

CURRICULUM VITAE

Personal data

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Place and date of birth: Rome, 19 July 1986

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Education

2024-present: Resident in Medical Genetics at Catholic University of the Sacred Heart of Rome, Italy

2024: Registration in the register of the order of Biologists of Lazio and Abruzzo (OBLA) since 11/09/2023, number AA100299

2021: “Training course on the Protection of Animals used for Scientific Purposes (EU Directive 63/2010) 3rd Edition”, at Catholic University of the Sacred Heart of Rome, Italy

2014: PhD in “Technological innovations in supplemented therapies of breast cancer tumors”, at Catholic University of the Sacred Heart of Rome, Italy

2011: Qualification as professional biologist

2010: Master’s degree with honours in “Biology and human evolution” at University of Rome Tor Vergata, Italy

2008: Bachelor's degree in “Human Biology” at University of Rome Tor Vergata, Italy

2005: High school degree at Liceo Scientifico “Vito Volterra”, Ciampino, Rome

Research experience

2025-present: Assistant Professor (tenure-track) at the Department of Experimental Medicine, University of Rome Tor Vergata, Italy

2017-2025: Permanent position as technician at the “Dipartimento Universitario Scienze della Vita e Sanità Pubblica” - Sezione di Ginecologia ed Ostetricia at Catholic University of the Sacred Heart of Rome, Italy

2016-2017: Position as young researcher at Molipharma S.R.L. - Catholic University of the Sacred Heart of Rome, Italy

2015-2016: Toniolo fellowship at Catholic University of the Sacred Heart of Rome, Italy

2013-2014: Research fellowship at Institute of Cellular Biology and Neurobiology, CNR, Rome, Italy

Technical skills and competences

Cellular and molecular biology: Cell culture (also primary cells), Transient and stable transfections, Western Blotting, Immunoprecipitation, Immunofluorescence, Mitochondrial extraction, TUNEL assay, AnnexinV assay, Cloning, RT-qPCR, dPCR, NGS, liquid biopsy

Animal biology: handling and breeding of mice, mouse colony management, intravenous and intraperitoneal injections, oral gavage, ovariectomy, sedation, anesthesia, euthanasia, collection of body fluids and organs, patient-derived xenografts (PDXs)

Computer skills: Microsoft office 365, Adobe Photoshop, Statistical analysis software (GraphPad Prism 9, Stata 14, R)

Language: Good knowledge of spoken and written English language, also in scientific field

Patents

Patent application: “IDENTIFICAZIONE DI BIOMARCATORI MOLECOLARI PREDITTIVI DI RISPOSTA AL TRATTAMENTO RADIOCHEMOTERAPICO NEL CARCINOMA DELLA CERVICE” (Italian application number n.102018000009133). Patent filing date: 03/10/2018. Inventors: Scambia G, Gallo D, Ferrandina MG, Petrillo M, Raspaglio G, **Buttarelli M**, Mancuso M, Saran A, Marino C, Desiderio A, Villani ME

Awards

Winner of the ICPeMed Best Practice in Personalised Medicine Recognition 2020 for the publication reported below (**Buttarelli** et al., 2019, number 12)

International and national grants

2023-present: Ministero della Salute (GR-2021-12374894) “Validation of a three-gene signature predictive of response to neoadjuvant chemoradiotherapy in cervical cancer” (PI Dr. Luigi Pedone Anchora), responsible for UO2 – Università Cattolica del Sacro Cuore, Roma

