

Ilaria Dando *curriculum vitae*

Date and place of birth: February 19th, 1984 – Verona, Italy.

Citizenship: Italian.

Work address: University of Verona, Department of Neurosciences, Biomedicine and Movement Sciences, Biochemistry Section, Strada le Grazie 8, 37134, Verona, Italy.

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Current Position: Associate Professor at the University of Verona, Department of Neuroscience, Biomedicine and Movement, Section of Biological Chemistry- S.S.D.: BIO/10.

DEGREES and RESEARCH EXPERIENCES

From 2023: obtainment of the national scientific qualification (ASN) for the role of Full Professor (*I fascia*) in biochemistry (section 05/E1, SSD BIO/10).

From 1st December 2021 to today: Associate Professor of Biochemistry, University of Verona.

2018-2021: Assistant Professor (*Ricercatore a tempo determinato di tipo b*) of Biochemistry, University of Verona.

2016-2018: post-doctoral fellow financed by “Fondazione Umberto Veronesi”, University of Verona.

2013-2015: post-doctoral fellow in Prof. Marta Palmieri's laboratory, University of Verona.

2010-2012: Ph.D. student in Bioscience, University of Verona. Tutor: Prof. Marta Palmieri. Defence date: May 24th, 2013.

2009: Master's Degree in Molecular and Industrial Biotechnology, University of Verona; graduating mark 110/110 *cum laude*. Defence date: July 23rd, 2009.

2006: Bachelor's Degree in Agro-Industrial Biotechnology, University of Verona; graduating mark 110/110 *cum laude*.

TEACHING AND TUTORSHIP

From 2020 to today: academic responsibility and tutorship of i) four Bachelor's Degree thesis students in “Molecular and Medical Biotechnology”; ii) four Bachelor's Degree thesis students in “Medicine and Surgery”; iii) four Ph.D. students in “Biomolecular Medicine”; iv) two post-doctoral fellow.

academic year 2023-2024: Professor of Biochemistry and Metabolism in the Bachelor's Degrees of i) Speech and Language Therapy, ii) Radiology Techniques for Imaging and Radiotherapy (in which I am the coordinator of the teaching), iii) Obstetrics (in which I am the coordinator of the teaching), iv) Dental Hygiene, v) four post-graduate Medical Specializations (Pathological Anatomy, Clinical Biochemistry, Oncology, and Microbiology and Virology), and vi) elective course “Pediatric andrology and fertility preservation” of the Medicine and Surgery Degree at the University of Verona.

academic year 2022-2023: Professor of Biochemistry and Metabolism in the Bachelor's Degrees of i) Speech and Language Therapy, ii) Radiology Techniques for Imaging and Radiotherapy, iii) Obstetrics, iv) four post-graduate Medical Specializations (Pathological Anatomy, Clinical Biochemistry, Oncology, and Microbiology and Virology), and v) elective course “Pediatric andrology and fertility preservation” of the Medicine and Surgery Degree at the University of Verona.

academic year 2021-2022: Professor of Biochemistry and Metabolism in the Bachelor's Degrees of i)

Physiotherapy, ii) Speech and Language Therapy, iii) Radiology Techniques for Imaging and Radiotherapy, iv) Obstetrics, and v) post-graduate Specialization of Pathological Anatomy at the University of Verona.

academic year 2020-2021: Professor of Biochemistry and Metabolism in the courses of i) Physiotherapy, ii) Speech and Language Therapy, and iii) Obstetrics at the University of Verona. Tot. teaching hours: 96.

academic year 2019-2020: Professor of Biochemistry and Metabolism in the courses of i) Physiotherapy, ii) Speech and Language Therapy, and iii) Radiology Techniques for Imaging and Radiotherapy at the University of Verona.

