Curriculum vitae Santa Cirmi, PhD

Personal Data

Cirmi Santa

Born in Siracusa (Italy) on the 12th of November, 1986 e-mail: scirmi@unime.it

Current position:

Senior Researcher (RTDb) of Pharmacology at the Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina (Italy);

Board Member of the Italian Society of Toxicology (SITOX);

National Scientific Qualification for the position of Associate Professor of Pharmacology obtained on 18/11/2020.

Education and Training:

from 10 July 2022 to date **Senior Researcher of Pharmacology** (RTDb) at the Department of Chemical, Biological, Pharmaceutical and Environmental Sciences of University of Messina, Messina, Italy;

from 21 December 2020 to 8 July 2022

Junior Researcher of Pharmacology (RTDa) at the Department of Pharmacy-Drug Sciences of University of Bari Aldo Moro, Bari, Italy;

21 January 2021

University Master Course (II level) in Pharmacovigilance and Regulatory Affairs, University of Verona, Verona, Italy;

28-29 September 2020 LanguageCert ESOL B2. Grade: high pass;

from 30 June 2018 to 31 July 2019 **Research Fellow** at the Département de Pharmacologie dell'Université de Bordeaux and INSERM Centre de recherche U1219-Bordeaux Population Health, Bordeaux, France;

23 November 2018

University Master Course (II level) in Biostatistics and Epidemiological Methodology, University of Pavia, Pavia, Italy;

from 1 January 2017 to 30 September 2017

Research Fellow at the Nutrition Group, Institute for Global Food Security/Centre for Public Health at Queen's University Belfast, Belfast (UK);

from August 2016 to December 2016 **Visiting PhD student** at the Institute for Global Food Security/Centre for Public Health at Queen's University Belfast, Belfast (UK); 23 January 2017 PhD in Applied Biology and Experimental Medicine, University of Messina, Messina, Italy;

from 16 to 20 November 2015 ESCCA Italy Summer School "Theoretical-practical flow cytometry course", University of Urbino, Urbino, Italy;

from 26 to 30 September 2015 **Course "Nutraceuticals"** organized by the International School of Pharmacology, Ettore Majorana Foundation and Center for Scientific Culture, Erice (TP), Italy;

from 5 May to 7 June 2014

Visiting PhD Student at the Angiogenesis and Vascular Biology Laboratory at the DIMO- Section of Internal Medicine and Clinical Oncology, University of Bari, Bari, Italy;

from 1 to 6 July 2013 **Summer School** in Cytometry "Cytometric techniques in the study of cell function" University of Urbino, Urbino, Italy;

20 March 2013 **Master's degree in Pharmacy** (5 years) at the University of Messina, Messina, Italy;

from January 2012 to December 2013

Internship at the laboratory of cellular and molecular pharmacology coordinated by Professor Michele Navarra at the Department of Chemical, Biological, Pharmaceutical and Environmental Sciences of the University of Messina, Italy

from 1 July to 30 September 2010

Visiting Student at the Laboratory of Environmental Research, Department of Toxicology, University of Medical Sciences, Poznan, Poland;

24 October 2008

Bachelor's degree in Scientific Information on Drugs (3 years) at the University of Messina, Messina, Italy

July 2005

Scientific High School Diploma, Science High School "Luigi Einaudi", Siracusa, Italy

Languages:

Native language: Italian Foreign language: English

Research grants:

 "Optogenetics for organs-on-chip development: new platforms for studying advanced therapies in rare neuromuscular and oncological diseases" funded within the Horizon Europe Seeds program.

Member of the research group.

