



Cristina Aguzzi

● WORK EXPERIENCE

01/11/2023 – CURRENT Italy

RESEARCH FELLOWSHIP "RUOLO DEL SISTEMA CANNABINOIDE NELLA MODULAZIONE DELLA CRESCITA DEL GLIOMA E LA SUA INTERAZIONE CON LA MICROGLIA E MACROFAGI INFILTRANTI". UNIVERSITY OF CAMERINO

01/10/2019 – 30/09/2020 Italy

RESEARCH ACTIVITY BY SCHOLARSHIP IN MOLECULAR PATHOLOGY UNIVERSITY OF CAMERINO

● EDUCATION AND TRAINING

01/11/2020 – 07/06/2024 Italy

PHD IN MOLECULAR BIOLOGY AND CELLULAR BIOTECHNOLOGY University of Camerino

2019 Italy

QUALIFICATION TO PRACTICE AS PHARMACIST University of Camerino

2019 Italy

MASTER DEGREE IN PHARMACEUTICAL CHEMISTRY AND TECHNOLOGY University of Camerino

Final grade 110/110 cum laude

2012 Ancona , Italy

HIGH SCHOOL DIPLOMA OF "LICEO SCIENTIFICO TECNOLOGICO" IIS "Volterra – Elia"

● JOB-RELATED SKILLS

Molecular biology and cellular biotechnology

- Cell culture (normal cells, cancer cells, primary cell lines, 3D coltures)
- Viability assays (MTT, SRB)
- Cytofluorimetric analysis (cell cycle assay, Annexin/PI assay, proliferation assay, BrdU assay)
- RNA extraction, cDNA synthesis, RT-PCR, digital droplet PCR, cellular transfection and genic silencing, DNA electrophoresis, comet assay, Western Blot, ELISA
- Migration and invasion assay
- Pharmacological synergism evaluation
- Milliplex Multiplex Assay

● PUBLICATIONS

Aguzzi C, Zeppa L, Morelli MB, Marinelli O, Giangrossi M, Amantini C, Santoni G, Sazzad H, Nabissi M. Anticancer effect of minor phytocannabinoids in preclinical models of multiple myeloma. Biofactors. 2024 May 17. doi: 10.1002/biof.2078. Epub ahead of print. PMID: 38760945.

Zeppa L, Aguzzi C, Morelli MB, Marinelli O, Giangrossi M, Luongo M, Amantini C, Santoni G, Nabissi M. Cannabigerol Induces Autophagic Cell Death by Inhibiting EGFR-RAS Pathways in Human Pancreatic Ductal Adenocarcinoma Cell Lines. International Journal of Molecular Sciences. 2024; 25(4):2001. <https://doi.org/10.3390/ijms25042001>

Angeloni, S., Marinelli, O., Aguzzi, C. et al. Anti-inflammatory and antioxidant activities of ginsenosides and ginseng root extract to counteract obesity. *Eur Food Res Technol* (2023). <https://doi.org/10.1007/s00217-023-04371-1>

Aguzzi C, Perinelli DR, Cespi M, Zeppa L, Mazzara E, Maggi F, Petrelli R, Bonacucina G, Nabissi M. Encapsulation of Hemp (*Cannabis sativa* L.) Essential Oils into Nanoemulsions for Potential Therapeutic Applications: Assessment of Cytotoxicological Profiles. *Molecules*. 2023 Sep 7;28(18):6479. doi: 10.3390/molecules28186479. PMID: 37764255; PMCID: PMC10537312.

Antonini M, Aguzzi C, Fanelli A, Frassinetti A, Zeppa L, Morelli MB, Pastore G, Nabissi M, Luongo M. The Effects of a Combination of Medical Cannabis, Melatonin, and Oxygen-Ozone Therapy on Glioblastoma Multiforme: A Case Report. *Reports*. 2023; 6(2):22. <https://doi.org/10.3390/reports6020022>

Spinozzi E, Ferrati M, Baldassarri C, Maggi F, Pavela R, Benelli G, Aguzzi C, Zeppa L, Cappellacci L, Palmieri A, Petrelli R. Synthesis of Carlina Oxide Analogues and Evaluation of Their Insecticidal Efficacy and Cytotoxicity. *J Nat Prod*. 2023 May 12. doi: 10.1021/acs.jnatprod.3c00137. Epub ahead of print. PMID: 37172063.