RESEARCH EXPERIENCES ABROAD

2012: five months as a visiting researcher in the laboratory of Prof. David Tuveson at Cancer Research UK, Cambridge Research Institute, University of Cambridge, UK, and at **Cold Spring Harbor Laboratory**, NY, U.S.A. The collaboration was founded by the grants “Junior Research Program-COOPERINT” and “Caring for Carcinoid Foundation”.

2011: three months as a visiting researcher in the laboratory of System Biology of Prof. Lewis Cantley at Beth Israel Deaconess Medical Center, **Harvard University**, Boston, MA, U.S.A.

AWARDS and ACTIVITIES

2023: Unit head of the grant PRIN 2022 for the project “Targeting cancer stem cell metabolism by exploiting ncRNAs to improve drug therapy outcome in lung cancer” (Project ID: 2022TEWHJH).

From 2023: member of the “Research Coordination” and “Professional Education” Working Groups of the COST Action (European Cooperation in Science & Technology).

From 2023: member of the European Association of Urology (EAU).

2023: guest editor of the thematic issue entitled "*Signaling, Cancer Cell Plasticity, and Intratumor Heterogeneity*" in the journal "*Cell Communication and Signaling*".

From 2022: member of the editorial board of the journal "*Cancers*".

2022: guest editor of the special issue entitled "*Mitochondria and Metabolism of Pancreatic Adenocarcinoma Cells*" in the journal "*Cancers*".

2021: selected winner by European Consortium EPIC-XS for the development of the project entitled: “Analysis of histone modifications in progressively de-differentiated cancer stem cells derived from pancreatic ductal adenocarcinoma cell lines”.

From 2021: board member of the group “Biochemistry of Tumor” of the Italian Society of Biochemistry (SIB).

2016 and 2017: winner two times of the post-doctoral fellowship granted by “Fondazione Umberto Veronesi” in the oncology field.

From 2017: member of the editorial board of the journal "*Journal of Cancer Research Forecast*" - *Science Forecast*.

From 2016: reviewer *ad-hoc* for the following scientific journals: *Molecular Oncology*, *Cell Death and Disease*, *International Journal of Cancer*, *Translational Cancer Research*, *Journal of Extracellular Vesicles*.

2016: winner of the award “Medaglia SIB” (SIB: Italian Society of Biochemistry), given to a young scientist as recognition for a relevant scientific activity.

2014: winner of the poster “Poster Award” at the Annual Congress of the Italian Association of Cell Culture, November 12th-14th 2014, Verona.

2014: member of the scientific secretariat for the organization of the 27^o Annual Congress of the Italian Association of Cell Culture, which was held in Verona from November 12th to 14th, 2014.

2014: winner of the FEBS grant to participate as a young researcher at the *14th Young Scientist Forum (YSF)* and at the *International Meeting FEBS/EMBO*, Paris, August 27th- September 4th, 2014.

2013- today: nominated expert in the field of “Biochemistry of Sport” at the University of Verona.

2012- 2013: nominated expert in the field of “Biochemistry of Movement” at the University of Verona.

2012: winner of the grant “Junior Research Program-COOPERINT” for the period abroad in Prof. Tuveson laboratory (University of Cambridge, UK and Cold Spring Harbor Laboratory, USA).

2011: winner of the “Young Graduate Award” at the Annual Congress of the Italian Association of Cell Culture, November 23rd 2011, Rome.

From 2010: author in 27 abstracts and selected speaker in 4 national and international scientific meetings.

PAPERS

From 2011 to today, I have published 50 scientific papers in international peer-reviewed journals. Total H-index: 26.

