DR. GIAN LUIGI RUSSO

OFFICE ADDRESS AND CONTACT INFORMATION:

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Doctor in Biological Sciences, University of Naples "Federico II", Doctorate in Biochemistry, Postdoctoral fellow at Cold Spring Harbor Laboratory (NY, USA; 1991-93). Currently, he is Research Director and responsible for the Laboratory of Cellular & Molecular Nutrition at ISA-CNR. He has been a "contract professor" (untenured position) of Biochemistry and Applied Biotechnology at the Second University of Naples, Italy (1993-96) and University of Naples "Federico II" (1999-2005). In 2014, he received the National Scientific Qualification (art.16 of the law 30 December 2010, n.240) as Full Professor in Biochemistry and he was awarded Fulbright Research Scholar at Stony Brook University, New York, USA. He coordinated European, national and regional projects on the effects of food-derived phytochemicals in preventing degenerative diseases. As Research Director at ISA-CNR, he laid the groundwork on how several non-nutritional components present in the regular diet, or molecules derived from food transformation, exert, at the molecular level, a protective effect towards degenerative pathologies. The overall goal of his work is to discriminate between a general antioxidant activity associated with phytochemicals and their ability to specifically trigger cell arrest, cell death, senescence, or autophagy in cancer cells. In terms of Public Health, the result of this research might contribute to understanding the impact of micronutrients on cancer prevention and other degenerative human pathologies.

CURRENT POSITION

-Research Director at ISA, Institute of Food Sciences, National Research Council (CNR), Avellino (Italy) since 2018.

PROFESSIONAL APPOINTMENTS

-1991-93. Post-doctoral Fellow, Cold Spring Harbor Laboratory, New York (NY, USA).

-1994. Staff Fellow, Department of Biochemistry of Macromolecules, 1st Medical School, University of Naples, Italy.

-1995-96. Research Scientist (not permanent position), Stazione Zoologica "Anton Dohrn", Naples, Italy.

-1997-2001. Research Scientist (permanent position), Institute of Food Sciences, National Research Council, Avellino, Italy

-2001-18. Senior Research Scientist at ISA, Institute of Food Sciences, National Research Council, Avellino, Italy.

VISITING SCIENTIST

-1989. August-December, Visiting Scientist, Cold Spring Harbor Laboratory, New York (NY, USA).

-1995. Visiting Scientist, Station Zoologique Villefranche-sur-Mer (Nice, Francia).

-1995-1998 (two short visits). Visiting Scientist, Osiris Therapeutics, Inc., Baltimore (MD, USA).

-2000. Visiting Scientist, Van Andel Institute, Grand Rapids (MI, USA)

-2010-2018 (four short visits). Visiting Scientist, Department of Molecular genetics and Microbiology, Stony Brook University, New York (NY, USA)

AWARDS/HONOURS

- Fulbright Research Scholar (J. William Fulbright Foreign Scholarship Board of Washington DC, USA) (2014)

- Italian National Scientific Qualification (art.16 of the law 30 December 2010, n.240) as Full Professor in Biochemistry (2014-present)

-Member of the advisory board of the international association Getting To Know Cancer (http://www.gettingtoknowcancer.org), based in Canada (2012-2015)

- Member of the Governing Board of the Italian Society of Human Nutrition (2015-18)

- Member of the International Scientific Committee on Chemical and Biomolecular Research of the Microbiome: Nutritional Applications and Impact on Metabolic Health, Université Laval, Québec, Canada (2016-present).

- Included in the list of the "world top 100.000 scientists" (Ioannidis et al. PLoS Biol 2019, 17(8): e3000384. DOI: 10.1371/journal.pbio.3000384).

- Awarded as "Clarivate Highly Cited Researchers 2021".

EDITORIAL/EVALUATION ACTIVITIES

-Associate Editor of the following journal:

-Nutrition, Metabolism and Cardiovascular Diseases (Elsevier – ISSN 0939-4753) (2015-present) -Editorial Advisory Board member of the following journals:

-Biochemical Pharmacology Journal (Elsevier – ISSN 0006-2952) (2006-present)

-Heliyon (Elsevier – ISSN 2405-8440) (2015-present)

-Antioxidants (MDPI. ISSN 2076-3921) (2018-present)

-Sci (MDPI. ISSN 2413-4155) (2018-present)

-Current Research in Biotechnology (CRBIOT, Elsevier – ISSN 2590-2628) (2019-present)

-Expert Evaluator

-Horizon 2020 (2014-2020) (six years): External Expert Assisting Research Executive Agency (REA) in different programs.

-Horizon Europe 2021: External Expert Assisting Research Executive Agency (REA) in different programs.

-Member (reserve list) of Scientific Panels and the Scientific Committee of the European Food Safety Authority (EFSA) (2018-present)

-Expert evaluator for several national and international agencies (2012-2021), such as: Austrian Science Fund (FWF); National Cancer Institute in France; Czech Science Foundation (the main public funding agency in the Czech Republic (2017); Cyprus Research Promotion Foundation; FONDECYT, Chilean National Science and Technology Commission (CONICYT - Chile); University and Research Grants of the Government of Catalonia (AGAUR – Spain); The South African Medical Research Council (South African); National Science Centre (Poland) (2021); Executive Agency for Higher Education Research Development and Innovation Funding(Romania); MiSE (Italian Minister of Economic Development); MIUR (Italian Minister of Education, University and Scientific Research).

TEACHING AND EDUCATIONAL ACTIVITY

-1993-94. Professor of Genetics, II University of Naples, Naples, Italy.

