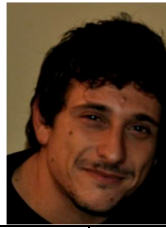


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NAME Livio Luongo, Date of Birth Naples, 06-09-1979 Email address: livio.luongo@gmail.com Phone: +39(0)815667658 Mobile: +393289167523	POSITION TITLE Assistant Professor
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EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Second University of Naples, Italy. William Harvey, Queen Mary University, London	Post-Doc	2008-2012 (2012, London)	Neuropharmacology Pharmacology
Second University of Naples, Italy, King's College, London,	PhD	2008 (2006-2007 London)	
University of Naples Federico II	Degree	2004	Pharmacy

A. Position and research interest.

Researcher: Department of Experimental Medicine, Division of Pharmacology, Second University of Naples, Italy.

Research Interests

- 1) Neuron-glia communications in the development of neuropathic pain.
- 2) Neuropathic pain pathophysiology
- 3) New pharmacological tools on microglia cells
- 4) Involvement of endocannabinoid system in the pathophysiology of the chronic neuroinflammatory diseases

Teaching:

- 1) Course of toxicology at the University of Pharmacy, Naples, Italy
- 2) Course of basic pharmacology at the University of Laboratory technicians, Naples, Italy
- 3) Course of Pharmacology at University of Medicine, Naples, Italy
- 4) Seminars at the University of Medicine, Naples, Italy
- 5) Erasmus Teaching at the Complutense University, Madrid, Spain

- 6) Erasmus teaching at the University of Sevilla, Spain
- 7) Seminars at University of Brno, CZ
- 8) Seminars at the University of Galway, Ireland

Bibliometric parameters

N° Pubbs= 87

H-index= 28

Citations= 1797

B. Selected peer-reviewed publications (in chronological order).

List of publications

2018:

1. Boccella S, Guida F, Palazzo E, Marabese I, de Novellis V, Maione S, Luongo L. Spared Nerve Injury as a Long-Lasting Model of Neuropathic Pain. *Methods Mol Biol.* 2018;1727:373-378. (Book chapter)
2. Petrelli R, Scortichini M, Belardo C, Boccella S, Luongo L, Capone F, Kachler S, Vita P, Del Bello F, Maione S, Lavecchia A, Klotz KN, Cappellacci L. Structure-Based Design, Synthesis, and In Vivo Antinociceptive Effects of Selective A1 Adenosine Receptor Agonists. *J Med Chem.* 2018 ;61(1):305-318.
3. Mhillaj E, Morgese MG, Tucci P, Furiano A, Luongo L, Bove M, Maione S, Cuomo V, Schiavone S, Trabace L. Celecoxib Prevents Cognitive Impairment and Neuroinflammation in Soluble Amyloid β -treated Rats. *Neuroscience.* 2018;372:58-73.
4. Coraggio V, Guida F, Boccella S, Scafuro M, Paino S, Romano D, Maione S, Luongo L. Neuroimmune-Driven Neuropathic Pain Establishment: A Focus on Gender Differences. *Int J Mol Sci.* 2018;19(1).
5. Wahlman C, Doyle TM, Little JW, Luongo L, Janes K, Chen Z, Esposito E, Tosh DK, Cuzzocrea S, Jacobson KA, Salvemini D. Chemotherapy-induced pain is promoted by enhanced spinal adenosine kinase levels through astrocyte-dependent mechanisms. *Pain.* 2018; 159(6):1025-1034.
6. Luongo L, Salvemini D. Targeting metabotropic adenosine receptors for neuropathic pain: Focus on A2A. *Brain Behav Immun.* 2018; 69:60-61.
7. Marabese I, Boccella S, Iannotta M, Luongo L, de Novellis V, Guida F, Serra N, Farina A, Maione S, Palazzo E. Metabotropic glutamate receptor subtype 7 in the dorsal striatum oppositely modulates pain in sham and neuropathic rats. *Neuropharmacology.* 2018; 135:86-99.
8. Guida F, Turco F, Iannotta M, De Gregorio D, Palumbo I, Sarnelli G, Furiano A, Napolitano F, Boccella S, Luongo L, Mazzitelli M, Usiello A, De Filippis F, Iannotti FA, Piscitelli F, Ercolini D, de Novellis V, Di Marzo V, Cuomo R, Maione S. Antibiotic-induced microbiota perturbation causes gut endocannabinoidome changes, hippocampal neuroglial reorganization and depression in mice. *Brain Behav Immun.* 2018. pii: S0889-1591(17)30417-8. doi: 10.1016/j.bbi.2017.09.001

