This immunomodulatory effect of DefenVid is influenced, in part, by SNP variation associated at least with the *IL1B*, *IL6*, and *TNF* genes (Figure 5.12), classically involved in neuroimmune regulation and inflammatory reactions. In a subset of patients with immunodeficient phenotypes, we observed that DefenVid reduced blood cholesterol levels in over 60% of the cases (Figure 5.13), similarly to LipoEsar in dyslipidemic patients (Figure 5.9). A differential pattern of cholesterol response to DefenVid was also associated with the *IL1B*-T3954C, *IL6*-G174C, *IL6R*-A1510C, and *TNFA*-G308A variants (Figure 5.14), which are involved in inflammatory reactions associated with atherogenesis. These data, together with those reported on the APOE-dependent anti-atherogenic effect of LipoEsar,[195] suggest that this class of LFs might be useful to prevent arteriosclerosis and vascular risk, either peripheral or central, in the hypercholesterolemic population and in NDDs.[10,11]

5.6.2 Atremorine (E-PodoFavalin-15999)

E-PodoFavalin-15999 (Atremorine®) is a novel biopharmaceutical compound, obtained from structural components of *Vicia faba* L. by means of non-denaturing biotechnological processes, for the prevention and

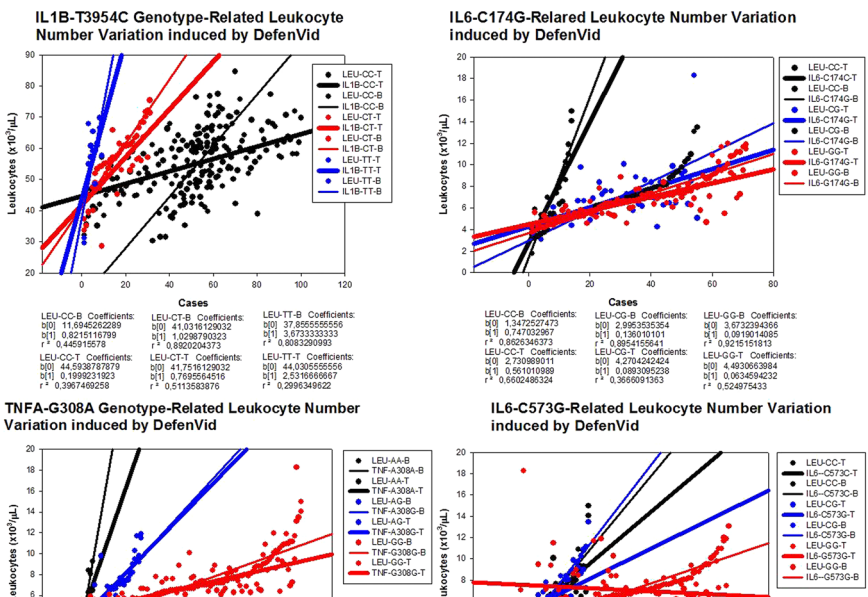

Figure 5.12 IL1B-, IL6-, and TNFA-related leukocyte variation after one-month treatment with DefenVid in the Spanish population.