

BIOGRAPHICAL SKETCH

Name: Fortunata Carbone, PhD

Position/Title: CNR-Postdoc fellow

Education

| Institution and Location | Degree | Year Conferred | Field of Study |
|--|-----------------|----------------|---|
| Liceo Scientifico (High school), G. Galilei, Sarno (SA), Italy; | Baccalaureate | 2003 | |
| Biological Sciences Degree, " <i>summa cum laude</i> ", University of Naples "Federico II", Naples, Italy; | Bachelor Degree | 2008 | Immunology |
| PhD program in "Molecular Pathology and Physiopathology", University of Naples "Federico II", Naples, Italy; | PhD | 2012 | Molecular Pathology and Physiopathology |
| Postdoctoral research fellow at Istituto di Endocrinologia e Oncologia Sperimentale, Consiglio Nazionale delle Ricerche (IEOS-CNR), Naples, Italy. | | 2012 | Immunology |

Research and Professional Experience**Positions and Employment**

- 17/07/2008 Degree in "Biological Sciences", *summa cum laude*, defending her thesis in Immunology. Supervisor: Prof. Paolo Laccetti.
- 30/01/2012 PhD in Molecular Pathology and Physiopathology, Department of Cellular and Molecular Biology and Pathology of "Federico II" University of Naples, Italy, defending the thesis: "*Regulatory T cell proliferative potential as novel marker to investigate immune tolerance and clinical progression in Multiple Sclerosis*". Supervisor: Prof. Giuseppe Matarese.
- 15/04/2012 to 29/06/2012 Postdoctoral research fellow (Prot. N. IEOS BS 01-2012) for the study of the cellular and molecular action of Cladribine on regulatory T cells in multiple sclerosis, at the laboratory of Immunology, Istituto di Endocrinologia e Oncologia Sperimentale (IEOS-CNR), Naples, Italy.
- 30/06/2012 to 30/08/2014 Postdoctoral research fellow (Prot. N. IEOS-11-2012) for the study of correlations between the immune system and the endocrine system: models of altered function of the immune system as a cause of disease, at the laboratory of Immunology, Istituto di Endocrinologia e Oncologia Sperimentale (IEOS-CNR), Naples, Italy.

01/09/2014- present Postdoctoral research fellow (Prot. N. IEOS-09/2014) for the analysis of the cellular and molecular function, metabolism and activity of mTOR in regulatory T cells, at the laboratory of Immunology, Istituto di Endocrinologia e Oncologia Sperimentale (IEOS-CNR), Naples, Italy.

Research Experience

2008-2012 PhD-Program under the supervision of Prof. Giuseppe Matarese. In that period Dr. Carbone focused her attention on the role of leptin in the modulation of immune response. More specifically she investigated the effect of leptin neutralization on proliferation of Regulatory T cells purified from multiple sclerosis patients. Moreover, Dr. Carbone started a collaboration with Prof. Mantzoros from Harvard University, USA for the study of the effect of metreleptin on obese patients with type 2 diabetes.

2012-present

Major achievements

The research activity of Carbone was focused on the study of the role of leptin in the modulation of immune response in patients affected by Multiple Sclerosis. More specifically she investigated the effect of leptin neutralization on proliferation of regulatory T (Treg) cells, a cellular subset involved in the control of autoimmune responses. Thanks to a collaboration with Prof. Pietro Biagio Carrieri, of the Department of Neurological Sciences, of the University of Naples "Federico II", Dr. Carbone has shown that Treg cells purified from multiple sclerosis patients are characterized by a reduced proliferative capacity. The impaired capacity of Treg cells to proliferate in RRMS correlates with the clinical state of the subject, since increasing disease severity is associated with a decline in Treg cell expansion (Carbone et al., Nature Medicine, 2014).

Professional Memberships

- Italian Society of Immunology, Clinical Immunology and Allergology (SIICA) (2009-present).
- Italian Association of NeuroImmunology (AINI) (2010-present).
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Honors and Awards

- Winner of a PhD fellowship in Molecular Pathology and Physiopathology at the University of Naples "Federico II", Naples, Italy.

Meetings

- X lab retreat on Multiple Sclerosis (Pieve a Salti-Siena, January 2009).
- XX AINI Congress 2010, Regina Palace Hotel (Stresa) 30 September - 3 October 2010
- XXI AINI Congress- (Pollenzo), September 2011
- VIII *Autoimmunity* Congress, 9-13 May, 2012- Granada, Spain.