



## Anastasia Ricci

### EDUCATION:

- 16<sup>th</sup> November 2021 – ongoing
- Post Doc in Biochemistry (BIO/10)  
Department of Biomolecular Sciences University of Urbino, “Carlo Bo”  
Advisor: Prof. Michele Menotta  
Project Title: “iPS generation from patients affected with rare genetic disorders”  
Research description: Somatic cells reprogramming into induced pluripotent stem cells, and differentiation into new cellular lines to study new molecular mechanisms involved in rare genetic diseases.
- 1<sup>st</sup> November 2018 – 15<sup>th</sup> December 2021
- PhD in Life Sciences, Health and Biotechnologies  
Department of Biomolecular Sciences University of Urbino, “Carlo Bo”  
Advisor: Prof. Mauro Magnani  
Project Title: “Molecular approaches for potential therapies in Ataxia Telangiectasia cellular model”.  
Research description: Seeking the molecular mechanism of dexamethasone action in Ataxia Telangiectasia, and studying the use of ATM variants in patient- derived cell models.
- September 2014 - February 2017
- Master degree in ‘Biologia molecolare sanitaria e della nutrizione’ cum laude (LM-6)  
University of Urbino “Carlo Bo”  
Advisor: Prof. Paolino Ninfali  
Thesis Title: “Phenolic compounds and antioxidant capacity in pasta sauces”  
Research description: The basic ingredients used to make the Italian soffritto were studied in order to define the polyphenol, antioxidant capacity and lycopene content of homemade or commercial tomato sauces, as well as their contribute in whole wheat or refined wheat pasta.



October 2010 - November 2013

Bachelor degree in 'Dietistica' cum laude (L/SNT3)

University of Rome, Cattolica del Sacro Cuore "A. Gemelli"

Advisor: Dr. Gian Lodovico Rapaccini

Thesis Title: "Crohn's disease. Bone metabolism alterations in patients on Steroid Treatment"

Research description: Patients with Crohn disease on steroid treatment were compared with those treated with anti-TNF $\alpha$ , concerning blood chemistry and nutritional parameters in order to detect specific alterations in bone metabolism, assess their severity, and propose intervention strategies.

## RESEARCH EXPERIENCE:

February 1<sup>st</sup> - March 25<sup>th</sup>, 2021

Abroad experience

Faculty of Health Sciences, University of Copenhagen (Department of Clinical Veterinary Medicine and Animal Science)

Tutor: Prof. Kristine Freude

Research description: Training in reprogramming of peripheral blood mononuclear cells of Ataxia Telangiectasia patients into induced pluripotent stem cells (iPSCs), and differentiation of iPSCs (from fibroblasts of patients affected by Frontotemporal dementia) to neurons and microglia.

September 2017 - November 2018

Fellowship in "Studying of ATM gene splicing variants in cell lines affected by Ataxia Telangiectasia" (BIO/10)

Department of Biomolecular Sciences University of Urbino, "Carlo Bo"

Advisor: Prof. Mauro Magnani

Research description: Seeking the molecular mechanism of dexamethasone action in Ataxia Telangiectasia (AT). Validating ATMdexa1 as a molecular biomarker of therapy effectiveness in AT patients treated with intra-erythrocyte Dexamethasone (EryDex), enrolled in a clinical trial of phase II.

## OTHER EXPERIENCES/TITLES:

- February 2024: FEBS Bursary Award for participation in the 48th FEBS Congress 29 June-3 July 2024.
- Representing member of Giunta TUM 2022 and TUM 2024.



- 2025-2024/2024-2023/2023-2022/2022-2021: Employment contract for teaching support activities for the official teaching of BIOCHEMICAL METHODOLOGIES, 10 hours, degree course in BIOLOGICAL SCIENCES at the University of Urbino.
- February 2021: Note of merit by Commission of 'BANDO HERITAGE'.
- July 2021: CIB (CONSORZIO INTERUNIVERSITARIO BIOTECNOLOGIE) Bursary Award for training activities in national or foreign laboratories.
- April 2021: Course of "Writing for Academic Publications: An Introduction to English-Language Tools", University of Urbino "Carlo Bo".
- April 2021: FEBS Bursary Award for participation in the 45th FEBS Congress 3-8 July 2021.
- July 2019: 1° Workshop Chromatin immunoprecipitation (ChIP), University of Urbino "Carlo Bo".
- January-June 2019: Course of B1/B2 English Level, CLA, University of Urbino "Carlo Bo".
- May 2018: Training QuantStudio™ 3D Digital PCR System, University of Urbino "Carlo Bo".
- June 2014: English course Pre-Advanced Level, B2, International House, London.

