

PERSONAL INFORMATION

Mayra Colardo



WORK  
EXPERIENCE

May 2018 - June 2019

University internship

University of Molise

October 2012

Department of Biosciences and Territory, lab of Cellular and Molecular Biology  
C.da Fonte Lappone snc, 86090, Pesche (IS)

University internship

“Centro trasfusionale” - Ospedale “Veneziale”

Via S. Ippolito 17, 86170, Isernia (IS)

EDUCATION AND  
TRAINING

November 2019 - present

PhD studentship in Biology and Applied sciences – *curriculum* Biology - XXXV  
cycle

Research field: cholesterol metabolism in physiological and pathological condition in the  
central nervous system.

November 2019

University of Molise, lab of Human Physiology  
Department of Biosciences and Territory

Professional habilitation in Biology

July 2019

University of Molise  
Department of Biosciences and Territory

Master degree in Biology (110/110 cum laude)

Master thesis title: “*Modulation of protein kinase ULK1 expression in human  
glioblastoma models*”

October 2016

University of Molise, lab of Cellular and Molecular Biology  
Department of Biosciences and Territory

**Bachelor degree in  
Biological Sciences**

University of Molise, lab  
of Cellular and Molecular  
Biology

Department of Biosciences and Territory

**CONTINUING EDUCATION  
COURSES**

- June 2022 Course on “The use of statistics in the biomedical research”  
Fondazione Santa Lucia – CERC (European Centre for Brain Research)
- April 2018 General and specific information and training course for personnel art.  
36 and 37 of Legislative Decree 81/08 and subsequent amendments  
for a total of 8 hours with final learning test.  
Azienda Sanitaria Regionale Molise (ASREM)

**TECHNICAL SKILLS AND  
COMPETENCES**

Methods and techniques of primary, immortal and tumoral cell cultures.

Optical and confocal microscopy, immunohistochemistry and immunofluorescence.

Biochemical and immunological methods for the evaluation of proteins (protein  
quantification through Lowry method, Western blotting, protein degradation assays,  
ELISA, triglycerides and cholesterol assays).

RNA extraction and quantification (RT-PCR) from cell cultures and tissues.

**LANGUAGES**

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B1	B1	B1	B1	B1

Mother tongue Italian

Other languages

English

TEACHING ACTIVITIES

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**2022 - present** Expert of the field and exam committee member for the course “Physiology of Nutrition”, inserted in the teaching program of the master degree in “Biology”.  
Department of Biosciences and Territory, University of Molise.

**2020 - present** Expert of the field and exam committee member for the course “Endocrine Physiology and Neurophysiology”, inserted in the teaching program of the master degree in “Biology”. Department of Biosciences and Territory, University of Molise.

Expert of the field for the course “Developmental Biology”, inserted in the teaching program of the master degree in “Biology”.

Department of Biosciences and Territory, University of Molise.

**2019- present** Expert of the field and exam committee member for the course “Physiology”, inserted in the teaching program of the bachelor degree in “Biological Sciences”.

Department of Biosciences and Territory, University of Molise.

Expert of the field for the course “Citology and Histology”, inserted in the teaching program of the bachelor degree in “Biological Sciences”.

Department of Biosciences and Territory, University of Molise.

**2020- present** Assistant supervisor for the experimental thesis entitled “NGF stimulates ApoE secretion from glial cells and mediates neuroprotective effects in an oxidative stress model”.

Department of Biosciences and Territory, University of Molise.

Assistant supervisor for the experimental thesis entitled “Inhibition of BET proteins compromises cell growth of glioblastoma and enhances sensitivity to Temozolomide”. Department of Biosciences and Territory, University of Molise.

Assistant supervisor for the experimental thesis entitled “Study of autophagic flow in Niemann-Pick disease type C”. Department of Biosciences and Territory, University of Molise.

Assistant supervisor for the experimental thesis entitled “BET proteins regulate autophagy in a human glioblastoma cell line”. Department of Biosciences and Territory, University of Molise.

Assistant supervisor for the experimental thesis entitled “NGF modulates cholesterol metabolism in an astrocytic cell line”. Department of Biosciences and Territory, University of Molise.

Assistant supervisor for the experimental thesis entitled “Nerve growth factor (NGF) and its signaling pathway: a possible therapeutic approach for Niemann-Pick disease type C”. Department of Biosciences and Territory, University of Molise.

Assistant supervisor for the experimental thesis entitled “The inhibition of proteins containing the Bromodomain and Extra-Terminal Domain (BET) reduces the accumulation of cholesterol in a Niemann-Pick disease type C cell model”.

Department of Biosciences and Territory, University of Molise.

Assistant supervisor for the experimental thesis entitled “Effect of autophagy induction on the tyrosine kinase receptors expression in a human hepatoma line”.

Department of Biosciences and Territory, University of Molise.

