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2008: Master's Degree in Chemistry and Pharmaceutical Sciences (University of Catania)

2010: Visiting Researcher at the Department of Physiology & Pharmacology, College of Medicine, University of Toledo, Ohio U.S.A.

2011: Visiting Researcher at the Department of Biochemistry, University College of Cork, Ireland.

2014 : Ph.D in Neuroscience (University of Catania, University of Rome La Sapienza)

2014 : Assistant Professor of Biochemistry, University of Catania

2016 : Professor of Plant and Animal Biology and Pharmaceutical Biology, University of Catania

Involved in the study of natural substances with antioxidant activity and their therapeutic use; Characterization of biological activity and mechanisms of action of plant drugs and natural substances; Characterization of biological activity and mechanisms of action of plant extracts in tumour cell lines and in cellular models of metabolic pathologies; Identification of active ingredients in natural extracts;

Oxidative stress: *in vitro* and *in vivo* studies on free radical toxicity and on antioxidant defence mechanisms in different biological systems and physio-pathological conditions;

Co-Leader of a Research Team on Natural Compounds at the Laboratory of Biochemistry (University of Catania), involved in researches related to plant metabolites and cellular interactions focused on the anti-inflammatory response. Scientific Chief of 2 research projects regarding the potential effects of nutraceuticals on the modulation of gut microbiota and adipogenesis.

Author of several scientific papers in referred Journals, 3 chapters in international books as well as Technical papers; invited speaker of International and World Congresses. Reviewer of several International Scientific Journals: International Journal of Molecular Sciences, Natural Products Research, Evidence-Based Complementary and Alternative Medicine, etc...

Research Interests: Plant secondary metabolites, polyphenols, anthocyanins, flavonoids, phytoalexins: Chronic inflammation, metabolic syndromes, chemoprevention and therapy of cancer, nutraceuticals and supplements.

### Published

1. Tenuta Maria Concetta, **Malfa Giuseppe Antonio**, Bonesi Marco, Acquaviva Rosaria, Loizzo Monica Rosa, Dugay Annabelle, Bouzidi Chouaha, Tomasello Barbara, Tundis Rosa, Deguin Brigitte. 'LC-ESI-QTOF-MS Profiling, Protective Effects on Oxidative Damage, and Inhibitory Activity of Enzymes Linked to Type 2 Diabetes and Nitric Oxide Production of Vaccinium Corymbosum L. (Ericaceae) Extracts'. 1 Jan. 2020 : 1 – 20
2. Natalizia Miceli, Emilia Cavò, Monica Ragusa, Francesco Cacciola, Luigi Mondello, Laura Dugo, Rosaria Acquaviva, **Giuseppe Antonio Malfa**, Andreana Marino, Manuela D'Arrigo, Maria Fernanda Taviano. Brassica incana Ten.(Brassicaceae): Phenolic Constituents, Antioxidant and Cytotoxic Properties of the Leaf and Flowering Top Extracts. 2020.
3. Maria Concetta Tenuta, Brigitte Deguin, Monica Rosa Loizzo, Annabelle Dugay, Rosaria Acquaviva, **Giuseppe Antonio Malfa**, Marco Bonesi, Chouaha Bouzidi, Rosa Tundis. Contribution of Flavonoids and Iridoids to the Hypoglycaemic, Antioxidant, and Nitric Oxide (NO) Inhibitory Activities of Arbutus unedo L. Antioxidants 9 (2), 184. 2020.
4. Maria Fernanda Taviano, Natalizia Miceli, Rosaria Acquaviva, **Giuseppe Antonio Malfa**, Salvatore Ragusa, Deborah Giordano, Guillermo Cásedas, Francisco Les, Víctor López. Cytotoxic, Antioxidant, and Enzyme Inhibitory Properties of the Traditional Medicinal Plant Matthiola incana (L.) R. Br. Biology, 2020.
5. Giuseppa Castellino, Dragana Nikolic, Antonio Magán-Fernández, **Giuseppe Antonio Malfa**, Roberta Chianetta, Angelo M. Patti, Antonella Amato, Giuseppe Montalto, Peter P. Toth, Maciej Banach, Arrigo F. G. Cicero and Manfredi Rizzo. Altlix® supplement containing chlorogenic acid and luteolin improved hepatic and cardiometabolic parameters in subjects with the metabolic syndrome: a 6-month randomized, double-blind, placebo-controlled study. Nutrients 2019, 11.
6. Barbara Tomasello, **Giuseppe Antonio Malfa**, Alfonsina La Mantia, Natalizia Miceli, Giuseppe Sferrazzo, Maria Fernanda Taviano, Claudia Di Giacomo, Marcella Renis, Rosaria Acquaviva. Anti-adipogenic and anti-oxidant effects of a standardised extract of Moro blood oranges (Citrus sinensis (L.) Osbeck) during adipocyte differentiation of 3T3-L1 preadipocytes. Natural Product Research 2019-09, journal-article DOI 10.1080/14786419.2019.1660337
7. Rosaria Acquaviva, Floriana D'Angeli, **Giuseppe Antonio Malfa**, Simone Ronsisvalle, Adriana Garozzo, Aldo Stivala, Salvatore Ragusa, Daria Nicolosi, Mario Salmeri, Carlo Genovese. Antibacterial and anti-biofilm activities of walnut pellicle extract (Juglans regia L.) against coagulase-negative staphylococci. Natural Product Research 2019-08, journal-article DOI 10.1080/14786419.2019.1650352.
8. **Giuseppe Antonio Malfa**, Barbara Tomasello, Rosaria Acquaviva, Carlo Genovese, Alfonsina La Mantia, Francesco Paolo Cammarata, Monica Ragusa, Marcella Renis, Claudia Di Giacomo. Betula etnensis Raf. (Betulaceae) Extract Induced HO-1 Expression and Ferroptosis Cell Death in Human Colon Cancer Cells. International Journal of Molecular Sciences 2019-06, journal-article DOI: 10.3390/ijms20112723.

