

CURRICULUM VITAE
Fiorella Colasuonno



Personal data

Date and place of birth: March 31, 1992 at San Giovanni Rotondo (FG), Italy
Work address: University of Rome “Tor Vergata”, Via Montpellier 1 - 00133 Rome, Italy
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Education

2023-present Fixed term Type A Researcher at Department of Experimental Medicine, University of Rome “Tor Vergata” (Rome, IT).
2021-Feb 2023 Postdoctoral Researcher at Genetics and Rare Diseases Research Division, IRCCS Bambino Gesù Children's Research Hospital IRCCS (Rome, IT).
2017- 2020 PhD in Molecular and Cellular Biology, University “Roma Tre” (Rome, IT).
Aug 2020 Qualification as Professional Biologist at University of Roma “Tor Vergata” (Rome, IT).
Oct-Dec 2019 Internship at the Laboratory Bio-PeroXIL "Biochemistry of Peroxisome, Inflammation and Lipid Metabolism", University of Burgundy Franche Comté (Dijon, FR)
July 2017 MS *summa cum laude* in Molecular and Cellular Biology. University “Roma Tre” (Rome, IT).
Jan-July 2017 Pre-graduation internship at the Laboratory of “Molecular Medicine”, Unit of Neuromuscular and Neurodegenerative Diseases. IRCCS Bambino Gesù Children's Hospital (Rome, IT)
Sept-Dec 2016 Training at the Laboratory of “Cell Biology and Electron Microscopy”. National Institute of Infectious Diseases INMI "Lazzaro Spallanzani" IRCCS (Rome, IT)
Feb 2015 BS in Biology. University “Roma Tre” (Rome, IT)
July 2011 High School Diploma (Final mark 100/100), Liceo Scientifico Statale “Federico II di Svevia”, Altamura (Bari, IT)

Teaching activity

Mar-June 2022 Lecturer at the courses in “*Neurodevelopmental Biology*” (Dept. of Science, University Roma Tre).
Oct-Dic 2020-21 Lecturer at the courses in “*Developmental Biology*” and “*Laboratory of Neuroscience*” (Dept. of Science, University Roma Tre).
Mar-June 2019 Lecturer at the postmaster course in “*Applied Human Embryology*” (University Roma Tre).
2018-2021 Expert member of the committee for *Developmental Biology* and *Laboratory of Electron Microscopy*.
2016-2018 Tutor for the courses of “*Developmental Biology*” and “*Laboratory of Electron Microscopy*” (Undergraduate School program in Biology, Dept. of Science, University Roma Tre).

Fellowships, Prizes and Awards

2023 Awarded with a Youth TG-sponsored travel grant for FEBS 2024 advanced course “*Transglutaminases in human disease processes*”
2016-2020 Awarded with a Fellowship for Laboratory Assistance for the course of “*Comparative Anatomy and Developmental Biology*” (Dept. of Science, University “Roma Tre”).
2018 Awarded by “*Gruppo Embriologico Italiano*” for *Best Poster Prize* at the Meeting “64° *Convegno del Gruppo Embriologico Italiano*” (L'Aquila, IT)

Meeting attendance

2025 (29-31 Oct) Participation to “*Brainstorming Research Assembly for Young Neuroscientists*” 8th Edition, Torino, Italy (**Poster presenter**)
2025 (7-10 Oct) Participation to the Meeting “31st ECDO Conference 2025”, Berlin, Germany
2024 (19-23 May) Participation to the Meeting FEBS 2024 advanced course “*Transglutaminases in human disease processes*”, Bertinoro, Italy (**Oral and poster presenter**)
2022 (Sept 28-30) Participation to the Meeting “*Brainstorming Research Assembly for Young Neuroscientists*” 5th Edition, Rome, Italy (**Poster presenter**)
2018 (Nov 3-7) Participation at the Meeting “*Society for Neuroscience 2018*”, San Diego, CA, USA (**Poster presenter**)

