

**EUROPEAN FORMAT
CURRICULUM VITAE**



PERSONAL INFORMATION

Name

PIERONI BENEDETTA

EDUCATION AND TRAINING

Novembre 2022- on going

Education and training course for in vivo experimental activity at Centro Servizi per la Ricerca Pre-clinica (University of Perugia).

30th October 2024

Alfatest

Workshop and user -meeting Nanosight

June 2024 – July 2024

University of Perugia

Department of Pharmaceutical Sciences, Course in Pharmacy

Tutoring activities

2nd – 25th July 2024

University of Perugia

Department of Medicine and Surgery

Fundamentals of Immunopharmacology

Prof Teresa Zelante and Prof. Marco Gargaro

3rd September 2023- 31st January 2024

Scholar Visiting: 5 months at Leibniz Institute of Hamburg (Germany), under the supervision of Professor Marcus Altfeld
Organoids culture and analysis

23rd November 2023 – 10th January 2024

University of Perugia

Department of Medicine and Surgery

Data analysis and biostatistics course

Prof. Giovanni Bellomo

6th – 10th March 2023

SIICA

Virtual School of Immunology 2023

November 2022

University of Perugia

Department of Medicine and Surgery

“Corso di disseminazione e comunicazione scientifica”

Dott. Giada Mondanelli

January 2022 – November 2022

University of Perugia

Education and training course for in vivo experimental activity at

“Istituto Zooprofilattico Sperimentale della Lombardia e dell’Emilia Romagna”.

26th October 2023

University of Perugia

Department of Medicine and Surgery

PhD Annual Meeting

“Zeaxanthin Dipalmitate promotes neuroprotective and anti-inflammatory effects

by Aryl Hydrocarbon Receptor activation”

27th October 2022

University of Perugia

Department of Medicine and Surgery

PhD Annual Meeting

“Identification of an immune modulator in Goji Berries superfruits”

1th January 2022 – 31st December 2024

PhD in System Biology in Immune and Infectious Pathologies

Immunometabolism and autoimmunity

June 2021-December 2021

University of Perugia

Department of Medicine and Surgery

Training Internship

Supervisor: Professor Francesca Fallarino

From A.Y. 2019/2020 to A.Y. 2020/2021

University of Perugia

Department of Pharmaceutical Sciences, Course in Pharmaceutical Biotechnologies

Subjects foreseen by curriculum

Master degree in Pharmaceutical Biotechnologies (L-9); vote: 110/110 cum laude

Thesis title “Deciphering IDO1 regulation and function in conventional dendritic cell

subsets”

Supervisor: Professor Francesca Fallarino

1st – 31st July 2019

University of Perugia

Department of Medicine and Surgery

Training Internship

Supervisor: Professor Francesca Fallarino

From A.Y. 2016/2017 to A.Y. 2018/2019

University of Perugia

Department of Chemistry, Biology and Biotechnology, Course in Biotechnology

Subjects foreseen by curriculum

Bachelor degree in Biotechnology (L-2); vote: 109/110

Thesis title: “Gene therapy and type I diabetes mellitus”

Supervisor: Professor Francesca Fallarino

From A.Y. 2011/2012 to A.Y. 2015/2016

Scientific High School “Galeazzo Alessi”, Perugia (PG)

Subjects foreseen by ministerial programs

High school diploma; vote: 97/100

PERSONAL SKILLS AND COMPETENCES

Mother tongue **ITALIAN**
Other Language **ENGLISH (B2) C.L.A. CERTIFICATION**

Driving Licence **PATENT B**

**Social skills
and competences** - FLEXIBILITY AND ADAPTABILITY
 - EASE OF COMMUNICATION AND TEAM WORK

**Organization skills
and competences** - ABILITY TO IDENTIFY PROBLEMS AND ORGANIZE THEIR WORK
 - TENACITY AND PERSEVERANCE IN FINISH THE TASKS SET

**Technical skills
and competences** - Good knowledge of *Windows* and *Office packages* (Word, Excel)
 - Human and animal cell culture (primary cell isolation, co-culture technique)
 - Human organoids culture and analysis
 - Gene expression analysis methods (PCR, Western blot)
 - FACS analysis
 - Cell sorting
 - Statistical analysis (e. g. GraphPad Prism)

