

Angela Ostuni – Short Curriculum Vitae

Academic Positions

- **March 2024 – Present:** Associate Professor of Biochemistry (SSD BIOS-07/A), Department of Basic and Applied Sciences, University of Basilicata.
- **2006 – March 2024:** Tenured Researcher (Assistant Professor) in Clinical Biochemistry and Molecular Biology (SSD BIOS-09/A), University of Basilicata.
- **1992 – 2006:** Held various technical and research positions (Technical Assistant, Technical Officer, Research Fellow) at the Department of Chemistry, University of Basilicata.

National Scientific Qualifications (ASN)

- **2023:** National Scientific Qualification as Full Professor in General Biochemistry (BIOS-07/A).
- **2022:** National Scientific Qualification as Associate Professor in Molecular Biology (BIOS-08/A).

Education and Training

- **PhD in Biochemistry and Molecular Biology**, University of Bari.
- **Visiting PhD Student**, Department of Cellular and Molecular Sciences, St. George's Hospital Medical School - University of London.
- **Degree in Biological Sciences** (110/110 cum laude), University of Bari.

Institutional Roles & Academic Service

- **Third Mission:** Member of the Departmental Third Mission Commission
- **Quality Assurance:** Member of the Quality Assurance Group for the Biotechnology Degree Program (L-2) and the Master's Degree in Biotechnology for Medical, Pharmaceutical, and Veterinary Diagnostics (LM-9).
- **Governance:** Departmental representative on the Board of the University Central Library.
- **Coordinator** of student orientation and teacher training within the **Progetto Lauree Scientifiche (PLS)** for Biology and Biotechnology (MIUR funded).
- Member of the **State Examination Board for the Profession of Biologist**.

PhD Faculty Board Membership, Supervision & Examination

- **Academic Board Member:** Active member of the PhD Faculty Boards in Sciences, Applied Biology, Chemistry, BioEcoSystems.
- **Supervision:** Supervisor and Co-supervisor for numerous PhD theses focusing on ABC transporters, metabolic reprogramming in cancer cells, protein disaggregation mechanisms.
- **External Evaluation:** Expert reviewer for PhD thesis evaluation at the Universities of Catania, Calabria and Bari "Aldo Moro".

Teaching Activities

Current Courses

- Advanced Medical-Diagnostic Biotechnology (8 ECTS) – Master’s Degree in Biotechnology for Medical, Pharmaceutical and Veterinary Diagnostics.
- Medical-Diagnostic Biotechnology (6 ECTS) – Bachelor’s Degree in Biotechnology.
- Applied Biochemistry (6 ECTS) – Bachelor’s Degree in Biotechnology.

Mentoring & Supervision

- Thesis Supervision: Supervisor of 100+ Bachelor’s and Master’s theses in Biotechnology and Pharmacy.

International Teaching

- Erasmus+ Visiting Lecturer: Université Paul Sabatier – Toulouse, France.
- Course Taught: *Protein production by recombinant DNA technology*.

Research Activities & Collaborations

- **Recombinant DNA technologies** for viral antigen design in veterinary diagnostics
- The role of the **ABCC6** transporter in hepatocellular carcinoma and ectopic calcification (Pseudoxanthoma Elasticum).
- Study of the **URG7** protein in HBV-induced hepatocellular carcinoma.
- Gender-specific biomarkers in **Parkinson’s disease** and mechanisms of alpha-synuclein disaggregation.
- Metabolomics of follicular fluids associated with **In Vitro Fertilization (IVF)** outcomes.

International and national Collaborations: Université Paul Sabatier (France); Aristotle University of Thessaloniki (Greece); Karolinska Institutet (Stockholm); University of Naples Federico II; San Carlo Hospital (Potenza); CEINGE Advanced Biotechnologies (Napoli); IRCCS-CROB (Rionero)

Technological Transfer & Editorial Roles

- **Patents:** Co-inventor of European Patent EP3161488A1 for the diagnosis of neoplastic liver disease risk.
- **Spin-off:** Co-founder of the academic spin-off *BioActiPlant s.r.l.*
- Editorial Board Member (Review Editor) for *Frontiers in Pharmacology – Inflammation Pharmacology* and *Frontiers in Oncology – Cancer Metabolism*.
- Member of the Scientific Committee of Basilicata University Press.
- Guest Editor of the Special Issue *Cancer and Neurodegenerative Diseases: What is the Link?* (*International Journal of Molecular Sciences*).
- Co-Guest Editor of Special Issues in *Cells and Metabolites*.
- Peer reviewer for several international journals including *Frontiers*, *International Journal of Molecular Sciences*, *Metabolomics*, *Biomolecules*, *Nutrients*, *PLOS ONE*, and *Scientific Reports*.

