

## **CURRICULUM VITAE**

**Roberto Russo**

### **PERSONAL INFORMATION:**

Name: Roberto Russo

Place and date of birth: Naples, 13 January 1975

Citizenship: Italian

Current address: Traversa Privata Tommaso De Amicis, 52, 80145 Naples, Italy

Work address: Department of Pharmacy, Via D Montesano, 49, 80131 Naples, Italy

Phone: 0039-081-678465

e-mail address: roberto.russo @ unina.it

### **CURRICULUM STUDIORUM**

2001: Degree in Pharmaceutical Chemistry and Technology

2003: Specialization in Pharmacology

2006: Ph.D. in Pharmaceutical Sciences

2008: Researcher BIO/14, Faculty of Pharmacy. University of Naples "Federico II"

2018: Associate Professor, BIO/14, Department of Pharmacy, University of Naples "Federico II"

### **TEACHING**

2010-2011 Professor of "Endocrinology" School of Specialization in Pharmacology, Faculty of Pharmacy

2010- 2019: Professor of "Physio-Pathological Aspects of Neurodegenerative Diseases" School of Specialization in Hospital Pharmacy, Faculty of Pharmacy

From 2009-to present: Professor of "Toxicology"; Master in Cosmetic Science and Technology, Department of Pharmacy

From 2010- to present: Professor of " Toxicology of drugs" for Pharmacy Students, Department of Pharmacy

From 2021-to present: Professor of "Pain Therapy" School of Specialization in Hospital Pharmacy, Department of Pharmacy

From 2021-to present: Professor of " clinical trial and evaluation of experimental protocols" School of Specialization in Hospital Pharmacy, Department of Pharmacy

## **WORK EXPERIENCE**

2005-2006: Visiting scientist at the University of California, Irvine; mentor prof. Daniele Piomelli

2018: Visiting Scientist at the ISID, Università di Santiago de Compostela mentor prof. Oreste Gualillo

## **CONTRACTS and PROJECTS**

2007: Researcher of Pharmacology in vivo, at company Angelini SpA

2012: Winner of the FARO project (Funding for Start Original Research) financed by Pole of Science and Technology for Life, University of Naples “Federico II”

2002-2003: Human Frontier Science Program, Strasbourg Cedex France project title: “Biosynthesis, inactivation and biological actions of lysophosphatidic acid in the nervous system”

2003: PRIN project title: Spinal neuronal apoptosis in a rat neuropathic pain model: behavioral evaluation of the action of drugs active on glutamate receptors, cannabinoids and caspase inhibitors

2012: Principal investigator PRIN project title: the endocannabinoid system as a possible target for the treatment of obesity disorders: beyond the cannabinoid receptors”.

## **PATENTS**

2009: Authors: Abignente And Boatto G, Calignano A, Curcio A, De Lucia D, La Rana G, Russo R, Melisi D, M Nieddu, Rimoli MG, O. Sasso n ° NA2008A000047

2012: Authors: Calignano A, D'Agostino G, Della Valle F, Della Valle MF, Laneri S, Marcolongo G, Meli R, Obstacle C, Russo R, Sacchi A, D. Tronino No. MI2012A002127

## **MEMBERSHIP IN SCIENTIFIC SOCIETIES**

Member of the Italian Society of Pharmacology (SIF) and Italian Society of Toxicology (SITOX)

## **STATISTICAL DATA**

ORCID: 0000-0001-5950-1617

	<b>Numero totale di articoli</b>	<b>Totale delle citazioni</b>	<b>H-Index</b>
<b>FONTE SCOPUS (ID:35300514700)</b>	<b>80</b>	<b>4115</b>	<b>32</b>
<b>FONTE WOS (ID: A-3193-2012)</b>	<b>76</b>	<b>3735</b>	<b>31</b>