9. Carlo Genovese, Rosaria Acquaviva, Simone Ronsisvalle, Gianna Tempera, **Giuseppe Antonio Malfa**, Floriana D'Angeli, Salvatore Ragusa, Daria Nicolosi. In vitro evaluation of biological activities of *Orobanche crenata* Forssk. leaves extract. *Natural Product Research* 2019-01, journal-article DOI 10.1080/14786419.2018.1552697.
10. Rosaria Acquaviva, Carlo Genovese, Andrea Amodeo, Barbara Tomasello, **Giuseppe Malfa**, Valeria Sorrenti, Gianna Tempera, Alessandro Paolo Addamo, Salvatore Ragusa, Tundis Rosa, Francesco Menichini, Claudia Di Giacomo. Biological activities of *Teucrium flavum* L., *Teucrium fruticans* L., and *Teucrium siculum* rafin crude extracts. *Plant Biosystems* 2018, journal-article DOI: 10.1080/11263504.2017.1330773.
11. Marco Bonesi, Monica R Loizzo, Rosaria Acquaviva, **Giuseppe A Malfa**, Francesca Aiello, Rosa Tundis. Anti-inflammatory and antioxidant agents from *Salvia* genus (Lamiaceae): An assessment of the current state of knowledge. *Anti-Inflammatory and Anti-Allergy Agents in Medicinal Chemistry* 2017, journal-article DOI: 10.2174/1871523016666170502121419.
12. Barbara Tomasello, **Giuseppe Antonio Malfa**, Angela Strazzanti, Santi Gangi, Claudia Di Giacomo, Francesco Basile, Marcella Renis. Effects of physical activity on systemic oxidative/DNA status in breast cancer survivors. *Oncology Letters* 2017, journal-article DOI: 10.3892/ol.2016.5449.
13. Rosaria Acquaviva, Valeria Sorrenti, Rosa Santangelo, Venera Cardile, Barbara Tomasello, **Giuseppe Malfa**, Luca Vanella, Andrea Amodeo, Carlo Genovese, Silvana Mastrojeni, Michela Pugliese, Monica Ragusa, Claudia Di Giacomo. Effects of an extract of *Celtis aetnensis* (Tornab.) Strobl twigs on human colon cancer cell cultures. *Oncology Reports* 2016, journal-article DOI: 10.3892/or.2016.5035.
14. Rosa Chillemi, Nunzio Cardullo, Valentina Greco, **Giuseppe Malfa**, Barbara Tomasello, Sebastiano Sciuto. Synthesis of amphiphilic resveratrol lipoconjugates and evaluation of their anticancer activity towards neuroblastoma SH-SY5Y cell line. *European Journal of Medicinal Chemistry* 2015, journal-article DOI: 10.1016/j.ejmech.2015.04.038.
15. **Giuseppe A Malfa**, Barbara Tomasello, Fulvia Sinatra, Giusy Villaggio, Francesco Amenta, Roberto Avola, Marcella Renis. "Reactive" response evaluation of primary human astrocytes after methylmercury exposure. *Journal of Neuroscience Research* 2014, journal-article DOI: 10.1002/jnr.23290.
16. S Grasso, V Bramanti, D Tomassoni, D Bronzi, **G Malfa**, E Traini, M Napoli, M Renis, F Amenta, R Avola. Effect of lipoic acid and  $\alpha$ -glyceryl-phosphoryl-choline on astroglial cell proliferation and differentiation in primary culture. *Journal of Neuroscience Research* 2014, journal-article DOI: 10.1002/jnr.23289.
17. Giuseppe AP Cirrone, Daniele Margarone, Mario Maggiore, Antonello Anzalone, Marco Borghesi, S Bijan Jia, Stepan S Bulanov, Sergei Bulanov, Massimo Carpinelli, Salvatore Cavallaro, Mariapompea Cutroneo, Giacomo Cuttone, Marco Favetta, Santo Gammino, Ondrej Klimo, Lorenzo Manti, Georg Korn, **Giuseppe Malfa**, Jiri Limpouch, Agatino Musumarra, Ivan Petrovic, Jan Prokupek, Jan Psikal, Aleksandra Ristic-Fira, Marcella Renis, Francesco P Romano, Francesco Romano, Giuseppe Schettino, Francesco Schillaci, Valentina Scuderi, Concetta Stancampiano, Antonella Tramontana, Sargis Ter-Avetisyan, Barbara Tomasello, Lorenzo Torrisi, Salvo Tudisco, Andriy Velyhan. ELIMED: A new hadron therapy concept based on laser driven ion beams. *Proceedings of SPIE - The International Society for Optical Engineering* 2013-05, conference-paper DOI: 10.1117/12.2026530.
18. M Renis, M Borghesi, M Favetta, **G Malfa**, L Manti, F Romano, G Schettino, B Tomasello, GAP Cirrone.

