

# Maria Beatrice Morelli

Research fellow

## SUMMARY

Researcher in Immunopathology with expertise in cellular and molecular biology, immuno-oncology and phytomedicine

## CAREER

---

01/04/2020 -

PRESENT

University of  
Camerino

**RESEARCH FELLOW** (MED/04)

- Research project "Physiological neuronal activity in the control of glioma progression and tumor microenvironment" (PRIN 2017)

01/04/2018-  
31/03/2020

University of  
Camerino

**POST-DOCTORAL RESEARCHER**

- Granted by Fondazione Veronesi
- Research project "Metastatic signature of circulating tumor cells: liquid biopsy for detection of tumorigenic potential in bladder cancer patients"

15/01/2018-  
15/04/2018

University of  
Camerino

**POST-DOCTORAL RESEARCHER**

- Evaluation of phytotherapeutic compound in bone metabolism

01/10/2017-  
31/12/2017

University of  
Rome Sapienza

**POST-DOCTORAL RESEARCHER**

- Granted by ISTITUTO PASTEUR ITALIA - FONDAZIONE CENCI BOLOGNETTI

1/10/2014-  
30/09/2017

University of  
Camerino -  
University of  
Rome  
Sapienza

**RESEARCH FELLOW** (MED/04)

- Research project "Molecular events regulating anti-cancer NK cell mediated stress surveillance response induced by chemotherapy" (MED/04)

1/03/2014-  
30/09/2014  
University of  
Camerino

#### **RESEARCH FELLOW (MED/04)**

- Research project "Molecular and functional profile of Transient Receptor Potential (TRP) channels in glioma"

10/01/2011-  
31/12/2013  
University of  
Camerino

#### **POST-DOCTORAL RESEARCHER**

- Research project "Resiniferatoxin and Capsaicin as modulators of apoptotic and autophagic interplay in bladder cancer"
- FIRC National Grant

02/04/2007-  
15/11/2007  
University of  
Rome Sapienza

#### **RESEARCH FELLOW**

- Granted by FILAS, Lazio Region
- Research in human reproduction

02/05/2007-  
31/08/2009  
University of  
Camerino

#### **RESEARCH FELLOW**

- Granted by Pio Sodalizio dei Piceni
- Research project "The expression of different vanilloid receptors (TRPVs) in human glioma cells: role of chemokine receptors in the sensitization of TRPVs involved in the regulation of survival, growth and migration pathways of glioma cells"

## **EDUCATION**

---

2017-2023

#### **ASN 05/F1-BIOLOGIA APPLICATA (BIO/13)**

- <https://asn16.cineca.it/pubblico/miur/esito/05%252FF1/2/2>

01/11/2007-  
31/10/2010  
University of  
Rome  
Sapienza

#### **PHD IN IMMUNOLOGICAL SCIENCES**

- Research project "Role of Transient Receptor Potential Vanilloid channels (TRPV) in regulating cell viability and chemoresistance pathways in human cancers: glioblastoma, multiple myeloma, bladder and prostate"

2006

#### **QUALIFICATION TO BIOLOGIST PROFESSION**

**2004-2006**

**University of  
Rome Sapienza**

**MASTER DEGREE IN MEDICAL,  
MOLECULAR AND CELLULAR  
BIOTECHNOLOGY**

- Research project “Characterization, expression and functional activity of PACAP and its receptors in human granulosa-luteal cells” in collaboration with Technobios Procreazione (Bologna)
- Judgment: 110/110 cum laude

**2001-2004**

**Completed  
Requirements  
for High School**

**BACHELOR DEGREE IN BIOTECHNOLOGY**

- Research project “PACAP and relative receptors in mouse ovary”
- Judgment: 110/110 cum laude

**2001**

**CLASSICAL DEGREE**

**TECHNICAL  
SKILLS AND  
COMPETENCES**

---

Ability to plan and complete a project. Ability to autonomously organize work, setting priorities and taking responsibilities. Familiarity with laboratory procedures, equipment, and protocols.

- Cell culture (normal cell lines, stem cells, cancer cell lines, circulating tumor cells, primary cell lines, 3D culture)
- Cytotoxicity assay (MTT, SRB)
- Cytofluorimetric analysis (Cell cycle analysis, Annexin/PI assay, BrdU incorporation, Autophagy, Oxidative stress, Mitochondrial depolarization)
- Immunohistochemistry, immunofluorescence, confocal analysis, western blot, ELISA
- DNA/RNA extraction, cDNA synthesis, RT-PCR, digital droplet PCR, cell transfection and gene silencing, DNA electrophoresis, Comet Assay
- Migration and invasion assay
- Excellent knowledge of data analysis programs and statistical analysis tools (CellQuest, Cyflogic, WinMDI, FlowJo, GraphPad, MedCalc)
- Excellent knowledge of operating systems (Windows, MacOS), biological databases (cBioPortal, GenomeNet) and bioinformatics tools (Graphpad Prism software, MatLab).

## PERSONAL SKILLS

Foreign language

English

## PARTICIPATION IN RESEARCH PROJECTS

---

**2019-PRESENT**

**PARTECIPANT TO SCIENTIFIC PROJECT**

- Granted by Fondazione Maria Guarino Amor Onlus

**2019-PRESENT**

**PARTECIPANT TO SCIENTIFIC PROJECT**

- Granted by ENECTA s.r.l.