## BIBLIOGRAPHY: PUBLICATIONS IN PEER REVIEWED JOURNALS (last 5 years)

1. Russo R, Cristiano C, Avagliano C, De Caro C, La Rana G, Raso GM, Canani RB, Meli R, Calignano A. Gut-brain Axis: Role of Lipids in the Regulation of Inflammation, Pain and CNS Diseases. *Curr Med Chem.* 2018; 25(32):3930-3952. doi: 10.2174/0929867324666170216113756 (IF:4.184).
2. Di Guida F, Pirozzi C, Magliocca S, Santoro A, Lama A, Russo R, Nieddu M, Burrai L, Boatto G, Mollica MP, Sodano F, Lazzarato L, Chegaev K, Meli R, Raso GM, Rimoli MG. Galactosylated Pro-Drug of Ursodeoxycholic Acid: Design, Synthesis, Characterization, and Pharmacological Effects in a Rat Model of Estrogen-Induced Cholestasis. *Mol Pharm.* 2018 Jan 2;15(1):21-30. doi: 10.1021/acs.molpharmaceut.7b00626.
3. De Caro C, Russo R, Avagliano C, Cristiano C, Calignano A, Aramini A, Bianchini G, Allegretti M, Brandolini L. Antinociceptive effect of two novel transient receptor potential melastatin 8 antagonists in acute and chronic pain models in rat. *Br J Pharmacol.* 2018 May;175(10):1691-1706. doi: 10.1111/bph.14177 (IF8.314).
4. Aponte M, Ungaro F, d'Angelo I, De Caro C, Russo R, Blaiotta G, Dal Piaz F, Calignano A, Miro A. Improving in vivo conversion of oleuropein into hydroxytyrosol by oral granules containing probiotic Lactobacillus plantarum 299v and an Olea europaea standardized extract. *Int J Pharm.* 2018 May 30;543(1-2):73-82. doi: 10.1016/j.ijpharm.2018.03.013. Epub 2018 Mar 8. PMID: 29526619.
5. Russo R, Cattaneo F, Lippiello P, Cristiano C, Zurlo F, Castaldo M, Irace C, Borsello T, Santamaria R, Ammendola R, Calignano A, Miniaci MC. Motor coordination and synaptic plasticity deficits are associated with increased cerebellar activity of NADPH oxidase, CAMKII, and PKC at preplaque stage in the TgCRND8 mouse model of Alzheimer's disease. *Neurobiol Aging.* 2018 Aug;68:123-133. doi: 10.1016/j.neurobiolaging.2018.02.025 (IF:4.673).
6. Aiello E, Russo R, Cristiano C, Calignano A. The safety assessment of herbals with a new and ethical approach. *Nat Prod Res.* 2018 Aug;32(15):1838-1848. doi: 10.1080/14786419.2017.1402316.
7. Magliocca S, De Caro C, Lazzarato L, Russo R, Rolando B, Chegaev K, Marini E, Nieddu M, Burrai L, Boatto G, Cristiano C, Marabell D, Gazzano E, Riganti C, Sodano F, Rimoli MG. Aceclofenac-Galactose Conjugate: Design, Synthesis, Characterization, and Pharmacological and Toxicological Evaluations. *Mol Pharm.* 2018 Aug 6;15(8):3101-3110. doi: 10.1021/acs.molpharmaceut.8b00195.