Scientific Societies

- Member of the Italian Society of Biochemistry and Molecular Biology (SIB)
- Former member of the Association for Cell Biology and Differentiation (ABCD)

Bibliometrics

- 76 peer-reviewed publications
- 22 journal abstracts
- 98 conference proceedings
- H-index: 19 (Scopus)

Selected Publications

(A complete list is available on Google Scholar)

**corresponding author*

1. Matera I, Pistone A, Castiglione Morelli MA, Bisaccia F, **Ostuni A.*** (2026). Probenecid Suppresses Migration, invasion and angiogenesis in hepatocellular carcinoma by modulating purinergic signaling and p38 MAPK pathway. *Biochem Pharmacol.* 245:117665. doi: 10.1016/j.bcp.2025.117665.
2. Boni, R., Ruggiero, R., De Luca, F., Preziosi, G., Ferrara, M. A., **Ostuni, A.**, Guerriero, S., Gallo, A., Murano, C., & Cecchini Gualandi, S. (2025). Enhancing Stallion Semen Cryopreservation: Selected Antioxidant Extracts and Sperm Freezability. *Antioxidants (Basel, Switzerland)*, 14(11), 1363. <https://doi.org/10.3390/antiox14111363>
3. **Ostuni, A.***; Frontoso, R.; Crudele, M.A.; Barca, L.; Amati, M.; Boni, R.; De Vendel, J.; Raimondi, P.; Bavoso, A. Comparative Evaluation of a Multistrain Indirect ELISA Targeting Anti- p26 and gp45 Antibodies for EIAV Detection. *Pathogens* 2025, 14, 575. <https://doi.org/10.3390/pathogens14060575>.
4. Pistone, A.; Matera, I.; Abruzzese, V.; Castiglione Morelli, M.A.; Rosa, M.; **Ostuni, A.*** Enhancing Doxorubicin Efficacy in Hepatocellular Carcinoma: The Multi-Target Role of *Muscari comosum* Extract. *Appl. Sci.* 2025, 15, 6509. <https://doi.org/10.3390/app15126509>.
5. Castiglione Morelli, M. A., Iuliano, A., Viggiani, L., Matera, I., Pistone, A., Schettini, S. C. A., Colucci, P., & **Ostuni, A.*** (2024). Redox Balance and Inflammatory Response in Follicular Fluids of Women Recovered by SARS-CoV-2 Infection or Anti-COVID-19 Vaccinated: A Combined Metabolomics and Biochemical Study. *International journal of molecular sciences*, 25(15), 8400. <https://doi.org/10.3390/ijms25158400>
6. **Ostuni Angela***, Sara Albarella, Luca Tassoni, Maria Giulia Pugliano, Emanuele D'Anza, M. Antonietta Crudele, Francesca Ciotola, Maria Serena Beato, Valentina Iovane, Stefano Cecchini Gualandi, Raffaele Frontoso, Jolanda De Vendel, Vincenzo Peretti, Alfonso Bavoso. Circulation of small ruminant lentivirus in endangered goat and sheep breeds of Southern Italy. *Helyion*, 10, 13, e33906. <https://doi.org/10.1016/j.helyion.2024.e33906>
7. Miglionico, R., Matera, I., Ventola, G. M., Marchese, G., Abruzzese, V., Monné, M., **Ostuni, A.***, & Bisaccia, F. (2024). Gene Expression Reprogramming by Citrate Supplementation Reduces HepG2 Cell Migration and Invasion. *International journal of molecular sciences*, 25(12), 6509. <https://doi.org/10.3390/ijms25126509>
8. Dandurand, J., Monné, M., Samouillan, V., Rosa, M., Laurita, A., Pistone, A., Bisaccia, D., Matera, I., Bisaccia, F., & **Ostuni, A.*** (2024). The 75-99 C-Terminal Peptide of URG7 Protein Promotes α -Synuclein Disaggregation. *International journal of molecular sciences*, 25(2),1135.<https://doi.org/10.3390/ijms25021135>

