

CURRICULUM VITAE

Giulia Ambrosini

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Born in Soave, on 22nd April 1992.

Actual position

From April 1st 2024 Post-doc Fellowship funded by Fondazione Italiana per la ricerca sulle Malattie del Pancreas (FIMP); research carried out in the laboratory of Prof. Ilaria Dando at Section of Biological Chemistry, Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona.

Qualifications

- 2024** Master di II livello in “Ricerca clinica e Medical affairs. Farmaci e medical devices” (abilitazione secondo il D.M. 15/11/2011).
- 2022** Ph.D. in Biomolecular Medicine (Bio/10), Doctoral School of Life and Health Science (University of Verona).
PhD thesis title: “Progressively de-differentiated pancreatic cancer cells undergo metabolic shift achieving quiescence: the emerging role of TRAP1”
Coordinator: Prof. Massimo Donadelli; tutor: Prof. Ilaria Dando.
- 2017** Master Degree in Bioinformatics and Medical Biotechnology (LM-9), University of Verona.
Graduation thesis title: “Comparison of the intracellular behavior of human alanine:glyoxylate aminotransferase in the dimeric and monomeric form: a model to study the effects of oligomerization on peroxisomal import and stability”
Graduation mark: 110/110 *cum laude*
Supervisor: Prof.ssa Paola Dominici. Cosupervisor: Prof.ssa Barbara Cellini.
- 2017** Equipollence with Master Degree in Biology (LM-6).
Release of Equivalence in accordance with the Interministerial Decree of 28 June 2011 (Published on Gazzetta Ufficiale, December 5, 2011 n. 283).
- 2015** Bachelor Degree in Biotechnology (L-2), University of Verona.

Graduation thesis title: “Ornitina aminotransferasi umana in forma ricombinante purificata: analisi spettroscopiche, cinetiche e dello stato oligomerico”

Graduation mark: 98/110

Supervisor: Prof.ssa Barbara Cellini. Cosupervisor: Dott. Riccardo Montioli.

2011 High school diploma at Liceo “Guarino Veronese” (San Bonifacio, VR).

Research activity

2024 Research Fellowship holder funded by FIMP (Fondazione Italiana per la ricerca sulle Malattie del Pancreas) entitled “The mitochondrial chaperon TRAP1 as a candidate target to PDAC CSCs aggressiveness”, at University of Verona, Department of Neurosciences, Biomedicine and Movement Sciences. Scientific supervisor: Prof. Ilaria Dando.

2023 Research Fellowship holder funded by Fondazione Umberto Veronesi entitled “Innovative strategy to predict the development of testicular cancer in adulthood for children with undescended testicle”, at University of Verona, Department of Neurosciences, Biomedicine and Movement Sciences. Scientific supervisor: Prof. Ilaria Dando.

2022 Research Grant holder entitled “Studio in vitro e targeting di GABA-T come enzima cruciale coinvolto in patologie neurodegenerative”, issued by University of Verona, Department of Neurosciences, Biomedicine and Movement Sciences. Scientific supervisor: Prof. Ilaria Dando and Dott. Riccardo Montioli.

2020 Six months as Research Visiting Scholar; the project was carried out at Moffitt Cancer Center, Department of Cancer Physiology, Tampa – Florida (USA).

2018 Ph.D. in Biomolecular Medicine, Doctoral School of Life and Health Science (University of Verona), at the laboratory of Prof. Marta Palmieri.

2018 Research Grant holder entitled “Studies on the structural and metabolic characterization of heteroplasic stem cell”, issued by Università Cattolica del Sacro Cuore, Facoltà di Medicina e Chirurgia (Policlinico Universitario “Agostino Gemelli” – Roma). Scientific supervisor: Prof. Elisa Gremese.

2017 Research Fellowship holder entitled “Study of the functional role of PGC1alpha in the regulation of peroxisome metabolism and biogenesis in heteroplasic stem-cells”, issued by University of Verona, Department of Neurosciences, Biomedicine and Movement Sciences. Scientific supervisor: Prof. Lucia De Franceschi.