8. Cristiano C, Pirozzi C, Coretti L, Cavaliere G, Lama A, **Russo R**, Lembo F, Mollica MP, Meli R, Calignano A, Mattace Raso G. Palmitoylethanolamide counteracts autistic-like behaviours in BTBR T+tf/J mice: Contribution of central and peripheral mechanisms. **Brain Behav Immun.** **2018** Nov;74:166-175. doi: 10.1016/j.bbi.2018.09.003.
9. Sodano F, Lazzarato L, Rolando B, Spyros F, De Caro C, Magliocca S, Marabell D, Chegaev K, Gazzano E, Riganti C, Calignano A, **Russo R**, Rimoli MG. Paracetamol-Galactose Conjugate: A Novel Prodrug for an Old Analgesic Drug. **Mol Pharm.** **2019** Oct 7;16(10):4181-4189. doi: 10.1021/acs.molpharmaceut.9b00508.
10. Micheli L, Lucarini E, Trallori E, Avagliano C, De Caro C, **Russo R**, Calignano A, Ghelardini C, Pacini A, Di Cesare Mannelli L. Phaseolus vulgaris L. Extract: Alpha-Amylase Inhibition against Metabolic Syndrome in Mice. **Nutrients.** **2019** Aug 1;11(8):1778. doi: 10.3390/nu11081778.
11. De Caro C, Cristiano C, Avagliano C, Bertamino A, Ostacolo C, Campiglia P, Gomez-Monterrey I, La Rana G, Gualillo O, Calignano A, **Russo R**. Characterization of New TRPM8 Modulators in Pain Perception. **Int J Mol Sci.** **2019** Nov 7;20(22):5544. doi: 10.3390/ijms20225544 (IF:4.556).
12. Brandolini L, Castelli V, Aramini A, Giorgio C, Bianchini G, **Russo R**, De Caro C, d'Angelo M, Catanesi M, Benedetti E, Giordano A, Cimini A, Allegretti M. DF2726A, a new IL-8 signalling inhibitor, is able to counteract chemotherapy-induced neuropathic pain. **Sci Rep.** **2019** Aug 13;9(1):11729. doi: 10.1038/s41598-019-48231-z.
13. Citraro R, Leo A, De Caro C, Nesci V, Gallo Cantafio ME, Amodio N, Mattace Raso G, Lama A, **Russo R**, Calignano A, Tallarico M, Russo E, De Sarro G. Effects of Histone Deacetylase Inhibitors on the Development of Epilepsy and Psychiatric Comorbidity in WAG/Rij Rats. **Mol Neurobiol.** **2020** Jan;57(1):408-421. doi: 10.1007/s12035-019-01712-8.
14. Cifani C, Avagliano C, Micioni Di Bonaventura E, Giusepponi ME, De Caro C, Cristiano C, La Rana G, Botticelli L, Romano A, Calignano A, Gaetani S, Micioni Di Bonaventura MV, **Russo R**. Modulation of Pain Sensitivity by Chronic Consumption of Highly Palatable Food Followed by Abstinence: Emerging Role of Fatty Acid Amide Hydrolase. **Front Pharmacol.** **2020** Mar 16;11:266. doi: 10.3389/fphar.2020.00266 (IF: 5.988).
15. Bertamino A, Ostacolo C, Medina A, Di Sarno V, Lauro G, Ciaglia T, Vestuto V, Pepe G, Basilicata MG, Musella S, Smaldone G, Cristiano C, Gonzalez-Rodriguez S, Fernandez-Carvajal A, Bifulco G, Campiglia P, Gomez-Monterrey I, **Russo R**. Exploration of TRPM8 Binding Sites by β-Carboline-Based Antagonists and Their In Vitro Characterization and In Vivo Analgesic Activities. **J Med Chem.** **2020** Sep 10;63(17):9672-9694. doi: 10.1021/acs.jmedchem.0c00816 (IF:7.446).

