

## Allegato B

# GABRIELE RUFFOLO

## Curriculum Vitae

Rome, June 10th, 2023

### Part I – General Information

Full Name	<b>Gabriele Ruffolo</b>
Spoken Languages	Italian (native); English (Excellent); Portuguese (Good)

### Part IIA – Education

Type	Year	Institution	Notes (Degree, Experience,...)
PhD	<b>2018</b>	“Sapienza” University	Clinical/Experimental Neuroscience and Psychiatry – Curriculum: Neurophysiology, Title of thesis: A functional study of GABAergic impairment in epilepsy related neurodevelopmental syndromes.
University graduation	<b>2014</b>	“Sapienza” University	Medicine and Surgery – Title of thesis: “Studio di Farmaci Antiepilettici nella trasmissione sinaptica eccitatoria e inibitoria, dalla clinica alla ricerca di base”.
“Honours Programme in Medicine and Surgery” (Percorso di Eccellenza)	<b>2011-2014</b>	“Sapienza” University	Honours Programmes aim to enhance the training of meritorious students who are enrolled in a degree programme and are interested in further studies and cultural integration activities. Project title: “Effetto delle citochine sulle epilessie umane”, Referent: Prof. Cristina Limatola
High School	<b>2008</b>	Liceo Classico “Giulio Cesare”	High school Diploma (Classical studies).

### Part IIB – Additional training

Year	Institution	Activity
<b>2015-2016</b>	Department of Human Neurosciences, “Sapienza” University	<b>CAF (Advanced Training course)</b> in “Clinical Electromyography” Prof. Maurizio Inghilleri
<b>2016</b>	Synanet Network (H2020 programme), Lancaster University	<b>Training course</b> “Behavioural models of Disease” – (Prof. Neil Dawson)
<b>2016</b>	Synanet Network (H2020 programme), University of Eastern Finland (Kuopio)	<b>Training course</b> “Synanet workshop in Neuroinflammation”

<b>2015</b>	University of Amsterdam, Prof. Aronica's lab	<b>Guest PhD student</b> (1 month, August 2015)
<b>2013</b>	"Doce de Octubre" hospital, Madrid (Spain)	<b>Guest Medical student</b> , as winner of an IFMSA (international federation of medical students' association) bursary.

### Part III – Appointments

#### IIIA – Academic Appointments

Start	End	Institution	Position
1-8-22	Present	"Sapienza" University	<b>"Ricercatore a tempo determinato, tipo a"</b> (RTDA; SSD BIO/09) – Project: "Studio della funzionalità di recettori e canali di membrana nei processi neurofisiologici alla base delle patologie cerebrali e muscolari umane".
1-3-22	31-7-22	"Sapienza" University	<b>"Assegnista di Ricerca"</b> SSD BIO/09; (Be-FOR-ERC project: SynEpTOR: A study of synaptic transmission in epileptic mTORpathies).
1-11-18	28-2-22	"Sapienza" University	<b>"Assegnista di Ricerca"</b> SSD BIO/09 (Project: Studio dell' effetto della stimolazione magnetica sulla funzione elettrofisiologica del recettore nicotinico dell' acetilcolina nella sclerosi laterale amiotrofica" Referent: Prof. Francesca Grassi
1-6-19	30-11-19	Amsterdam "University Medical Center"	<b>"Guest Researcher"</b> – Fondazione Cenci-Bolognetti – Istituto Pasteur fellowship for Young Researchers abroad.
1-11-17	31-10-18	"Sapienza" University	<b>"Assegnista di Ricerca"</b> SSD BIO/09 (Project: "Acetylcholine receptors from human muscle as pharmacological targets for ALS therapy"). Referent: Prof. Eleonora Palma

#### IIIB – Other Appointments

Start	End	Institution	Position
<b>2022</b>	<b>2032</b>	Italian Ministry of University and Research	<b>National Scientific Habilitation (ASN)</b> as "Associate Professor" (SSD: BIO/09)

2017	2022	“Sapienza University”	“Expert in the field of Physiology” (Cultore della Materia)

