CURRICULUM VITAE

CARMELA MATRONE

BIRTH DATA 1974-05-31
ADDRESS via Po, 1, 80126 Napoli
MARITAL STATUS: married, three children
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CURRENT POSITION:

From Feb 2018- Associate Professor in Pharmacology at Dept. of Neuroscience, School of Medicine, University Federico II of Naples.
From Feb 2018- Associated Professor at Aarhus University, Aarhus, Denmark

COURSES AND DEGREES

- 1998: Degree in Chemical and Pharmacological Technologies, University of Naples Federico II, Naples, Italy
- 1999: Authorization for independent practice of Pharmacist.
- 2004: PhD in Neuroscience, Dept of Neuroscience, School of Medicine, University of Naples Federico II, Naples, Italy
- 2005: Specialization in Pharmacology, School of Medicine, University of Naples Federico II, Italy
- 2014: International Teaching Qualification as Associate Professor
- 2014: International Teaching Qualification as Associate Professor in Pharmacology
- 2017: Italian Qualification as Associate Professor in Pharmacology (ASN 05/G BIO14)
- 2022: Italian Qualification as Full Professor in Pharmacology (ASN 05/G BIO14)

POSTDOCTORAL APPOINTMENTS

- 2005-10: Post doc fellowship (COCOCO) National Research Council (CNR)/European Center of Brain Research (CERC), Rome, Italy (Prof. R.L. Montalcini's group).
- 2010-12: Junior Researcher (art 23) DPR 171/91 (prot.1845). National Research Council (CNR)/European Center in Brain Research (CERC), Rome, Italy.
- 2012-14: Group leader. Dept of Biomedicine, School of Health, Aarhus University, Aarhus, Denmark.

ACADEMIC AWARDS

- 1998-05: Specialization in Pharmacology
- 2000-04: PhD in Neuroscience
- 2005-10: Post doc at Center of Brain Research, CERC, Rome, Italy, Prof. R.L. Montalcini's group.
- 2010-12: Young independent research fellowship (Art23) at National Council of Research, Rome, IT
- 2012-14: Group leader. Dept of Biomedicine, School of Health, Aarhus University, Aarhus, Denmark.
- 2014-18: Associate professor in Pharmacology at Dept of Biomedicine, School of Health, Aarhus University, Aarhus Denmark
- 2018- ongoing: Associate professor in Pharmacology at School of Medicine, Dept of Neuroscience, University Federico II of Naples, "*Chiamata diretta per chiara fama*"
- 2022-ongoing Board member (Councilor) of Italian society of Neuroscience (SINS)
- 2023- ongoing Board member (Councilor) of Italian society of Pharmacology (SIF)

SCIENTIFIC ACTIVITY

INTERNATIONAL VISITING RESEARCH FELLOWSHIPS

- 2009: Invited Visiting Scientist. New York University, Skirball Institute, (Prof. M.V. Chao's lab).
- 2010: EMBO Short term fellow. Albert Einstein College of Medicine, NY, USA. (Prof. L. D'Adamio's lab)
- 2011: Invited Visiting scientist. New York University (Prof. M.V. Chao's lab)

SCIENTIFIC AWARDS AND PRICE

- 2009: Marie Curie International Outgoing Fellowship (IOF) FP7-People-2009 program (proposal n.25316), ELIGIBLE
- 2010: EMBO short-term Fellowship (ASTF 264-2010).
- 2011: Short Term Mobility (STM), National Research Council (CNR; STM-CNR-2011).

TRAVEL FELLOWSHIPS

- Travel Fellowship and Allowance, Alzheimer Association International Conference (AAI/ADPD), Turin, 15-19 March 2018.
- Travel Fellowship and Allowance, Alzheimer Association International Conference (AAIC13), Boston, 13-18 July 2013.
- Fellowship towards travel and living expenses to Molecular Mechanisms of Neurodegeneration Conference (Milan, 2008).

INTERNATIONAL RESEARCH FUNDING AS PRINCIPAL INVESTIGATOR FROM 2012-

- PRIN 2022 #2022JJ3LZY (2023-25)
- PRIN 2017 #2017T9JNLT (2019-21)
- Lunbeckfonden Vortj. R275-2017-3696 (2019)
- Lunbeckfonden Vortj. (2016-19) nr. R208-2015-307
- Aarhus University (PhD fellowship) (2016-19)
- Danish Council Independent Researcher (Research Program I) (FSS/400400330B) (2015-18)
- Møller funden (2018)
- Lunbeckfonden Vortj. R275-2017-3696 (2017)
- Parkinsonforeningen (2017-18)
- Augustinus Fonden (2017-18)
- Parkinsonforeningen (2016-17)
- Lunbeckfonden Vortj. (2014-16) nr. R151-2013-14806
- Lundbeckfonden Vortj. (2012-14) nr. R108-A10719
- AUFF Recruitment Grant (2016)

INTERNATIONAL RESEARCH FUNDING AS RESPONSIBLE OF UNIT

- PRIN-PNRR 2022 # P2022N8TFX (2023-25) (Coordinator Prof A. Di Costanzo)

