

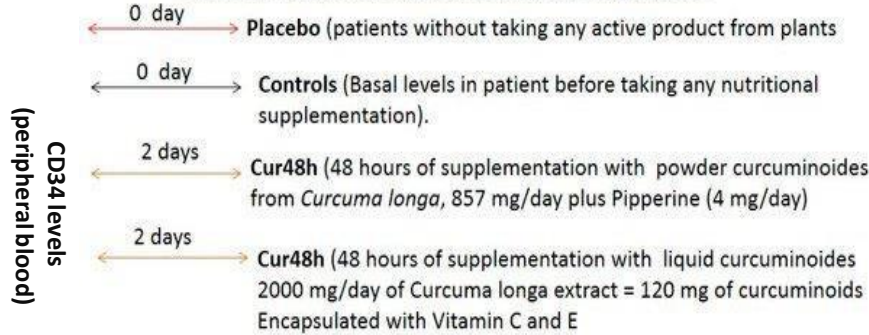


# Enhanced CD34<sup>+</sup> Hematopoietic stem cells mobilization by curcuminoids in healthy subjects.

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## PROTOCOL

### Consumption of AFA bluegreen algae extract, curcumin over 48 hours



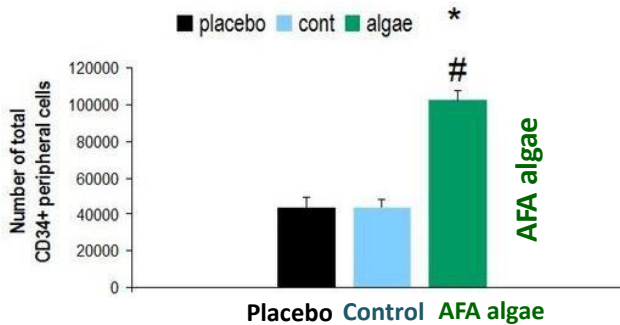
## AIM

CD34<sup>+</sup> levels were quantified by flow cytometry  
CD34 is a marker of Hematopoietic stem cells (HSC)

To study whether short-term curcumin supplementation enhances CD34<sup>+</sup> mobilization in healthy patients.

## RESULTS (AFA algae consumption over 48 hours)

AFA algae consumption over 48 hours enhanced HSC-CD34<sup>+</sup> mobilization



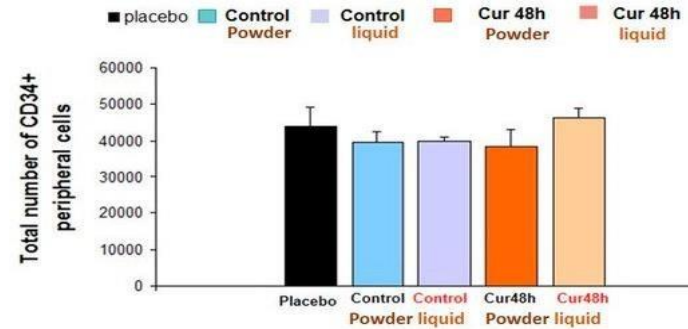
\*p < 0.05 vs control # p < 0.05 vs Placebo-treated patients

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<sup>2</sup> Clinical independent

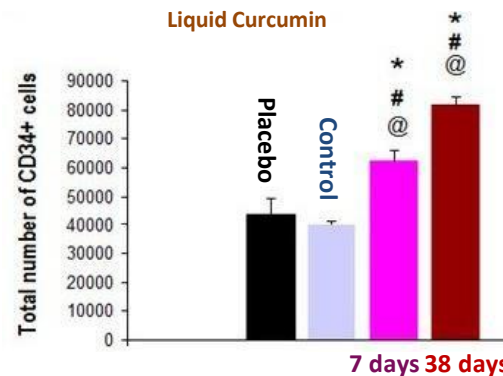
<sup>3</sup> Stem Cell (Spain)

### The short-term supplementation over 48 hours with curcuminoids (powder or liquid form) fail to increase CD34 levels



## Long-term curcumin supplementation

The long-term supplementation with "liquid" curcumin (7 or 38 consecutive days) increased CD34<sup>+</sup> levels in peripheral blood from healthy patients



## CONCLUSIONS

➤ -The AFA algae consumption over 48 hours enhances Hematopoietic stem cell (HSC) mobilization

➤ -The curcumin, sulforaphane plus AFA algae consumption over 7 or 38 consecutive days increased CD34 levels in peripheral blood from healthy patients

\* p < 0,05 vs control (before taking any)

@ p < 0,05 vs placebo

# p < 0,05 vs Cur 48 h (liquid form)

José Joaquín Merino et al. The Bluegreen Algae (AFA) Consumption over 48 h Increases the Total Number of Peripheral CD34<sup>+</sup> Cells in Healthy Patients: Effect of Short-Term and Long-Term Nutritional Supplementation (Curcumin/AFA) on CD34<sup>+</sup> Levels (Blood). J Personalized Medicine. 2020Jun; 10(2): 49.