#### Part IV – Teaching experience

Year	Institution	Lecture/Course
2022 – present	“Sapienza” University	<b>Graduation Project Tutor</b> for the Master Degree in “Neurobiology”
2021- Present	“Sapienza” University	<b>Holder</b> of the Course of “Human Physiology” (SSD: BIO/09) within the course “Scienze delle professioni sanitarie - tecniche diagnostiche - Corso di laurea A - Roma Azienda Policlinico Umberto I LM/SNT3”
2021- Present	“Sapienza” University	<b>Co-holder</b> of teaching of “Human Physiology” (SSD-BIO/09) within the course of Medicine and Surgery (Facoltà di Medicina e Odontoiatria ,Canale C),
2020- Present	“Sapienza” University	<b>Holder</b> of the teaching of “Human Physiology” (SSD: BIO/09) within the course (Scienze Biomediche II), CdL Tecniche Ortopediche, Ospedale Sant’ Andrea, “Sapienza” Università di Roma
2017 - Present	“Sapienza” University	<b>Official Member of Exam Commission</b> (Human Physiology, SSD BIO/09), Faculty of Medicine and Surgery. <b>Referent:</b> Prof. Eleonora Palma
2017 - Present	“Sapienza” University	Co-tutoring and teaching in the “Clinical/Experimental Neuroscience and Psychiatry” – Curriculum: Neurophysiology PhD Course
2015 - Present	“Sapienza” University	Extracurricular Teaching (BIO/09), as “Expert in the field of Physiology” at Faculty of Medicine and Surgery of “Ospedale Sant’ Andrea” and Medicine and Dentistry (Canale C), <b>Referent: prof.</b> Francesca Grassi

#### Part V - Society memberships, Awards and Honors

##### Awards

Year	Title
2023	“Associazione Malattie Rare Mauro Baschirotto” Award for the <b>best oral presentation</b>

	at “Discussione in epilessia sperimentale 2” congress, by LICE (Italian Chapter of the International League Against Epilepsy).
<b>2022</b>	“Raman Sankar Travel Bursary” for participation at WONOEP 2022 (Annecy – France, by International League Against Epilepsy) with the selected oral presentation: When anti-inflammatory mediators cannot keep the pace: effect of IL-10 and IL-1beta on GABAergic neurotransmission in gangliogliomas
<b>2015</b>	“Excellent Graduate” prize, awarded by “Fondazione Roma Sapienza” to the best 40 graduating students of the year in all Sapienza University

## Memberships

Year	Title
<b>2023</b>	Member of the Mediterranean Neuroscience Society
<b>2020-Present</b>	Member of the Italian Society of Physiology (SIF) and Collaboration with the Society’s Board of Directors as <b>Young Member</b> .
<b>2019-Present</b>	Member of “Lega Italiana Contro l’ Epilessia (LICE), Italian chapter of the International League Against Epilepsy (ILAE)

## Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2022	Alterations in synaptic transmission in neurodevelopmental diseases with epilepsy: an immature GABAergic function in a dysmature brain <b>(PI)</b>	Progetti di Ateneo Medi “Sapienza”	
2022	Mechanisms of anticonvulsive action of reparixin: focus on IL-8 interactions with GABAergic neurotransmission in human brain <b>(PI)</b>	Finanziamento Conto Terzi Dompé Farmaceutici	
2022	Cytokines as modulators of neurotransmission in drug-resistant epilepsies <b>(PI)</b>	AICE-FIRE grant 2022	
2021	The excitation/inhibition unbalance as common hallmark and potential therapeutic target for neurodevelopmental diseases known as mTORopathies. <b>(I)</b>	Progetti Peer-Reviewed (International Revision) di Ateneo Grandi “Sapienza”	
2021	Citochine come modulatori della neurotrasmissione: studio dell' effetto dell' interleuchina-10 <b>(PI)</b>	Progetti di Ateneo Avvio alla Ricerca “Sapienza”	
2020	Progetto “SynEpTor” <b>(PI)</b>	Be-FOR-ERC program (Peer-reviewed, International Revision)	

2019	MUSALS-AChR (I)	AriSLA: Call for projects 2019	
2018	A novel approach to study GABAergic function in neurodevelopmental diseases. (PI)	Fondazione Cenci-Bolognetti Research Fellowship for research abroad	
2018	The role of GABAergic transmission in the occurrence of seizures and cognitive impairment in drug-resistant epilepsies of childhood (I)	Progetti di Ateneo Medi "Sapienza"	
2017	Varianti patologiche della trasmissione GABAergica e glutammatergica nelle patologie dello sviluppo cerebrale: elementi comuni come prospettive terapeutiche future. (PI)	Progetti di Ateneo Avvio alla Ricerca "Sapienza"	
2016	Effetto del Lacosamide sui recettori dei neurotrasmettitori e sui canali del sodio voltaggio-dipendenti nella corteccia peritumorale di pazienti epilettici. (PI)	Progetti di Ateneo Avvio alla Ricerca "Sapienza"	

## Part VII – Research Activities

### Keywords

Electrophysiology
GABA <sub>A</sub> receptors
AMPA receptors
Muscle
Nicotinic Acetylcholine receptors
Epilepsy