Investigations of DNA damage induction and repair resulting from cellular exposure to high dose-rate pulsed proton beams. AIP Conference Proceedings 2013, conference-paper DOI: 10.1063/1.4816615.

19. Luca Vanella, Ming Li, DongHyun Kim, **Giuseppe Malfa**, Lars Bellner, Tomoko Kawakami, Nader G Abraham.  
ApoA1: Mimetic peptide reverses adipocyte dysfunction in vivo and in vitro via an increase in hemeoxygenase (HO-1) and Wnt10b. *Cell Cycle* 2012, journal-article DOI:10.4161/cc.11.4.19125.
20. Barbara Tomasello, Salvatore Grasso, **Giuseppe Malfa**, Stefania Stella, Marco Favetta, Marcella Renis.  
Double-face activity of resveratrol in voluntary runners: Assessment of DNA damage by comet assay. *Journal of Medicinal Food* 2012, journal-article DOI: 10.1089/jmf.2011.0173.
21. Pablo GA Cirrone, Giacomo Cuttone, Georg Korn, Mario Maggiore, Daniele Margarone, Bijan Bji, Luciano Calabretta, Claudio Calí, Antonio Caruso, Fortunato Caruso, Salvatore Cavallaro, Santo Gammino, **Giuseppe Malfa**, Lorenzo Manti, Santi Passarello, Jan Prokupek, Marcella Renis, Francesco Romano, Francesco Schillaci, Barbara Tomasello, Lorenzo Torrisi, Antonella Tramontana, Biagio Trovato, Emilio Zappalá.  
ELIMED a new concept of hadrontherapy with laser-driven beams. *IEEE Nuclear Science Symposium Conference Record* 2012, conference-paper DOI:10.1109/NSSMIC.2012.6551462.
22. Barbara Tomasello, **Giuseppe Malfa**, Fabio Galvano, Marcella Renis.  
DNA damage in normal-weight obese syndrome measured by Comet assay. *Mediterranean Journal of Nutrition and Metabolism* 2011, journal-article DOI: 10.1007/s12349-010-0035-6. Erratum: DNA damage in normal-weight obese syndrome measured by Comet assay. *Mediterranean Journal of Nutrition and Metabolism* 2011, journal-article DOI: 10.1007/s12349-010-0048-1.
23. **Malfa G.**, Tomasello B., Spatafora C., Cardile V., Scifo C., Tringali C., Renis M. Chemotherapeutic effects of resveratrol and its analogue 3,5,4'-trans-trimethoxystilbene on DU145. *Trends in Cancer Research*, vol 6 pp 45-54, 2010.

