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# Erratum to: Palmitoylethanolamide and luteolin ameliorate development of arthritis caused by injection of collagen type II in mice

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The authors would like to issue an erratum for this article [1], and would like to declare the following competing interests which we inadvertently failed to include in our original publication. The authors would like to apologise for this omission.

In addition, a detailed method for co-ultramicronization process is reported:

Co-ultramicronization process was performed in a jet-mill equipment endowed with a chamber of 300 mm in diameter which operates with "spiral technology" and was driven by compressed air at 10-12 bars. The crashing is determined by the high number of collisions that occurs among particles, as a result of the high level of kinetic not mechanical - energy. This process was effective not only in reducing the products particle size, but also in modifying their crystalline structure. Observations by scanning electron microscopy (SEM) shows an intimate intermixing of the two components of the composite, while analysis throw differential scanning calorimetry (DSC) and X-ray diffraction (XRD) have documented the transformation in a new crystalline form different from the original two, definable with "a higher energy content form." The composite shows the following particle size distribution: 96 % <10 µm; 80 % <5 µm; 40 % < 2 µm (J Neuroinflammation 2013 10:91).

#### Competing interests

Prof. Salvatore Cuzzocrea, researcher on the study team, is a co-inventor on a patent (Application number: 20150057269) with Epitech, along with academic investigators from different institutions and not studied in the above-referenced manuscript. In particular, this patent deals with compositions and methods for the modulation of amidases capable of hydrolysing N-acylethanolamines useable in the therapy of inflammatory diseases. No other authors have competing interests.

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#### References

 Impellizzeri D, Esposito E, Di Paola R, Ahmad A, Campolo M, Peli A, et al. Palmitoylethanolamide and luteolin ameliorate development of arthritis caused by injection of collagen type II in mice. Arthritis Res Ther. 2013;15:R192.

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