**2019-PRESENT**

**PARTECIPANT TO SCIENTIFIC PROJECT**

- Granted by ENTOURAGE BIOSCIENCES

**2018-2020**

**PRINCIPAL INVESTIGATOR**

- Research project: "Metastatic signature of circulating tumor cells: liquid biopsy for detection of tumorigenic potential in bladder cancer patients"  
Granted by Fondazione Umberto Veronesi

**2015-2018**

**PARTECIPANT TO SCIENTIFIC PROJECT**

- AIRC 2014 project "Circulating tumor cells and exosomes in human pancreatic cancer. The impact on prognosis and treatment strategy"

**2015-2018**

**PARTECIPANT TO SCIENTIFIC PROJECT**

- Research project "CHEMICAL "SWISS TOOLS" TO TREAT TUMORS, METASTASES AND INFECTIONS" (FAR 2014-2015 - University of Camerino)

**2013-2015**

**PARTECIPANT TO SCIENTIFIC PROJECT**

- Research project "Therapy of renal tumors"  
Granted by Pfizer

**2011-2013**

**PRINCIPAL INVESTIGATOR**

- Research project "Resiniferatoxin and Capsaicin as modulators of apoptotic and autophagic interplay in bladder cancer"  
Granted by FIRC National Grant

**2010-2013**

**PARTECIPANT TO SCIENTIFIC PROJECT**

- Project "Le scienze omiche come strumento per la ricerca traslazionale in neurooncologia" (PRIN 2010)

**2007-2009**

**PRINCIPAL INVESTIGATOR**

- Research project: "The expression of different vanilloid receptors (TRPVs) in human glioma cells: role of chemokine receptors in the sensibilization of TRPVs involved in the regulation of survival, growth and migration pathways of glioma cells."
- Granted by Pio Sodalizio dei Piceni

**2007**

**PRINCIPAL INVESTIGATOR**

- Research in human reproduction granted by FILAS, Lazio region

**PROFESSIONAL  
MEMBERSHIP**

---

**2021-PRESENT**

**ASSOCIAZIONE ITALIANA COLTURE  
CELLULARI, MEMBER**

**2017-PRESENT**

**SOCIETÀ ITALIANA CANCEROLOGIA,  
MEMBER**

**2017-PRESENT**

**EACR, MEMBER**

## EDITORIAL BOARD MEMBER

---

### ACADEMIC EDITOR

- Analytical Cellular Pathology  
<https://www.hindawi.com/journals/acp/editors/>
- Review Editor for Frontiers in Neurology and Frontiers in Oncology  
(<https://www.frontiersin.org/journals/oncology/sections/neuro-oncology-and-neurosurgical-oncology#editorial-board>)

### GUEST EDITOR

- International Journal of Molecular Sciences, Special Issue "Intracellular Calcium Levels and Cell Fate in Cancer: Interplay Between Senescence, Autophagy and Apoptosis"  
[https://www.mdpi.com/journal/ijms/special\\_issues/Calcium\\_Senescence](https://www.mdpi.com/journal/ijms/special_issues/Calcium_Senescence)
- Biomolecules, Special Issue "Transient Receptor Potential (TRP) Channels: Markers and Therapeutic Targets for Cancer?"  
[https://www.mdpi.com/journal/biomolecules/special\\_issues/Transient\\_Receptor\\_Potential\\_Channels\\_and\\_Cancer](https://www.mdpi.com/journal/biomolecules/special_issues/Transient_Receptor_Potential_Channels_and_Cancer)
- International Journal of Molecular Sciences, Special Issue "Tumor Microenvironment and Its Actors: Are Ion Channels Relevant?"  
[https://www.mdpi.com/journal/ijms/special\\_issues/Tumor\\_Channel](https://www.mdpi.com/journal/ijms/special_issues/Tumor_Channel)

## REVIEWER FOR INTERNATIONAL JOURNAL

---

- Cancers
- Cells
- Frontiers in Oncology
- Biomolecules, International Journal of Molecular Sciences
- OncoTargets and Therapy
- Oncotarget
- Cell Death and Disease
- Chemico-Biological Interaction
- BMC Complementary and Alternative Medicine
- Cellular Oncology
- Functional Foods in Health and Disease
- European Journal of Pharmacology
- Cell Proliferation
- Journal of Urology and Renal Disease
- Evidence-Based Complementary and Alternative Medicine
- Journal of Functional Food
- Journal of Immunology Research
- Analytical Cellular Pathology
- Acta Physiologica