- "Combined approach to accelerate the identification and repositioning of selective c-Src tyrosine kinase inhibitors for the control of muscle and cognitive impairment in Duchenne muscular dystrophy: in silico screening and machine learning, new formulations for pediatric use, and in vitro and in vivo translational studies" related to the regional (Puglia) Research for innovation (REFIN) program.
 Principal Investigator.
- "Evaluation of biological activities of secondary products and waste from the bergamot industry and their potential use in the health field" (ABSIB) funded within the Research Projects PSR Calabria 2007-2013. Member of the research group.
- "Development of novel small molecules and their complexes with nanostructured carriers for a multi-target anti-HIV/AIDS strategy" funded within the Research & Mobility 2015 projects of the University of Messina. Member of the research group.
- "Cardiovascular toxicity of protein kinase inhibitors (PKIs) used in chronic myeloid leukemia (CML): an analysis of FDA Adverse Event Reporting System Database, FAERS" funded by the Italian Society of Toxicology. Principal investigator.
- "Herbal medicines and obesity: A systematic review and meta-analysis" funded by "Prof. Antonio Imbesi" Foundation.
 Principal investigator.
- "Citrus fruits intake and oral cancer risk" funded by "Prof. Antonio Imbesi" Foundation.
 Principal investigator.

Awards:

2020

Travel Grant for Participation in the 19th Congress of the Italian Society of Toxicology (SITOX);

October 2018

Award "FARMINDUSTRIA 2018" for the quality of pharmacological research;

2018

Travel Grant for Participation in the 18th Congress of the Italian Society of Toxicology (SITOX);

2016

Front cover obtained from "Molecules" journal, volume 21, issue 10 October 2016.

Teaching activities

Academic year 2022-2023

Professor of "Pharmacology and dietary treatments" in the Master's course "Advanced minimally invasive abdominal surgery" at the Department of Biomedical and Dental Sciences and Morphological and Functional Imaging of the University of Messina;

Academic year 2022-2023 Integrative teaching as part of the course of "Pharmacognosy" of the Pharmacy degree at the Department of Chemical, Biological, Pharmaceutical and Environmental Sciences of the University of Messina;

Academic year 2021-2022 Professor of "Pharmacognosy" for the Pharmacy degree at the Department of Pharmacy-Pharmacy Sciences, University of Bari "Aldo Moro."

Academic year 2020-2021 Professor of "Pharmacognosy" for the Pharmacy degree at the Department of Pharmacy-Pharmacy Sciences, University of Bari "Aldo Moro."

Editorial activities:

- Guest Editor of the Special Issue "Neuroprotective Potential of Natural Products: A Shield against Brain Decay" of Pharmaceuticals - MDPI (IF. 5.2);

- Guest Editor of the Special Issue "Bioactive Molecules from Food or Other Natural Sources against Cancer" of International Journal of Molecular Sciences (IJMS) - MDPI (IF. 6.2);

- Guest Editor of the Special Issue "Natural Products for Anticancer Application" of Pharmaceutics - MDPI (IF. 6.52);

- Member of Editorial Board of Frontiers in Pharmacology;

- Member of Editorial Board of Frontiers in Oncology;

- Member of Editorial Board of International Journal of Molecular Sciences.

- Reviewer for the following journals: Pharmacological Research; Frontiers in Pharmacology; Phytotherapy Research; Oxidative Medicine and Cellular Longevity; Pharmaceutics; Pharmaceuticals; International Journal Molecular Sciences; Scientific Report; Antioxidant; Molecules; Nutraceuticals; Nutrients; Biotechnology and Applied Biochemistry; BMJ Open; Current Medicinal Chemistry; Plants; Advances in Medical Research; Cells.

Scientific Society memberships:

Italian Society of Pharmacology (SIF) Italian Society of Toxicology (SITOX)

Organizing conference activities:

- Organization of the 17th International Congress of the Italian Society of Phytochemistry - 3rd ICEMAP 2022, held in Bari, Italy, June 22-24, 2022 (member of the local organizing committee);

- Organization of the symposium entitled "Discovering the hidden treasures of the seas and oceans: friends or foes? Pharmacological and toxicological aspects of natural compounds of marine origin" as part of the 20th National Congress of the Italian Society of Toxicology (SITOX). Bologna, October 25-27, 2021;

- Organization of the 38th National Congress of the Italian Society of Pharmacology "Drugs, health

and quality of life". Rimini, October 25-28, 2017 (member of the scientific committee);

- Organization of the 20th National Seminar on Pharmacology and Similar Sciences for PhD Students, Fellows, Post Doc and Specialist Trainees of SIF. Rimini, October 25-28, 2017 (member of the scientific committee);

- Organization of the 19th National Seminar on Pharmacology and Similar Sciences for PhD Students, Fellows, Post Doc and Specialist Trainees of SIF. Naples, October 27, 2015 (member of the scientific committee).

