

## **SCIENTIFIC CURRICULUM OF MARIA LAURA BELLADONNA**

**NAME:** Maria Laura Belladonna

**AFFILIATION:** Department of Medicine and Surgery - University of Perugia - Piazza Severi, 1  
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**CURRENT RESEARCH INTERESTS:** The research field focuses on the *in vitro* study of the molecular mechanisms underlying immunogenic and tolerogenic responses; the effects of tolerogenic cytokines, the tolerogenic enzyme indoleamine 2,3-dioxygenase 1 (IDO1), and tryptophan metabolism in murine experimental models of autoimmune diseases and cancer; the effects of plant-derived bioactive compounds in the regulation of osteoclastogenesis and the effects of oxidative stress molecules in diseases causing bone damage; the effects of biomaterials for dental applications in the regulation of osteoclastogenesis and osteoblastogenesis.

**Skills:** knowledge of biochemical methods and *in vitro* studies for the evaluation of enzymatic activity and kinetics, particularly of the IDO1 enzyme; HPLC analysis of tryptophan metabolites; knowledge of molecular techniques and other analytical methods currently used in molecular and cellular biology studies, including DNA and RNA extraction and manipulation, PCR, real-time PCR, immunoblotting, immunoprecipitation, ELISA, cloning, agarose and polyacrylamide gel electrophoresis; cell handling and culture, with specific expertise in dendritic cells (purification and manipulation), macrophages/osteoclasts (study of osteoclastogenesis), and mesenchymal precursors/osteoblasts (study of osteoblastogenesis).

### **PEER-REVIEWED PUBLICATIONS:**

The full-length papers are indexed in the “NCBI USA” database and available at the following Scopus URL: <https://www.scopus.com/authid/detail.uri?authorId=6701317293>

**SCOPUS METRICS:** Total citations: 10,584; H-index: 46