## ABSTRACT AND CONGRESS PARTECIPATION

---

- Amantini C, Adolfo Rossi de Vermandois J, Gubbiotti M, Giannantoni A, Nabissi M, Marinelli O, Maggi F, Mearini E, Santoni G, Morelli MB. Potential Biomarkers for Bladder Cancer Derived from Peripheral Blood Circulating Tumor Cells. EACR, June 09-12, 2021.
- Marinelli O, Annibali D, Morelli MB, Zeppa L, Tuyvaerts S, Aguzzi C, Amantini C, Maggi F, Ferretti B, Santoni G, Amant F and Nabissi M. Biological Function of PD-L2 and Correlation with Overall Survival in Type II Endometrial Cancer. EACR, June 09-12, 2021.
- Morelli MB. Emerging Role of TRPML1 in Cancer. Pharma R&D-2021. February 22-24, 2021 in Webinar- keynote presentation
- Morelli MB. Circulating tumor cells to predict overall survival: a pilot study in pancreatic ductal adenocarcinoma. 5th Global Summit on Cancer Science and Oncology. February 26, 2021 in Webinar - keynote presentation and member of Organizing Committee
- Morelli MB. Emerging role of mucolipins in cancer: Rreview of current knowledge and an introduction to TRPML1 as prognostic biomarker in glioblastoma. 4th Global Summit on Cancer Science and Oncology. November 25, 2020 in Webinar- keynote presentation
- Amantini C, Morelli MB, Nabissi M, Santoni G. Gene expression profile of circulating tumor cells isolated from pancreatic ductal adenocarcinoma patients. EACR, Bergamo, Italy. May 15-17, 2019
- Marinelli O, Nabissi M, Morelli MB, Amantini C, Santoni G. Investigation of biological function of costimulatory b7 family members in endometrial cancer. Immuno-Oncology 2018 World Congress. Vienna, Austria. June 25-26, 2018
- Santini C, Pellei M, Bagnarelli L, Cimarelli C, Del Bello F, Quaglia W, Morelli MB, Amantini C, Gandin V, Marzano C. Rational design and biological evaluation of novel conjugated heteroscorpionate ligands and related Copper (I/II) complexes. XVII Workshop on Pharmabiometallics, BIOMET. Napoli, Italy. February 16 – 17, 2018
- 3rd Annual Meeting of SIC Young Investigator - Ariano Irpino, Italy, September, 22, 2017
- Pallotti S, Pediconi D, Morelli MB, Dharaneedharan S, Molina MG, Antonini M, Renieri C, La Terza A. ALPACA FGF5: HYPOTHETICAL POST-TRANSCRIPTIONAL READTHROUGH REGULATION IN SKIN BIOPSIES. 7th European Symposium on South American Camelids and 3rd European Meeting on Animal Fibers. Assisi, June 12-14, 2017
- Iannarelli R, Morelli MB, Santoni G, Maggi F, Nabissi M. Evaluation of anise essential oil effects on LPS-induced inflammation in human normal tracheal and bronchial cells (HBEpC/HTEpC). 2nd Sino-Italian Symposium on Bioactive Natural Products. Napoli. November 24-25, 2016
- Liquid biopsy: tracking cancer. Rome, Italy, April 29,30, 2016

- Morelli MB, Santoni M, Amantini C, Nabissi M, Cardinali C, Conti A, Burattini L, Berardi R, Cascinu S, Santoni G. Axitinib induces apoptosis and senescence of renal carcinoma cells in vitro. XVI Congresso Nazionale AIOM, Rome, Italy. October 24-26, 2014
- Morelli MB, Offidani M, Discepoli G, Santoni M, Amantini C, Farfariello V, Liberati S, Leoni P, Santoni G, Nabissi M. Role of the Transient Receptor Potential Vanilloid-type2 Agonist Cannabidiol in Multiple Myeloma. 6th European Workshop on Cannabinoid Research. Dublin, Ireland. April 2013
- Amantini C, Farfariello V, Morelli MB, Nabissi M, Liberati S, Santoni M, Piergentili L, Quaglia W, Cascinu S and Santoni G. Cross-talk between  $\alpha$ 1D-adrenergic receptor ( $\alpha$ 1D-AR) and Transient Receptor Potential Vanilloid 1 (TRPV1) triggers the proliferation of PC-3 prostate cancer cells. Genitourinary Cancers Symposium. Orlando, FL. February 14-16, 2013
- Santoni M, Amantini C, Morelli MB, Farfariello V, Nabissi M, Liberati S, Bonfili L, Eleuteri AM, Mozzicafreddo M, Burattini L, Berardi R, Cascinu S and Santoni G. Sunitinib, Sorafenib and Pazopanib differently induce cancer cell death: the role of autophagy. Genitourinary Cancers Symposium . Orlando, FL. February 14-16, 2013
- Nabissi M, Offidani M, Morelli MB, Discepoli G, Santoni M, Amantini C, Farfariello V, Liberati S, Santoni G and Leoni P. TRPV2 activation induces cytotoxicity in human multiple myeloma cell lines. International Workshop on Transient Receptor Potential Channels. Valencia, Spain. September 12-15, 2012
- Liberati S, Morelli MB, Nabissi M, Amantini C, Farfariello V, Santoni M, Ricci-Vitiani L, Compieta E and Santoni G. The transcription factor AML1, regulates the Transient Receptor Potential Vanilloid-2 (TRPV2) channel-mediated differentiation of glioblastoma stem cells. International Workshop on Transient Receptor Potential Channels. Valencia, Spain. September 12-15, 2012
- Farfariello V, Amantini C, Nabissi M, Morelli MB, Liberati S, Eleuteri AM, Bonfili L, Cecarini V, Sorice M and Santoni G. TRPV1-mediated autophagy in thymocytes is a consequence of proteasome inhibition and unfolded protein response activation. International Workshop on Transient Receptor Potential Channels. Valencia, Spain. September 12-15, 2012
- Amantini C, Farfariello V, Morelli MB, Nabissi M, Liberati S, Santoni M, Ranzuglia V, Cardinali C, Filosa A, Pieramici T, Ranaldi R, Piergentili L, Quaglia W and Santoni G. Cross-talk between  $\alpha$ 1d-adrenergic receptor and Transient Receptor Potential Vanilloid 1 (TRPV1) triggers the proliferation of PC-3 prostate cancer cells. International Workshop on Transient Receptor Potential Channels. Valencia, Spain. September 12-15, 2012