Other information:

from October 2015 to October 2017 **President of the Young Group of the Italian Society of Pharmacology (SIF)**

from December 2014 to March 2015

Tutor within the Regional Training project "Prevention of the use of alcohol, smoking and new pathological addictions", coordinated by the University of Palermo, Italy

Research activity:

The research activity has produced **55 scientific publications** in international journals with impact factor (see the list below). H index = 24 Total citations= 1,430 (Source Scopus, data updated on the 28 March 2023).

Conference presentations are 80 in total, of which 18 as a speaker.

Publications list

- 1. Boccanegra B, Cappellari O, Mantuano P, Trisciuzzi D, Mele A, Tulimiero L, De Bellis M, **Cirmi S**, Sanarica F, Cerchiara GA, Conte E, Meanti R, Rizzi L, Bresciani E, Denoyelle S, Cruciani G, Nicolotti O, Liantonio A, Torsello AB, De Luca A. Growth hormone secretagogues modulate inflammation and fibrosis in mdx mouse model of Duchenne muscular dystrophy. Frontiers in Immunology. Accepted for pubblication.
- Maugeri A, Calderaro A, Patanè GT, Navarra M, Barreca D, Cirmi S*, Felice MR. Targets Involved in the Anti-Cancer Activity of Quercetin in Breast, Colorectal and Liver Neoplasms. Int. J. Mol. Sci. 2023, 24, 2952.
 *corresponding Author
- Russo C, Maugeri A, Musumeci L, De Sarro G, Cirmi S*, Navarra M. Inflammation and Obesity: The Pharmacological Role of Flavonoids in the Zebrafish Model. Int. J. Mol. Sci. 2023, 24, 2899.
 *corresponding Author
- 4. Mantuano P, Boccanegra B, Bianchini G, Cappellari O, Tulimiero L, Conte E, Cirmi S,

Sanarica F, De Bellis M, Mele A, Liantonio A, Allegretti M, Aramini A, De Luca A. Branched-Chain Amino Acids and Di-Alanine Supplementation in Aged Mice: A Translational Study on Sarcopenia. Nutrients 2023, 15, 330.