## Books

1. Carotenoids as tools in breast cancer therapy  
Loizzo M.R., **Malfa G.**, Acquaviva R., Tundis R., Bonesi M.. Carotenoids as tools in breast cancer therapy. Goutam Brahmachari. Vol. 5: Discovery and Development of Anti-Breast Cancerous Agents from Natural Products. Elsevier Series 'Natural Products Drug Discovery. 2018
2. Prevention and therapy of prostate cancer: the role of triterpene saponins  
Bonesi M., Tundis R., **Malfa G.**, Acquaviva R., Loizzo M.R. Prevention and therapy of prostate cancer: the role of triterpene saponins. Goutam Brahmachari. Vol. 7: Discovery and Development of Anti-Prostate Cancerous Agents from Natural Products. Elsevier Series 'Natural Products Drug Discovery. 2018
3. Citrus flavanones  
Tundis R., Acquaviva R., Bonesi M., **Malfa G.A.**, Tomasello B., Loizzo M.R  
*Handbook of Dietary Phytochemicals Chapter 5. In Press*

## International Communications

**Giuseppe Malfa**, Barbara Tomasello, Alfonsina La Mantia, Francesco Pappalardo, Claudia Di Giacomo, Marcella Renis, Salvatore Ragusa, Rosaria Acquaviva (15 + 5min) "Anti-adipogenic and anti-oxidant effects of a standardized extract of *Citrus sinensis* (L.) Osbeck 'Moro' (Rutaceae) during adipocyte differentiation of 3T3-L1 pre-adipocytes". 114° 113° Congresso della Società Botanica Italiana, V International Plant Science Conference (IPSC), Padova 4-7 Settembre 2019.

**Malfa GA**, Tomasello B, Acquaviva R, Genovese C, La Mantia A, Cammarata FP, Ragusa M, Renis M, Di Giacomo C. *Betula etnensis* Raf. (Betulaceae) Extract Induced HO-1 Expression and Ferroptosis Cell Death in Human Colon Cancer Cells. 24th World Congress on Advances in Oncology And 24th International Symposium on Molecular Medicine October 10-12, 2019 Mystras Grand Palace Resort, Sparta, Greece