- Farfariello V, Nabissi M, Caprodossi S, Morelli MB, Liberati S, Santoni G, Amantini C. Triggering of Transient Potential Receptor Vanilloid 1 (TRPV1) induces autophagy that delays apoptotic cell death in murine thymocytes. 19th Euroconference on "Apoptosis, Metabolism, Epigenetics and Death" and 8th training course on "Concepts and methods in Programmed Cell Death. Stockholm, Sweden. September 14-17, 2011
- Amantini C, Caprodossi S, Ballarini P, Nabissi M, Morelli MB, Lucciarini R, Kalogris C, Cardarelli MA, Mammana G, Santoni G. Triggering of TRPV1 by capsaicin induces Fas/CD95-17 mediated apoptosis of urothelial cancer cells in an ATM-dependent manner. TRP meeting "Transient Receptor Potential Channel: from sensory signalling to human diseases". Stockholm, Sweden. September 26-27, 2009
- Amantini C, Nabissi M, Morelli MB, Farfariello V, Ricci-Vitiani L, Caprodossi S, Arcella A, Santoni M, Marinelli A, Giangaspero F, De Maria R, Santoni G. TRPV2 channel negatively controls glioma cell proliferation and resistance to CD95/Fas-induced apoptosis in ERK-dependent manner. TRP meeting "Transient Receptor Potential Channel: from sensory signalling to human diseases". Stockholm, Sweden. September 26-27, 2009
- Farfariello V, Amantini C, Nabissi M, Morelli MB, Ricci-Vitiani L, Pallini R, Caprodossi S, Santoni M, De Maria R, Santoni G. TRPV2 modulates glioblastoma stem cell proliferation and differentiation. TRP meeting "Transient Receptor Potential Channel: from sensory signalling to human diseases". Stockholm, Sweden. September 26-27, 2009
- Farfariello V, Nabissi M, Caprodossi S, Morelli MB, Santoni G, Amantini C. Capsaicin induces macroautophagy in mouse thymocytes through TRPV1 activation. TRP meeting "Transient Receptor Potential Channel: from sensory signalling to human diseases". Stockholm, Sweden. September 26-27, 2009
- Morelli MB, Amantini C, Ricci-Vitiani L, Pallini R, Arcella A, Caprodossi S, Giangaspero F, De Maria R, Pimponi S, Santoni G, Nabissi M. Role of TRPV2 in Cell Proliferation and Chemo-resistance of Human U87 Glioma Cells. 48th Annual Meeting of the American Society for Cell Biology. San Francisco, CA. December 13-19, 2008

## EDUCATIONAL CONFERENCES

---

- Invited speaker as Fondazione Umberto Veronesi researcher "Ricercatori in classe: LA SCIENZA E LA RICERCA INCONTRANO I GIOVANI" Liceo Statale "Annibal Caro", Fermo, Italy. May 8, 2019
- Invited speaker as Fondazione Umberto Veronesi researcher "Ricercatori in classe: LA SCIENZA E LA RICERCA INCONTRANO I GIOVANI" IISS Carlo Urbani, Porto Sant'Elpidio, Italy. May 17, 2018
- Invited speaker "Le cellule staminali nella terapia oncologica" UniStem Day. Camerino, Italy. March 17, 2017
- Invited speaker "Le cellule staminali nella terapia oncologica" UniStem Day. Camerino, Italy. March 16, 2018

## PUBLICATIONS

---

- Mechanosensation and Mechanotransduction in Natural Killer (NK) Cells. Santoni G, Amantini C, M Santoni, Maggi F, **Morelli MB**, Santoni A. Biomolecules - under revision
- Transient Receptor Potential (TRP) Channels in Haematological Malignancies: an update. Maggi F, **Morelli MB**, Nabissi M, Marinelli O, Zeppa L, Aguzzi C, Santoni G, Amantini C. Biomolecules 2021 Jun 11;765.
- Knock-down of mucolipin 1 channel promotes tumor progression and invasion in human glioblastoma cell lines. Santoni G, Amantini C, Nabissi M, Maggi F, Marinelli O, Eleuteri AM, Santoni, **Morelli MB**. Front. Oncol. 2021 Apr 19;11:578928.
- Exploring treatment with Ribociclib alone or in sequence/combo with Everolimus in ER+HER2-Rb wild-type and knock-down in breast cancer cell lines. Marinelli O, Romagnoli E, Maggi F, Nabissi M, Amantini C, **Morelli MB**, Santoni M, Battelli N, Santoni G. BMC Cancer. 2020 Nov 19;20(1):1119.
- Biological Function of PD-L2 and Correlation With Overall Survival in Type II Endometrial Cancer. Marinelli O, Annibaldi D, **Morelli MB**, Zeppa L, Tuyaerts S, Aguzzi C, Amantini C, Maggi F, Ferretti B, Santoni G, Amant F, Nabissi M. Front Oncol. 2020 Oct 28;10:538064.
- Cannabidiol and Oxygen-Ozone Combination Induce Cytotoxicity in Human Pancreatic Ductal Adenocarcinoma Cell Lines. Luongo M, Marinelli O, Zeppa L, Aguzzi C, **Morelli MB**, Amantini C, Frassinetti A, di Costanzo M, Fanelli A, Santoni G, Nabissi M. Cancers (Basel). 2020 Sep 27;12(10):2774.