- Maugeri A, Russo C, Musumeci L, Lombardo GE, De Sarro G, Barreca D, Cirmi S[§]*, Navarra M[§]*. The Anticancer Effect of a Flavonoid-Rich Extract of Bergamot Juice in THP-1 Cells Engages the SIRT2/AKT/p53 Pathway. Pharmaceutics. 2022 Oct 11;14(10):2168.
 [§]last Author
 *corresponding Author
- Russo C, Maugeri A, De Luca L, Gitto R, Lombardo GE, Musumeci L, De Sarro G, Cirmi S[§]*, Navarra M[§]*. The SIRT2 Pathway Is Involved in the Antiproliferative Effect of Flavanones in Human Leukemia Monocytic THP-1 Cells. Biomedicines 2022, 10(10):2383.
 [§]last Author *corresponding Author
- Lombardo GE, Maugeri A, Russo C, Musumeci L, Cirmi S*, Navarra M. Anti-inflammatory Activity Methods. Methods For Preclinical Evaluation of Bioactive Natural Products. Bentham book. *In press.* *corresponding Author
- 8. Puglisi I, Masucci M, Cozzi A, Teruel E, Navarra M, **Cirmi S**, Pennisi MG, Siracusa C. Effects of a Novel Gel Formulation of Dog Appeasing Pheromone (DAP) on Behavioral and Physiological Stress Responses in Dogs Undergoing Clinical Examination. Animals (Basel) 2022, 12(18):2472.
- Musumeci L, Maugeri A, Russo C, Lombardo GE, Cirmi S*, Navarra M. Citrus Flavonoids and Autoimmune Diseases: A Systematic Review of Clinical Studies. Curr Med Chem. 2022 Jun 29. doi: 10.2174/0929867329666220629144744. *In press.* *corresponding Author
- 10. Maugeri A, Lombardo GE, **Cirmi S**, Süntar I, Barreca D, Laganà G, Navarra M. Pharmacology and toxicology of tannins. Arch Toxicol. 2022; 96(5):1257-1277.
- Versace AG, Bitto A, Ioppolo C, Aragona CO, La Rosa D, Roberts WN, D'Angelo T, Cinquegrani A, Cirmi S, Irrera N, Navarra M, Corrao S, Gangemi S, Bagnato G. IL-13 and IL-33 Serum Levels Are Increased in Systemic Sclerosis Patients With Interstitial Lung Disease. Front. Med. 2022, 9:825567.
- 12. **Cirmi S**, Maugeri A, Russo C, Musumeci L, Navarra M, Lombardo GE. Oleacein Attenuates Lipopolysaccharide-Induced Inflammation in THP-1-Derived Macrophages by the Inhibition of TLR4/MyD88/NF-κB Pathway. Int. J. Mol. Sci. 2022, 23, 1206.
- 13. Maugeri A, Lombardo GE, Navarra M, Cirmi S*, Rapisarda A. The chorioallantoic membrane: A novel approach to extrapolate data from a well-established method. J Appl Toxicol., 2021. doi: 10.1002/jat.4271.
 *corresponding Author
- 14. **Cirmi S**, Maugeri A, MIcali A, Marini HR, Puzzolo D, Santoro G, Freni J, Squadrito F, Irrera N, Pallio G, Navarra M, Minutoli L. Cadmium-Induced Kidney Injury in Mice Is Counteracted by a Flavonoid-Rich Extract of Bergamot Juice, Alone or in Association with Curcumin and Resveratrol, via the Enhancement of Different Defense Mechanisms. Biomedicines, 2021, 9(12):1797.
- 15. Mantuano P, Boccanegra B, Conte E, De Bellis M, Cirmi S, Sanarica F, Cappellari O, Arduino I, Cutrignelli A, Lopedota AA, Mele A, Denora N, De Luca A. β-Dystroglycan Restoration and Pathology Progression in the Dystrophic mdx Mouse: Outcome and Implication of a Clinically

Oriented Study with a Novel Oral Dasatinib Formulation. Biomolecules. 2021, 11(11):1742.

- 16. Russo C, Maugeri A, Lombardo GE, Musumeci L, Barreca D, Rapisarda A, Cirmi S*, Navarra M. The Second Life of Citrus Fruit Waste: A Valuable Source of Bioactive Compounds. Molecules, 2021,26(19):5991. *corresponding Author
- 17. Adorisio S, Argentieri MP, Avato P, Caderni G, Chioccioli S, Cirmi S, Delfino DV, Greco G, Hrelia P, Iriti M, Lenzi M, Lombardo GE, Luceri C, Maugeri A, Montopoli M, Muscari I, Nanì MF, Navarra M, Gasperini S, Turrini E, Fimognari C. The molecular basis of the anticancer properties of quercetin. Pharmadvances, 2021, 3 (3): 496-520.
- 18. Abbate F*, Maugeri A, Laurà R, Levanti M, Navarra M, Cirmi S*, Germanà A. Zebrafish as a useful model to study oxidative stress-linked disorders: focus on flavonoids. Antioxidant, 2021, 10(5), 668.