2017 Voluntary post-graduated internship at the laboratory of Prof. Marta Palmieri, in the Section of Biological Chemistry, Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona.

2016 Experimental internship at the laboratory of Prof. Barbara Cellini, in the Section of Biological Chemistry, Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona.

2014 Experimental internship at the laboratory of Prof. Barbara Cellini, in the Section of Biological Chemistry, Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona.

Research activity abroad

- 2020** Six months as Research Visiting Scholar at the laboratory of Prof. Gina DeNicola. During this period Dr. Giulia Ambrosini learnt different techniques for the analysis and characterization of regulated metabolic pathways in Cancer Stem Cells (CSCs) of pancreatic adenocarcinoma. The project was carried out at Moffitt Cancer Center, Department of Cancer Physiology, Tampa – Florida (USA).

Scientific dissemination activities

- 2023** Organized scientific dissemination and career orientation meetings aimed at students in the 4th and 5th grades of the G. Veronese State High School (San Bonifacio, VR). The meetings took place in person.

Institutional positions

- 2023** Tutor and co-supervisor of student's thesis of the Bachelor's Degree in Biotechnology.

Other qualifications

- 2022** Achievement of the qualification for teaching in the First and Second grade Secondary school (24 CFU obtained in: Didactic and technologic methodologies, General pedagogy, Educational psychology, Cultural anthropology).

Awards and acknowledgments

- 2024** Winner of the post-doc fellowship by FIMP (Fondazione Italiana per la Ricerca sulle Malattie al Pancreas).
- 2023** Winner of Best Talk Presentation Award at 3rd Biochemistry Tumor Workshop SIB. Catanzaro, 29-30 June 2023.
- 2023** Winner of the post-doc fellowship by Fondazione Umberto Veronesi.
- 2020** Winner of the Best Oral Presentation Award at AICC Day 2020. Virtual meeting, 15th October 2020.
- 2020** Winner of a SIB Fellowship for allocated as a contribution for research stays abroad. Rome, 9th October 2020.
- 2019** Winner of the Best Oral Presentation Award at the 2nd Workshop Differentiation and Neoplastic Transformation SIB Group. Florence, 17th June 2019.

Activities in scientific societies

- 2023** Guest Editor of the collection entitled “Signaling, Cancer Cell Plasticity, and Intratumor Heterogeneity” per il journal Cell Communication and Signaling.
- 2021** Italian Representative and Member of the FEBS Junior Sections Initiative (Federation of European Biochemical Societies).

- 2020** Elected member of the Scientific Committee - Youth Section, at SIB (Società Italiana di Biochimica e Biologia Molecolare).
- Dal 2019** Registered member of the Società Italia di Biochimica e Biologia Molecolare (SIB).
- Dal 2018** Registered member of the Associazione Italiana Colture Cellulari (AICC).

Active national and international collaborations

- Prof. Barbara Cisterna, Università degli Studi di Verona;
- Dott. Marco Cordani, Universidad Complutense de Madrid;
- Prof. Gina DeNicola, Moffitt Cancer Center, Tampa, Florida, U.S.A.;
- Prof. Massimo Donadelli, Università degli Studi di Verona;
- Dott. Pedro Gonzales-Menendez, Universidad de Oviedo;
- Dott. Filippo Migliorini, Azienda Ospedaliera Universitaria Integrata di Verona;
- Dott. Riccardo Montioli, Università degli Studi di Verona;
- Prof. Andrea Rasola, Università degli Studi di Padova;
- Dott. Guillermo Velasco, Universidad Complutense de Madrid;
- Prof. Andrea Vettori, Università degli Studi di Verona;
- Prof. Nicola Zampieri, Università degli Studi di Verona e Azienda Ospedaliera Universitaria Integrata di Verona.