1. **Transcending frontiers in prostate cancers: the role of oncometabolites on epigenetic regulation, CSCs, and tumor microenvironment to identify new therapeutic strategies.** Ambrosini G, Cordani M, Zarrabi A, Alcon-Rodriguez S, Sainz RM, Velasco G, Gonzalez-Menendez P, and Dando I. *Cell Commun Signal*. 2024.
2. **New insights into metabolic alterations and mitochondria re-arrangements in pancreatic adenocarcinoma.** I. Dando and E. Dalla Pozza. *Cancers*. 2023
3. **Mitochondrial features of mouse myoblasts are finely tuned by low doses of ozone: the evidence in vitro.** C.R. Inguscio, E. Dalla Pozza, I. Dando, F. Boschi, G. Tabarcci, O. Angelini, P.M. Picotti, M. Malatestas, B. Cisterna. *Int J Mol Sci*, 2023.
4. **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. *Under press*.
5. **The rs1001179 SNP and CpG methylation regulate catalase expression in chronic lymphocytic leukemia.** M. Galasso, E. Dalla Pozza, R. Chignola, S. Gambino, C. Cavallini, F.M. Quaglia, O. Lovato, I. Dando, G. Malpeli, M. Krampera, M. Donadelli, M.G. Romanelli, and M.T. Scupoli. *Cell Mol Life Sci*. 2022.
6. **CRISPR/Cas9-mediated knock-out of AGXT1 in HepG2 cells as a new in vitro model of primary hyperoxaluria type 1.** L. Gatticchi, S. Grottelli, G. Ambrosini, G. Pampalone, O. Gualtieri, I. Dando, I. Bellezza, and B. Cellini. *Biochimie*. 2022.
7. **Quality of life and anorectal malformations: a single-center experience.** G. Scirè, R. Gabaldo, I. Dando, F.S. Camoglio, and N. Zampieri. *Pediatr Gastroenterol Hepatol Nutr*. 2022.
8. **Mitochondrial elongation and OPA1 play crucial roles 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.
9. **3-Bromo-Isoxazoline derivatives inhibit GAPDH enzyme in PDAC cells triggering autophagy and apoptotic cell death.** R. Pacchiana, N. Mullappilly, A. Pinto, S. Bova, S. Forciniti, G. Cullia, E. Dalla Pozza, E. Bottani, I. Decimo, I. Dando, S. Bruno, P. Conti, and M. Donadelli. *Cancers*. 2022
10. **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
11. **Testicular torsion: preliminary results of in vitro cell stimulation using chorionic gonadotropin.** A. Errico, F.S. Camoglio, N. Zampieri, I. Dando. *Cells* 2022.
12. **A new frontier in therapy personalization based on in vitro studies to preserve fertility potential of men.** N. Zampieri, F.S. Camoglio, I. Dando. *Andrologia*. 2022: e14244.
13. **Adolescent male genitalia dissatisfaction: a surgical perspective.** N. Zampieri, I. Dando, F.S. Camoglio. *Asia*