- 2018 (Oct 18)** Participation at the Meeting “*Discovering Organoids: The Journey Of 3D Cultures Systems*” organized Voden Medical, Roma Tre University, Rome, Italy
- 2018 (June 11-14)** Participation at the Meeting “64° Convegno del Gruppo Embriologico Italiano”, L’Aquila, Italy (**Poster presenter**)
- 2018 (Feb 23)** Participation at the National Meeting of PhD Students in Neuroscience “*New Perspectives in Neuroscience: Research Results of Young Italian Neuroscientists*” organized by Italian Society for Neuroscience (SINS), Federico II University of Naples, Italy (**Poster presenter**)
- 2017 (Nov 6-7)** Participation at the Meeting “*Correlative microscopy in life and materials sciences*”, National Institute of Health, Rome, Italy (**Speaker**)
- 2017 (June 12-15)** Participation at the Meeting “63° Convegno del Gruppo Embriologico Italiano”, Rome, Italy
- 2017 (May 18-19)** Participation at the Meeting “*Biophysics@Rome*”, CNR, Rome, Italy (**Poster presenter**)
- 2016 (July 6-8)** Participation at “*Second International Meeting of the Milan center for Neuroscience (NeuroMi)*”, Milano, Italy (**Poster presenter**)

Professional Courses Attended

- 2019 (May 18-25)** Participation at “*Neural Stem Cells: Development and Brain Repair*” at the Neuroscience School of Advanced Studies (Venice, IT)
- 2019 (Gen-Feb)** Participation at “*Alta Formazione in Microscopia_Microscopia Confocale ed Elettronica*” University Roma Tre, (Rome, IT)
- 2018 (Sept 19-21)** Participation at “*14° Confocal Microscopy course*” and “*7° SEM and S(T)EM Microscopy course*”, organized by Italian Society for Microscopical Sciences (S.I.S.M.) (Modena, IT)
- 2016 (Sept 20-23)** Meeting “*NanoInnovation2016*”- Workshop: “*Ultramicrotomy and cryoultramicrotomy applied to biological and material sciences*”, La Sapienza University (Rome, IT)

Technical and Personal skills

- Cell culture of fibroblasts, cancer cell lines, iPSCs and iPSCs-derived motor and cortical neurons, mouse neuroblastoma cell line, oligodendrocytes, monocytes. Cells reprogramming into iPSC from fibroblasts, T cells, monocytes, peripheral blood mononuclear cells and bone marrow. Cell differentiation into motor neurons, cortical neurons, monocytes and trilineage differentiation
- Light, confocal and electron microscopic (TEM, FIB/SEM) techniques including sample preparation and tissue sectioning.
- Immunohistochemistry, immunofluorescence and immunoelectron microscopy. Western blot analysis and RTqPCR
- Languages: Italian, English, French
- Strong cooperation attitude, team working ability, good verbal and written communication skills. Strong orientation in reaching objectives, attitude to take roles, spirit of enterprise and organization, flexibility.
- Computer skills and competences: Windows XP, Vista and Windows 10; Office package; Photoshop CS6

Publications

- Colasuonno, F., D'Eletto, M., Bellanca, V., Piacentini, M., Di Sano, F., & Rossin, F. (2025). Cell death detection in iPSC-derived cortical neurons as model of neurodegeneration. *Methods in Cell Biology Series on Cell Death*, in press
- Bordi, M., Testa, B., Compagnucci, C., Colasuonno, F., Cipressa, F., Betterini, E., Mancini, A., Carsetti, C., Salvatori, I., Ferraina, C., Yang, M., De Cegli, R., Del Prete, E., Veroni, C., Rizza, S., Mauri, S., Ziviani, E., Macchiaiolo, M., Vecchio, D., Panfili, F. M., ... Cecconi, F. (2025). ADSL deficiency is a secondary mitochondrial disease affecting organelle homeostasis and ERK2/AKT signaling in a linear genotype-phenotype relation. *Cell reports*, 44(9), 116230. <https://doi.org/10.1016/j.celrep.2025.116230>
- Vecchio, A., Colasuonno, F., Occhigrossi, L., Pitolli, C., Bellanca, V., Ciccarone, F., D'Eletto, M., Di Sano, F., Pagliarini, V., Sette, C., Piacentini, M., & Rossin, F. (2025). Epigenetic modulation of RIPK3 by transglutaminase 2-dependent serotonylation of H3K4me3 affects necroptosis. *Cellular and molecular life sciences CMLS*, 82(1), 154. <https://doi.org/10.1007/s00018-025-05640-w>
- Paola, S., Lara, G., Michela, M., Silvia, D. C., Serena, M., Rosalba, P., Maria, N. A., Eleonora, C., Fiorella, C., Giulia, G., Giovanna, T., Giuseppe, N., & Federica, S. (2024). When do the pathological signs become evident? Study of human mesenchymal stem cells in MDPL syndrome. *Aging*, 16(22), 13505–13525. <https://doi.org/10.18632/aging.206159>
- Marioli, C., Muzzi, M., Colasuonno, F., Fiorucci, C., Cicolani, N., Petrini, S., Bertini, E., Tartaglia, M., Compagnucci, C., & Moreno, S. (2024). Caspase-dependent apoptosis in Riboflavin Transporter Deficiency iPSCs and derived motor neurons. *Cell death discovery*, 10(1), 54. <https://doi.org/10.1038/s41420-024-01812-y>