16. Gemei M, Talarico C, Brandolini L, Manelfi C, Za L, Bovolenta S, Liberati C, Vecchio LD, **Russo R**, Cerchia C, Allegretti M, Beccari AR. Binding Mode Exploration of B1 Receptor Antagonists' by the Use of Molecular Dynamics and Docking Simulation-How Different Target Engagement Can Determine Different Biological Effects. *Int J Mol Sci.* **2020** Oct 16;21(20):7677. doi: 10.3390/ijms21207677.
17. Lippiello P, Hoxha E, Cristiano C, Malvicini E, Stanley A, **Russo R**, Tempia F, Miniaci MC. Role of  $\beta$ 3-adrenergic receptor in the modulation of synaptic transmission and plasticity in mouse cerebellar cortex. *J Neurosci Res.* **2020** Nov;98(11):2263-2274. doi: 10.1002/jnr.24712.
18. De Caro C, Di Cesare Mannelli L, Branca JJV, Micheli L, Citraro R, Russo E, De Sarro G, Ghelardini C, Calignano A, **Russo R**. Pain Modulation in WAG/Rij Epileptic Rats (A Genetic Model of Absence Epilepsy): Effects of Biological and Pharmacological Histone Deacetylase Inhibitors. *Front Pharmacol.* **2020** Dec 3;11:549191. doi: 10.3389/fphar.2020.549191. (if 5.988)
19. Deplano A, Karlsson J, Moraca F, Svensson M, Cristiano C, Morgillo CM, Fowler CJ, **Russo R**, Catalanotti B, Onnis V. Design, synthesis and in vitro and in vivo biological evaluation of flurbiprofen amides as new fatty acid amide hydrolase/cyclooxygenase-2 dual inhibitory potential analgesic agents. *J Enzyme Inhib Med Chem.* **2021** Dec;36(1):940-953. doi: 10.1080/14756366.2021.1875459. (IF:5.051)
20. Citraro R, Lembo F, De Caro C, Tallarico M, Coretti L, Iannone LF, Leo A, Palumbo D, Cuomo M, Buommino E, Nesci V, Marascio N, Iannone M, Quirino A, **Russo R**, Calignano A, Constanti A, Russo E, De Sarro G. First evidence of altered microbiota and intestinal damage and their link to absence epilepsy in a genetic animal model, the WAG/Rij rat. *Epilepsia.* **2021** Feb;62(2):529-541. doi: 10.1111/epi.16813.
21. De Caro C, Cristiano C, Avagliano C, Cuozzo M, La Rana G, Aviello G, De Sarro G, Calignano A, Russo E, **Russo R**. Analgesic and Anti-Inflammatory Effects of Perampanel in Acute and Chronic Pain Models in Mice: Interaction With the Cannabinergic System. *Front Pharmacol.* **2021** Feb 1;11:620221. doi: 10.3389/fphar.2020.620221.
22. Cuozzo M, Castelli V, Avagliano C, Cimini A, d'Angelo M, Cristiano C, **Russo R**. Effects of Chronic Oral Probiotic Treatment in Paclitaxel-Induced Neuropathic Pain. *Biomedicines.* **2021** Mar 30;9(4):346. doi: 10.3390/biomedicines9040346.
23. Paparo L, Nocerino R, Ciaglia E, Di Scala C, De Caro C, **Russo R**, Trinchese G, Aitoro R, Amoroso A, Bruno C, Di Costanzo M, Passariello A, Messina F, Agangi A, Napolitano M, Voto L, Gatta GD, Pisapia L, Montella F, Mollica MP, Calignano A, Puca A, Berni Canani R. Butyrate as a bioactive human milk protective component against food allergy. *Allergy.* **2021** May;76(5):1398-1415. doi: 10.1111/all.14625.

