## News & Research Update

Apr 6, 2024

## Website status and research update

Dear subscribers,

We found a couple of interesting papers during a study on the regulation mechanism of the Alpha1 Antitrypsin serum level. We would like to share with you a couple of sections from a paper that may be interesting for all of you. In this paper, they investigated the reaction of AAT on inflammation for most of the common genotypes (measured by CRP) to see if it is possible to detect the genotype based on AAT levels.

You see that the "ZZ" line is hardly moving, and when the inflammation worsens, it goes down. (the paper provides no explanation)

The MZs show a reasonable reaction and reaches something like a "normal" level during a severe inflammation state (CRP 100). The reaction of SS and SZ is unexpectedly steeper compared to MM and MZ, so the "S" is reacting quite uniquely to the increase of Neutrophils in serum caused by inflammation.



The interesting part for MZs in this study is actually a side note of the researchers: ~25% of PI\*MZ samples showed signs of background inflammation!

Although the paper is not so interesting for MZs because they just made an attempt to detect genotypes based on AAT level, this observation of the background inflammation in the cohort of MZs is quite disturbing.

(Note; this information is added to the general Alpha1 Antitrypsin section on the website)