Publications

- Massimo R. Mannarino, Vanessa Bianconi, Giulia Scalisi, Luca Franceschini, Giorgia Manni, Francesco Bagaglia, Giulia Mencarelli, Francesco Giglioni, Doriana Ricciuti, Filippo Figorilli, Benedetta Pieroni, Elena Cosentini, Eleonora Padiglioni, Cecilia Colangelo, Dietmar Fuchs, Paolo Puccetti, Matteo Pirro, Marco Gargaro and Francesca Fallarino. **“A tryptophan metabolite prevents depletion of circulating endothelial progenitor cells in systemic low-grade inflammation”**, *Frontiers of Immunology* (2023)
- Giulia Mencarelli, Benedetta Pieroni, Kenneth M. Murphy, Marco Gargaro **“Use of CRISPR/CAS9 Technologies to Study the Role of TLR in Dendritic Cell Subsets”**, *Methods Mol Biol.* (2023)
- Daniele La Russa, Giorgia Manni, Chiara Di Santo, Benedetta Pieroni, Daniela Pellegrino, Francisco J. Barba, Giacinto Bagetta, Francesca Fallarino, Domenico Montesano, Diana Amantea **“Zeaxanthin exerts anti-inflammatory effects in vitro and provides significant neuroprotection in mice subjected to transient middle cerebral artery occlusion”**, *PharmaNutrition* (2024)
- Giorgia Manni, Marco Gargaro, Simona Fontana, Eleonora Padiglioni, Doriana Ricciuti, Marco Cipolloni, Tommaso Mazza, Jessica Rosati, Alessandra Di Veroli, Giulia Mencarelli, Benedetta Pieroni, Estevão Carlos Silva Barcelos, Giulia Scalisi, Francesco Sarnari, Alessandro Di Michele, Teresa Zelante, Francesca De Franco, Cinzia Antognelli, Gabriele Cruciani, Vincenzo Nicola Talesa, Rita Romani, Francesca Fallarino **“Amniotic fluid stem cell derived extracellular vesicles educate type 2 conventional dendritic cells to rescue autoimmune disorders”**, *Journal of Extracellular Vesicles* (2024)

Abstract publication from conferences (as a speaker)

- **AhR activation by the DIETARY ligand ZEAXANTHIN DIPALMITATE promotes anti-inflammatory functions**
B. Pieroni, G. Manni, G. Scalisi, G. Mencarelli, D. Ricciuti, L. Cossignani, M. Gargaro, F. Fallarino

University of L'Aquila, The International Retreat of PhD students in immunology, **Poster session**

- **Cyp1a1 deficiency confers immunoregulatory functions to Type-2 dendritic cells** B. Pieroni, M. Gargaro, G. Manni, G. Scalisi, G. Mencarelli, D. Ricciuti, C. Schmidt-Weber, C. Ohnmacht, R.J. de Jong and F. Fallarino

Federico II Medical School in Napoli, XIII SIICA national meeting, **Poster session**

- **Small molecules modulators of prion protein in dendritic cells regulateninflammatory responses in a model of Multiple Sclerosis.**
B. Pieroni, G. Manni, G. Manfroni, M.L. Barreca, M. Gargaro, G. Scalisi,

G. Mencarelli, D. Ricciuti, F. Sarnari, T. Massignan, E. Biasini, F. Fallarino

University of Verona, XIV SIICA national meeting, **Poster session**

- **Zeaxanthins promote anti-inflammatory and neuroprotective effects by Aryl Hydrocarbon Receptor activation**

B. Pieroni, G. Manni, G. Scalisi, G. Mencarelli, D. Ricciuti, F. Sarnari, A. Pinzi, M. Gargaro, D. Amantea, F. Fallarino

The International SIICA Retreat of PhD students in immunology (Otranto), **Oral presentation**

- **Zeaxanthins promote anti-inflammatory and neuroprotective effects by Aryl Hydrocarbon Receptor activation**