- The effects of cannabidiol and prognostic role of TRPV2 in human endometrial cancer. Marinelli O, **Morelli MB**, Annibali D, Aguzzi C, Zeppa L, Tuyaearts S, Amantini C, Amant F, Ferretti B, Maggi F, Santoni G, Nabissi M *Int J Mol Sci*. 2020 Jul 29;21(15):5409. \*CoF.
- Involvement of the TRPML Mucolipin channels in Viral Infections and Anti-viral Innate Immune Responses. Santoni G, **Morelli MB**, Amantini C, Nabissi M, Santoni M, Santoni A. *Front Immunol*. 2020 Apr 29;11:739.
- Emerging Role of Mucolipins TRPML channels in Cancer. Santoni G, Santoni M, Maggi F, Marinelli O, **Morelli MB**. *Front Oncol*. 2020 Apr 28;10:659.
- Pathophysiological Role of Transient Receptor Potential Mucolipin Channel 1 in Calcium-mediated Stress-Induced Neurodegenerative Diseases. Santoni G, Maggi F, Amantini C, Marinelli, Nabissi M, **Morelli MB**. *Front Physiol*. 2020 Mar 24;11:251.
- Transient Receptor Potential Cation Channels in Cancer Therapy. Santoni G, Maggi F, **Morelli MB**, Santoni M, Marinelli O. *Med Sci (Basel)*. 2019 Nov 30;7(12).
- The controversial role of PD-1 and its ligands in endometrial cancer and other gynaecological malignancies. Marinelli O, Annibali D, Aguzzi C, Tuyaearts S, Amant F, **Morelli MB**, Santoni G, Amantini C, Maggi F, Nabissi M. *Front Oncol*. 2019 Oct 15;9:1073.
- The TRPV2 Cation Ion Channels: from Urothelial Cancer Invasiveness to Glioblastoma Multiforme Interactome-Signature. Santoni G, Amantini C, Maggi F, Marinelli O, Santoni M, Nabissi M, **Morelli MB**. *Lab Invest*. 2020 Feb;100(2):186-198.
- Targeting Transient Receptor Potential Channels by MicroRNAs Drives Tumor Development and Progression. Santoni G, **Morelli MB**, Santoni M, Nabissi M, Marinelli O, Amantini C. *Adv Exp Med Biol*. 2020;1131:605-623.
- Calcium Signaling and the Regulation of Chemosensitivity in Cancer Cells: Role of the Transient Receptor Potential Channels. Santoni G, **Morelli MB**, Marinelli O, Nabissi M, Santoni M, Amantini C. *Calcium Adv Exp Med Biol*. 2020;1131:505-517.
- Expression profiling of circulating tumor cells in pancreatic ductal adenocarcinoma patients: biomarkers predicting overall survival. Amantini C, **Morelli MB**, Nabissi M, Piva F, Marinelli O, Maggi F, Bianchi F, Bittoni A, Berardi R, Giampieri R, Santoni G. *Front Oncol*. 2019 Sep 10;9:874.
- Transient Receptor Potential Mucolipin-1 Channels in Glioblastoma: Role in Patient's Survival. **Morelli MB**, Amantini C, Tomassoni D, Nabissi M, Arcella A, Santoni G. *Cancers (Basel)*. 2019 Apr 12;11(4):525.

- Calcium Signalling and the Regulation of Chemosensitivity in Cancer Cells: Role of the Transient Receptor Potential Channels. Santoni G, **Morelli MB**, Marinelli O, Nabissi M, Santoni M, Amantini C. Book: Calcium signalling second edition 2019 Springer Nature Switzerland AG in press MD.SHAHIDUL ISLAM
- Targeting Transient Receptor Potential Channels by microRNAs drives tumor development and progression. Santoni G, **Morelli MB**, Santoni M, Nabissi M, Marinelli O, Amantini C. Book: Calcium signalling second edition 2019 Springer Nature Switzerland AG in press MD.SHAHIDUL ISLAM
- Role of the NMDA Receptor in the Antitumor Activity of Chiral 1,4-Dioxane Ligands in MCF-7 and SKBR3 Breast Cancer Cells. **Morelli MB**, Amantini C, Nabissi M, Santoni G, Wünsch B, Schepmann D, Cimarelli C, Pellei M, Santini C, Fontana S, Mammoli V, Quaglia W, Bonifazi A, Giannella M, Giorgioni G, Piergentili A, Del Bello F. ACS Med Chem Lett. 2019 Jan 28;10(4):511-516. \*CoF.
- Chemical manipulations on the 1,4-dioxane ring of 5-HT(1A) receptor agonists lead to antagonists endowed with antitumor activity in prostate cancer cells. Del Bello F, Bonifazi A, Giorgioni G, Quaglia W, Amantini C, **Morelli MB**, Santoni G, Battiti FO, Vistoli G, Cilia A, Piergentili A. Eur J Med Chem. 2019 Apr 15;168:461-473.
- Isofuranodiene synergizes with Temozolomide in inducing glioma cells death. Brunetti A, Marinelli O, **Morelli MB**, Iannarelli R, Amantini C, Russotti D, Santoni G, Maggi F, Nabissi M. Phytomedicine, 2019 Jan;52:51-59.
- Urinary Markers in Bladder Cancer: An Update. Santoni G, **Morelli MB**, Amantini C, Battelli N. Front Oncol. 2018 Sep 7;8:362.
- Novel antitumor copper(II) complexes rationally designed to act through synergistic mechanisms of action, due to the presence of an NMDA receptor ligand and copper in the same chemical entity. **Morelli MB\***, Amantini C, Santoni G, Pellei M, Santini C, Cimarelli C, Marcantoni E, Petrini M, Del Bello F, Giorgioni G, Piergentili A, Quaglia W. New J. Chem., 2018, 42, 11878 \*CoF
- Thyme extract increases mucociliary-beating frequency in primary cell lines from chronic obstructive pulmonary disease patients. Nabissi M, Marinelli O, **Morelli MB**, Nicotra G, Iannarelli R, Amantini C, Santoni G, Maggi F. Biomed Pharmacother. 2018 Sep;105:1248-1253.
- "Immuno-Transient Receptor Potential Ion Channels": The Role in Monocyte- and Macrophage-Mediated Inflammatory Responses. Santoni G, **Morelli MB**, Amantini C, Santoni M, Nabissi M, Marinelli O, Santoni A. Front Immunol. 2018 Jun 6;9:1273.
- Aniseed (*Pimpinella anisum* L.) essential oil reduces pro-inflammatory cytokines and stimulates mucus secretion in primary airway bronchial and tracheal epithelial cell lines. Iannarelli R, Marinelli O, **Morelli MB**, Santoni G, Amantini C, Nabissi M, Maggi F. Industrial Crops and Products. 2018 April;114:81-86.