Maggi F, Morelli MB, Aguzzi C, Zeppa L, Nabissi M, Polidori C, Santoni G, Amantini C. Calcium influx, oxidative stress, and apoptosis induced by TRPV1 in chronic myeloid leukemia cells: Synergistic effects with imatinib. *Front Mol Biosci*. 2023 Feb 15;10:1129202. doi: 10.3389/fmolb.2023.1129202. PMID: 36876044; PMCID: PMC9975599.

- Morelli MB, Marinelli O, Aguzzi C, Zeppa L, Nabissi M, Amantini C, Tomassoni D, Maggi F, Santoni M, Santoni G. Unveiling the Molecular Mechanisms Driving the Capsaicin-Induced Immunomodulatory Effects on PD-L1 Expression in Bladder and Renal Cancer Cell Lines. *Cancers (Basel)*. 2022 May 26;14(11):2644. doi: 10.3390/cancers14112644. PMID: 35681623; PMCID: PMC9179445.

- Zeppa L, Aguzzi C, Versari G, Luongo M, Morelli MB, Maggi F, Amantini C, Santoni G, Marinelli O, Nabissi M. Evening Primrose Oil Improves Chemotherapeutic Effects in Human Pancreatic Ductal Adenocarcinoma Cell Lines-A Preclinical Study. *Pharmaceuticals (Basel)*. 2022 Apr 12;15(4):466. doi: 10.3390/ph15040466. PMID: 35455464; PMCID: PMC9024477.

- Maggi F, Morelli MB, Tomassoni D, Marinelli O, Aguzzi C, Zeppa L, Nabissi M, Santoni G, Amantini C. The effects of cannabidiol via TRPV2 channel in chronic myeloid leukemia cells and its combination with imatinib. *Cancer Sci*. 2022 Apr;113(4):1235-1249. doi: 10.1111/cas.15257. Epub 2022 Mar 4. PMID: 34971020; PMCID: PMC8990867.

- Maggi F, Morelli MB, Nabissi M, Marinelli O, Zeppa L, Aguzzi C, Santoni G, Amantini C. Transient Receptor Potential (TRP) Channels in Haematological Malignancies: An Update. *Biomolecules*. 2021 May 20;11(5):765. doi: 10.3390/biom11050765. PMID: 34065398; PMCID: PMC8160608.

- Pavela, R., Pavoni, L., Bonacucina, G., Cespi, M., Cappellacci, L., Petrelli, R., Spinozzi, E., Aguzzi, C., Zeppa, L., Ubaldi, M., et al. (2021). Encapsulation of Carlina acaulis essential oil and carlina oxide to develop long-lasting mosquito larvicides: microemulsions versus nanoemulsions. *Journal of Pest Science* 94, 899–915.

- Marinelli O, Annibali D, Morelli MB, Zeppa L, Tuyaerts S, Aguzzi C, Amantini C, Maggi F, Ferretti B, Santoni G, Amant F, Nabissi M. Biological Function of PD-L2 and Correlation With Overall Survival in Type II Endometrial Cancer. *Front Oncol*. 2020 Oct 28;10:538064. doi: 10.3389/fonc.2020.538064. PMID: 33194598; PMCID: PMC7656062.

- Marinelli O, Morelli MB, Annibali D, Aguzzi C, Zeppa L, Tuyaerts S, Amantini C, Amant F, Ferretti B, Maggi F, Santoni G, Nabissi M. The Effects of Cannabidiol and Prognostic Role of TRPV2 in Human Endometrial Cancer. *Int J Mol Sci.* 2020 Jul 29;21(15):5409. doi: 10.3390/ijms21155409. PMID: 32751388; PMCID: PMC7432565.

- Luongo M, Marinelli O, Zeppa L, Aguzzi C, Morelli MB, Amantini C, Frassinetti A, di Costanzo M, Fanelli A, Santoni G, Nabissi M. Cannabidiol and Oxygen-Ozone Combination Induce Cytotoxicity in Human Pancreatic Ductal Adenocarcinoma Cell Lines. *Cancers (Basel).* 2020 Sep 27;12(10):2774. doi: 10.3390/cancers12102774. PMID: 32992648; PMCID: PMC7600087.

- Aguzzi C, Marinelli O, Zeppa L, Santoni G, Maggi F, Nabissi M. Evaluation of anti-inflammatory and immunoregulatory activities of Stimunex® and Stimunex D3® in human monocytes/macrophages stimulated with LPS or IL-4/IL-13. *Biomed Pharmacother.* 2020 Dec;132:110845. doi: 10.1016/j.biopha.2020.110845. Epub 2020 Oct 17. PMID: 33080469.