SPEAKER AT INTERNATIONAL SCIENTIFIC CONGRESSES IN THE LAST 10 YEARS

- Dementia Meeting (Rende, Nov 2022) (Invited)
- International Alzheimer's Disease and Parkinson's Disease Conference (Gothenburg, March 2023) (Selected from abstract, virtual)

- International Alzheimer's Disease and Parkinson's Disease Conference (Barcelona, March 2022) (Selected from abstract)
- Italian Society of Neuroscience (Symposium, Virtual, Sept 2021)
- International Alzheimer's Disease and Parkinson's Disease Conference (March 2021) (Invited)
- Italian Society of Pharmacology (Florence, Nov 2019) (Selected)
- World congress on Neurology & Therapeutics (Madrid, Oct 2019) (Invited)
- International Alzheimer's Disease and Parkinson's Disease Conference (Lisbon, March 2019) (Selected from abstracts)
- Eurodementia 2018 (Venice, Sept 2018) (Invited)
- Advances in Alzheimer's and Parkinson's disease conference (Turin, March 2018) (Selected from abstracts)
- Parkinsonforeningen (Copenhagen, November 2017) (Invited)
- Alzheimer's Association round table (Varna, Oct 2017) (Selected from abstracts)
- Advancing Alzheimer's Research meeting (London, June 2017) (Invited)
- Neuroscience day May 2017 (Aarhus University) (Invited)
- International Alzheimer's Disease and Parkinson's Disease Conference (Vienna, March 2017) (Selected from abstracts)
- Parkinsonforeningen (Copenhagen, November 2016) (Invited)
- Dementia (London, September 2016) (Invited)
- European CNS Summit (London, September 2016) (Selected from abstracts)
- Symposium on Advances in Alzheimer therapy (Athens, March 2016) (Invited)
- International Alzheimer Conference (London, June 2015) (Invited)
- International Alzheimer's Disease and Parkinson's Disease Conference (Nice, March 2015) (Selected from abstracts)
- Dementia Conference (Valencia, September 2014) (Invited)

CHAIRMEN AT INTERNATIONAL SCIENTIFIC CONGRESSES IN THE LAST 10 YEARS

- Italian Society of Neuroscience (Turin, 2023)
- Italian Society of Pharmacology (Rome, Nov 2022)
- International Alzheimer's Disease and Parkinson's Disease Conference (Barcelona, March 2022)
- Italian Society of Neuroscience (Virtual, Sept 2021)
- Italian Society of Pharmacology (Florence, Nov 2019)
- World congress on Neurology & Therapeutics (Madrid, Oct 2019)
- International Alzheimer's Disease and Parkinson's Disease Conference (Lisbon, March 2019)
- Italian Society of Pharmacology (Florence, Nov 2019)
- World congress on Neurology & Therapeutics (Madrid, Oct 2019)
- Eurodementia 2018, oral session (Venice, Sept 2018)
- Neuroscience day, Aarhus University, poster session (May 2018)
- Advances in Alzheimer's and Parkinson's disease conference, oral session (Turin, March 2018)
- PhD day Aarhus University, poster session (Jan 2017)
- Danish Pharmacology society conference, poster session (Jan 2017, Odense, DK)
- PhD day Aarhus University, poster session (Jan 2015)

EVALUATOR OF RESEARCH APPLICATIONS

- Alzheimer's Association Grants (USA)
- Telethon (Dulbecco Telethon Institute) (Europe)
- MIUR (Italy)
- FIRB (Fondo di Ricerca per gli Investimenti di Base), Italy
- SSN (Ministero Sanitario Italiano), Italy

REFEREE FOR MORE THAN 30 SCIENTIFIC INTERNATIONAL JOURNALS

MEMBER OF EDITORIAL BOARD

- Journal of Aging Research (2014-)
- Frontiers in Pharmacology (2015-)
- Frontiers in Neuroscience (2018-)
- The Journal of Alzheimer's & Neurodegenerative Diseases (2016-).
- Current Neuropharmacology
- Current Aging Science

ASSOCIATE EDITOR

- Progress in Inflammation Research (Book)
- Current Alzheimer research
- Frontiers in Dementia (2019-)

EDITOR

- Biomedicine (MDPI Press)

SECTION EDITOR (NEUROSCIENCE)

- Heliyon J (Elsevier Press)

GUEST EDITOR

- Special Issue: State-of-the-Art Neurologic Disease in Italy; Biomedicine 2022
- Special Issue: Delirium Across the Lifespan: From Neural Basis to Social Impact; Frontiers in Aging Psychiatry 2021

MEMBERSHIP OF SCIENTIFIC ORGANIZATION

- Società farmacologi italiani (SIF)
- Società italiana di Neuroscienze (SINS)
- FENS (Federation of European Neuroscience Societies)
- Society for Neuroscience
- Alzheimer's Association
- Dementia Association
- Danish Society of Dementia
- Danish Alzheimer Association
- Danish Parkinson Association
- Danish Pharmacology Association