14. **Integrated lipidomics and proteomics reveal cardiolipin alterations, upregulation of HADHA and long chain fatty acids in pancreatic cancer stem cells.** C. Di Carlo, C.S. Bebiana, M. Manfredi, J. Brandi, E. Dalla Pozza, E. Marengo, M. Palmieri, I. Dando, J.O. Wakelam, A.F. Lopez-Clabijo, D.Cecconi. *Sci Rep.* 2021: 13297.
15. **Editorial: Novel Cancer Treatments based on autophagy modulation.** M. Cordani, A. Somoza, M., Tafani, I. Dando, S. Kumar. *Front Pharmacol.* 2021: 12:650559.
16. **Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition).** Klionsky et al. *Autophagy.* 2021: 1-382.
17. **Effects of CD20 antibodies and kinase inhibitors on B-cell receptor signalling and survival of chronic lymphocytic leukaemia cells.** C. Cavallini, M. Galasso, E. Dalla Pozza, R. Chignola, O. Lovato, I. Dando, M.G. Romanelli, M. Krampera, G. Pizzolo, M. Donadelli, M.T. Scupoli. *Br J Haematol.* 2021.
18. **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⁺, R.A. Cardone*. *Int J Mol Sci.* 2021. * co-last authors and ⁺co-corresponding author.
19. **Human chorionic gonadotropin-mediated induction of breast cancer cell proliferation and differentiation.** I. Dando, C.A. Carmona-Carmona, N. Zampieri. *Cells.* 2021: 264.
20. **Nanomaterials for autophagy-related miRNA-34a delivery in cancer treatment.** P. Sharma*, I. Dando*, R. Strippoli, S. Kumar, A. Somoza, M. Cordani, M. Tafani. *Front Pharmacol.* 2020 Jul 24;11:1141. * equally contributed to this work.
21. **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, I. Dando. *Cells.* 2020 Jun 28;9(7).
22. **Regulation of succinate dehydrogenase and role of succinate in cancer.** E. Dalla Pozza, I. Dando, R. Pacchiana, E. Liboi, M.T. Scupoli, M. Donadelli, e M. Palmieri. *Semin Cell Dev Biol.* 2019 May 1.
23. **Pancreatic cancer stem cell proliferation is strongly inhibited by diethyldithiocarbamate-copper complex loaded into hyaluronic acid decorated liposomes.** A. Marengo, S. Forciniti, I. Dando, E. Dalla Pozza, B. Stella, N. Tsapis, N. Yagoubi, G. Fanelli, E. Fattal, C. Heeschen, M. Palmieri e S. Arpicco. *Biochim Biophys Acta Gen Subj.* 2019 Jan;1863(1):61-72.
24. **Mutant p53 blocks SESN1/AMPK/PGC-1 α /UCP2 axis increasing mitochondrial O₂⁻ production in cancer cells.** M. Cordani, G. Butera, I. Dando, M. Torrens-Mas, E. Butturini, R. Pacchiana, E. Oppici, C. Cavallini, S. Gasperini, N. Tamassia, M. Nadal-Serrano, M. Coan, D. Rossi, G. Gaidano, M. Caraglia, S. Mariotto, R. Spizzo, P. Roca, J. Oliver, M. T. Scupoli e M. Donadelli. *Br J Cancer.* 2018 Oct;119(8):994-1008.
25. **Oncometabolites in cancer aggressiveness and tumor repopulation.** I. Dando, E. Dalla Pozza, G. Ambrosini, M. Torrens-Mas, G. Butera, N. Mullappilly, R. Pacchiana, M. Palmieri e M. Donadelli. *Biol Rev Camb Philos Soc.* 2019 Apr 10.
26. **Extracellular matrix composition modulates PDAC parenchymal and stem cell plasticity and behavior through the secretome.** G. Biondani, K. Zeeberg, M.R. Greco, S. Cannone, I. Dando, E. Dalla Pozza, M. Mastrodonato, S. Forciniti, V. Casavola, M. Palmieri, S.J. Reshkin e R.A. Cardone. *The FEBS Journal.* 2018; 285(11): 2104-2124.