9. Matera, I., Miglionico, R., Abruzzese, V., Marchese, G., Ventola, G. M., Castiglione Morelli, M. A., Bisaccia, F., & **Ostuni, A***. (2023). A Regulator Role for the ATP-Binding Cassette Subfamily C Member 6 Transporter in HepG2 Cells: Effect on the Dynamics of Cell-Cell and Cell-Matrix Interactions. *International journal of molecular sciences*, 24(22), 16391. <https://doi.org/10.3390/ijms242216391>
10. **Ostuni, A***, Iovane, V., Monné, M., Crudele, M. A., Scicluna, M. T., Nardini, R., Raimondi, P., Frontoso, R., Boni, R., & Bavoso, A. (2023). A double-strain TM (gp45) polypeptide antigen and its application in the serodiagnosis of equine infectious anemia. *J.Virol.Meth*, 315, 114704. <https://doi.org/10.1016/j.jviromet.2023.114704>
11. Castiglione Morelli, M. A., Iuliano, A., Matera, I., Viggiani, L., Schettini, S. C. A., Colucci, P., & **Ostuni, A.*** (2023). A Pilot Study on Biochemical Profile of Follicular Fluid in Breast Cancer Patients. *Metabolites*, 13(3),441. <https://doi.org/10.3390/metabo13030441>
12. Abruzzese, V., Sukowati, C. H. C., Tiribelli, C., Matera, I., **Ostuni, A.***, & Bisaccia, F*. (2022). The Expression Level of ABCC6 Transporter in Colon Cancer Cells Correlates with the Activation of Different Intracellular Signaling Pathways. *Pathophysiology*, 29(2), 173–186.
13. Castiglione Morelli MA, Iuliano Assunta, Schettini Sergio C A, Ferri Angela, Colucci Paola, Felicia Viggiani, Matera Ilenia, **Ostuni Angela*** (2022). Are the Follicular Fluid Characteristics of Recovered Coronavirus Disease 2019 Patients Different from Those of Vaccinated Women Approaching In vitro Fertilization? *Frontiers in Physiology*, vol. 13, p. 1-7, ISSN: 1664-042X, doi:10.3389/fphys.2022.840109
14. Faustino Bisaccia, Prashant Koshal, Vittorio Abruzzese, Maria Antonietta Castiglione Morelli, **Angela Ostuni*** (2021). Structural and Functional Characterization of the ABCC6 Transporter in Hepatic Cells: Role on PXE, Cancer Therapy and Drug Resistance. *Int.J.Mol.Sci*, vol. 22, p. 1-12, ISSN: 1422-0067, doi:10.3390/ijms22062858
15. Abruzzese Vittorio, Matera Ilenia, Martinelli Fabio, Carmosino Monica, Koshal Prashant, Milella Luigi, Bisaccia Faustino*, **Ostuni Angela*** (2021). Effect of Quercetin on ABCC6 Transporter: Implication in HepG2 Migration. *Int.J.Mol.Sci*, vol. 22, ISSN:1422-0067, doi: 10.3390/ijms22083871
16. Fabiana Giglio, Maria Antonietta Castiglione Morelli, Ilenia Matera, Chiara Sinisgalli, Rocco Rossano, **Angela Ostuni*** (2021). Muscari comosum L. Bulb Extracts Modulate Oxidative Stress and Redox Signaling in HepG2 Cells. *Molecules*, vol. 26, ISSN: 1420-3049, doi: 10.3390/molecules26020416.
17. **Angela Ostuni***, Magnus Monné, Maria Crudele, Pier Luigi Cristinziano, Stefano Cecchini, Mario Amati, Jolanda De Vendel, Paolo Raimondi, Taxiarchis Chassalevris, Chrysostomos I Dovas, Alfonso Bavoso (2021). Design and structural bioinformatic analysis of polypeptide antigens useful for the SRLV serodiagnosis. *J.Virol.Meth*, 297, 1-11, ISSN: 0166-0934, doi: 10.1016/j.jviromet.2021.114266.
18. **Ostuni A***, Carmosino M, Miglionico R, Abruzzese V, Martinelli F, Russo D, Laurenzana I, Petillo A, Bisaccia F. (2020). Inhibition of ABCC6 Transporter Modifies Cytoskeleton and Reduces Motility of HepG2 Cells via Purinergic Pathway. *Cells*, vol. 9, ISSN: 2073-4409, doi: 10.3390/cells9061410
19. Jany Dandurand*, **Angela Ostuni***, Maria Francesca Armentano, Maria Crudele, Vincenza Dolce, Federica Marra, Valérie Samouillan, Faustino Bisaccia (2020). Calorimetry and FTIR reveal the ability of URG7 protein to modify the aggregation state of both cell lysate and amylogenic alpha-synuclein. *Aims Biophysics*, 7, 189-203, ISSN: 2377-9098, doi: 10.3934/biophy.2020015