COUNSELOR OF ITALIAN SOCIETY OF NEUROSCIENCE
COUNSELOR OF ITALIAN SOCIETY OF PHARMACOLOGY

SCIENTIFIC PUBLICATIONS
AS CORRESPONDING AND/OR LAST AUTHOR

1. Ferretti G, Serafini S, Angiolillo A, Monterosso P, Di Costanzo A and **Matrone C**. Advances in peripheral blood biomarkers of patients with Alzheimer's disease: moving closer to personalized therapies. Biomed Pharmacother. 2023 Jun 29;165:115094. doi: 10.1016/j.biopha.2023.115094.
2. Angiolillo A, Leccese D, Ciccotelli S, Di Cesare G, D'Elia K, Aurisano N, **Matrone C**, Dentizzi C, Di Costanzo A. Effects of Nordic Walking in Alzheimer's disease: a single-blind randomized controlled clinical trial. Heliyon. 2023 Apr 28;9(5):e15865. doi: 10.1016/j.heliyon.2023.e15865.
3. Ferretti G, Romano A, Sirabella R, Serafini S, Maier TJ, **Matrone C.** An increase in Semaphorin 3A biases the axonal direction and induces an aberrant dendritic arborization in an in vitro model of human neural progenitor differentiation. Cell Biosci. 2022 Nov 8;12(1):182. doi: 10.1186/s13578-022-00916-1.
4. Brattico E, Bonetti L, Ferretti G, Vuust P, **Matrone C.** Putting Cells in Motion: Advantages of Endogenous Boosting of BDNF Production. Cells. 2021 Jan 18;10(1):183. doi: 10.3390/cells10010183.
5. Iannuzzi F, Frisardi V, Annunziato L, **Matrone C**. Might Fibroblasts from Patients with Alzheimer's Disease Reflect the Brain Pathology? A Focus on the Increased Phosphorylation of Amyloid Precursor Protein Tyr682 Residue. Brain Sci. 2021 Jan 14;11(1):103. doi: 10.3390/brainsci11010103.
6. Iannuzzi F, Sirabella R, Canu N, Maier TJ, Annunziato L, **Matrone C**. Fyn Tyrosine Kinase Elicits Amyloid Precursor Protein Tyr682 Phosphorylation in Neurons from Alzheimer's Disease Patients. Cells. 2020 Jul 30;9(8):1807. doi: 10.3390/cells9081807.
7. Zollo A, Allen Z, Shi Y, Rasmussen FH, Iannuzzi F, Larsen A, Maier TJ, and **Matrone C**. Sortilin-related receptor expression in human stem cells derived from Alzheimer's disease patients carrying the APOE epsilon 4 allele. Neural Plasticity 2017:189261.
8. Poulsen ET, Rasmussen FH, Maier JT, Enghild JJ, Jørgensen LA, and **Matrone C**. An Aberrant Phosphorylation of Amyloid Precursor Protein Tyrosine Regulates Its Trafficking and the Binding to the Clathrin Endocytic Complex in Neural Stem Cells of Alzheimer's Disease Patients. Frontiers in Molecular Neuroscience 2017, Mar 15; 10:59. I
9. **Matrone C**, Dzamko N, Madsen P, Nyegaard M, Kallunki P, Pohlmann R, Søndergaard RV, Andresen TL, Halliday GL, Jensen PH and Nielsen MS. Mannose 6-phosphate receptor is reduced in α-synuclein overexpressing models of Parkinson's disease. PLOS ONE, 2016, PONE-D-16-13925.
10. Poulsen ET, Jørgensen LA, Larsen A, Zollo A, Sanggaard KW, Enghild JJ, Maier TJ and **Matrone C**. New insights to Clathrin and Adaptor protein 2 for the design and development of therapeutic strategies. Int J Molec Sci, 2015, 16(12), 29446-29453.
11. **Matrone C** & Brattico E. The power of music on Alzheimer's disease and the need to understand the underlying molecular mechanisms. J of Alzheimer's disease and Parkinsonism, 2015.
12. La Rosa LR, Perrone L, Nielsen MS, Calissano P, Andersen OM, **Matrone C**. Y682G mutation of amyloid precursor protein promotes endo-lysosomal dysfunction by disrupting APP–SorLA interaction. Front. Cell. Neurosci., 2015.

13. **Matrone C**. A new molecular explanation for age-related neurodegeneration: the Tyr682 residue of amyloid precursor protein. BioEssays, 2013; 35(10): 847-852. TWIJ ARTICLE.
14. **Matrone C**, Luvisetto S, La Rosa LR, Tamayev R, Pignataro A, Canu N, Yang L, Barbagallo AP, Biundo F, Lombino F, Heng H, Ammassari-Teule, D, D'Adamio L. Tyr682 in the APP intracellular domain regulates synaptic connectivity, cholinergic function and cognitive performance. Aging Cell, 2012, 11(6): 1084-1093.
15. **Matrone C**, Barbagallo APM, La Rosa LR, Florenzano F, Ciotti MT, Mercanti D, Chao MV, Calissano P and D'Adamio L. APP is phosphorylated by TrkA and regulates NGF/TrkA signaling. J Neurosci, 2011, 31(33): 11756-11761. TWIJ ARTICLE.
16. **Matrone C**, Marolda R, Ciotti MT, Ciafre S, Mercanti D, Calissano P. Tyrosine kinase NGF receptor switches from pro-survival to pro-apoptotic activity via Abeta mediated phosphorylation. Proc Natl Acad Sci U S A, 2009, 106:11358-1136.