## International and World Congress

1. Acquaviva Rosaria, **Malfa Giuseppe**, Genovese Carlo, Tomasello Barbara, D'Angeli Floriana, La Mantia Alfonsina, Tundis Rosa, Ragusa Salvatore. Potential health promoting properties of *Orobanche crenata* Forssk. Extract. 114° Congresso della Società Botanica Italiana, V International Plant Science Conference (IPSC), Padova 4-7 Settembre 2019.
2. M.G. Sarpietro, M. Di Guardia, A. Morgante, **G. Malfa**, F. Castelli. Preparation and characterization of Sinapic acid loaded SLN and NLC . 59° Simposio AFI - Rimini 5-6-7 Giugno 2019.
3. **Giuseppe Antonio Malfa**, Barbara Tomasello, Maria Domenica Di Mauro, Rosaria Acquaviva, Claudia Di Giacomo, Rosa Tundis, Salvatore Ragusa, Marcella Renis. Anticancer properties of *Myrtus communis* L. (Myrtaceae) berries: preliminary studies on breast cancer cell line MCF-7. 113° Congresso della Società Botanica Italiana, V International Plant Science Conference (IPSC), Fisciano 12-15 Settembre 2018
4. Rosa Tundis, Monica R. Loizzo, Marco Bonesi, Rosaria Acquaviva, **Giuseppe Antonio Malfa**, Nicodemo G. Passalacqua, Salvatore Ragusa. Anti-proliferative activity of *Thymelaea hirsuta* (L.) Endl. (Thymelaeaceae) 113° Congresso della Società Botanica Italiana, V International Plant Science Conference (IPSC), Fisciano 12-15 Settembre 2018
5. Rosaria Acquaviva, Claudia Di Giacomo, Barbara Tomasello, **Giuseppe Antonio Malfa**, Rosa Tundis, Monica R. Loizzo, Maria Domenica Di Mauro, Luigi Minafra, Pietro Pisciotta, Roberta Tringali, Salvatore Ragusa and Francesco Paolo Cammarata. Effect of the *Betula etnensis* Raf (Betulaceae) extract on breast cancer cells treated with adrontherapy. 113° Congresso della Società Botanica Italiana, V International Plant Science Conference (IPSC), Fisciano 12-15 Settembre 2018
6. **Malfa G.**, Acquaviva R., Di Giacomo C., Renis M., Addamo A.P., Ragusa S., Tundis R., Di Paola M., Longo M. and Genovese C. In vitro evidence for biological activities of Sicilian *Orobanche crenata* Forssk. leaf extract 112° Congresso della Società Botanica Italiana, IV International Plant Science Conference (IPSC), Parma 20-23 Settembre 2017.
7. Acquaviva R., Tomasello B., Sorrenti V., **Malfa G.**, Di Mauro M.D., Marco R., Ragusa S., Di Giacomo C. Role of nitric oxide in experimental model of diabetic nephropathy: effects of *Betula aetnensis* Rafin extract. 2nd Sino-Italian Symposium on Bioactive Natural Products - SISBNP 2016, Napoli 24-25 Novembre 2016
8. Monica R. Loizzo, Marco Bonesi, **Giuseppe Malfa**, Rosaria Acquaviva, Salvatore Ragusa, Francesco Menichini, Rosa Tundis. Radical scavenging and hypoglycaemic potential effects of edible flowers extract from *Borago Officinalis* L. (Boraginaceae). 110° Congresso Società Botanica Italiana, Pavia, 14-17 settembre 2015.