20. Agata Petillo, Vittorio Abruzzese, Prashant Koshal, **Angela Ostuni***, Faustino Bisaccia* (2020). Extracellular Citrate is a Trojan Horse for Cancer Cells. *Frontiers in Molecular Biosciences*, vol. 7, ISSN: 2296-889X.
21. Maria Antonietta Castiglione Morelli, Assunta Iuliano, Sergio Crescenzo Antonio Schettini, Donatina Petruzzi, Angela Ferri, Paola Colucci, Felicia Viggiani, **Angela Ostuni ***(2020). Metabolic changes in follicular fluids of patients treated with recombinant versus urinary human chorionic gonadotropin for triggering ovulation in assisted reproductive technologies: a metabolomics pilot study. *Archives of Gynecology and Obstetrics*, vol. 302, p. 741-751, ISSN: 0932-0067, doi: 10.1007/s00404-020-05609-z
22. Maria Antonietta Castiglione Morelli, Assunta Iuliano, Sergio Crescenzo Antonio Schettini, Donatina Petruzzi, Angela Ferri, Paola Colucci, Licia Viggiani, Flavia CuvIELLO, **Angela Ostuni*** (2019). NMR metabolic profiling of follicular fluid for investigating the different causes of female infertility: a pilot study. *Metabolomics*, vol. 15, ISSN: 1573-3890, doi: 10.1007/s11306-019-1481-x.
23. **Ostuni A***, Castiglione Morelli MA, CuvIELLO F, Bavoso A, Bisaccia F. (2019). Structural characterization of the L0 cytoplasmic loop of human multidrug resistance protein 6 (MRP6). *Biochim Biophys Acta Biomembr.*;1861(2):380-386. doi: 10.1016/j.bbamem.2018.11.002.
24. **Ostuni A**, Faruolo MP, Sileo C, Petillo A, Boni R (2018) Effect of follicle size and atresia grade on mitochondrial membrane potential and steroidogenic acute regulatory protein expression in bovine granulosa cells. *Zygote* :1-9. doi: 10.1017/S0967199418000564
25. Martinelli F, CuvIELLO F, Pace MC, Armentano MF, Miglionico R, **Ostuni A*** and Bisaccia F.* (2018) Extracellular ATP Regulates CD73 and ABCC6 Expression in HepG2 Cells. *Front. Mol. Biosci.* 5:75. doi: 10.3389/fmolb.2018.00075
26. Castiglione Morelli, M. A., Iuliano, A., Schettini, S. C. A., Petruzzi, D., Ferri, A., Colucci, P., Viggiani, L., CuvIELLO, F., & **Ostuni, A***. (2018). NMR metabolomics study of follicular fluid in women with cancer resorting to fertility preservation. *Journal of assisted reproduction and genetics*, 35(11), 2063–2070. <https://doi.org/10.1007/s10815-018-1281-7>
27. **Ostuni A***, CuvIELLO F, Salvia AM, D'Auria F, Statuto T, Di Nardo E, Miglionico R, Carretta V, Musto P and Bisaccia F. (2016) Immunochemical Characterization of the Specific Sequence of URG7 Protein. *Biomol Res Ther*, 5:3 DOI: 10.4172/2167-7956.1000146
28. MA Castiglione Morelli, **A Ostuni**, G Matassi, C Minichino, A Flagiello, P Pucci, A Bavoso. (2016) Spectroscopic investigation of auranofin binding to zinc finger HIV-2 nucleocapsid peptides. *Inorg. Chim. Acta*, 453: 330-338. 10.1016/j.ica.2016.08.012
29. F CuvIELLO, Å Tellgren-Roth, P Lara, F Ruud Selin, M Monné, F Bisaccia, I Nilsson, **A Ostuni***. (2015) Membrane insertion and topology of the amino-terminal domain TMD0 of multidrug-resistance associated protein 6 (MRP6). *FEBS Lett.* 589:3921-3928. doi: 10.1016/j.febslet.2015.10.030.
30. A Bavoso, **A Ostuni***, J De Vendel, A Bracalello, T Shcheglova, S Makker, A Tramontano (2015) Aldehyde modification and alum coadjuvancy enhance anti-TNF-alpha autovaccination and mitigate arthritis in rat. *J.Pept.Sci*; 21:400-407.