-1994-96 (two academic years). Professor of Biochemistry of Nucleic Acids, II University of Naples, Naples, Italy.

-1995-96. Professor of Biochemistry of Nucleic Acids, II University of Naples, Naples, Italy.

-1999-2002 (three academic years). Professor of Biochemistry of Marine Organisms, University of Naples "Federico II", Naples, Italy.

-2003-2006 (three academic years). Professor of Applied Biotechnology, University of Naples "Federico II", Naples, Italy.

-Teaching activity in CME and master courses in the field of cancer biology, chemoprevention, nutrition.

BIBLIOMETRIC VALUES AND PUBLICATIONS (last update 03/2022: Number of publications on International ISI Journals: 170 H-Index: 47 (Scopus), 55 (Google Scholar), 44 (Web of Science/Publons) Google Scholar Page: https://scholar.google.com/citations?user=alCh_50AAAAJ&hl=en PubMed: www.ncbi.nlm.nih.gov/sites/myncbi/1DEUb_Ypopd/collections/61687195/public/ Scopus: https://www.scopus.com/authid/detail.uri?authorId=56517118700 Publons: https://publons.com/researcher/256550/gian-luigi-russo/publications/ ORCID #: 0000-0001-9321-1613 Web of Science ResearcherID: D-6333-2012 Scopus Author ID: 56517118700

Total impact factor: ~ 900 (ISI)

CONTRIBUTIONS TO SCIENCE

- 1. Anticancer effects of natural products. I coordinated or participated in several investigations aimed to clarify the preventive and therapeutic effects of phytochemicals, especially phenolic compounds, against cancer in preclinical models.
 - a. A.G. Atanasov, et al. Natural products in drug discovery: Advances and opportunities. *Nat Rev Drug Discov.* 20(3):200-216. doi: 10.1038/s41573-020-00114-z. Epub (2021)
 - b. **G.L. Russo**, I Tedesco, C Spagnuolo, M Russo. Antioxidant polyphenols in cancer treatment: friend, foe or foil? *Seminars in Cancer Biology*, 46:1-13 (2017)
 - c. **G.L. Russo**. Ins and outs of dietary phytochemicals in cancer chemoprevention. *Biochem Pharmacol*. 74: 533-44. (2007)
- 2. Anticancer effect of quercetin. I coordinated investigations leading to deciphering the molecular mechanism of the pro-apoptotic effect of the flavonoid quercetin in chronic lymphocytic leukemia.
 - a. M Russo, A Milito, C Spagnuolo, V. Carbone, A Rosén, P Minasi, F Lauria, **G.L. Russo.** CK2 and PI3K are direct molecular targets of quercetin in chronic lymphocytic leukaemia. *Oncotarget*, 8:42571-42587 (2017)
 - M. Russo; C. Spagnuolo; S. Volpe, I. Tedesco; S. Bilotto, G.L. Russo. ABT-737 Resistance in B-Cells Isolated from Chronic Lymphocytic Leukemia Patients and Leukemia Cell Lines is Overcome by the Pleiotropic Kinase Inhibitor Quercetin Through Mcl-1 Down-regulation. *Biochem Pharmacol.* 85:927-36 (2013)
 - c. M. Russo, R. Palumbo, A. Mupo, M. Tosto G. Iacomino, A. Scognamiglio, I. Tedesco, G. Galano and G.L. Russo. Flavonoid quercetin sensitizes a CD95-resistant cell line to apoptosis by activating Protein Kinase C-α. Oncogene 22: 3330-3342 (2003)
- 3. Cell cycle regulation in mitotic and meiotic cells. Using invertebrate gametes, yeast cells, or cancer cell lines, I defined specific, regulatory roles of Cdc2 (Cdk1) and CK2 kinases in the cell division cycle.
 - a. G.L. Russo, K. Kyozuka, L. Antonazzo, E. Tosti and B. Dale. Maturation Promoting Factor in ascidian oocytes is regulated by different intracellular signals at meiosis I and II. Development, 122:1995-2003 (1996)
 - b. **G.L. Russo**, C. van den Bos, A. Sutton, P. Coccetti, M. D. Baroni, L. Alberghina, and D. R. Marshak. Phosphorylation of Cdc28 and regulation of cell size by protein kinase CKII in Saccharomyces cerevisiae. Biochem J., 351:143-150 (2000)

- c. G.L. Russo, M. T. Vandenberg, I. J. Yu, Y.-S. Bae, B. R. Franza, Jr., and D. R. Marshak. Casein kinase II phosphorylates p34cdc2 kinase in G1 phase of the HeLa cell division cycle. J. Biol. Chem. 267:20317-20325 (1992)
- 4. Studies on the enzyme MTA phosphorylase. In the early stages of my career, I participated in investigations focused on the biochemical characterization of MTA phosphorylase, an enzyme regulating polyamine biosynthesis, and its role in malignancy.
 - a. F. Della Ragione, G.L. Russo, A. Oliva, S. Mastropietro, A. Mancini, A. Borrelli, R. A. Casero, A. Iolascon, and V. Zappia. 5'-Deoxy-5'-methylthioadenosine phosphorylase and p16^{INK4} deficiency in multiple tumor cell lines. Oncogene 10:827-833 (1995)
 - a. F. Della Ragione, A. Oliva, V. Gragnaniello, **G.L. Russo**, R. Palumbo, and V. Zappia. Physicochemical and immunological studies on mammalian 5'-deoxy-5'- methylthioadenosine phosphorylase. J. Biol. Chem. 265:6241-6246 (1990)

Date, 12/05/2022

Signature (holographic format)

Sionshij - Russo