AS FIRST AUTHOR

1. **Matrone C**, Djelloul M, Taglialatela G, Perrone L. Inflammatory risk factors and pathologies promoting Alzheimer`s disease progression is RAGE the key. Histol Histopathol. 2014
2. **Matrone C**, Di Luzio A, Meli G, D'Aguanno S, Severini C, Ciotti MT, Cattaneo A, Calissano P. Activation of the amyloidogenic route by NGF deprivation induces apoptotic death in PC12 cells. J Alzheimers Dis, 2008, 13(1): 81-96.
3. **Matrone C**, Ciotti MT, Marolda R, Mercanti D, Calissano P. NGF and BDNF signaling control amyloidogenic route and Abeta production in hippocampal neurons. Proc Natl Acad Sci U S A, 2008, 105(35): 13139-13144.
4. **Matrone C**, Pivonello R, Colao A, Cappabianca P, Cavallo LM, Del Basso De Caro ML, Taylor JE, Culler MD, Lombardi G, Di Renzo GF, Annunziato L. Expression and function of somatostatin receptor subtype 1 in human growth hormone secreting pituitary tumors deriving from patients partially responsive or resistant to long-term treatment with somatostatin analogs. Neuroendocrinology, 2004, 79(3): 142-148.
5. **Matrone C**, Pignataro G, Molinaro P, Irace C, Scorziello A, Di Renzo GF, Annunziato L. HIF-1alpha reveals a binding activity to the promoter of iNOS gene after permanent middle cerebral artery occlusion. J Neurochem, 2004, 90(2): 368-378.

AS CO-AUTHOR

1. Reveglia P, Paolillo C, Angiolillo A*, Ferretti G, Angelico R, Sirabella R, Corso G, **Matrone C,** Di Costanzo A. Targeting mass spectrometry approach to identify peripheral changes in the metabolic pathway from patients with Alzheimer's disease. Int J Mol Sci. 2023 Jun 4;24(11):9736. doi: 10.3390/ijms24119736.
2. Reveglia P, Nasso R, Angiolillo A, Lecce L, Paolillo C, De Tullio S, Gelzo M, Di Costanzo A, **Matrone C** and Corso G. Tandem Mass Spectrometry as Strategy for the Selective Identification and Quantification of the Amyloid Precursor Protein Tyr682 Residue Phosphorylation Status in Human Blood Mononuclear Cells. Biomolecules 2021, 11(9), 1297.
3. Kühn B, Brat C, Fettel J, Hellmuth N, Maucher IV, Bulut U, Hock KJ, Grimmer J, Manolikakes G, Rühl M, Kühn A, Zacharowski K, **Matrone C**, Urbschat A, Roos J, Steinhilber D, Maier TJ. Anti-inflammatory nitro-fatty acids suppress tumor growth by triggering mitochondrial dysfunction and activation of the intrinsic apoptotic pathway in colorectal cancer cells. Biochem Pharmacol. 2018, 155:48-60