### Brief Description

<p><b>I am a Researcher in Physiology.</b> I graduated in "Medicine and Surgery" in July 2014 and then I obtained a PhD in "Clinical/Experimental neuroscience and Psychiatry – Neurophysiology Curriculum" in 2018. Until now I worked in the field of neurophysiology and electrophysiology, using electrophysiological approaches for the functional study of GABA, glutamate and acetylcholine receptors. Furthermore, I study synaptic transmission in physiological and altered neurodevelopment. Moreover, I study the function of nicotinic acetylcholine receptor in human amyotrophic lateral sclerosis, both as a pathophysiological mechanism and a possible therapeutic target.</p>
<p>The <b>research techniques</b> I mainly use are: two-electrode voltage clamp and analysis, patch-clamp recording and single channel analysis, field potential recordings and analysis on brain slices. Additionally, in Amsterdam University I gained experience in transcriptomics analysis, immunohistochemistry and RT-PCR applied to the study of neurotransmitters' function in neuroinflammatory processes.</p>
<p>During my career, I had several national and international collaborations with:</p> <ul style="list-style-type: none"> <li>- <b>University of Amsterdam</b> (Prof. Eleonora Aronica)</li> <li>- <b>Instituto de Medicina Molecular</b> (Prof. Ana Sebastião)</li> <li>- <b>Università "Magna Graecia" di Catanzaro</b> (Prof. Gianni Cuda, Prof. Antonio Gambardella)</li> <li>- <b>Università di Kuopio (Finlandia)</b>, Prof.ssa Asla Pitkanen</li> </ul>

### Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	<b>31</b>	<b>Scopus</b>	<b>2015</b>	<b>2023</b>
Total Impact factor	<b>162,371</b>			
Total Citations	<b>462</b>			
Average Citations per Product	<b>14,90</b>			
Hirsch (H) index	<b>13</b>			
Normalized H index*	<b>1,625</b>			

\*H index divided by the academic seniority.

### Part IXA– Selected Publications (IF for each journal is referred to the year of publication)

1. Andre Altmann, Mina Ryten, Martina di Nunzio, Teresa Ravizza, Daniele Tolomeo, Regina Reynolds, Alyma Somani, Marco Bacigaluppi, Valentina Iori, Edoardo Micotti, Rossella di Sapia, Milica Cerovic, Eleonora Palma, **Gabriele Ruffolo**, Juan Botia, Julie Absil *et al.*, A systems-level analysis highlights microglial activation as a modifying factor in common epilepsies. *Neuropathology and Applied Neurobiology* (2023) **IF = 8.09; Citations = 11**
  
2. **Gabriele Ruffolo**, Veronica Alfano, Alessia Romagnolo, Till Zimmer, James D. Mills, Pierangelo Cifelli, Alessandro Gaeta, Alessandra Morano, Jasper Anink, Angelika Mühlebner, Annamaria Vezzani, Eleonora Aronica & Eleonora Palma. GABA<sub>A</sub> receptor modulation by cytokines in human epileptogenic gangliogliomas. *Scientific Reports* (2022) **IF = 4.379; Citations = 3**
  
3. Veronica Alfano, Alessia Romagnolo, James D. Mills, Pierangelo Cifelli, Alessandro Gaeta, Alessandra Morano, Angelika Mühlebner, Eleonora Aronica, Eleonora Palma & **Gabriele Ruffolo\***. Unexpected effect of IL-1beta on the function of GABA<sub>A</sub> receptors in pediatric focal cortical dysplasia. *Brain Sciences* (2022); **IF = 3.17; Citations = 2**  
\* *corresponding author*
  
4. Stefania Scalise, Clara Zannino, Valeria Lucchino, Michela Lo Conte, Luana Scaramuzzino, Pierangelo Cifelli, Tiziano D'Andrea, Katuscia Martinello, Sergio Fucile, Eleonora Palma, Antonio Gambardella, **Gabriele Ruffolo\***, Giovanni Cuda, and Elvira Immacolata Parrotta. Human iPSC Modeling of Genetic Febrile Seizure Reveals Aberrant Molecular and Physiological Features Underlying an Impaired Neuronal Activity. *Biomedicines* (2022); **IF = 6.081; Citations = 4**  
\* *corresponding author*
  
5. Till S Zimmer, Bastian David, Diede W M Broekaat, Martin Schidlowski, **Gabriele Ruffolo**, Anatoly Korotkov, Nicole N van der Wel, Peter C van Rijen, Angelika Mühlebner, Wim van Hecke, Johannes C Baayen, Sander Idema, Liesbeth François, Jonathan van Eyll, Stefanie Dedeurwaerdere, Helmut W Kessels, Rainer Surges, Theodor Rüber, Jan A Gorter, James D Mills, Erwin A van Vliet, Eleonora Aronica. Seizure-mediated iron accumulation and dysregulated iron metabolism after status epilepticus and in temporal lobe epilepsy. *Acta Neuropathol* (2021); **IF = 17.008; Citations = 18**
  