Participation in editorial committees and reviewer activities in international journals

- 2024** Editor for the international journal “Frontiers in Molecular Biosciences” – Cellular Biochemistry.
- 2023** Guest Editor of the special insert “Signaling, Cancer Cell Plasticity, and Intratumor Heterogeneity” in the journal “Cell Communication and Signaling”. (<https://www.biomedcentral.com/collections/STPSCCP>).

Referee for the following scientific journals:

- *Biology Direct*,
- *Journal of extracellular Vesicles*,
- *International Journal of Cancer*,
- *Scientific Reports*.

Poster in congress

Dr. Giulia Ambrosini presented and discussed as first author the following posters at 11 congresses:

- **Innovative strategy to predict the development of testicular cancer in adulthood for children with undescended testicle.** Ambrosini G., Zampieri N., Migliorini F., and Dando I. *48th FEBS Congress. Mining biochemistry for human health and well-being*, 29 June – 3 July 2024, Milan.
- **A new potential *TRAP(1)* for pancreatic cancer stem cell aggressiveness.** Ambrosini G., Dalla Pozza E., Cisterna B., Rasola A. and Dando I.

- 35th AICC International Meeting. *Translational and precision medicine: from patient to cell and back*, 4-6 December 2023, L'Aquila.
- **Progressively de-differentiated pancreatic cancer cells show elongated mitochondria and metabolic plasticity.** Ambrosini G., Dalla Pozza E., Carmona Carmona C.A., Fanelli G., Cisterna B., Rinalducci S., Rasola A. and Dando I.
ISCaM2022: targeting metabolic dynamics in cancer (international society of cancer metabolism, 9th annual meeting), 29 June – 2 July 2022, Turin.
 - **Progressively de-differentiated pancreatic cancer cells undergo changes in mitochondrial dynamics and function.** Carmona Carmona C.A., Dalla Pozza E., Ambrosini G., Palmieri M., Bottani E., Decimo I. and Dando I.
33rd AICC Annual Conference: international meeting on Cancer Metabolism, 22-24 November 2021, Turin.
 - **Progressively De-Differentiated Pancreatic Cancer Cells Shift from Glycolysis to Oxidative Metabolism and Gain a Quiescent Stem State.** Ambrosini G., Dalla Pozza E., Fanelli G., Di Carlo C., Vettori A., Cannino G., Cavallini C., Carmona-Carmona C.A., Brandi J., Rinalducci S., Scupoli M.T., Rasola A., Cecconi D., Palmieri M. and Dando I.
EACR 2021 (European Association for Cancer Research) in “Innovative Cancer Science”, 09-12 June 2021, Virtual Congress.
 - **Progressively De-Differentiated Pancreatic Cancer Cells Shift from Glycolysis to Oxidative Metabolism and Gain a Quiescent Stem State.** Ambrosini G., Dalla Pozza E., Fanelli G., Di Carlo C., Vettori A., Cannino G., Cavallini C., Carmona-Carmona C.A., Brandi J., Rinalducci S., Scupoli M.T., Rasola A., Cecconi D., Palmieri M. and Dando I.
AICC Day 2020, 15th October 2020, Virtual Meeting.
 - **Pancreatic cancer cells undergo a metabolic shift during epithelial-to-mesenchymal transition towards the acquisition of a quiescent stem state.** Dando I., Dalla Pozza E., Ambrosini G., Carmona-Carmona C. A., Fanelli G., Di Carlo C., Cavallini C., Rasola A., Cecconi D., Scupoli M.T., and Palmieri M.
4th IFOM Symposium, “Breaking Boundaries: Metabolism at the Cross-roads”, 14-15 November 2019, IFOM, Milan.
 - **Metabolic characterization of cancer stem cells derived from PDAC cell lines.** Ambrosini G., Dalla Pozza E., Dando I., Cavallini C., Scupoli M.T., Fanelli G., and Palmieri M.
2nd Workshop Differentiation and Neoplastic Transformation SIB Group in collaboration with Protein SIB Group, “Molecular, cellular and translational approaches to differentiation and neoplastic transformation”, 17th June 2019, Centro Didattico Morgagni, Florence.
 - **Metabolic characterization of cancer stem cells derived from PDAC cell lines.** Ambrosini G., Dalla Pozza E., Dando I., Cavallini C., Scupoli M.T., Fanelli G., and Palmieri M.
Course in Cancer Metabolism, Translating the role of Mitochondria in Tumorigenesis (TRANSMIT), 29-30 November 2018, CEUB, Bertinoro di Romagna.
 - **Metabolic characterization of cancer stem cells derived from PDAC cell lines.** Ambrosini G., Dalla Pozza E., Dando I., Cavallini C., Scupoli M.T., Fanelli G., and Palmieri M.
“Cell communication and signaling”, Annual Conference of Italian Association of Cell Cultures (AICC), 27-28 November 2018, Istituto Ortopedico Rizzoli, Bologna.