4. Roos J, Peters M, Mauchera I, Kühna B, Fettela J, Urbschat A, Piesched M, Vogela M, Proschaka E, Blöchera R, Buscató E, Häfnera A, **Matrone C**, Heidlere J, Wittige I, Geisslingerf G, Steinhilbera D, Parnham M and Maier TJ. Drug-mediated intracellular donation of nitric oxide suppresses leukotriene biosynthesis in vitro and in vivo by site-directed cysteine-nitrosylation of 5-lipoxygenase. Antioxidants & Redox Signaling, 2018, 28(14):1265-1285
5. Maucher IV, Rühl M, Kretschmer SB, Hofmann B, Kühn B, Fettel J, Vogel A, Flügel, KT, (…), **Matrone C**, Roos, J and Maier TJ. Michael acceptor containing drugs are a novel class of 5-lipoxygenase inhibitor targeting the surface cysteines C416 and C418. Front Pharmacol. 2020 Sep 3;11:1297.
6. Jakobsen JE, Johansen MG, Schmidt M, Liue Y, Lie R, Callesen H, Melnikovac M, Habekost M, **Matrone C**, Bouterg Y, Bayerg T, Lade Nielsen A, Duthied M, Fraserd PE, Holmb I, Jørgensen AL. Expression of the Alzheimer's disease mutations APPsw and PSEN1M146I in double transgenic Göttingen minipigs. J Alzheimer's disease, 2016, #JAD 15-0540.
7. Montalban E, Mattugini N, Provenzano C, Savino M, Carissimi, C Fulci V, Prosperini G, **Matrone C**, Calissano P, Nasi S. MiR-21 is a NGF-modulated microRNA that supports NGF signaling and regulates neuronal degeneration in PC12 cells. Neuromol Med, 2014, 16(2): 415-30.
8. La Rosa LR, **Matrone C**, Ferraina C, Panico MB, Piccirilli S, Di Certo MG, Strimpakos G, Mercuri NB, Calissano P, D'Amelio M, Nisticò R. Age-related changes of hippocampal synaptic plasticity in APP-null mice are restored by NGF through p75NTR. J Alzheimers Dis, 2013, 33(1): 265-72.
9. Scarpi D, Cirelli D, **Matrone C**, Castronovo G, Rosini P, Occhiato EG, Romano F, Bartali L, Clemente AM, Bottegoni G, Cavalli A, De Chiara G, Bonini P, Calissano P, Palamara AT, Garaci E, Torcia MG, Guarna A, Cozzolino F. Low molecular weight, non-peptidic agonists of TrkA receptor with NGF-mimetic activity. Cell Death Dis. 2012, 3:e339. doi: 10.1038/cddis.2012.80.
10. Marolda R, Ciotti MT, **Matrone C**, Possenti R, Calissano P, Cavallaro S, Severini C. Substance P activates ADAM9 mRNA expression and induces α-secretase-mediated amyloid precursor protein cleavage. Neuropharmacology, 2012, 62(5-6): 1954-1963.
11. Valsecchi V, Pignataro G, Del Prete A, Sirabella R, **Matrone C**, Boscia F, Scorziello A, Sisalli MJ, Esposito E, Zambrano N, Di Renzo G, Annunziato L. NCX1 is a novel target gene for hypoxia-inducible factor-1 in ischemic brain preconditioning. Stroke, 2011, 42(3): 754-763.
12. Irace C, Scorziello A, Maffettone C, Pignataro G, **Matrone C**, Adornetto A, Santamaria R, Annunziato L, Colonna A. Divergent modulation of iron regulatory proteins and ferritin biosynthesis by hypoxia/reoxygenation in neurones and glial cells. J Neurochem, 2005, 95(5): 1321-1331.
13. Pignataro G, Gala R, Cuomo O, Tortiglione A, Giaccio L, Castaldo P, Sirabella R, **Matrone C,** Canitano A, Amoroso S, Di Renzo G, Annunziato L. Two sodium/calcium exchanger gene products, NCX1 and NCX3, play a major role in the development of permanent focal cerebral ischemia. Stroke, 2004, 35(11): 2566-2570.
14. Pivonello R, **Matrone C**, Filippella M, Cavallo LM, Di Somma C, Cappabianca P, Colao A, Annunziato L, Lombardi G. Dopamine receptor expression and function in clinically nonfunctioning pituitary tumors: comparison with the effectiveness of cabergoline treatment. J Clin Endocrinol Metab, 2004, 89(4): 1674-1683.

REVIEWS

1. **Matrone C** and Ferretti G. Autism spectrum disorder and defects in the Semaphorin 3A pathway share genetic risk factors, disease-relevant brain features, and biological mechanisms. Neuroscience and Biobehavioral Reviews, 2023, 153, 105338.
2. **Matrone C.** The paradigm of amyloid precursor protein in amyotrophic lateral sclerosis: The potential role of the 682YENPTY687 motif. Comput Struct Biotechnol J. 2023 Jan 10;21:923-930.
3. Reveglia P, Paolillo C, Ferretti G, De Carlo A, Angiolillo A, Nasso R, Caputo M, **Matrone C**, Di Costanzo A, Corso G. Challenges in LC-MS-based metabolomics for Alzheimer's disease early detection: targeted approaches versus untargeted approaches. Metabolomics. 2021 Aug 28;17(9):78.
4. Frisardi V, **Matrone C**, Street ME. Metabolic Syndrome and Autophagy: Focus on HMGB1 Protein. Front Cell Dev Biol. 2021 Apr 12;9: 654913.
5. Piesche M, Roos J, Kühn B, Fettel J, Hellmuth N, Brat C, Maucher IV, Awad O, **Matrone C**, Comerma Steffensen SG, Manolikakes G, Heinicke U, Zacharowski KD, Steinhilber D, Maier TJ. The Emerging Therapeutic Potential of Nitro Fatty Acids and Other Michael Acceptor-Containing Drugs for the Treatment of Inflammation and Cancer. Front Pharmacol. 2020 Sep 3;11: 1297. doi: 10.3389/fphar.2020.01297.
6. **Matrone C**, Petrillo F, Nasso R, Ferretti G. Fyn Tyrosine Kinase as Harmonizing Factor in Neuronal Functions and Dysfunctions. Int J Mol Sci. 2020 Jun 22;21(12):4444. doi: 10.3390/ijms21124444.
7. **Matrone C**, Iannuzzi F and Annunziato L. The Y682ENPTY687 motif of APP: progress and insights toward a targeted therapy for Alzheimer's disease patients. Ageing Research Review 2019
8. Roosa J, Gröschb S, Werzc O, Schröderd P, Zieglerd S, Fuldae S, Paulusf P, Urbschatg A, Kühna B, Mauchera I, Fettela J, Vorup-Jensen T, Piescheh M, **Matrone C**, Steinhilbera D, Parnhami MJ, and Maier TJ. Regulation of tumorigenic Wnt signaling by cyclooxygenase-2, 5-lipoxygenase and their pharmacological inhibitors: a basis for novel drugs targeting cancer cells? Pharmac and Therap, 2016, P&T23101.
9. Perrone L, **Matrone C**, Singh LP. Epigenetic modifications and potential new treatment targets in diabetic retinopathy. J Ophthalmol, 2014, 2014:789120. doi:10.1155/2014/789120
10. Basso E and **Matrone C**. NGF and APP interplay: NGF and APP Interplay: Focus on YENPTY Motif of Amyloid Precursor Protein and Y682 Residue Cell Biol: Res Ther. 2013, doi:10.4172/2324-9293.1000106.
11. Calissano P, **Matrone C**, Amadoro G. NGF as a paradigm of neurotrophins related to Alzheimer's disease. Dev Neurobiol, 2010, 70(5): 372-383.
12. Calissano P, Amadoro G, **Matrone C**, Ciafrè S, Marolda R, Corsetti V, Ciotti MT, Mercanti D, Di Luzio A, Severini C, Provenzano C, Canu N. Does the term "trophic" actually means anti-amyloidogenic? The case of NGF. Cell Death Differ, 2010, 17(7): 1126-1133.
13. Calissano P, **Matrone C**, Amadoro G. Apoptosis and in vitro Alzheimer disease neuronal models Commun & Integr Biol, 2009, 2(2): 163-169.