Assistant supervisor for the experimental thesis entitled “Inhibition of BET proteins promotes neuronal differentiation”.

Department of Biosciences and Territory, University of Molise.

## PEER REVIEWED ARTICLES

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1. **M. Colardo**, M. Petrarola, L. Lerza, D. Pensabene, N. Martella, V. Pallottini, M. Segatto. “*NGF modulates cholesterol metabolism and stimulated ApoE secretion in glial cells conferring neuroprotection against oxidative stress*”. Int J Mol Sci 2022, 23(9), 4842.
2. **M. Colardo**, N. Martella, D. Pensabene, S. Siteni, S. Di Bartolomeo, V. Pallottini, M. Segatto. “*Neurotrophins as key regulators of cell metabolism: implications for cholesterol homeostasis*”. Int J Mol Sci 2021, 22, 5692.
3. **M. Colardo**, M. Segatto, S. Di Bartolomeo. “*Targeting RTK-PI3K-mTOR axis in gliomas: an update*”. Int J Mol Sci 2021, 22, 4899.

4. V. Pallottini, **M. Colardo**, C. Tonini, N. Martella, G. Strimpakos, B. Colella, P. Tirazza, S. Di Bartolomeo, M. Segatto. "ProNGF/p75NTR axis drives fiber type specification by inducing the fast-glycolytic phenotype in mouse skeletal muscle cells". *Cells* 2020, 9, 2232.
5. B. Colella, **M. Colardo**, G. Iannone, C. Contadini, C. Saiz-Ladera, C. Fuoco, D. Barilà, G. Velasco, M. Segatto, S. Di Bartolomeo. "mTOR inhibition leads to Src-mediated EGFR internalisation and degradation in glioma cells". *Cancers* 2020, 12, 2266.
6. C. Tonini, **M. Colardo**, B. Colella, S. Di Bartolomeo, F. Berardinelli, G. Caretti, V. Pallottini, M. Segatto. "Inhibition of bromodomain and extraterminal domain (BET) proteins by JQ1 unravels a novel epigenetic modulation to control lipid homeostasis". *Int J Mol Sci* 2020, 21, 1297.

#### ABSTRACT PUBLICATIONS

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B. Colella, G. Iannone, **M. Colardo**, S. Di Bartolomeo. "Reversing Epithelial-to-Mesenchymal transition through autophagy induction in glioblastoma cells". Proceedings of the 65th Congress of the Italian Embryological Group (GEI\_SIBSC) - 38 th Congress of the Italian Society of Histochemistry (SII), European Journal of Histochemistry, 2019, Vol 63/supplement 2.

#### NATIONAL AND INTERNATIONAL CONGRESSES

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- July 2022 **M. Colardo**, M. Petrarola, D. Pensabene, L. Lerza, N. Martella, G. Venditti, M. Varone, V. Pallottini, M. Segatto. "Cholesterol metabolism is modulated by NGF in an astrocyte-derived cell line and exhibits a neuroprotective role against oxidative stress". FENS Forum, Paris. (Poster)
- May 2022 **N. Martella**, **M. Colardo**, M. Petrarola, D. Pensabene, L. Lerza, G. Venditti, M. Varone, S. Di Bartolomeo, V. Pallottini, M. Segatto. "Cholesterol metabolism crosstalk between glial and neuronal cells: a new role for NGF?". 39<sup>th</sup> International Union of Physiological Societies Congress. (Poster)
- S. Di Bartolomeo, M. Russo, **M. Colardo**, D. Pensabene, M. Segatto. "Targeting RTK/PI3K/mTOR axis and autophagy in glioblastoma". 11th Brain Tumor Meeting 2022, Berlin. (Poster)

- March 2022 M. Russo, D. Pensabene, **M. Colardo**, M. Segatto, S. Di Bartolomeo. “*The BET protein inhibitor JQ1 induces autophagy and neuronal-like differentiation in glioblastoma cells*” National PhD Meeting (ABCD and SIBBM), Salerno. (Poster)
- September 2021 **M. Colardo**, L. Lerza, N. Martella, V. Pallottini, M. Segatto. “*Nerve growth factor: a novel player in the regulation of brain cholesterol metabolism?*” XIX National Congress of the Italian Society for Neuroscience. (Poster)
- September 2019 B. Colella, **M. Colardo**, G. Iannone, G. Velasco, M. Segatto, S. Di Bartolomeo. “*Glioblastoma-Initiating Cells: a tool to study autophagy role in GBM pathogenesis*”. ABCD Congress, Bologna. (Poster)
- June 2019 B. Colella, G. Iannone, **M. Colardo**, S. Di Bartolomeo. “*Reversing Epithelial-to-Mesenchymal transition through autophagy induction in glioblastoma cells*”. Ancona, Gruppo embriologico italiano (GEI). (Poster)

#### Agreement

In compliance with the Italian legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document.

Mayra Colardo