- Benelli G, Pavela R, Cianfaglione K, Sender J, Danuta U, Maślanko W, Canale A, Barboni L, Petrelli R, Zeppa L, Aguzzi C, Maggi F. Ascaridole-rich essential oil from marsh rosemary (*Ledum palustre*) growing in Poland exerts insecticidal activity on mosquitoes, moths and flies without serious effects on non-target organisms and human cells. *Food Chem Toxicol.* 2020 Apr;138:111184. doi: 10.1016/j.fct.2020.111184. Epub 2020 Feb 13. PMID: 32061727.

- Marinelli O, Annibali D, Aguzzi C, Tuyaerts S, Amant F, Morelli MB, Santoni G, Amantini C, Maggi F, Nabissi M. The Controversial Role of PD-1 and Its Ligands in Gynecological Malignancies. *Front Oncol.* 2019 Oct 15;9:1073. doi: 10.3389/fonc.2019.01073. PMID: 31681606; PMCID: PMC6803534.

● CONFERENCES AND SEMINARS

2023 Turin

Poster presenter al 29th Congresso dell'EACR (European Association for Cancer Research)

Poster title: Cannabigerol *in vitro* effect on Human Pancreatic Ductal Adenocarcinoma

2022 Naples

Speaker at the congress ETS AMOR "Cancro e dolore: ossigeno ozono, cannabis e terapie integrate."

Presentation title: Fitocannabinoidi "minori" in modelli preclinici di tumore al pancreas

2022 Basel

Poster presenter at the Cannabinoid Conference 2022

Poster title: TRPV2 correlates with endometrial cancer aggressiveness and its activation by Cannabidiol induces cytotoxicity and improves chemosensitivity.

2022 Seville

Poster presenter at the 28th EACR congress (European Association for Cancer Research)

Poster title: TRPV2 correlates with endometrial cancer aggressiveness and its activation improves chemosensitivity.

2022 Webinar

Speaker at the 2nd International Webinar on Cancer Research and Therapeutics

Abstract title: Expression and biological function of PD-1 ligands in Endometrial Cancer

2021 University of Camerino - webinar

Speaker at the congress "Alimenti e nutraceutici: Salute e prevenzione attraverso il cibo"

Abstract title: Hemp extract safety for dermatological application

● **PROJECTS**

2022

Valutazioni di formulazioni di Cannabis terapeutica nella malattia di Crohn

Financed by ASUR and Regione Marche

2021

Modulating synaptic neurotransmission to reactivate the immune reaction against brain tumors

Prin 2020, MUR funds

2019

BIOCANAPA Valutazione di biopesticidi ottenuti da prodotti di scarto della canapa e valutazione della tossicità per l'operatore

PSR 2019, financed by Regione Marche

2019

Medical cannabis in multiple myeloma

Financed by Entourage Biosciences

2019

Cannabinoids and Endometrial cancer

Financed by Enecta SRL

2019

Ozonotherapy, cannabis and pancreatic cancer

Financed by Fondazione Maria Guarino Amor Onlus

2019

Hemp against pest

FAR 2019, financed by UNICAM

● **PATENTS**

2021

USE OF PHYTOCANNABINOIDS FOR TREATING ENDOMETRIAL CANCER AND ENDOMETRIOSIS

PCT/US22/36758

2021

METHODS AND COMPOUNDS OF CANNABIDIOL, MELATONIN AND AKBA FOR TREATING PANCREATIC CANCER

PCT/US22/23244

2020

USE OF PHYTOCANNABINOIDS FOR TREATING MULTIPLE MYELOMA

PCT/CA2021/050801

● **LANGUAGE SKILLS**

Mother tongue(s): **ITALIAN**

Other language(s): **ENGLISH - FCE FIRST CERTIFICATE IN ENGLISH (ESOL EXAMINATIONS - UNIVERSITY OF CAMBRIDGE)**

● **DIGITAL SKILLS**

ECDL | Microsoft Office (Word, Excel, Power Point...)

Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi dell'art. 13 d. lgs. 30 giugno 2003 n. 196 - "Codice in materia di protezione dei dati personali" e dell'art. 13 GDPR 679/16 - "Regolamento europeo sulla protezione dei dati personali".