BOOK CHAPTER

1. Saggi e dosaggi farmacologici. "Saggi per la valutazione dell'attività di farmaci antidepressivi" **Matrone C** and Miceli F

2. Saggi e dosaggi farmacologici. “Saggi per la valutazione dell’attività di farmaci per il trattamento dei disturbi del sonno” **Matrone C**, Cuomo O and Sisalli MJ
3. Trattato di Farmacologia. **Matrone C** and Sirabella R. Farmacologia del sistema simpatico. Ch X.
4. Roos J, B. Kühn, Fettel J, (…) **Matrone C**, Steinhilber D and Maier TJ. Role of Lipoxygenases in Pathogenesis of Cancer. In book: Lipoxygenases in Inflammation, pp.131-157. DOI: 10.1007/978-3-319-27766-0_7.
5. Valsecchi V, Pignataro G, Sirabella R, **Matrone C**, Boscia F, Scorziello A, Sisalli MJ, Esposito E, Zambrano N, Cataldi M, Di Renzo G, Annunziato L. Transcriptional regulation of ncx1 gene in the brain. Adv Exp Med Biol, 2013, 961:137-145

TEACHING ACTIVITY

- 2020-in progress: Teacher in the Clinical Pharmacology and Toxicology Program for medical residents, School of Medicine, Naples.
- 2020-in progress: Course manager and Teacher at the Educational Elective Activity “Technics of Immunopharmacology” in the Biotechnology program at University Federico II, Naples.
- 2018-in progress: Teacher in Pharmacology I and II (Italian Classes) at School of Medicine, University Federico II of Naples.
- 2018- in progress: Teacher in Pharmacology I and II (English Classes) at School of Medicine, University Federico II of Naples.
- 2014-18: Teacher in Pharmacology for students in Medicine at Aarhus University.
- 2014-18: Teacher in Human Genetics for students in Medicine at Aarhus University.
- 2013-18: Teacher in “Biochemistry in Health and Disease” program for students in Medicine at Aarhus University.
- 2013-18: Teacher in Pharmacology for students in Molecular Medicine, Molecular chemistry and Medicine Programs at Aarhus University.
- 2013-14: Teacher in Biochemistry for Medical students at Aarhus University
- 2005-2011: Teacher in Cellular and Molecular Biology/Master Programs supported by Regione Lazio (RM) at the Institute of Neurobiology and Molecular Medicine (INMM; CNR) in Rome, Italy.
- 2005-11: Teacher in Research Technician courses supported by Regione Lazio (IT)
- 2005-11: Teacher in Neuroscience PhD course at European Council of Brain Research in Rome (IT) (C.E.R.C.).
- 2000-2004: Teacher in Pharmacology at Schools of Nurses and Physiotherapy (University of Naples Federico II, Naples, Italy).