B. Pieroni, G. Manni, G. Scalisi, G. Mencarelli, D. Ricciuti, F. Sarnari, A. Pinzi, M. Gargaro, D. Amantea, F. Fallarino

42° Congresso Nazionale della SIF (Sorrento), **Oral presentation**

**Abstract publication from
conferences (as an author)**

- **Amniotic fluid stem cells-derived extracellular vesicles reprogram dendritic cell functions in autoimmune neuroinflammation**
D. Ricciuti, G. Manni, M. Gargaro, G. Scalisi, G. Mencarelli, B. Pieroni, V.N. Talesa, P. Puccetti, R. Romani and F. Fallarino

- **Statins suppress dendritic cells activation via aryl hydrocarbon receptor in inflammatory bowel disease**
D. Ricciuti, G. Manni, M. Gargaro, G. Scalisi, G. Mencarelli, E. Padiglioni, B. Pieroni, Monteleone, P. Puccetti e F. Fallarino

- **Inflammatory type 2 conventional dendritic cells (cDC2) are reprogrammed by tryptophan metabolite L-kynurenine (L-kyn) in a model of multiple sclerosis.**
G. Mencarelli, D. Ricciuti, G. Scalisi, E. Padiglioni, B. Pieroni, G. Manni, K.M. Murphy, M. Gargaro and F. Fallarino

- **Aryl hydrocarbon receptor activation in type 1 conventional dendritic cells plays a protective role in the experimental model of sepsis**
G. Mencarelli, G. Scalisi, G. Manni, D. Ricciuti, B. Pieroni, F. Sarnari, K. M. Murphy, F. Fallarino and M. Gargaro

- **Amniotic fluid cell-derived extracellular vesicles reprogram dendritic cell functions in autoimmune neuroinflammation**
G. Manni, M. Gargaro, D. Ricciuti, S. Fontana, M. Cipolloni, T. Mazza, B. Pieroni, G. Mencarelli, F. Sarnari, R. Romani and F. Fallarino

- **Indoleamine 2,3-dioxygenase 1 activation in mature cDC1 promotes**

tolerogenic education of inflammatory cDC2 via metabolic communication

M. Gargaro, G. Scalisi, G. Manni, G. Mencarelli, D. Ricciuti, B. Pieroni, F. Sarnari, C. G. Briseno, K. Sunkvung, G. Servillo, N. Giacchè, C. Colliva, R. Pellicciari, M. Colonna, K. M. Murphy and F. Fallarino

- **Targeting of aryl hydrocarbon receptor in type 1 conventional dendritic cells fosters anti-tumor immunity**

A. Marra, D. Ricciuti, B. Pieroni, F. Sarnari, G. Mencarelli, G. Scalisi, G. Manni, K.M. Murphy, F. Fallarino

- **Layered Double Hydroxide Nanoparticles: A Promising Platform for Nucleic Acid Delivery in Gene Therapy**

D. Ricciuti, M. Gargaro, G. Manni, M. Sisani, E. C. Silva Barcelos, G. Mencarelli, M. Bastianini, B. Pieroni, F. Sarnari, A. Pinzi, R. Spogli and F. Fallarino

- **High Aryl Hydrocarbon Receptor gene expression correlates with Immunoinhibitory features and poor outcomes in patients with Soft Tissue Sarcomas**

A. Marra, G. Manni, A. Pinzi, D. Ricciuti, G. Mencarelli, F. Sarnari, B. Pieroni, G. Scalisi, G. Mondanelli, M. Mandanaro, A. Sidoni, A. Macchiarulo, K.M. Murphy, F. Fallarino and M. Gargaro

- **Exploring the Functional Role of Factor VIII in Dendritic Cells: Implications for Immune Regulation?**

F. Sarnari, M. Gargaro, E. C. Silva Barcelos, A. Pinzi, G. Mencarelli, G. Manni, B. Pieroni, D. Ricciuti, A. Follenzi, F. Mingozi and F. Fallarino

- **IL4I1 catalytic activity confers protection against ferroptosis in a murine fibrosarcoma cell line**

G. Mencarelli, B. Pieroni, E.C. Silva Barcelos, G. Manni, D. Ricciuti, F. Sarnari, A. Pinzi, K.M. Murphy, F. Fallarino and M. Gargaro.