## PUBLICATIONS

---

- High CTLA-4 expression correlates with poor prognosis in thymoma patients. Santoni G, Amantini A, **Morelli MB**, Tomassoni D, Cardinali C, Santoni M, Marinelli O, Nabissi M, Paolucci V, Torniai M, Rinaldi S, Morgese F, Bernardini G, Berardi R. *Oncotarget*. 2018 Mar 30;9(24):16665-16677.
- ICOS-L as a Potential Therapeutic Target for Cancer Immunotherapy. Marinelli O, Nabissi M, **Morelli MB**, Torquati L, Amantini C, Santoni G. *Curr Protein Pept Sci*. 2018;19(11):1107-1113.
- Evidence of post-transcriptional readthrough regulation in FGF5 gene of alpaca. Pallotti S, Pediconi D, Subramanian D, Molina MG, Antonini M, **Morelli MB**, Renieri C, La Terza A. *Gene*. 2018 Mar 20;647:121-128.
- The TRPV1 ion channel regulates thymocyte differentiation by modulating autophagy and proteasome activity. Amantini C, Farfariello V, Cardinali C, **Morelli MB**, Marinelli O, Nabissi M, Santoni M, Bonfili L, Cecarini V, Eleuteri AM, Santoni G. *Oncotarget*. 2017 Oct 11;8(53):90766-90780.
- Axitinib induces senescence-associated cell death and necrosis in glioma cell lines: The proteasome inhibitor, bortezomib, potentiates axitinib-induced cytotoxicity in a p21(Waf/Cip1) dependent manner. **Morelli MB**, Amantini C, Nabissi M, Cardinali C, Santoni M, Bernardini G, Santoni A, Santoni G. *Oncotarget*. 2017 Jan 10;8(2):3380-3395.
- Post-transcriptional regulation of 5'-untranslated regions of human Transient Receptor Potential Vanilloid type-1 (TRPV-1) channels: role in the survival of glioma patients. Nabissi M, **Morelli MB**, Arcella A, Cardinali C, Santoni M, Bernardini G, Santoni A, Santoni G, Amantini C. *Oncotarget*. 2016 Dec 6;7(49):81541-81554.
- Cannabinoids synergize with carfilzomib, reducing multiple myeloma cells viability and migration. Nabissi M, **Morelli MB**\*, Offidani M, Amantini C, Gentili S, Soriani A, Cardinali C, Leoni P, Santoni G. *Oncotarget*. 2016 Nov 22;7(47):77543-77557. \*CoF
- Evaluation of thyme extract effects in human normal bronchial and tracheal epithelial cell lines and in human lung cancer cell line. Marinelli O, Iannarelli R, **Morelli MB**, Valisi M, Nicotra G, Amantini C, Cardinali C, Santoni G, Maggi F, Nabissi M. *Chem Biol Interact*. 2016 Aug 25;256:125-33.
- Capsaicin triggers autophagic cell survival which drives epithelial mesenchymal transition and chemoresistance in bladder cancer cells in an Hedgehog-dependent manner. Amantini C, **Morelli MB**, Nabissi M, Cardinali C, Santoni M, Gismondi A, Santoni G. *Oncotarget*. 2016 Aug 2;7(31):50180-50194.
- Overexpression of Transient Receptor Potential MucoLipin-2 Ion Channels in Gliomas: role in Tumor Growth and Progression. **Morelli MB**, Nabissi M, Amantini C, Tomassoni D, Rossi F, Cardinali C, Santoni M, Arcella A, Oliva MA, Santoni A, Polidori C, Mariani MP, Santoni G. *Oncotarget*. 2016 Jul 12;7(28):43654-43668.

- Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Klionsky DJ, Abdelmohsen K, Abe A, Abedin MJ, Abeliovich H, Acevedo Arozena A, Adachi H, Adams CM, Adams PD, Adeli K, Adhietty PJ, Adler SG, **Morelli MB** et al. *Autophagy*. 2016 Jan 2;12(1):1-222.
- Cooperative Interaction between the Alpha1-Adrenoceptors ( $\alpha$ 1-AR) and Transient Receptor Potential (TRP) Triggers a Proliferative Cell Signal in Prostate Cancer Cell Lines. Santoni G, **Morelli MB**, Amantini C, Santoni M, Nabissi M, Cardinali C, Del Bello F, Piergentili A, Quaglia W. *J Genet Syndr Gene Ther* 2015, 6:3.
- Axitinib induces DNA damage response leading to senescence, mitotic catastrophe, and increased NK cell recognition in human renal carcinoma cells. **Morelli MB**, Amantini C, Santoni M, Soriani A, Nabissi M, Cardinali C, Santoni A and Santoni G. *Oncotarget*. 2015 Nov 3;6(34):36245-59.
- Sorafenib induces cathepsin B-mediated apoptosis of bladder cancer cells by regulating the Akt/PTEN pathway. The Akt inhibitor, perifosine, enhances the sorafenib-induced cytotoxicity against bladder cancer cells. Amantini C, **Morelli MB**, Santoni M, Soriani A, Cardinali C, Farfariello V, Eleuteri AM, Bonfili L, Mozzicafreddo M, Nabissi M, Cascinu S, Santoni G. *Oncoscience*. 2015 Mar 23;2(4):395-409.
- Cannabidiol stimulates Aml-1a-dependent glial differentiation and inhibits glioma stem-like cells proliferation by inducing autophagy in a TRPV2-dependent manner. Nabissi M, **Morelli MB**\*, Amantini C, Liberati S, Santoni M, Ricci-Vitiani L, Pallini R, Santoni G. *Int J Cancer*. 2015 Oct 15;137(8):1855-69. \*CoF
- Danger- and Pathogen-associated molecular patterns recognition by ion channels of Transient Receptor Potential family, triggers inflammasome activation in neurons and immune cells. Santoni G, Cardinali C, **Morelli MB**, Santoni M, Nabissi M, Amantini C. *Journal of Neuroinflammation*. 2015 Feb 3;12(1):21.
- Cross-talk between alpha1D-adrenoceptors and transient receptor potential vanilloid type 1 triggers prostate cancer cell proliferation. **Morelli MB**, Amantini C, Nabissi M, Liberati S, Cardinali C, Farfariello V, Quaglia W, Piergentili A, Bonifazi A, Del Bello F, Santoni M, Mammana G, Servi L, Filosa A, Gismondi A, Santoni G. *BMC Cancer*. 2014 Dec 7;14:921.
- Epigenetic, Genetic, and Acquired Regulation of Cav3 T-Type Calcium Channel Expression and Function in Tumor Growth and Progression. **Morelli MB**, Liberati S, Amantini C, Santoni M, Nabissi M, Farfariello V, Santoni G. Book: *PATHOLOGIES of CALCIUM CHANNELS 2014*: 277-295.
- Loss of TRPV2 Homeostatic Control of Cell Proliferation Drives Tumor Progression. Liberati S, **Morelli MB**, Amantini C, Farfariello V, Santoni M, Conti A, Nabissi M, Cascinu S, Santoni G. *Cells*. 2014 Feb 19;3(1):112-28.

- Advances In Transient Receptor Potential Vanilloid-2 Channel Expression And Function In Tumor Growth And Progression. Liberati S, **Morelli MB**, Amantini C, Santoni M, Nabissi M, Cardinali C, Santoni G. *Curr Protein Pept Sci*. 2014;15(7):732-7.
- Resiniferatoxin induces mitochondrial-dependent death of bladder cancer cells and reduces tumor growth in a xenograft mouse model. Farfariello V, Liberati S, **Morelli MB\***, Tomassoni D, Santoni M, Nabissi M, Giannantoni A, Santoni G, Amantini C. *Chem Biol Interact*. 2014 Oct 29;224C:128-135. \*CA
- The effects of cannabidiol and its synergism with bortezomib in multiple myeloma cell lines. A role for transient receptor potential vanilloid type-2. **Morelli MB**, Offidani M, Alesiani F, Discepoli G, Liberati S, Olivieri A, Santoni M, Santoni G, Leoni P, Nabissi M. *Int J Cancer*. 2014 Jun 1;134(11):2534-46.
- Pazopanib and sunitinib trigger autophagic and non-autophagic death of bladder tumour cells. Santoni M, Amantini C, **Morelli MB**, Liberati S, Farfariello V, Nabissi M, Bonfili L, Eleuteri AM, Mozzicafreddo M, Burattini L, Berardi R, Cascinu S, Santoni G. *Br J Cancer*. 2013 Aug 20;109(4):1040-50.
- Expression and Function of the Transient Receptor Potential Ion Channel Family in the Hematologic Malignancies. **Morelli MB**, Liberati S, Amantini C, Nabissi M, Santoni M, Farfariello V, Santoni G. *Curr Mol Pharmacol*. 2013 Nov;6(3):137-48.
- Essential Role of Gli Proteins in Glioblastoma Multiforme. Santoni M, Burattini L, Nabissi M, **Morelli MB**, Berardi R, Santoni G, Cascinu S. *Curr Protein Pept Sc* 2013 Mar; 14: 133-40.
- TRP Channels: New Potential Therapeutic Approaches in CNS Neuropathies. **Morelli MB**, Amantini C, Liberati S, Santoni M, Nabissi M. *CNS Neurol Disord Drug Targets* 2013 Mar; 12: 274-93.
- Oncogenic and anti-oncogenic effects of transient receptor potential channels. Liberati S, **Morelli MB\***, Nabissi M, Santoni M, Santoni G. *Curr Top Med Chem*. 2013;13(3):344-66. \*CoF
- The role of transient receptor potential vanilloid type-2 ion channels in innate and adaptive immune responses. Santoni G, Farfariello V, Liberati S, **Morelli MB**, Nabissi M, Santoni M, Amantini C. *Front Immunol*. 2013 Feb 14;4:34.
- Follicular fluid hormonal profile and cumulus cell gene expression in controlled ovarian hyperstimulation with recombinant FSH: effects of recombinant LH administration. Barberi M, Ermini B, **Morelli MB**, Ermini M, Cecconi S, Canipari R. *J Assist Reprod Genet*. 2012 Dec;29(12):1381-91.
- New Insight on the Role of Transient Receptor Potential (TRP) Channels in Driven Gliomagenesis Pathways. Santoni G, **Morelli MB**, Amantini C, Santoni M, Nabissi M. *Book: Glioma - Exploring Its Biology and Practical Relevance*. 2011

