

CURRICULUM VITAE

ANTONELLA CALORE

PERSONAL INFORMATION

Name Antonella Calore
Date of birth May 12th, 1997
Place of birth Salerno (SA), Italy
Address Via Scuderlando n°235, 37135 Verona (VR)
Telephone 3467811254
E-mail antonella.calore@univr.it
calore.antonella@gmail.com



EDUCATION

PhD in Inflammation, Immunity and Cancer

ongoing

University of Verona, Verona

I'm currently attending the 3rd year, and the expected graduation is in October 2026.

Master's degree in Medicinal Chemistry

March 2022

University of Salerno, Salerno

Dissertation: Expression and purification of *Candida albicans* Hst3p sirtuin

Supervisor: Prof.ssa Amalia Porta

Grade: 110/110 *cum laude*

Scientific High School diploma

July 2015

Liceo scientifico Bonaventura Rescigno, Roccapiemonte (SA)

Grade: 100/100

WORKING EXPERIENCE AND RESEARCH ACTIVITY

1. *From October 2023 to Present*, I'm attending the laboratory of neuroimmunology and neuroinflammation coordinated by Prof. Gabriela Constantin at the Department of Medicine, Section of General Pathology, University of Verona. I started my project focusing on neutrophil-mediated neuroinflammatory processes involved in chronic neurodegenerative disorders such as Multiple Sclerosis (MS) and Alzheimer's disease (AD), particularly using the Experimental Autoimmune Encephalomyelitis (EAE) model that recapitulates MS pathology, and 3xTg-AD mice developing AD-like pathology. I'm currently involved in a project aimed to investigate meningeal Neutrophil-Macrophage crosstalk mediates CNS neuroinflammation, which focuses on the role of innate immune interactions in driving neuroinflammatory processes in Multiple Sclerosis. These studies are performed in the context of the PNRR project, "Missione 4, Componente 2, Investimento 1.3, finanziato dall'Unione europea-NextGenerationEU Avviso: Decreto Direttoriale MUR n. 341 del 15-03-2022, Project title "A multiscale integrated approach to the study of the nervous system in health and disease (MNESYS) (PE0000006) "CUP: B33C22001060002".

2. *From September 2022 to September 2023*, I won a Pre-doc fellowship at the CIBIO department (University of Trento) in Prof. Mione's laboratory of Experimental Cancer Biology, where I focused my study on Uveal Melanoma (UM), a rare tumor, using zebrafish as a cancer animal model. These studies were performed with the support of EU grant n.667787, UM Cure 2020.

3. *From March 2020 to July 2021* I attended Prof. Amalia Porta and Prof. Alessandra Tosco laboratory, where I developed my master's thesis at the Department of Medicinal Chemistry, University of Salerno. My project centered on the expression and purification of the *Candida albicans* Hst3p sirtuin, a key NAD⁺-dependent histone deacetylase responsible for regulating acetylation of lysine 56 on histone H3.

SUMMARY OF ACQUIRED LABORATORY AND TECHNICAL SKILLS

- Certified to perform functions A, C and D (Rodents) under Italian Ministerial Decree 5 August 2021.
- Handling and use of laboratory mice. Blood collection. Intraperitoneal, subcutaneous, and intravenous injections. Per os drug administration.
- Induction of active experimental autoimmune encephalomyelitis in C57Bl/6 mice.

- Extraction of fresh and fixed murine tissues (spleen, bone marrow, lymph nodes, brain, spinal cord, leptomeninges, dura mater, lung, kidney and liver).
- Isolation of peripheral mononuclear cells and neutrophils from murine and human blood and murine bone marrow.
- Flow cytometry on blood and bone marrow (human and murine), and on cells isolated from organs of healthy and with EAE mice (brain, meninges, spinal cord, liver, and spleen).
- Processing of whole blood and tissues (spinal cord and leptomeninges) of healthy mice and mice with EAE for scRNA-seq.
- Organ cryopreservation and cryostatic/microtome sectioning for immunohistochemistry and immunofluorescence procedures.
- Immunohistochemistry and immunofluorescence on frozen and paraffin embedded murine brain and spinal cord, zebrafish eyes and tumor.
- Optical microscopy: brightfield, darkfield, and phase contrast.
- Organotypic slicing of brain and spinal cord of healthy mice and mice with AD and EAE.
- Performing LDH, Alamar Blue, Nitric oxide and glutathione assays on organotypic slices.
- Co-culture of neutrophils on organotypic slices.
- In vitro cell cultures: obtaining zebrafish primary cell cultures, maintaining human and mouse cell line culturing.
- Acquisition of zebrafish theoretical courses certificate approved by the ministry (IZSLER).
- Acquisition of zebrafish practical courses approved by the ministry (University of Trento)
- Zebrafish manipulation (embryo, larva).
- Microinjection in zebrafish embryo.
- Biolog and Seahorse metabolic assays.
- Gel electrophoresis.
- DNA and RNA extraction from zebrafish tissues and human tumor cells.
- Use of Nanodrop for DNA, RNA and protein quantification and purity evaluation.
- qPCR for gene expression quantification and PCR for zebrafish genotyping.
- Histological preparation of zebrafish and mouse tissues: fixation in formaldehyde, embedding in paraffin, microtome sectioning, and most used histological colorations.