- **Effects of oligomerization on peroxisomal import and stability of human alanine:glyoxylate aminotransferase.** Dindo M., Oppici E., Ambrosini G., Pey A.L., Marrison J., O'Toole P., and Cellini B.
Proteine Verona, Società Italiana di Biochimica e Biologia Molecolare (SIB), 28-30 May 2018, Università degli Studi di Verona, Verona.

Oral presentations at congresses or scientific meetings

- **A new potential TRAP(1) for pancreatic cancer stem cell aggressiveness.**
3rd Biochemistry Tumor Workshop SIB, 29-30 June 2023, Catanzaro.
- **Progressively De-Differentiated Pancreatic Cancer Cells Shift from Glycolysis to Oxidative Metabolism and Gain a Quiescent Stem State.**
SIB Webinars, Virtual Meeting, 26th February 2021.
- **Progressively De-Differentiated Pancreatic Cancer Cells Shift from Glycolysis to Oxidative Metabolism and Gain a Quiescent Stem State.**
CSC Conference 2020, Virtual Meeting, 13-17 December 2020.
- **Progressively De-Differentiated Pancreatic Cancer Cells Shift from Glycolysis to Oxidative Metabolism and Gain a Quiescent Stem State.**
AICC Day 2020, Virtual Meeting, 15th October 2020.
- **Metabolic characterization of cancer stem cells derived from PDAC cell lines.**
2nd Workshop Differentiation and Neoplastic Transformation SIB Group in collaboration with Protein SIB Group, “Molecular, cellular and translational approaches to differentiation and neoplastic transformation”, 17th June 2019, Centro Didattico Morgagni, Florence.

Articles published in international journals

From 2019 to date, co-author of 13 publications in international peer-reviewed scientific journals, of which 4 as first or co-first author.

Total H-index: 7. Total number of citations: 114. (Scopus source).

1. **In vitro effect of hCG on cryptorchid patients' gubernacular cells: a predictive model for adjuvant personalized therapy.** A. Errico, G. Ambrosini, S. Vinco, E. Bottani, E. Dalla Pozza, N. Marroncelli, J. Brandi, D. Ceconi, I. Decimo, F. Migliorini, N. Zampieri, and I. Dando, *Cell Commun Signal*. 2025 Jan 10;23(1):19. doi: 10.1186/s12964-024-01979-y.
2. **Platelet-rich plasma effects on in vitro cells derived from pediatric patients with andrological diseases.** S. Vinco, N. Rinaldi, A. Errico, G. Ambrosini, E. Dalla Pozza, N. Marroncelli, F.S. Camoglio, N. Zampieri, and Dando I, *Sci Rep*. 2024 Dec 28;14(1):31202. doi: 10.1038/s41598-024-82459-8.
3. **In vitro obtainment of stem-like cells from gubernaculum testis biopsies of cryptorchid pediatric patients.** S. Vinco, G. Ambrosini, A. Errico, N. Marroncelli, E. Dalla Pozza, E. Matranga, N. Zampieri, and I. Dando, *Exp Cell Res*. 2024 Oct 11:114281. doi: 10.1016/j.yexcr.2024.114281.

