

### M3 Attenuation of chronic low-grade inflammation in sarcopenic older adults after 13 weeks of a nutritional supplement of Vitamin D and leucine-enriched

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<b>Abstract title</b>	Attenuation of chronic low-grade inflammation in sarcopenic older adults after 13 weeks of a nutritional supplement of Vitamin D and leucine-enriched
<b>Abstract body</b>	<p><b>INTRODUCTION</b></p> <p>A chronic low-grade inflammatory profile (CLIP) is associated with sarcopenia in older adults. Protein and Vitamin (Vit)D have immune-modulatory potential, but evidence for effects of nutritional supplementation on CLIP is limited. The aim was to investigate whether 13 weeks of nutritional supplementation of VitD and leucine-enriched whey protein affected CLIP in subjects enrolled in the PROVIDE-study, as a secondary analysis.</p> <p><b>METHODS</b></p> <p>Sarcopenic adults (low skeletal muscle mass) aged <math>\geq 65</math> years with mobility limitations (Short Physical Performance Battery 4-9) and a Body Mass Index of 20-30 Kg/m<sup>2</sup> were randomly allocated to 2 daily servings of active (n=137, including 20g of whey protein, 3g of leucine and 800IU VitD) or isocaloric control product (n=151) for a double-blind period of 13 weeks. At baseline and after 13 weeks, circulating Interleukin (IL)-8, IL-1Receptor Antagonist (RA), soluble Tumor-Necrosis-Factor Receptor (sTNFR)1, IL-6, high-sensitivity C-Reactive Protein, pre-albumin and 25-hydroxyvitamin(OH)D were measured. Data-analysis included repeated measures Analysis of Covariance (corrected for dietary VitD-intake) and linear regression.</p> <p><b>RESULTS</b></p> <p>IL-6 and IL-1Ra serum levels showed overall increases after 13 weeks (p=0.006 and p</p> <p><b>CONCLUSIONS</b></p> <p>Thirteen weeks of nutritional supplementation with VitD and leucine-enriched whey protein may attenuate the progression of CLIP in older sarcopenic persons with mobility limitations.</p>