EXPERIENCE OF COURSE MANAGEMENT

- 2020 - in progress: Member of PhD commission of Dept of Neuroscience, at University Federico II, School of Medicine, Naples
- 2015-17: Coordinator of Pharmacology course for Molecular Medicine program (2015-17) University of Aarhus, Faculty of Health, Dept of Biomedicine, Aarhus (DK)

EXPERIENCE OF PROGRAM MANAGEMENT AT UNIVERSITY OF AARHUS, FACULTY OF HEALTH, DEPT OF BIOMEDICINE, AARHUS (DK)

- 2014-18 Member of the Organizer Committee of the" PhD day" (poster section)
- 2016-18 Member of the Organizer Committee of the "Talent Development Course" for Post Doc students

ADDITIONAL QUALIFICATIONS AS TEACHER AND SUPEVISOR

- 2023-in progress: "*Progetto orizzonti" National Recovery and Resilience Plan, NRRP*
- 2022-in progress**:** Mentee of Athena mentoring program
- 2016 Teaching courses for implementing abilities in motivating students
- 2016 Teaching courses for implementing abilities in activating students
- 2014 Teaching course for Associate professor
- 2015 Basic course for PhD supervision

SUPERVISOR ACTIVITY (TUTOR) at University Federico II, School of Medicine, Dept of Neuroscience (from 2018-ongoing)

PhD student

- Ferretti Gabriella (2020-ongoing)
- Serafini Sara (2022-ongoing)

Research fellowship

- Albarano Luisa (2021-22)
- Nasso Rosarita (2020-21)
- Ferretti Gabriella (2019-20)
- Aliberti Vincenza (2019-20)

Master thesis

- Santoro Andrea Serena (2023-ongoing)
- Monterossi Paola (2022-23) "Tumor Necrosis Factor α (TNFα) plasmatic levels increase in patients with Subjective Cognitive Decline and are negatively correlated with β-Amyloid peptide 42 (Aβ42)"
- Ametrano Fabrizia (2022)
- Santillo Erica (2021-22) (Biotechnology program) "Characterization of human microglia after semaphorin 3a overexpression".
- Veltri Simona (2019-20) (Chemical and Pharmacologic Technologies) "Ruolo Potenziale del Residuo Tirosinico 682 della Molecola Precursore della Beta Amiloide nell'Insorgenza della Malattia di Alzheimer"

Bachelor thesis (Biotechnology program)

- Marrazzo Raffaella (oct 2023-ongoing)
- Di Meo Margherita (oct 2023-ongoing)
- Nappi Francesca (may-dec 2022) "Methods of human neural progenitor's growth and differentiation"
- Cristiano Michela (may 2022-march 2023) "Ruolo della clatrina nella patogenesi del morbo di Alzheimer"

- Spera Giuliana (sept 2021-march 2022) “Descrizione del processo di amplificazione del plasmide contenente il gene SEMA 3A”
- Battaglia Aurora (june 2021-march 2022) “Semaphorin 3A protein overexpression in human microglia affects cell survival”
- Amich Luana, co-supervisor prof Scorziello (June-dec 2021) “Immunohistochemistry: technical for the study of protein expression and distribution in neurodegenerative disease models”
- Ruggero Kristina, co-supervisor prof Scorziello (June-dec 2021)
- Pisacreta Alba “Study design of a new biomarker detectable in human monocytes from Alzheimer’s disease patients” (june-dec 2021)
- Romano Francesca “Protein sample preparation procedure for a new targeting mass spectrometry approach to identify and quantify the levels of phosphorylation of the amyloid precursor protein tyrosine 682 residue in Alzheimer’s disease patients” (june-oct 2021)
- Monterossi Paola “Model of overexpression of Semaphorin 3A protein in human microglial cells” (feb-sept 2021)
- Bencivenga Alberto (dic 2020-june 2021) “Microglial cells as a study model of CNS disorders”
- Santorio Andrea Serena (sept 2020-march 2021) “Potential neural stem cell applications in neurodevelopmental disorder studies”

SUPERVISOR ACTIVITY (TUTOR) at Aarhus University, Faculty of Health, Dept of Biomedicine, Aarhus, DK (2012-19)

Bachelor program for medical in “Human Genetic in Health and Disease”

- **2014**:
    1. Birgitte Andersen “The potential regulatory role of Ab in Alzheimer’s Disease”

Bachelor program for medical students in “Biochemistry in Health and Disease program”

- **2015**
    1. Anna Livbjerg “Role of Cathepsin-D in breast cancer”
    2. Camilla Kjersgaard “Gaucher’s Disease and neuronal degeneration”
    3. Christian Steenbeck Sørensen “Role of Cathepsin-D in neurodegenerative diseases”
    4. Julie Axelsen. “Is Alzheimer’s disease an infective disease? A critical overview of new emerging evidence”.
    5. Marie Arildsen. “Common features in prion disease and Alzheimer’s disease”.
    6. Ida Meklenborg. “New evidence for the role of matrix metallo proteinases in Alzheimer’s disease and their potential use as biomarkers and therapeutic target”.
    7. Mette Hastrup. “Why is Alzheimer’s Disease considered a prion-like disease? Focus on Amyloid beta spreading and neuronal degeneration”.
    8. Simon Husted S. “Prion-like transmission and spreading of tau pathology in Alzheimer’s disease”.
    9. Katrine Mavraganis “The importance of an accurate diagnosis of pre-clinical Alzheimer’s disease”.
- **2016**:

1. Lise Kjær Andersen. “Do we have biomakers in ALS?”.
2. Daniel Lauritzen. “Induced pluripotent stem cells - An unlimited source for neural stem cells and a possible cure for amyotrophic lateral sclerosis (ALS)”.
3. Anne Line Birkmose. “Will we ever be able to understand prion disease neuropathology? Too many mechanisms at various levels make this attempt difficult to address”.
4. Alberte Hejlesen. “Does the gut microbiota play a role in the pathogenesis of Alzheimer’s Disease?”
5. Emilia Hundebøll. “Omega 3 polyunsaturated fatty acids association with reduced risks of Alzheimer’s disease”.