24. Russo R, Santarcangelo C, Badolati N, Sommella E, De Filippis A, Dacrema M, Campiglia P, Stornaiuolo M, Daglia M. In vivo bioavailability and in vitro toxicological evaluation of the new butyric acid releaser N-(1-carbamoyl-2-phenyl-ethyl) butyramide. **Biomed Pharmacother.** 2021 May;137:111385. doi: 10.1016/j.biopha.2021.111385. IF:7.18
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26. Sodano F, Avallone B, Tizzano M, Fogliano C, Rolando B, Gazzano E, Riganti C, Magliocca S, Cuozzo M, Albrizio S, Calignano A, Cristiano C, Russo R, Rimoli MG. Ketogal Safety Profile in Human Primary Colonic Epithelial Cells and in Mice. **Pharmaceuticals (Basel).** 2021 Nov 11;14(11):1149. doi: 10.3390/ph14111149.
27. De Filippis F, Paparo L, Nocerino R, Della Gatta G, Carucci L, Russo R, Pasolli E, Ercolini D, Berni Canani R. Specific gut microbiome signatures and the associated pro-inflammatory functions are linked to pediatric allergy and acquisition of immune tolerance. **Nat Commun.** 2021 Oct 13;12(1):5958. doi: 10.1038/s41467-021-26266-z.
28. Cristiano C, Volpicelli F, Crispino M, Lacivita E, Russo R, Leopoldo M, Calignano A, Perrone-Capano C. Behavioral, Anti-Inflammatory, and Neuroprotective Effects of a Novel FPR2 Agonist in Two Mouse Models of Autism. **Pharmaceuticals (Basel).** 2022 Jan 28;15(2):161. doi: 10.3390/ph15020161.
29. Brandolini L, d'Angelo M, Novelli R, Castelli V, Giorgio C, Sirico A, Cocchiaro P, D'Egidio F, Benedetti E, Cristiano C, Bugatti A, Ruocco A, Amendola PG, Talarico C, Manelfi C, Iaconis D, Beccari A, Quadros AU, Cunha TM, Caruso A, Russo R, Cimini A, Aramini A, Allegretti M. Paclitaxel binds and activates C5aR1: A new potential therapeutic target for the prevention of chemotherapy-induced peripheral neuropathy and hypersensitivity reactions. **Cell Death Dis.** 2022 May 25;13(5):500. doi: 10.1038/s41419-022-04964-w.
30. Sodano F, Cristiano C, Rolando B, Marini E, Lazzarato L, Cuozzo M, Albrizio S, Russo R, Rimoli MG. Galactosylated Prodrugs: A Strategy to Improve the Profile of Nonsteroidal Anti-Inflammatory Drugs. **Pharmaceuticals (Basel).** 2022 Apr 29;15(5):552. doi: 10.3390/ph15050552
31. Brandolini L, Aramini A, Bianchini G, Ruocco A, Bertini R, Novelli R, Angelico P, Valsecchi AE, Russo R, Castelli V, Cimini A, Allegretti M. Inflammation-Independent Antinociceptive Effects of DF2755A, a CXCR1/2 Selective Inhibitor: A New Potential Therapeutic Treatment for Peripheral Neuropathy Associated to Non-Ulcerative Interstitial Cystitis/Bladder Pain Syndrome. **Front Pharmacol.** 2022 Apr 28;13:854238. doi: 10.3389/fphar.2022.854238

32. Cristiano C, Cuozzo M, Coretti L, Liguori FM, Cimmino F, Turco L, Avagliano C, Aviello G, Mollica MP, Lembo F, **Russo R**. Oral sodium butyrate supplementation ameliorates paclitaxel-induced behavioral and intestinal dysfunction. *Biomed Pharmacother.* 2022 Sep;153:113528. doi: 10.1016/j.biopha.2022.113528. Epub 2022 Aug 13. PMID: 36076609
33. Avagliano C, De Caro C, Cuozzo M, Liguori FM, La Rana G, Micheli L, Di Cesare Mannelli L, Ghelardini C, Paciello O, **Russo R**. Phaseolus vulgaris extract ameliorates high-fat diet-induced colonic barrier dysfunction and inflammation in mice by regulating peroxisome proliferator-activated receptor expression and butyrate levels. *Front Pharmacol.* 2022 Aug 11;13:930832. doi: 10.3389/fphar.2022.930832. (IF 4.40 Q1)
34. Cristiano C, Avagliano C, Cuozzo M, Liguori FM, Calignano A, **Russo R**. The Beneficial Effects of Ultramicronized Palmitoylethanolamide in the Management of Neuropathic Pain and Associated Mood Disorders Induced by Paclitaxel in Mice. *Biomolecules* 2022 Volume 12, Issue 8,