2017

9. D'Aniello A, Luongo L, Romano R, Iannotta M, Marabese I, Boccella S, Belardo C, de Novellis V,

- Arra C, Barbieri A, D'Aniello B, Scandurra A, Magliozzi L, Fisher G, Guida F, Maione S. d-Aspartic acid ameliorates painful and neuropsychiatric changes and reduces β -amyloid A β 1-42 peptide in a long lasting model of neuropathic pain. *Neurosci Lett.* 2017;651:151-158.
10. Guida F, Luongo L, Boccella S, Giordano ME, Romano R, Bellini G, Manzo I, Furiano A, Rizzo A, Imperatore R, Iannotti FA, D'Aniello E, Piscitelli F, Sca Rossi F, Cristino L, Di Marzo V, de Novellis V, Maione S. Palmitoylethanolamide induces microglia changes associated with increased migration and phagocytic activity: involvement of the CB2 receptor. *Sci Rep.* 2017;7(1):375.
 11. Guida F, Boccella S, Iannotta M, De Gregorio D, Giordano C, Belardo C, Romano R, Palazzo E, Scafuro MA, Serra N, de Novellis V, Rossi F, Maione S, Luongo L. Palmitoylethanolamide Reduces Neuropsychiatric Behaviors by Restoring Cortical Electrophysiological Activity in a Mouse Model of Mild Traumatic Brain Injury. *Front Pharmacol.* 2017;8:95.
 12. Luongo L, Starowicz K, Maione S, Di Marzo V. Allodynia Lowering Induced by Cannabinoids and Endocannabinoids (ALICE). *Pharmacol Res.* 2017 ;119:272-277.
 13. Bellini G, Torella M, Manzo I, Tortora C, Luongo L, Punzo F, Colacurci N, Nobili B, Maione S, Rossi F. PKC β II-mediated cross-talk of TRPV1/CB2 modulates the glucocorticoid-induced osteoclast overactivity. *Pharmacol Res.* 2017;115:267-274.
 14. Palazzo E, Marabese I, **Luongo L**, Guida F, de Novellis V, Maione S. Nociception modulation by supraspinal group III metabotropic glutamate receptors. *J Neurochem.* 2017;141(4):507-519.

2016:

15. Rossi F, Bellini G, **Luongo L**, Manzo I, Tolone S, Tortora C, Bernardo ME, Grandone A, Conforti A, Docimo L, Nobili B, Perrone L, Locatelli F, Maione S, Del Giudice EM. Cannabinoid Receptor 2 as Antiobesity Target: Inflammation, Fat Storage, and Browning Modulation. *J Clin Endocrinol Metab.* 2016 ;101(9):3469-78.
16. Palazzo E, **Luongo L**, Guida F, Marabese I, Romano R, Iannotta M, Rossi F, D'Aniello A, Stella L, Marmo F, Usiello A, de Bartolomeis A, Maione S, de Novellis V. D-Aspartate drinking solution alleviates pain and cognitive impairment in neuropathic mice. *Amino Acids.* 2016
17. Moriello AS, **Luongo L**, Guida F, Christodoulou MS, Perdicchia D, Maione S, Passarella D, Di Marzo V, De Petrocellis L. Chalcone derivatives activate and desensitize the transient receptor potential ankyrin 1 cation channel, subfamily A, member 1 TRPA1 ion channel: structure-activity relationships in vitro and anti-nociceptive and anti-inflammatory activity in vivo. *CNS Neurol Disord Drug Targets.* 2016 *In press*
18. Punzo D, Errico F, Cristino L, Sacchi S, Keller S, Belardo C, **Luongo L**, Nuzzo T, Imperatore R, Florio E, De Novellis V, Affinito O, Migliarini S, Maddaloni G, Sisalli MJ, Pasqualetti M, Pollegioni L, Maione S, Chiariotti L, Usiello A. Age-Related Changes in d-Aspartate Oxidase Promoter Methylation Control Extracellular d-Aspartate Levels and Prevent Precocious Cell Death during Brain Aging. *J Neurosci.* 2016;36(10):3064-78.
19. Aiello F, Badolato M, Pessina F, Sticozzi C, Maestrini V, Aldinucci C, **Luongo L**, Guida F, Ligresti A, Artese A, Allarà M, Costa G, Frosini M, Schiano Moriello A, De Petrocellis L, Valacchi G, Alcaro S, Maione S, Di Marzo V, Corelli F, Brizzi A. Design and Synthesis of New Transient Receptor