9. Acquaviva R, Tomasello B, **Malfa G**, Genovese C, Ragusa S, Tundis R, Menichini F, Aronica T, Di Giacomo C. Effects of extract of *Betula Aetnensis* Rafin (Betulaceae) in human colon cancer cell culture. 110° Congresso Società Botanica Italiana, Pavia, 14-17 settembre 2015.
10. Acquaviva R, Tomasello B, **Malfa G**, Sorrenti V, Vanella L, Russo A, Ragusa S, Aronica T, Di Giacomo C. Effects of *Betula Aetenensis* Rafin extract on experimental model of diabet. 9th ISANH Congress on Polyphenols Applications, Malta 3-5 giugno 2015.
11. R. Acquaviva, C. Genovese, C. Di Giacomo, S. Mastrojeni, A. Amodeo, R. Tundis, B. Tomasello, **G. Malfa**, G. Tempera, S. Ragusa. Biological Activities Of Teucrium Flavum L. And Teucrium Fruticans L. Extracts. 109° Congresso Società Botanica Italiana, Firenze 2-5 Settembre 2014.
12. **Malfa G.**, Tomasello B., Amenta F., Avola R. and Renis M. Methylmercury affects Redox Proteome of Human Astrocytes. IX Italian Proteomic Association Congress, June 24<sup>th</sup>-27<sup>th</sup> 2014, Napoli.
13. **Malfa G.**, Tomasello B., Sinatra F., Villaggio G., Amenta F., Avola R., Renis M. Delay in "Reactive" Response of primary Human astrocytes after Methylmercury exposure. ICOETox -Porto (Portugal) on the 16<sup>th</sup> and 17<sup>th</sup> September, 2013, satellite meeting of the 10<sup>th</sup> International Comet Assay Workshop (ICAW 2013).
14. P. G. A. Cirrone, G. Cuttone, G. Korn, M. Maggiore, D. Margarone, L. Calabretta, S. Cavallaro, L. Celona, M. Favetta, S. Gammino, T. Levato, **G. Malfa**, L. Manti, J. Prokupek, M. Renis, F. Romano, F. Schillaci, B. Tomasello, L. Torrisi, A. Tramontana. ELIMED a New Concept of Hadrontherapy with Laser-Driven Beams. Nuclear Science Symposium, Medical Imaging Conference & Workshop on Room-Temperature Semiconductor X-Ray and Gamma-Ray Detectors. October 29-November 3, 2012, Disneyland Hotel, Anaheim, California.
15. Tomasello B., **Malfa G.A.**, Renis M. Maybe Comet assay useful to investigate on two possible new early hallmarks of DNA damage in normal-weight obese syndrome? 9<sup>th</sup> International Comet Assay Workshop Kusadasi, Turkey, 13-16 September 2011.
16. Avola R., Bramanti V., Bronzii D., Grasso S., **Malfa G.**, Tomassoni D., Tomasello B., Renis M., Amenta F. GFAP, vimentin and cyclin D1 expression in primary astroglial cell cultures treated with thioctic acid and alpha-glycerol-phosphoryl-choline. 10th European Meeting on Glial Cells in Health and Disease, Prague 13-17 September 2011- Published on Glia Supplement Volume 59, Issue Supplement 1, pages S42–S154, October 2011.
17. V. Bramanti, D. Bronzi, S. Grasso, **G. Malfa**, D. Tomassoni, B. Tomasello, M. Renis, F. Amenta, R. Avola. *Effect of thioctic acid and alpha-glycerol phosphoryl-choline on astroglial cell proliferation and differentiation in primary culture*. XXI CONVEGNO NAZIONALE G.I.S.N. San Benedetto del Tronto (AP). 9-10 Giugno 2011.
18. Bramanti V., Bronzi D., Grasso S., **Malfa G.**, Tomassoni D., Tomasello B., Renis M., Amenta F., Avola R. Thioctic acid and alpha-glycerol phosphoryl-choline up and down modulate GFAP, vimentin and cyclin D1 expression of astroglial cells in primary culture. 36<sup>th</sup> FEBS Congress, Torino, Italy- June 25-30, 2011.
19. Tomasello B., **Malfa G.**, Renis M. Effects of hyperthermia and/or natural compounds on oxidative status of prostate cancer cells. 2° Congresso Interregionale SIBioC Sez. Sicilia, Sardegna e Campania, Cefalu' 22-24 Settembre 2010.

20. Tomasello B., Grasso S., **Malfa G.**, Stella S., Renis M. COMET ASSAY to assess DNA damage and Resveratrol activity in voluntary runners. 42° Congresso Nazionale sibioC, Roma 5-8 ottobre 2010.
21. Grasso S., Tomasello B., **Malfa G.**, Falsaperla M., Renis M. Protein profiling and oxidative stress evaluation in human bladder cancer. 6° Congresso regionale SIBIOC Modica 8-9 Ottobre 2009.
22. **Malfa G. A.**, Tomasello B., Spatafora C., Cardile V., Scifo C., Tringali C., Renis M. Chemotherapeutic effects of Resveratrol and its analogue 3,5,4'-trans-trimethoxystilbene on DU145 cells. 54th National Meeting of the Italian Society of Biochemistry and Molecular Biology (SIB), Catania, 23rd – 27<sup>th</sup> September 2009, p181.
23. **Malfa G.**, Tomasello B., Spatafora C., Calandra L., Tringali C., Renis M. Resveratrol and its analogue 3,5,4'-trans-trimethoxystilbene chemotherapeutic effects on DU145 cells. 5° Congresso regionale SIBIOC Agrigento 8-10 Ottobre 2008.
24. M. Renis, V. Cardile, C. Scifo, B. Tomasello, S. Grasso, **G. Malfa**, L. Vanella. A HSPs and iNOS protein expression profiles in prostate cancer cell lines: effect of the Resveratrol. 3rd Cell Stress Society International Congress on stress Responses in Biology and Medicine and 2<sup>nd</sup> World Conference of stress. Budapest, Ungheria 23-26 Agosto 2007.