27. **Low catalase expression confers redox hypersensitivity and identifies an indolent clinical behavior in CLL.** C. Cavallini, R. Chignola, I. Dando, O. Perbellini, E. Mimiola, O. Lovato, C. Laudanna, G. Pizzolo, M. Donadelli e M.T. Scupoli. *Blood*. 2018; 26; 131(17): 1942-1954.
28. **Secreted molecules inducing epithelial-to-mesenchymal transition in cancer development.** E. Dalla Pozza, S. Forciniti, M. Palmieri e I. Dando. *Seminars in Cell & Developmental Biology*. 2018; 78: 62-72.
29. **UCP2 inhibition induces ROS/Akt/mTOR axis: role of GAPDH nuclear translocation in genipin/everolimus anticancer synergism.** I. Dando*, R. Pacchiana, E. Dalla Pozza, I. Cataldo, S. Bruno, P. Conti, M. Cordani, A. Grimaldi, G. Butera, M. Caraglia, A. Scarpa, M. Palmieri e M. Donadelli*. *Free Radical Biology and Medicine*. 2017; 113: 176-189. * corresponding authors.
30. **Proteomic analysis of pancreatic cancer stem cells: Functional role of fatty acid synthesis and mevalonate pathways.** J. Brandi, I. Dando, E. Dalla Pozza, G. Biondani, R. Jenkins, V. Elliott, V. Park, G. Fanelli, L. Zolla, E. Costello, A. Scarpa, D. Cecconi e M. Palmieri. *Journal of Proteomics*. 2017, 150: 310-322.
31. **The antioxidant uncoupling protein 2 stimulates hnRNP2/B1, GLUT1 and PKM2 expression and sensitizes pancreas cancer cells to glycolysis inhibition.** J. Brandi, D. Cecconi, M. Cordani, M. Torrens-Mas, R. Pacchiana, E. Dalla Pozza, G. Butera, M. Manfredi, E. Marengo, J. Oliver, P. Roca, I. Dando* e M. Donadelli*. *Free Radical Biology and Medicine*. 2016, 101: 305-316. * corresponding authors.
32. **Mutant p53 and mTOR/PKM2 regulation in cancer cells.** I. Dando, M. Cordani e M. Donadelli. *IUBMB Life*. 2016 Jul 7.
33. **Mutant p53 proteins counteract autophagic mechanism sensitizing cancer cells to mTOR inhibition.** M. Cordani, E. Oppici, I. Dando, E. Butturini, E. Dalla Pozza, M. Nadal-Serrano, J. Oliver, P. Roca, S. Mariotto, B. Cellini, G. Blandino, M. Palmieri, S. Di Agostino e M. Donadelli. *Molecular Oncology*. 2016 Apr 12.
34. **Secretome protein signature of human pancreatic cancer stem-like cells.** J. Brandi, E. Dalla Pozza, I. Dando, G. Biondani, E. Robotti, R. Jenkins, V. Elliott, K. Park, E. Marengo, E. Costello, A. Scarpa, M. Palmieri e D. Cecconi. *Journal of Proteomics*. 2016; 136: 1-12.
35. **The metabolic landscape of cancer stem cells.** I. Dando, E. Dalla Pozza, G. Biondani, M. Cordani, M. Palmieri e M. Donadelli. *IUBMB Life*. 2015 Sep 4.
36. **Antioxidant mechanisms and ROS-related microRNAs in cancer stem cells.** I. Dando, M. Cordani, E. Dalla Pozza, G. Biondani, M. Donadelli e M. Palmieri. *Oxidative Medicine and Cellular Longevity*. 2015: 425708.
37. **Mitochondrial uncoupling protein 2 and pancreatic cancer: A new potential target therapy.** M. Donadelli, I. Dando, E. Dalla Pozza e M. Palmieri. *World Journal of Gastroenterology*. 2015, 12, 11.
38. **Pancreatic ductal adenocarcinoma cell lines display a plastic ability to bi-directionally convert into cancer stem cells.** E. Dalla Pozza*, I. Dando*, G. Biondani, J. Brandi, C. Costanzo, E. Zoratti, M. Fassan, F. Boschi, D. Melisi, D. Cecconi, M.T. Scupoli, A. Scarpa e M. Palmieri. *International Journal of Oncology*. 2015, 46: 1099-1108. * equally contributed to this work.
39. **Regulation of miR-23b expression and its dual role on ROS production and tumour development.** M. Donadelli, I. Dando, C. Fiorini e M. Palmieri. *Cancer Letters*. 2014, (349), 107-113.
40. **UCP2, a mitochondrial protein regulated at multiple levels.** M. Donadelli, I. Dando, C. Fiorini e M. Palmieri. *Cellular and Molecular Life Sciences*. 2014, (71), 1171–1190.
41. **Hyaluronic acid-coated liposomes for active targeting of gemcitabine.** S. Arpicco, C. Lerda, E. Dalla Pozza, C. Costanzo, N. Tsapis, B. Stella, M. Donadelli, I. Dando, E. Fattal, L. Cattel e M. Palmieri. *European Journal of Pharmaceutics and Biopharmaceutics*. 2013, (85), 373-380.
42. **Cannabinoids inhibit energetic metabolism and induce AMPK-dependent autophagy in pancreatic cancer cells.** I. Dando, M. Donadelli, C. Costanzo, E. Dalla Pozza, A. D'Alessandro, L. Zolla e M. Palmieri. *Cell Death*

and Disease. 2013, (4), e664.