- **Il4i1 in the Tumor Microenvironment: Unraveling Its Impact on Immune Responses and Tumor Dynamics**

G. Mencarelli, A. Marra, E. C. Silva Barcelos, A. Astolfi, G. Manni, G. Scalisi, D. Ricciuti, B. Pieroni, F. Sarnari, A. Pinzi, G. Manfroni, M. Mandanaro, A. Sidoni, M. Colonna, M. L. Barreca, P. J. Murray, K. M. Murphy and F. Fallarino

- **Breaking Aryl Hydrocarbon Receptor's Tumor Microenvironment Sensing for Enhanced cDC1-Mediated Antitumor Response**

A. Marra, E. C. Silva Barcelos, A. Pinzi, G. Manni, D. Ricciuti, G. Mencarelli, F. Sarnari, B. Pieroni, G. Scalisi, A. Macchiarulo, M. Colonna, K. M. Murphy and F. Fallarino

Seminars and Meetings

- University of Study of Perugia, Winter school of biotechnology, 8th edition
- SIICA 6th International Congress on Translational Immunology (Monopoli)
- University of Trento, 34° Simposio Pezcoller, New technologies for studying and treating cancer
- University of Perugia, **"A multi-organ-on-chip MIVO® based platform to recapitulate the immune cells' circulation, infiltration and cytotoxic activity against cancer cells"**
- University of Perugia, **"The IL-17 Cytokine Family in Microbial Infection and Lung Disease"**, Prof. Nicola Ivan Lorè , I.R.C.C.S. Ospedale San Raffaele, Italy
- University of Perugia, **"Thrombin cleavage of osteopontin regulates macrophages: suppression of the host anti-tumor immune response and increased fibrosis."** Prof. J. Morser, Stanford University School of Medicine San Francisco, USA
- University of Perugia, **"Sterylglucosidases and fungal vaccines: how to move forward"** MD Maurizio Del Poeta, Distinguished Professor, Department of Microbiology and Immunology, Renaissance School of Medicine at Stony Brook University, New York, USA
- University of Perugia, **"The new frontiers of Single-cell analysis"**, BD Biosciences
- University of Perugia, **"Neoadjuvant immunotherapy in melanoma. The template for personalized immunotherapy in the future"** Prof. Christian Blank, MD, PhD, Medical Oncologist and Haematologist Department of Medical Oncology Division of Molecular Oncology and Immunology The Netherlands Cancer Institute - Antoni van Leeuwenhoek Hospital (NKI-AVL) Amsterdam, The Netherlands
- University of Perugia, **"Transcriptional control of myeloid cell diversity and activation"**, Prof. Renato Ostuni, Associate Professor of Tissue Biology Vita-Salute San Raffaele University, Group Leader Genomics of the Innate Immune System, San Raffaele Telethon Institute for Gene Therapy (SR-Tiget) San Raffaele Scientific Institute
- University of Perugia, **"Identifying new strategies for improving immunotherapy efficacy by understanding response versus resistance"** Prof. Thomas F. Gajewski, MD, PhD, Department of Pathology Medicine and the Ben May Institute, Chicago, USA
- University of Perugia, **"Come il microbioma sta cambiando la**

medicina: tra l'umano, l'ambiente e il computazionale", Prof.ssa Roberta Raffaetà and Dott.ssa Valeria Burgio, Università Cà Foscari Venezia, Italy

- University of Perugia, **"Humoral immunity: do we regard in the context of airborne fungal pathogens?"**, Dott. VishuKumar Aimanianda, Institut Pasteur, Paris, France
- University of Perugia, **"Connections in the AhR: a ticket to multiple destinations in infection, immunity and therapy"**, Dott. Pedro Alves, ImmunoHUB ERA Chair Holder at the i3S, University of Oporto, Portugal
- University of Perugia, **"High-resolution transcriptomic techniques as proficient tools to study unconventional T cells in gut homeostasis and disease"**, Dott. Alberto Baeri, Università degli Studi di Milano-Bicocca, Italy

Awards

- **Erasmus plus for trainsheep** 3rd September 2023- 31st January 2024
Leibniz Institute of Hamburg (Germany)
Supervisor: Professor Marcus Altfeld