- Colasuonno, F., Price, R., & Moreno, S. (2023). Upper and Lower Motor Neurons and the Skeletal Muscle: Implication for Amyotrophic Lateral Sclerosis (ALS). *Advances in anatomy, embryology, and cell biology*, 236, 111–129. https://doi.org/10.1007/978-3-031-38215-4_5
- Colasuonno, F., Marioli, C., Tartaglia, M., Bertini, E., Compagnucci, C., & Moreno, S. (2022). New Insights into the Neurodegeneration Mechanisms Underlying Riboflavin Transporter Deficiency (RTD): Involvement of Energy Dysmetabolism and Cytoskeletal Derangement. *Biomedicines*, 10(6), 1329. <https://doi.org/10.3390/biomedicines10061329>
- Murdocca, M., Spitalieri, P., Cappello, A., Colasuonno, F., Moreno, S., Candi, E., D'Apice, M. R., Novelli, G., & Sangiuolo, F. (2022). Mitochondrial dysfunction in mandibular hypoplasia, deafness and progeroid features with concomitant lipodystrophy (MDPL) patients. *Aging*, 14(4), 1651–1664. <https://doi.org/10.18632/aging.203910>
- Klionsky, D. J., Abdel-Aziz, A. K., Abdelfatah, S., Abdellatif, M., Abdoli, A., Abel, S., Abeliovich, H., Abildgaard, M. H., Abudu, Y. P., Acevedo-Arozena, A., Adamopoulos, I. E., Adeli, K., Adolph, T. E., Adornetto, A., Aflaki, E., Agam, G., Agarwal, A., Aggarwal, B. B., Agnello, M., Agostinis, P.,..... Colasuonno, F.,... Tong, C. K. (2021). Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition)1. *Autophagy*, 17(1), 1–382. <https://doi.org/10.1080/15548627.2020.1797280>
- Niceforo, A., Marioli, C., Colasuonno, F., Petrini, S., Massey, K., Tartaglia, M., Bertini, E., Moreno, S., & Compagnucci, C. (2021). Altered cytoskeletal arrangement in induced pluripotent stem cells (iPSCs) and motor neurons from patients with riboflavin transporter deficiency. *Disease models & mechanisms*, 14(2), dmm046391. Advance online publication. <https://doi.org/10.1242/dmm.046391>
- Colasuonno, F., Bertini, E., Tartaglia, M., Compagnucci, C., & Moreno, S. (2020). Mitochondrial Abnormalities in Induced Pluripotent Stem Cells-Derived Motor Neurons from Patients with Riboflavin Transporter Deficiency. *Antioxidants (Basel, Switzerland)*, 9(12), 1252. <https://doi.org/10.3390/antiox9121252>
- Marioli, C., Magliocca, V., Petrini, S., Niceforo, A., Borghi, R., Petrillo, S., La Rosa, P., Colasuonno, F., Persichini, T., Piemonte, F., Massey, K., Tartaglia, M., Moreno, S., Bertini, E., & Compagnucci, C. (2020). Antioxidant Amelioration of Riboflavin Transporter Deficiency in Motoneurons Derived from Patient-Specific Induced Pluripotent Stem Cells. *International journal of molecular sciences*, 21(19), 7402. <https://doi.org/10.3390/ijms21197402>
- Colasuonno, F., Niceforo, A., Marioli, C., Fracassi, A., Stregapede, F., Massey, K., Tartaglia, M., Bertini, E., Compagnucci, C., & Moreno, S. (2020). Mitochondrial and Peroxisomal Alterations Contribute to Energy Dysmetabolism in Riboflavin Transporter Deficiency. *Oxidative medicine and cellular longevity*, 2020, 6821247. <https://doi.org/10.1155/2020/6821247>
- Colasuonno, F., Borghi, R., Niceforo, A., Muzzi, M., Bertini, E., Di Giulio, A., Moreno, S., & Compagnucci, C. (2017). Senescence-associated ultrastructural features of long-term cultures of induced pluripotent stem cells (iPSCs). *Aging*, 9(10), 2209–2222. <https://doi.org/10.18632/aging.101309>

Autorizzo il trattamento dei miei dati personali, ai sensi del D. lgs. 196 del 30 giugno 2003

Rome, 06/11/2025

Fiorella Colasuonno