Potential Vanilloid Type-1 (TRPV1) Channel Modulators: Identification, Molecular Modeling Analysis, and Pharmacological Characterization of the N-(4-Hydroxy-3-methoxybenzyl)-4-(thiophen-2-yl)butanamide, a Small Molecule Endowed with Agonist TRPV1 Activity and Protective Effects against Oxidative Stress. ACS Chem Neurosci. 2016 *In press*.

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22. Rinaldi B, Guida F, Furiano A, Donniacuo M, **Luongo L**, Gritti G, Urbanek K, Messina G, Maione S, Rossi F, de Novellis V. Effect of Prolonged Moderate Exercise on the Changes of Nonneuronal Cells in Early Myocardial Infarction. Neural Plast. 2015;2015:265967. doi: 10.1155/2015/265967
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cellular mechanisms. *Biomed Res Int.*; 2015:676725.

29. Spaziano G°, **Luongo L°**, Guida F, Petrosino S, Matteis M, Palazzo E, Sullo N, de Novellis V, Di Marzo V, Rossi F, Maione S, D'Agostino B. Exposure to Allergen Causes Changes in NTS Neural Activities after Intratracheal Capsaicin Application, in Endocannabinoid Levels and in the Glia Morphology of NTS. *Biomed Res Int.*; 2015:980983.
30. Cristino L°, **Luongo L°**, Squillace M, Paolone G, Mango D, Piccinin S, Zianni E, Imperatore R, Iannotta M, Longo F, Errico F, Vescovi AL, Morari M, Maione S, Gardoni F, Nisticò R, Usiello A. d-Aspartate oxidase influences glutamatergic system homeostasis in mammalian brain. *Neurobiol Aging.* 2015; 36(5):1890-902.
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32. Petrelli R, Torquati I, Kachler S, **Luongo L**, Maione S, Franchetti P, Grifantini M, Novellino E, Lavecchia A, Klotz KN, Cappellacci L. 5'-C-Ethyl-tetrazolyl-N(6)-substituted adenosine and 2-chloro-adenosine derivatives as highly potent dual acting A1 adenosine receptor agonists and A3 adenosine receptor antagonists. *J Med Chem.* 2015;58(5):2560-6.
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Balboni G, **Luongo L**, Maione S, Sacerdote P, Negri L, Lattanzi R. Controlling the activation of the Bv8/Prokineticin system reduces neuroinflammation and abolishes thermal and tactile hyperalgesia in neuropathic animals. *Br J Pharmacol*. 2014, 171(21):4850-65

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glial/microglial phenotypical changes in mice. *CNS Neurol Disord Drug Targets*. 2013;12(1):45-54.

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C. Current Research Support.