## PUBLICATIONS

---

- Triggering of the TRPV2 channel by cannabidiol sensitizes glioblastoma cells to cytotoxic chemotherapeutic agents. Nabissi M, **Morelli MB\***, Santoni M, Santoni G. *Carcinogenesis*. 2013 Jan;34(1):48-57. \*CoF
- The transient receptor potential vanilloid-2 cation channel impairs glioblastoma stem-like cell proliferation and promotes differentiation. **Morelli MB**, Nabissi M, Amantini C, Farfariello V, Ricci-Vitiani L, di Martino S, Pallini R, Larocca LM, Caprodossi S, Santoni M, De Maria R, Santoni G. *Int J Cancer*. 2012 Oct 1;131(7):E1067-77.
- New deals on the transcriptional and post-transcriptional regulation of TRP channel target genes during the angiogenesis of glioma. Santoni G, **Morelli MB**, Santoni M, Nabissi M. *J Experimental and Integrative Medicine* 2011; 1(4):221-234
- IL-22 mRNA in peripheral blood mononuclear cells from allergic rhinitic and asthmatic pediatric patients. Farfariello V, Amantini C, Nabissi M, **Morelli MB**, Aperio C, Caprodossi S, Carlucci A, Bianchi AM, Santoni G. *Pediatr Allergy Immunol*. 2011 Jun;22(4):419-23.
- Capsaicin promotes a more aggressive gene expression phenotype and invasiveness in null-TRPV1 urothelial cancer cells. Caprodossi S, Amantini C, Nabissi M, **Morelli MB**, Farfariello V, Santoni M, Gismondi A, Santoni G. *Carcinogenesis*. 2011 May;32(5):686-94.
- Expression of transient receptor potential vanilloid-1 (TRPV1) in urothelial cancers of human bladder: relation to clinicopathological and molecular parameters. Kalogris C, Caprodossi S, Amantini C, Lambertucci F, Nabissi M, **Morelli MB**, Farfariello V, Filosa A, Emiliozzi MC, Mammana G, Santoni G. *Histopathology*. 2010 Nov;57(5):744-52.
- TRPV2 channel negatively controls glioma cell proliferation and resistance to Fas-induced apoptosis in ERK-dependent manner. Nabissi M, **Morelli MB**, Amantini C, Farfariello V, Ricci-Vitiani L, Caprodossi S, Arcella A, Santoni M, Giangaspero F, De Maria R, Santoni G. *Carcinogenesis*. 2010 May;31(5):794-803.
- Triggering of transient receptor potential vanilloid type 1 (TRPV1) by capsaicin induces Fas/CD95-mediated apoptosis of urothelial cancer cells in an ATM-dependent manner. Amantini C, Ballarini P, Caprodossi S, Nabissi M, **Morelli MB**, Lucciarini R, Cardarelli MA, Mammana G, Santoni G. *Carcinogenesis*. 2009 Aug;30(8):1320-9.
- Characterization, expression, and functional activity of pituitary adenylate cyclase-activating polypeptide and its receptors in human granulosa-luteal cells. **Morelli MB**, Barberi M, Gambardella A, Borini A, Cecconi S, Coticchio G, Canipari R. *J Clin Endocrinol Metab*. 2008 Dec;93(12):4924-32.
- Expression localisation and functional activity of pituitary adenylate cyclase-activating polypeptide, vasoactive intestinal polypeptide and their receptors in mouse ovary. Barberi M, Muciaccia B, **Morelli MB**, Stefanini M, Cecconi S, Canipari R. *Reproduction*. 2007 Aug;134(2):281-92.



## ACADEMIC ROLE

---

- 2016-PRESENT**
- Co-teacher in "Patologie da stress e dei disordini alimentari" (3 cfu, Scienze del Fitness e dei Prodotti della Salute, University of Camerino) and in "Fondamenti di patologia e citotossicologia" (3 cfu, Biologia della nutrizione, University of Camerino)
- 2015-PRESENT**
- Teacher in Laboratory II (1 cfu, Biosciences and Biotechnology, University of Camerino)
- 2015-2016**
- Seminar activities. "Nutritional Pathology Course", (2 cfu), in Stress Pathology Course (Scienze del Fitness e dei Prodotti della Salute, University of Camerino)
- 2013-PRESENT**
- Co-tutor for Bachelor degree dissertations in Biosciences and Biotechnology, Biologia della Nutrizione and Scienze del Fitness e dei Prodotti della Salute.
  - Co-tutor for Master degree dissertation in Biological Sciences.
  - Co-tutor for Laurea Specialistica dissertation in Farmacia.
- 2012-2013**
- Co-tutor in the practical laboratory of the "Fondamenti di Patologia e Citotossicologia" for the Laboratory II course of the Bachelor's Degree in Biologia della Nutrizione at the University of Camerino
- 2012-PRESENT**
- Co-tutor in the practical laboratory for Rotation Laboratory course of the Master Degree in Biological Sciences at the University of Camerino