*corresponding Author

- 19. Ferlazzo N, Micali A, Marini HR, Freni J, Santoro G, Puzzolo D, Squadrito F, Pallio G, Navarra M, Cirmi S*, Minutoli L. A flavonoid-rich extract from bergamot juice, alone or in association with curcumin and resveratrol, shows protective effects in a murine model of cadmium-induced testicular injury. Pharmaceuticals, 2021, 14(5), 386. *corresponding Author
- 20. Maugeri A, Lombardo GE, Musumeci L, Russo C, Gangemi S, Calapai G, Cirmi S*, Navarra M. Bergamottin and 5-geranyloxy-7-methoxycoumarin cooperate in the cytotoxic effect of Citrus bergamia (bergamot) essential oil in human neuroblastoma SH-SY5Y cell line. Toxins, 2021, 13(4), 275. *corresponding Author
- 21. Cirmi S, Maugeri A, Lombardo GE, Russo C, Musumeci L, Gangemi S, Calapai G, Barreca D, Navarra M. A Flavonoid-Rich Extract of Mandarin Juice Counteracts 6-OHDA-Induced Oxidative Stress in SH-SY5Y Cells and Modulates Parkinson-Related Genes. Antioxidants, 2021, 10(4):539.
- 22. Montalbano G, Maugeri A, Guerrera MC, Miceli N, Navarra M, Barreca D, Cirmi S*, Germanà A. A White Grape Juice Extract Reduces Fat Accumulation through the Modulation of Ghrelin and Leptin Expression in an In Vivo Model of Overfed Zebrafish. Molecules, 2021, 26(4):1119.

*corresponding Author

- 23. Kubica P, Szopa A, Kokotkiewicz A, Miceli N, Taviano MF, Maugeri A, Cirmi S, Synowiec A, Gniewosz M, Elansary HO, Mahmoud EA, El-Ansary DO, Nasif O, Luczkiewicz M, Ekiert H. Production of Verbascoside, Isoverbascoside and Phenolic Acids in Callus, Suspension, and Bioreactor Cultures of Verbena officinalis and Biological Properties of Biomass Extracts. Molecules, 2020, 25(23):5609.
- 24. Lombardo GE, Cirmi S, Musumeci L, Pergolizzi S, Maugeri A, Russo C, Mannucci C, Calapai G, Navarra M. (2020). Mechanisms underlying the anti-inflammatory activity of bergamot essential oil and its antinociceptive effects. Plants (Basel), 2020, 9 (6): E704.
- 25. Cirmi S, El Abd A, Letinier L, Navarra M, Salvo F. Cardiovascular Toxicity of Tyrosine Kinase Inhibitors Used in Chronic Myeloid Leukemia: An Analysis of the FDA Adverse Event Reporting System Database (FAERS). Cancers, 2020, 12(4):E826.
- 26. Cirmi S, Randazzo B, Russo C, Musumeci L, Maugeri A, Montalbano G, Guerrera MC, Lombardo GE, Levanti M. Anti-inflammatory effect of a flavonoid-rich extract of orange juice in adult zebrafish subjected to vibrio anguillarum-induced enteritis. Nat Prod Res, 2020, 1-4.