Title: Role of glial and immune-inflammatory cells in chronic pain: identification of novel drug targets in the peripheral and central analgesia and neuroinflammation

PRIN 2015 Project of the Italian Ministry of University and Research, Import **48.000,00 euro**

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GW Pharmaceuticals, London, UK, import **68.000,00 euro (Principal Investigator)**

International Conferences:

-Luongo L. "the 10th Congress of the European Pain Federation, EFIC® 2017, 6-9 september 2017, Copenhagen relazione dal titolo "N-acylethanolamines in pain modulation and plasticity". **(Invited Speaker)**

Luongo L. DIMETHYL FUMARATE REDUCES TACTILE ALLODYNIA IN A HCAR2-MEDIATED MECHANISM IN TWO MODELS OF PERIPHERAL NEUROPATHIC PAIN "13th World Congress on Inflammation", July 8-12 2017, London

Luongo L "Palmitoylethanolamide Induces Microglia Changes Associated with Increased Migration and Phagocytic Activity: Involvement of the CB2 Receptor"; PCS International Conference of neuroscience (ICN-2017), 7-8 Aprile 2017, Lisbona. **(Invited Speaker)**

Luongo L. Palmitoylethanolamide systemic treatment reduces spinal and supraspinal formalin-induced neuroinflammation and allodynia . **XIV Congress of the European Shock Society**, Taormina Giardini Naxos, 2011. **(Invited Speaker)**

- **Livio Luongo** TRPV1 channel is involved in symptoms and central sequelae in the medial prefrontal cortex in a model of neuropathic pain in rats., **14th World Congress on Pain** August 27 – August 31, 2012 – Milan, Italy **(Invited Speaker)**

- Maione S, Palazzo E., **Luongo L**, Rossi F. and de Novellis V. (2011). Role of metabotropic glutamate receptors in the basolateral amygdala-driven prefrontal cortical deactivation or over-activation in models of inflammatory or neuropathic pain in the rat . **7th International Meeting on Metabotropic Glutamate Receptors**. Taormina, October 2-7, 2011

- **Luongo L**, Giordano C, Maione S (2011). The role of glial NO in the oxidative stress associated neuropathic pain. **7th Congress of the European Federation of ISAP Chapters, EFIC 2011**, Hamburg, Germany **(Invited Speaker)**.

- **Livio Luongo**, Phytocannabinoid modulation of neuropathic pain-associated neuroinflammation "**Cannabinoid Function in the CNS**" **Gordon Research Conference** Les Diablerets Conference Center, Les Diablerets, Switzerland, May 22-27, 2011

- **Livio Luongo**, Leptin-controlled orexin/endocannabinoid interactions in the mouse periaqueductal grey: role in the regulation of the descending antinociceptive pathway. **XV Congress Of The Italian Society Of Neuroscience (S.I.N.S.)**, Rome 3-5 October 2013 **(Invited Speaker)**.

- **Livio Luongo**, A1 adenosine receptor regulate ATP-mediated microglial activation in vivo and in vitro: role in the spinal neuronal plasticity in neuropathic mice. **31st Camerino-Cyprus-Noordwijkerhout Symposium, Camerino**, May 19-23, 2013

- **Livio Luongo** Microglia activation is regulated by cannabinoid system, **Naples Pain Conference (NPC): Research and Therapy for human and animal suffering** MAY 16/19, 2010

- **Livio Luongo** TRPV1 channel is involved in symptoms and central sequelae in the medial prefrontal cortex of neuropathic rats Ewebr 2012 – Villars Sur Ollon – Switzerland **(Invited Speaker)**.

Applicant Name (Last, first, middle):

- **Livio Luongo**, Luigia Cristino, Roberta Imperatore, Serena Boccella, Stefania Petrosino, Francesca Guida, Piero Orlando, Vincenzo Di Marzo and Sabatino Maione. Leptin-controlled orexin/endocannabinoid interactions in the mouse periaqueductal grey: role in the regulation of the descending antinociceptive pathway **ICRS2014 - The 24th International Cannabinoid Research**, 28 June-3 July, 2014, Baveno, Italy

- **Livio Luongo**, Palmitoylethanolamide chronic treatment reduces sensory and cognitive dysfunction associated with mild traumatic brain injury, Symposium "Endocannabinoids and related endogenous lipid signaling molecules" Mediterranean Neuroscience Society Meeting, 12-15 June 2015, Cagliari (**Invited Speaker**)