

# Effects of Magnetic Nanoparticles on the Functional Activity of Human Monocytes and Dendritic Cells

**Marta Donini <sup>1,†</sup>, Francesca Pettinella <sup>1,†</sup>, Giorgia Zanella <sup>2</sup>, Salvatore Calogero Gaglio <sup>2</sup>, Carlo Laudanna <sup>1</sup>, Monica Jimenez-Carretero <sup>3</sup>, Concepcion Jimenez-Lopez <sup>3,\*</sup>, Massimiliano Perduca <sup>2,\*,‡</sup> and Stefano Dusi <sup>1,‡</sup>**

<sup>1</sup> Section of General Pathology, Department of Medicine, University of Verona, Strada Le Grazie 8, 37134 Verona, Italy

<sup>2</sup> Department of Biotechnology, University of Verona, Strada Le Grazie 15, 37134 Verona, Italy

<sup>3</sup> Department of Microbiology, Faculty of Sciences, University of Granada, 18071 Granada, Spain

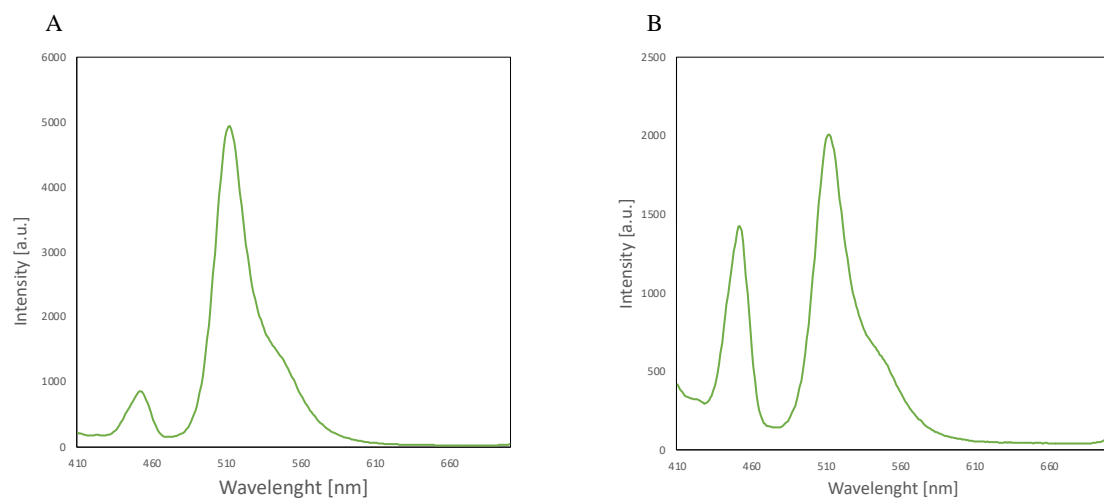
\* Correspondence: [cjl@ugr.es](mailto:cjl@ugr.es) (C.J.-L.); [massimiliano.perduca@univr.it](mailto:massimiliano.perduca@univr.it) (M.P.)

† These authors contributed equally to this work.

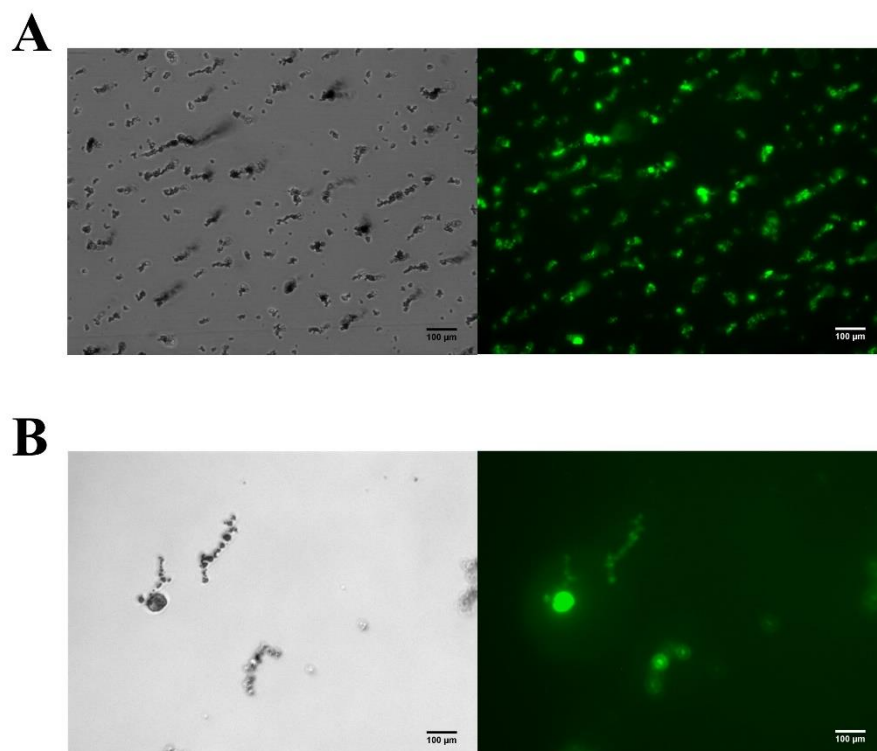
‡ These authors equally contributed to conceptualization and supervision.

**Table S1.** Dynamic Light Scattering parameters for MNPs and BMNPs resuspended in PBS or cell culture medium.

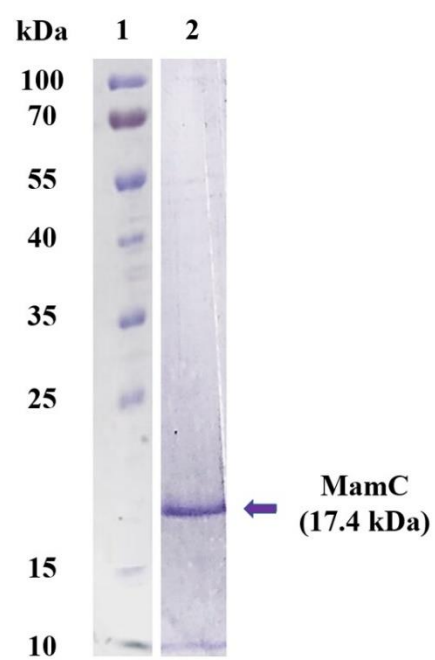
<b>PBS</b>	<b>Size (nm)</b>	<b>PDI</b>
BMNPS	88 ± 35	0.34 ± 0.11
MNPS	60 ± 27	0.25 ± 0.15
<b>Medium</b>	<b>Size (nm)</b>	<b>PDI</b>
BMNPS	75 ± 30	0.26 ± 0.12
MNPS	43 ± 21	0.44 ± 0.05



**Figure S1.** Fluorescence spectra for MNPs (A) and BMNPs (B) coupled to GFP. Data were acquired using a Jasco FP-8200 fluorescence spectrometer, exciting the samples at 395nm (excitation bandwidth 5 nm, emission bandwidth 5 nm, response 1 sec, and sensitivity high). The double peak present in both analyzed nanoparticles denotes GFP.



**Figure S2.** Fluorescence microscopy representative images for MNPs (A) and BMNPs (B) coupled to GFP. Images were acquired using an EVOS FLoid imaging System with a 40X magnification and diluting 12 times with PBS the stock samples.



**Figure S3.** Gel electrophoresis of the purified MamC.