- **2017:**
  1. Johanne Sloth Lauszus. “The role of TREM2 in late onset Alzheimer’s disease”.
  2. Pernille Mygind-Klausen. “"Cerebral Dopamine Neurotrophic Factor" (CDNF) in Parkinson's disease and discussion of their therapeutic potential in the treatment of Parkinson's disease.”
- **2018:**
  1. Peter Alexander Rytter Secher Amyloid-beta in blood plasma as a biomarker for Alzheimer’s disease

INTERNATIONAL MASTER PROGRAM IN NEUROSCIENCE in collaboration with University of Barcelona (Spain)

- 2017-18: Carla Badia Puiggali: “Tyrosine kinase inhibitors as potential treatment to ameliorate Alzheimer’s disease features in neural stem cells from affected patients”

MASTER PROGRAM AT FACULTY OF SCIENCE “MOLECULAR BIOLOGY PROGRAM”

- 2017-18: Trine Johansen: “Transfections of iPSC-derived neural stem cells and neurons with several DNA constructs of Amyloid precursor protein and Fyn tyrosine kinase”

ERASMUS fellowships

- 2015-16: Alen Zollo University of Sannio (Benevento, IT)
- 2016-17: Silvia Paoletti University of Pisa (Pisa, IT)
- 2017-18: Carla Badia Puiggali University of Barcellona (Spain)

RESEARCH ASSISTANT

- 2016: Alen Zollo
- 2016-17: Helle F. Rasmussen

POST DOC FELLOW

- 2014-19: Ebbe T. Poulsen

PhD

- Filomena Iannuzzi (2016-20)

Title of the thesis “Therapeutic targeting of Amyloid Precursor Protein Tyrosine 682 residue in Alzheimer’s disease”

MASTER PROGRAM FOR POSTGRADUATE STUDENTS at National Council of Research, Rome, IT

- 2010-11: Luca La Rosa
- 2010-11: Francesca Nunnari
- 2009-10: Silvia Saraco
- 2011-12: Francesca Esposito

EXPERIENCE OF EXTERNAL EXAMINATOR (CENSOR)

- 2022, January 17th, Nabil Ahmad Onib, University of Aarhus, School of Medicine, Bachelor project. Title: "Ketamine's rapid antidepressant properties and synaptic receptor regulation"
- 2021, June 28th, Mariam Schani Khelifa, University of Copenhagen, School of Health and Science, Master project: Ghrelin signaling in the dopaminergic system and its role on anorexia nervosa-associated behaviors
- 2021, June 28th, Oliver Carl Emil Haglund, University of Copenhagen, School of Health and Science, Master project: The Liver-Expressed Peptide LEAP2 Modulates Food Intake Through Actions on the Hypothalamus Master's Thesis in Human Biology
- 2021, June 25th, Nils Ole Menke, University of Copenhagen, School of Health and Science, Master project: Investigation of residues in the β2 and α2A adrenergic receptors that affect Gs-protein selectivity
- 2021, June 9th, Belén García, University of Copenhagen, School of Biology, Master project: Investigation of a novel member of the dopamine transporter's protein complex: biochemical, imaging, and functional study of p140Cap
- 2021, June 7th, Grímur Kamban Mortensen, University of Copenhagen, School of Medicine, Master project: Polypharmacy and medication use among octogenarians in the Faroe Islands
- 2021, May 25th, Elisabeth Kjær Jensen, University of Copenhagen, School of Medicine, Master project Bupivacaine in a Microparticle Formulation (LIQ865): Dose Safety and Pharmacodynamics in Human Volunteers. A Phase 1 Randomized and Controlled Study
- 2019, August the 14th, Per Damkier, University of Copenhagen, School of Medicine, Master project
- 2019, August the 13th', Claus Juul Løland, University of Copenhagen, School of Medicine, Master project
- 2019 November the 1st, University of Copenhagen, School of Medicine, Re-examination in pharmacology. Kenneth Lindegaard Madsen and Søren Gøgsig Faarup Rasmussen, Asli Nilüfer Silahtaroglu and Charlotte Katrine Vogel
- 2018, September the 8th, University of Copenhagen, School of Medicine Re- examination in pharmacology: Julia Prats Quesada, Alekxander Marcus Binderup, Emilie Nellemose Christensen, Kira Iben Danielsen
- 2018, August the 24th, Lina Bukows University of Copenhagen, School of Medicine, Master thesis