Publications

1. Piermattei A., De Luca R., Peissert F., Plüss L., Puca E., D’Alessandris N., Travaglino A., Sillano F., Pasciuto T., Giannarelli D., Zannoni G.F., Fagotti A., Neri D., Scambia G., **Buttarelli M.**, Nero C. A comparative analysis of tumor markers reveals EDA fibronectin as a promising target in high-grade serous ovarian cancer. *Journal of Ovarian Research*. 2025 18:194; doi.org/10.1186/s13048-025-01772-6
2. Zardi P, Righino B, Pirolli D, Gramanzini M, Semeraro A, Galano-Frutos J.J, Königs A, Đorđević L, Maggini M, **Buttarelli M**, Cappoli N, Romano V, De Donato M, Gallo D, Scambia G, De Rosa M.C. Design and Synthesis of Pyridopyrimidines Targeting NEK6 Kinase. *Arch Biochem Biophys*. 2025 Mar 14;768:110391. doi: 10.1016/j.abb.2025.110391
3. Raspaglio G, **Buttarelli M**, Cappoli N, Ciucci A, Fagotti A, Scambia G, Gallo D. Exploring the Control of PARP1 Levels in High-Grade Serous Ovarian Cancer. *Cancers (Basel)*. 2023 Apr 18;15(8):2361. doi: 10.3390/cancers15082361
4. Cesari E, Ciucci A, Pieraccioli M, Caggiano C, Nero C, Bonvissuto D, Sillano F, **Buttarelli M**, Piermattei A, Loverro M, Camarda F, Greco V, De Bonis M, Minucci A, Gallo D, Urbani A, Vizzielli G, Scambia G, Sette C. Dual inhibition of CDK12 and CDK13 uncovers actionable vulnerabilities in patient-derived ovarian cancer organoids. *J Exp Clin Cancer Res*. 2023 May 18;42(1):126. doi: 10.1186/s13046-023-02682-5
5. Masi I, Ottavi F, Del Rio D, Caprara V, Vastarelli C, Giannitelli SM, Fianco G, Mozetic P, **Buttarelli M**, Ferrandina G, Scambia G, Gallo D, Rainer A, Bagnato A, Spadaro F, Rosanò L. The interaction of β -arrestin1 with talin1 driven by endothelin A receptor as a feature of $\alpha 5\beta 1$ integrin activation in high-grade serous ovarian cancer. *Cell Death Dis*. 2023 Jan 30;14(1):73
6. Ciucci A, **Buttarelli M**, Fagotti A, Scambia G, Gallo D. Preclinical models of epithelial ovarian cancer: practical considerations and challenges for a meaningful application. *Cell Mol Life Sci*. 2022 Jun 16;79(7):364
7. **Buttarelli M**, Ciucci A, Palluzzi F, Raspaglio G, Marchetti C, Perrone E, Minucci A, Giacò L, Fagotti A, Scambia G, Gallo D. Identification of a novel gene signature predicting response to first-line chemotherapy in brca wild-type high-grade serous ovarian cancer patients. *J Exp Clin Cancer Res*. 2022 Feb 4;41(1):50
8. Raspaglio G, **Buttarelli M**, Filippetti F, Battaglia A, Buzzonetti A, Scambia G, Gallo D. Stat1 confers sensitivity to radiation in cervical cancer cells by controlling Parp1 levels: a new perspective for Parp1 inhibition. *Cell Death Dis*. 2021 Oct 12;12(10):933
9. De Donato M, Babini G, Mozzetti S, **Buttarelli M**, Ciucci A, Arduini G, De Rosa MC, Scambia G, Gallo D. KLF7: a new candidate biomarker and therapeutic target for high-grade serous ovarian cancer. *J Exp Clin Cancer Res*. 2020;39:265