#### TECHNICAL EXPERTISE:

- DNA-RNA extraction and manipulation, gel electrophoresis;
- Real time quantitative PCR, Digital PCR;
- Protein characterization: SDS PAGE, western blotting, in vitro activity;
- Protein interaction: Proximity ligation assay PLA;
- Proteins and DNA interaction: Chromatin immunoprecipitation (ChIP), Electrophoresis Mobility Shift Assay (EMSA);
- Cell cultures;
- Induced pluripotent stem cells generation using Sendai virus;
- Microscopy: Immunohistochemical / immunofluorescence staining and analysis of cells.

#### PUBLICATIONS:

- **Anastasia Ricci**, Federica Biancucci, Gianluca Morganti, Mauro Magnani and Michele Menotta. Dexamethasone induces p21cip1/waf1 expression via FoxO3a independently of the Lamin A/C-

HDAC2 interaction in Ataxia Telangiectasia. FEBS Open Bio. 2023 Aug;13(8):1459-1468. doi: 10.1002/2211-5463.13663

- **Anastasia Ricci**, Federica Biancucci, Gianluca Morganti, Mauro Magnani and Michele Menotta. New human ATM variants are able to regain ATM functions in Ataxia Telangiectasia disease. Cellular and Molecular Life Sciences. 2022 79:601; <https://doi.org/10.1007/s00018-022-04625-3>.
- **Anastasia Ricci**, Sara Orazi, Federica Biancucci, Mauro Magnani and Michele Menotta. The nucleoplasmic interactions among Lamin A/C-pRB-LAP2 $\alpha$ -E2F1 are modulated by dexamethasone. Scientific Reports. 2021 May 11:10099; 11:10099.<https://doi.org/10.1038/s41598-021-89608-3>.
- **Anastasia Ricci**, Federica Biancucci, Mauro Magnani and Michele Menotta. Transcriptomic profile of ataxia telangiectasia cells treated for 30 days with a low dose of dexamethasone. All Life. 2021; 14:1, 277-286, DOI: 10.1080/26895293.2021.1911863.
- **Anastasia Ricci**, Luca Galluzzi, Mauro Magnani, Michele Menotta. DDIT4 gene expression is switched on by a new HDAC4 function in ataxia telangiectasia. FASEB J. 2020 Jan; 34(1):1802-1818. doi: 10.1096/fj.201902039R.
- Michele Menotta, Sara Orazi, Anna Maria Gioacchini, Chiara Spapperi, **Anastasia Ricci**, Luciana Chessa, Mauro Magnani. Proteomics and transcriptomics analyses of ataxia telangiectasia cells treated with Dexamethasone. PLoS One. 2018 Apr 2; 13(4): e0195388.
- **A. Ricci**, E. Antonini and P. Ninfali. Homemade tomato sauce in the Mediterranean Diet: a rich source of antioxidants protecting against postprandial oxidative stress. Ital. J. Food Sci., vol. 30, 2018 – 47.

#### PATENT:

- Michele Menotta, **Anastasia Ricci**, Federica Biancucci, Mauro Magnani. ATM protein variants for the treatment of diseases caused by at least one mutation of the ATM gene. 102022000002645.

#### INTERNATIONAL MEETING PRESENTATIONS:

- Federica Biancucci, **Anastasia Ricci**, Francesca Monittola, Gianluca Morganti, Mauro Magnani, Rita Crinelli, and Michele Menotta. Translational proteomics and metabolomics to evaluate gene delivery/therapy efficacy. FEBS 2024. Milano, 29 June- 3 July 2024.
- **Anastasia Ricci**, Federica Biancucci, Gianluca Morganti, Mauro Magnani and Michele Menotta. ATM variants activation by endogenous ATM. FEBS 2024. Milano, 29 June- 3 July 2024.

- Francesca Monittola, Sofia Masini, **Anastasia Ricci**, Mariele Montanari, Maria G Nasoni, Rita De Matteis, Francesca Luchetti, Barbara Canonico, Marzia Bianchi, Michele Menotta, Alessandra Fraternali, Rita Crinelli. Immunoproteasome remodelling in human terminally differentiated macrophages undergoing *in vitro* senescence. Protein Homeostasis in Health and Disease 24-28 April 2024 Cold Spring Harbor Laboratory.
- **Anastasia Ricci**, Federica Biancucci, Gianluca Morganti, Mauro Magnani and Michele Menotta. New human ATM variants are able to regain ATM functions in ataxia telangiectasia disease. SIB Congress. Firenze, 7-9 September 2023.
- Federica Biancucci, **Anastasia Ricci**, Gianluca Morganti, Mauro Magnani, Michele Menotta. Multiomics approaches for therapeutic developments in ataxia telangiectasia. SIB Congress. Firenze, 7-9 September 2023.
- Michele Menotta, **Anastasia Ricci**, Federica Biancucci, Gianluca Morganti, Mauro Magnani. New human ATM variants are able to regain ATM functions in ataxia telangiectasia disease. TUM 2022 ricercatori biochimici TUM di nuovo insieme: confronto e condivisione delle tematiche SIB fra Toscana, Umbria e Marche. Perugia, 1<sup>st</sup> December 2022.
- Federica Biancucci, **Anastasia Ricci**, Gianluca Morganti, Mauro Magnani, Michele Menotta. Multi-omics approaches for Ataxia Telangiectasia therapy development. TUM 2022 ricercatori biochimici TUM di nuovo insieme: confronto e condivisione delle tematiche SIB fra Toscana, Umbria e Marche. Perugia 1<sup>st</sup> December 2022.
- **Anastasia Ricci**, Federica Biancucci, Gianluca Morganti, Mauro Magnani, Michele Menotta. New human ATM variants are able to regain ATM functions in ataxia telangiectasia disease. XV Congress of the Italian Federation of Life Sciences (FISV). Reggia di Portici, Naples, 14-16 September 2022.