- Bacterial and yeast cultures
- Midi prep, transformation and transfection.
- Bradford assay for protein quantification.
- Use of UV-Vis spectrophotometry.
- SDS-PAGE, Comassie staining and Western blotting.
- Fast Protein Liquid Chromatography.
- Ammonium sulfate fractionate protein precipitation.
- Activity assay setup and Dot blots execution.

DIGITAL SKILLS

- Excellent knowledge of Microsoft Office (Word, Excel, PowerPoint).
- Proficient in using ImageJ.
- Ability to use FlowJo for the analysis of flow cytometric data.
- Familiar with GraphPad Prism for visualizing data and performing statistical analysis.

LANGUAGES

Italian: mother tongue

English: level B2

ABSTRACTS

Calore A., Lorenzini F., Marini S., Carreira A., Alsafadi S., Roman-Roman S., Stern M.H., Provenzani A., Mione M., **Characterization of the energetic metabolism of zebrafish uveal melanoma models**, POSTER PRESENTATION, 12th European Zebrafish Meeting, Kraków, Poland.

Calore A., Terrabuio E., Pietronigro E.C., Della Bianca V., Angelini G., Bani A., Majumder P., Varelzakis N., Constantin G., **Organotypic brain and spinal cord slice cultures as an innovative model to study neurodegenerative and neuroinflammatory disorders**, POSTER PRESENTATION, XXXII AINI Congress, Cagliari.

Calore A., Terrabuio E., Pietronigro E.C., Della Bianca V., Angelini G., Bani A., Majumder P., Varelzakis N., Constantin G., **Organotypic brain and spinal cord slice cultures as an**

innovative model to study neutrophil-mediated neuroinflammation and neurotoxicity in vitro. POSTER PRESENTATION, Neutrophil 2024, Munich, Germany.

Calore A., Terrabuio E., Pietronigro E.C., Della Bianca V., Angelini G., Bani A., Majumder P., Vareltzakis N., Constantin G., **Organotypic brain and spinal cord slice cultures as an innovative model to study neutrophil-mediated neuroinflammation and neurotoxicity in vitro.** POSTER PRESENTATION, 7th Brainstorming Research Assembly for Young Neuroscientists, Verona

Calore A., Terrabuio E., Pietronigro E.C., Mainieri F., Della Bianca V.,Majumder P., Vareltzakis N., Rossi B., Constantin G., **Organotypic brain and spinal cord slice cultures as a novel approach for investigating neuroinflammation and neurotoxicity.** POSTER PRESENTATION, XXXIII AINI Congress, Cagliari.

PUBLICATIONS

1. **CD103-CD8⁺T cells promote neurotoxic inflammation in Alzheimer's disease via granzyme K-PAR-1 signaling** Eleonora Terrabuio, Enrica Caterina Pietronigro, Alessandro Bani, Vittorina Della Bianca, Carlo Laudanna, Barbara Rossi, Giulia Finotti, Bruno Santos-Lima, Elena Zenaro, Ermanna Turano, Gabriele Tosadori, Matteo Calgaro, Nicola Vitulo, Monica Castellucci, Daniela Cecconi, Jessica Brandi, Nikolaos Vareltzakis, Fabiana Mainieri, **Antonella Calore**, Gabriele Angelini, Bruno Bonetti, Gabriela Constantin. *Nat Comm* 2025

I hereby authorize the treatment of my personal data according to the Italian Legislative Decree no. 196 dated 30/06/2003 and to art. 13 GDPR (EU Regulation 2016/679) for the purpose of recruiting and selecting staff.