10. **Buttarelli** M, De Donato M, Raspaglio G, Babini G, Ciucci A, Martinelli E, Baccaro P, Pasciuto T, Fagotti A, Scambia G, Gallo D. Clinical Value of lncRNA MEG3 in High-Grade Serous Ovarian Cancer. *Cancers (Basel)*. 2020;12:966
11. Lucà R, di Blasio G, Gallo D, Monteleone V, Manni I, Fici L, **Buttarelli** M, Ciolli G, Pellegrino M, Teveroni E, Maiullari S, Ciucci A, Apollo A, Mancini F, Gentileschi MP, Zannoni GF, Pontecorvi A, Scambia G, Moretti F. Estrogens Counteract Platinum-Chemosensitivity by Modifying the Subcellular Localization of MDM4. *Cancers (Basel)*. 2019;11:1349
12. **Buttarelli** M, Babini G, Raspaglio G, Filippetti F, Battaglia A, Ciucci A, Ferrandina G, Petrillo M, Marino C, Mancuso M, Saran A, Villani ME, Desiderio A, D'Ambrosio C, Scaloni A, Scambia G, Gallo D. A combined ANXA2-NDRG1-STAT1 gene signature predicts response to chemoradiotherapy in cervical cancer. *J Exp Clin Cancer Res*. 2019;38:279
13. Leonardi S, **Buttarelli** M, De Stefano I, Ferrandina G, Petrillo M, Babini G, Scambia G, Marino C, Mancuso M, Gallo D. The relevance of prelamin A and RAD51 as molecular biomarkers in cervical cancer. *Oncotarget*. 2017;8:94247-94258
14. Mancini F, Teveroni E, Di Conza G, Monteleone V, Arisi I, Pellegrino M, **Buttarelli** M, Pieroni L, D'Onofrio M, Urbani A, Pontecorvi A, Mazzone M, Moretti F. MDM4 actively restrains cytoplasmic mTORC1 by sensing nutrient availability. *Mol Cancer*. 2017;16:55
15. **Buttarelli** M, Mascilini F, Zannoni GF, Ciucci A, Martinelli E, Filippetti F, Scambia G, Ferrandina G, Gallo D. Hormone receptor expression profile of low-grade serous ovarian cancers. *Gynecol Oncol*. 2017;145:352-360
16. Ciucci A, Zannoni GF, **Buttarelli** M, Martinelli E, Mascilini F, Petrillo M, Ferrandina G, Scambia G, Gallo D. Ovarian low and high grade serous carcinomas: hidden divergent features in the tumor microenvironment. *Oncotarget*. 2016;7:68033-68043
17. Ciucci A, Zannoni GF, **Buttarelli** M, Lisi L, Travaglia D, Martinelli E, Scambia G, Gallo D. Multiple direct and indirect mechanisms drive estrogen-induced tumor growth in high grade serous ovarian cancers. *Oncotarget*. 2016;7:8155-71
18. Pellegrino M, Mancini F, Lucà R, Coletti A, Giacchè N, Manni I, Arisi I, Florenzano F, Teveroni E, **Buttarelli** M, Fici L, Brandi R, Bruno T, Fanciulli M, D'Onofrio M, Piaggio G, Pellicciari R, Pontecorvi A, Marine JC, Macchiarulo A, Moretti F. Targeting the MDM2/MDM4 interaction interface as a promising approach for p53 reactivation therapy. *Cancer Res*. 2015;75:4560-72
19. Di Conza G, **Buttarelli** M, Monti O, Pellegrino M, Mancini F, Pontecorvi A, Scotlandi K, Moretti F. IGF-1R/MDM2 relationship confers enhanced sensitivity to RITA in Ewing sarcoma cells. *Mol Cancer Ther*. 2012;11:1247-56
20. Di Conza G, Mancini F, **Buttarelli** M, Pontecorvi A, Trimarchi F, Moretti F. MDM4 enhances p53 stability by promoting an active conformation of the protein upon DNA damage. *Cell Cycle*. 2012;11:749-60

DICHIARAZIONE SOSTITUTIVA DI CERTIFICAZIONE (art. 46 e 47 D.P.R. 445/2000)

La sottoscritta **Buttarelli Marianna**,

ai sensi e per gli effetti degli articoli 46 e 47 e consapevole delle sanzioni penali previste dall'articolo 76 del D.P.R. 28 dicembre 2000, n. 445 nelle ipotesi di falsità in atti e dichiarazioni mendaci, dichiara che le informazioni riportate nel presente curriculum vitae corrispondono a verità.

Luogo e data

Firma

Roma, 18 settembre 2025