#### **POSTER PRESENTATION.**

- **Anastasia Ricci**, Federica Biancucci, Gianluca Morganti, Mauro Magnani, Michele Menotta. Multi-omics approaches for ataxia telangiectasia therapy development. XV Congress of the Italian Federation of Life Sciences (FISV). Reggia di Portici, Naples, 14-16 September 2022.
- Federica Biancucci, **Anastasia Ricci**, Gianluca Morganti, Michele Menotta and Mauro Magnani. Multi Omics approaches in therapeutic developments. Biotechnological platforms for pharmaceutical, nutraceutical and cosmeceutical applications. Trends in Biotechnology: the SIB group perspectives. Naples, June 23-24, 2022.
- **Anastasia Ricci**, Federica Biancucci, Gianluca Morganti, Mauro Magnani and Michele Menotta. Biotech approaches for the development of new therapeutic agents in the treatment of Ataxia Telangiectasia. Biotechnological platforms for pharmaceutical, nutraceutical and cosmeceutical applications. Trends in Biotechnology: the SIB group perspectives. Naples, June 23-24, 2022.

- **Anastasia Ricci**, Luca Galluzzi, Mauro Magnani, Michele Menotta. DDIT4 gene expression is switched on by a new HDAC4 function in ataxia telangiectasia. 32nd "A. Castellani" Meeting of PhD students in Biochemical Sciences. Brallo di Pregola (PV), September 13 – 16, 2021. **ORAL PRESENTATION.**
- **Anastasia Ricci**, Luca Galluzzi, Mauro Magnani, Michele Menotta. DDIT4 gene expression is switched on by a new HDAC4 function in ataxia telangiectasia. FEBS 2021. THE 45<sup>TH</sup> FEBS VIRTUAL CONGRESS. LJUBLJANA, July 3-8, 2021. **ORAL PRESENTATION.**
- **Anastasia Ricci**, Mauro Magnani and Michele Menotta. DDIT4 gene expression is switched on by a new HDAC4 function in Ataxia Telangiectasia. SIB 2019 60th Congress. Lecce, September 18-20, 2019.
- **Anastasia Ricci**, Michele Menotta, Mauro Magnani. Lamin A/C-HDAC2 interaction is modulated by dexamethasone in A-T cells. SIB 2019 60th Congress. Lecce, September 18-20, 2019.
- **Anastasia Ricci**, Michele Menotta, Mauro Magnani. Lamin a/c interactome modulated by dexamethasone in A-T cells. 18<sup>th</sup> Annual International Ataxia-Telangiectasia Workshop (ATW). Houston, May 1-4, 2019. **ORAL PRESENTATION.**
- Michele Menotta, **Anastasia Ricci**, Mauro Magnani. A new hdac4 role, induced by dexamethasone, improves autophagy in A-T cells. 18<sup>th</sup> Annual International Ataxia-Telangiectasia Workshop (ATW). Houston, May 1-4, 2019.
- Michele Menotta, Chiara Spapperi, **Anastasia Ricci**, Sara Orazi, Mauro Magnani. Development of miniATM Q-PCR and D-PCR assays. Ataxia Telangiectasia Clinical Research Conference (A-TCRN). Napoli, November 29<sup>th</sup> - December 1<sup>st</sup> 2018.
- Michele Menotta, Sara Orazi, Chiara Spapperi, **Anastasia Ricci**, Mauro Magnani. ATM unconventional splicing modulation by glucocorticoids. XV Congress of the Italian Federation of Life Sciences (FISV). Rome, 18-21 September 2018.
- **Anastasia Ricci**, Sara Orazi, Michele Menotta, Chiara Spapperi, Mauro Magnani. Dexamethasone effects on HDAC4 in A-T cell lines. XV Congress of the Italian Federation of Life Sciences (FISV). Rome, 18-21 September 2018.
- Michele Menotta, Sara Orazi, AnnaMaria Gioacchini, Chiara Spapperi, **Anastasia Ricci**, Luciana Chessa, Mauro Magnani. Proteomics and transcriptomics analyses of ataxia telangiectasia cells treated with Dexamethasone. High-throughput MS-based proteomics and metabolomics: from cells to clinic. UPO Novara, 25-26 June 2018.