- 27. Ferlazzo N, **Cirmi S**, Maugeri A, Russo C, Lombardo GE, Gangemi S, Calapai G, Mollace V, Navarra M. Neuroprotective effect of bergamot juice in 6-OHDA-induced SH-SY5Y cell death, an in vitro model of Parkinson's disease. Pharmaceutics, 2020, 12(4):326.
- 28. **Cirmi S**, Celano M, Lombardo GE, Maggisano V, Procopio A, Russo D, Navarra M. Oleacein inhibits STAT3, activates the apoptotic machinery and exerts anti-metastatic effects in the SH-SY5Y human neuroblastoma cells. Food and Function, 2020, 1(4):3271-3279.
- 29. Musumeci L, Maugeri A, **Cirmi S**, Lombardo GE, Russo C, Gangemi S, Calapai G, Navarra M. Citrus fruits and their flavonoids in inflammatory bowel disease: an overview. Nat Prod Res, 2020, 34(1):122-136.
- 30. Navarra M, Femia AP, Romagnoli A, Tortora K, Luceri C, **Cirmi S**, Ferlazzo N, Caderni G. A flavonoid-rich extract from bergamot juice prevents carcinogenesis in a genetic model of colorectal cancer, the Pirc rat (F344/NTac-Apcam1137). Eur J Nutr, 2020, 59(3):885-894.
- 31. Maugeri A, **Cirmi S**, Minciullo PL, Gangemi S, Calapai G, Mollace V, Navarra M. Citrus fruits and inflammaging: a systematic review. Phytochemistry Reviews, 2019, 18:1025–1049.
- 32. **Cirmi S**, Ferlazzo N, Gugliandolo A, Musumeci L, Mazzon E, Bramanti A, Navarra M. Moringin from Moringa Oleifera seeds inhibits growth, arrests cell-cycle, and induces apoptosis of SH-SY5Y human neuroblastoma cells through the modulation of NF-κB and apoptotic related factors. Int J MolSci, 2019, 20(8). pii: E1930.
- 33. **Cirmi S**, Navarra M, Woodside JV, Cantwell MM. Citrus fruits intake and oral cancer risk: a systematic review and meta-analysis. Pharmacol Res., 2018, pii: S1043-618(18)30472-9.
- 34. **Cirmi S**, Maugeri A, Ferlazzo N, Gangemi S, Calapai G, Schumacher U, Navarra M. Anticancer Potential of Citrus Juices and Their Extracts: A Systematic Review of Both Preclinical and Clinical Studies. Front Pharmacol., 2017, 8:420.
- 35. Mandalari G, Bisignano C, **Cirmi S**, Navarra M. Effectiveness of Citrus Fruits on Helicobacter pylori. Evid Based Complement Alternat Med., 2017, 2017:8379262.
- 36. Fusco R, **Cirmi S**, Gugliandolo E, Di Paola R, Cuzzocrea S, Navarra M. A flavonoid-rich extract of orange juice reduced oxidative stress in an experimental model of inflammatory bowel disease. Journal of Functional Foods, 2017, 30: 168-178.
- 37. Giofrè SV, Cirmi S, Mancuso R, Nicolò F, Lanza G, Legnani L, Campisi A, Chiacchio MA, Navarra M, Gabriele B, Romeo R. Synthesis of spiro[isoindole-1,5'-isoxazolidin]-3(2H)-ones as potential inhibitors of the MDM2-p53 interaction. Beilstein Journal Organic Chemistry, 2016, 2793–2807.
- 38. **Cirmi S**, Ferlazzo N, Lombardo GE, Maugeri A, Calapai G, Gangemi S, Navarra M. Chemopreventive Agents and Inhibitors of Cancer Hallmarks: May Citrus Offer New Perspectives? Nutrients, 2016, 8(11). pii: E698.
- 39. Pistone A, Iannazzo D, Ansari S, Milone C, Salamò M, Galvagno S, **Cirmi S**, Navarra M. Tunable doxorubicin release from polymer-gated multiwalled carbon nanotubes. Int J Pharm, 2016, 515(1-2):30-36.
- 40. **Cirmi S**, Ferlazzo N, Lombardo GE, Ventura-Spagnolo E, Gangemi S, Calapai G, Navarra M. Neurodegenerative diseases: might Citrus flavonoids play a protective role? Molecules, 2016, 21(10). pii: E1312.
- 41. Bagnato G, Roberts WN, Sciortino D, Sangari D, Cirmi S, Ravenell RL, Navarra M, Bagnato G, Gangemi S. Mastocytosis and systemic sclerosis: a clinical association. Clin Mol Allergy, 2016, 14:13.
- 42. Ferlazzo N, Cirmi S, Calapai G, Ventura-Spagnolo E, Gangemi S, Navarra M. Anti-

inflammatory activity of Citrus bergamia derivatives: where do we stand? Molecules, 2016, 21(10). pii: E1273.

