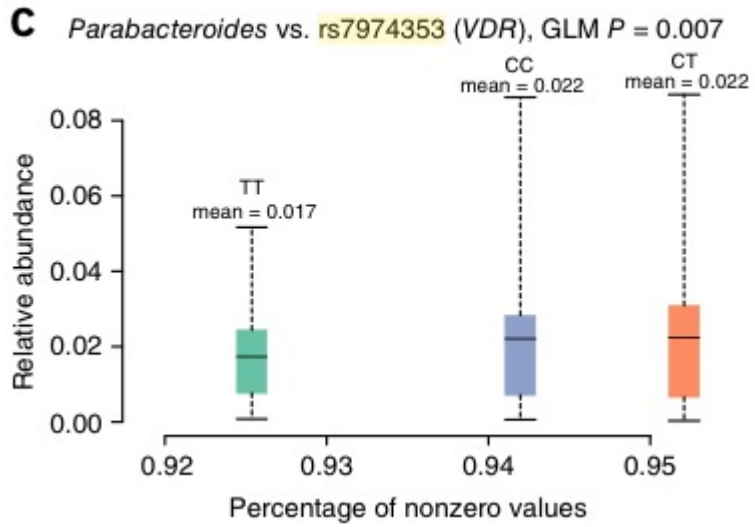
There was a congress abstract earlier this year by Rachid, Rima A et al. in Journal of Allergy and Clinical Immunology: "Food Allergy in Infancy Is Associated with Dysbiosis of the Intestinal Microbiota" where 137 infants (52 food-allergic and 85 controls) were enrolled and differences in fecal microbiota tested between the 2 groups. Food-allergic babies at 1-6 months of age had decreased abundances of genera in Bacteroidetes (Parabacteroides and Alistipes).

Interestingly, a new genome-wide association study of the gut microbiota using two cohorts from Northern Germany identified genome-wide significant associations for microbial variation and individual taxa at multiple genetic loci, including the VDR gene. To further explore this association, they analyzed gut microbiota data fin Vdr−/− mice, confirming that loss of Vdr in mice substantially affects diversity. A more detailed exploration also showed that VDR consistently influences individual bacterial taxa such as Parabacteroides.



So, is this a missing link?-Can vitamin D supplementation influence the gut microbial flora? This could explain even other observations. Right now rs7974353 is a rare human intronic SNP with no disease annotation.