43. **Comparative proteomic and phosphoproteomic profiling of pancreatic adenocarcinoma cells treated with CB1 or CB2 agonists.** J. Brandi*, I. Dando*, M. Palmieri, M. Donadelli e D. Cecconi. *Electrophoresis*. 2013, (34), 1359-1368. * equally contributed to this work.
44. **Targeting gemcitabine containing liposomes to CD44 expressing pancreatic adenocarcinoma cells causes an increase in the antitumoral activity.** E. Dalla Pozza, C. Lerda, C. Costanzo, M. Donadelli, I. Dando, E. Zoratti, M.T. Scupoli, S. Beghelli, A. Scarpa, E. Fattal, S. Arpicco e M. Palmieri. *Biochimica et Biophysica Acta Biomembranes*. 2013, (1828), 1396-1404.
45. **UCP2 inhibition triggers ROS-dependent nuclear translocation of GAPDH and autophagic cell death in pancreatic adenocarcinoma cells.** I. Dando, C. Fiorini, E. Dalla Pozza, C. Padroni, C. Costanzo, M. Palmieri e M. Donadelli. *Biochimica et Biophysica Acta*. 2013, (1833), 672-679. doi: 10.1016/j.bbamer.2012.10.028.
46. **Autophagy induced by p53-reactivating molecules protects pancreatic cancer cells from apoptosis.** C. Fiorini, M. Menegazzi, C. Padroni, I. Dando, E. Dalla Pozza, A. Gregorelli, C. Costanzo, M. Palmieri e M. Donadelli. *Apoptosis*. 2013, (18), 337-346.
47. **Expression of the antiapoptotic protein BAG3 is a feature of pancreatic adenocarcinoma and its overexpression is associated with poorer survival.** A. Rosati, S. Bersani, F. Tavano, E. Dalla Pozza, M. De Marco, M. Palmieri, V. De Laurenzi, R. Franco, G. Scognamiglio, R. Palaia, A. Fontana, P. Di Sebastiano, M. Donadelli, I. Dando, J.P. Medema, F. Dijk, L. Welling, F. Di Mola, R. Pezzilli, M.C. Turco e A. Scarpa. *The American Journal of Pathology*. 2012, 181 (5).
48. **Role of mitochondrial uncoupling protein 2 in cancer cell resistance to gemcitabine.** E. Dalla Pozza, C. Fiorini, I. Dando, M. Menegazzi, A. Sgarbossa, C. Costanzo, M. Palmieri e M. Donadelli. *Biochimica et Biophysica Acta*. 2012, (1833), 672-679.
49. **Gemcitabine/cannabinoid combination triggers autophagy in pancreatic cancer cells through a ROS-mediated mechanism.** M. Donadelli, I. Dando, T. Zaniboni, C. Costanzo, E. Dalla Pozza, M.T. Scupoli, A. Scarpa, S. Zappavigna, M. Marra, A. Abruzzese, M. Bifulco, M. Caraglia e M. Palmieri. *Cell Death and Disease*, 2011, (2), e152.
50. **Gemcitabine response in pancreatic adenocarcinoma cells is synergistically enhanced by dithiocarbamate derivatives.** E. Dalla Pozza, M. Donadelli, C. Costanzo, T. Zaniboni, I. Dando, M. Franchini, S. Arpicco, A. Scarpa e M. Palmieri. *Free Radical Biology & Medicine*. 2011, (50), 926-933.

15th February 2024