- 43. **Cirmi S**, Bisignano C, Mandalari G, Navarra M. Anti-infective potential of Citrus bergamia Risso et Poiteau (bergamot) derivatives: a systematic review. Phytother. Res., 2016, 30(9):1404-11.
- 44. Ferlazzo N, Visalli G, **Cirmi S**, Lombardo GE, Laganà P, Di Pietro A, Navarra M. Natural iron chelators: Protective role in A549 cells of flavonoids-rich extracts of Citrus juices in Fe3+-induced oxidative stress. Environ Toxicol Pharmacol., 2016, 43:248-256.
- 45. Currò M, Risitano R, Ferlazzo N, **Cirmi S**, Gangemi C, Caccamo D, Ientile R, Navarra M. Citrus bergamia juice extract attenuates β-Amyloid-induced pro-inflammatory activation of THP-1 cells through MAPK and AP-1 pathways. Sci Rep., 2016, 6:20809.
- 46. Ferlazzo N*, Cirmi S*, Russo M, Trapasso E, Ursino MR, Lombardo GE, Gangemi S, Calapai G, Navarra M. NF-κB mediates the antiproliferative and proapoptotic effects of bergamot juice in HepG2 cells. Life Sci., 2016, 146:81-91.
 *first authorship
- 47. Ferlazzo N, Visalli G, Smeriglio A, **Cirmi S**, Lombardo GE, Campiglia P, Di Pietro A, Navarra M. Flavonoid fraction of orange and bergamot juices protect human lung epithelial cells from hydrogen peroxide-induced oxidative stress. Evid Based Complement Alternat Med., 2015, 2015:957031.
- 48. Filocamo A, Bisignano C, Ferlazzo N, **Cirmi S**, Mandalari G, Navarra M. In vitro effect of bergamot (Citrus bergamia) juice against cagA-positive and-negative clinical isolates of Helicobacter pylori. BMC Complement Altern Med., 2015, 15:256.
- 49. Navarra M, Ferlazzo N, **Cirmi S**, Trapasso E, Bramanti P, Lombardo GE, Minciullo PL, Calapai G, Gangemi S. Effects of bergamot essential oil and its extractive fractions on SH-SY5Y human neuroblastoma cell growth. J Pharm Pharmacol., 2015, 67(8):1042-53.
- 50. Giofrè SV, Romeo R, Carnovale C, Mancuso R, **Cirmi S**, Navarra M, Garozzo A, Chiacchio MA. Synthesis and biological properties of 5-(1H-1,2,3-triazol-4-yl)isoxazolidines: a new class of C-nucleosides. Molecules, 2015, 20(4):5260-75.
- 51. Scala A, Piperno A, Risitano F, **Cirmi S**, Navarra M, Grassi G. Efficient synthesis of highly substituted tetrahydroindazolone derivatives. Mol Divers., 2015, 19(3):473-80.
- 52. Risitano R, Currò M, **Cirmi S**, Ferlazzo N, Campiglia P, Caccamo D, Ientile R, Navarra M. Flavonoid fraction of Bergamot juice reduces LPS-induced inflammatory response through SIRT1-mediated NF-κB inhibition in THP-1 monocytes. PLoS One, 2014, 9(9):e107431.
- 53. Visalli G, Ferlazzo N, **Cirmi S**, Campiglia P, Gangemi S, Pietro AD, Calapai G, Navarra M. Bergamot juice extract inhibits proliferation by inducing apoptosis in human colon cancer cells. Anticancer Agents Med Chem., 2014, 14, 1402-1413.
- 54. Romeo R, Navarra M, Giofrè SV, Carnovale C, **Cirmi S**, Lanza G, Chiacchio MA. Synthesis and biological activity of new arenediyne-linked isoxazolidines. Bioorg Med Chem., 2014, 22(13):3379-85.
- 55. Romeo R, Giofrè SV, Carnovale C, Chiacchio MA, Campisi A, Mancuso R, **Cirmi S**, Navarra M. Synthesis and Biological Activity of Triazole-Appended N,O-Nucleosides. European Journal of Organic Chemistry., 2014, 5442–544.

Messina, 14 March 2023

Dr Cirmi Santa

Harralinen