4. **Signaling, cancer cell plasticity, and intratumor heterogeneity.** M. Cordani, I. Dando, G. Ambrosini, P. Gonzales-Menéndez, *Cell Communication and Signaling* (2024), doi: 10.1186/s12964-024-01643-5.
5. **Transcending frontiers in prostate cancer: the role of oncometabolites on epigenetic regulation, CSCs, and tumor microenvironment to identify new therapeutic strategies.** G. Ambrosini, M. Cordani, A. Zarrabi, S. Alcon-Rodriguez, R. M. Sainz, G. Velasco, P. Gonzalez-Menendez, and I. Dando, *Cell Communication and Signaling* (2024), doi: 10.1186/s12964-023-01462-0.
6. **Mitochondrial dynamics as potential modulators of hormonal therapy effectiveness in males.** A. Errico†, S. Vinco†, G. Ambrosini†, E. Dalla Pozza, N. Marroncelli, N. Zampieri, and I. Dando, *Biology* (2023), doi: 10.3390/biology12040547.
7. **CRISPR/Cas9-mediated knock-out of AGXT1 in HepG2 cells as a new in vitro model of Primary Hyperoxaluria Type 1.** L. Gattichi, S. Grottelli, G. Ambrosini, G. Pampalone, O. Gualtieri, I. Dando, I. Bellezza, and B. Cellini, *Biochimie* (2022), doi: 10.1016/j.biochi.2022.08.005.
8. **Mitochondrial elongation and OPA1 are crucial players during the stemness acquisition process in pancreatic ductal adenocarcinoma.** C.A. Carmona-Carmona, E. Dalla Pozza, G. Ambrosini, B. Cisterna, M. Palmieri, I. Decimo, J.M. Cuezva, E. Bottani, and I. Dando, *Cancers* (2022), doi.org/10.3390/cancers14143432.
9. **Divergent Roles of Mitochondria Dynamics in Pancreatic Ductal Adenocarcinoma.** C.A. Carmona-Carmona, E. Dalla Pozza, G. Ambrosini, A. Errico and I. Dando, *Cancers* (2022), doi.org/ 10.3390/cancers14092155.
10. **Dimerization Drives Proper Folding of Human Alanine:Glyoxylate Aminotransferase But Is Dispensable for Peroxisomal Targeting.** M. Dindo†, G. Ambrosini†, E. Oppici, A.L. Pey, P.J. O’Toole, J.L. Marrison, I.E.G. Morrison, E. Butturini, S. Grottelli, C. Costantini and B. Cellini, *J. Pers. Med.* (2021), doi: 10.3390/jpm11040273.
11. **Extracellular matrix composition modulates the responsiveness of differentiated and stem pancreatic cancer cells to lipophilic derivate of Gemcitabine.** S. Forciniti, E. Dalla Pozza, M.R. Greco, T.M. Amaral Carvalho, B. Rolando, G. Ambrosini, C.A. Carmona-Carmona, R. Pacchiana, D. Di Molfetta, M. Donadelli, S. Arpicco, M. Palmieri, S.J. Reshkin, I. Dando and R.A. Cardone, *Int. J. Mol. Sci* (2021), doi:10.3390/ijms22010029.
12. **Progressively De-Differentiated Pancreatic Cancer Cells Shift from Glycolysis to Oxidative Metabolism and Gain a Quiescent Stem State.** G. Ambrosini, E. Dalla Pozza, G. Fanelli, C. Di Carlo, A. Vettori, G. Cannino, C. Cavallini, C.A. Carmona-Carmona, J. Brandi, S. Rinalducci, M.T. Scupoli, A. Rasola, D. Cecconi, M. Palmieri and I. Dando, *Cells* (2020), doi:10.3390/cells9071572.
13. **Oncometabolites in cancer aggressiveness and tumour repopulation.** I. Dando, E. Dalla Pozza, G. Ambrosini, M. Torrens-Mas, G. Butera, N. Mullappilly, R. Pacchiana, M. Palmieri and M. Donadelli, *Biol. Rev.* (2019), doi: 10.1111/brv.12513.