6. **Gabriele Ruffolo**, Katuscia Martinello, Angelo Labate, Pierangelo Cifelli, Sergio Fucile, Giancarlo Di Gennaro, Andrea Quattrone, Vincenzo Esposito, Cristina Limatola, Felice Giangaspero, Eleonora Aronica, Eleonora Palma & Antonio Gambardella. Modulation of GABAergic dysfunction due to SCN1A mutation linked to Hippocampal Sclerosis. *Annals of clinical and translational neurology*. (2020); **IF = 3.660; Citations = 3**

7. **Gabriele Ruffolo**, Pierangelo Cifelli, Catarina Lourenço, Eleonora De Felice, Cristina Limatola, Ana M. Sebastião, Maria J. Diógenes, Eleonora Aronica & Eleonora Palma. Rare diseases of neurodevelopment: maintain the mystery or use a dazzling tool for investigation? The case of Rett syndrome. *Neuroscience* (2019); **IF = 3.056; Citations = 2**
8. **Gabriele Ruffolo**, Pierangelo Cifelli, Cristina Roseti, Maria Thom, Erwin A. van Vliet, Cristina Limatola, Eleonora Aronica & Eleonora Palma. A novel GABAergic dysfunction in human Dravet syndrome. *Epilepsia*. (2018); **IF = 5.562; Citations = 36**
9. **Gabriele Ruffolo**, Carlo Di Bonaventura, Pierangelo Cifelli, Cristina Roseti, Jinane Fattouch, Alessandra Morano, Cristina Limatola, Eleonora Aronica, Eleonora Palma, Anna Teresa Giallonardo. A novel action of lacosamide on GABAA currents sets the ground for a synergic interaction with levetiracetam in treatment of epilepsy. *Neurobiology of Disease*. (2018); **IF = 5.160; Citations = 23**
10. **Gabriele Ruffolo**, Anand Iyer, Pierangelo Cifelli, Cristina Roseti, Angelika Mühlebner, Jackelien van Scheppingen, Theresa Scholl, Johannes A. Hainfellner, Martha Feucht, Pavel Krsek, Josef Zamecnik, Floor E. Jansen, Wim G. M. Spliet, MD, Cristina Limatola, Eleonora Aronica Eleonora Palma. Functional aspects of early brain development are preserved in Tuberous Sclerosis Complex (TSC). *Neurobiology of Disease* (2016); **IF = 5.020; Citations = 39**
11. Eleonora Palma, Jorge Mauricio Reyes-Ruiz, Diego Lopergolo, Cristina Roseti, Cristina Bertollini, **Gabriele Ruffolo**, Pierangelo Cifelli, Emanuela Onesti, Cristina Limatola, Ricardo Miledi and Maurizio Inghilleri. Acetylcholine receptors from human muscle as pharmacological targets for ALS therapy. *Proc. Natl. Acad. Sci. U.S.A.* (2016); **IF = 9.661; Citations = 39**
12. Cristina Roseti, Erwin A van Vliet, Pierangelo Cifelli, **Gabriele Ruffolo** · Johannes C Baayen, Maria Amalia Di Castro, Cristina Bertollini, Cristina Limatola, Eleonora Aronica, Annamaria Vezzani, Eleonora Palma. GABAA currents are decreased by IL-1 $\beta$  in epileptogenic tissue of patients with temporal lobe epilepsy: Implications for ictogenesis. *Neurobiology of Disease* (2015); 82. DOI:10.1016/j.nbd.2015.07.003; **IF = 4.856; Citations = 110**

### Summary of the bibliometric parameters of the 12 selected publications:

Total Impact factor	<b>75,695</b>
Average Impact factor	<b>6,3</b>
Total Citations	<b>290</b>
Average Citations per Product	<b>24,166</b>

### Part IXB– Complete Publications List

1. Miriam Sciacaluga\*, **Gabriele Ruffolo**\*, Eleonora Palma, Cinzia Costa. Conventional and unconventional anti-seizures drugs targeting novel pathophysiological mechanisms: focus on neurodevelopment and neurodegeneration. Accepted in *Current Neuropharmacology*. (2023) **IF = 7.708; Citations = 0**  
\*shared first authorship
2. Cassandra Margotta, Paola Fabbrizio, Marco Ceccanti, Chiara Cambieri, **Gabriele Ruffolo**, Jessica D'Agostino, Maria Chiara Trolese, Pierangelo Cifelli, Veronica Alfano, Christian Laurini, Silvia Scaricamazza, Alberto Ferri, Gianni Sorarù, Eleonora Palma, Maurizio Inghilleri, Caterina Bendotti, Giovanni Nardo. Immune-mediated myogenesis and acetylcholine receptor clustering promote a slow disease progression in ALS mouse models. *Inflammation and Neurodegeneration* (2023) **IF = 10.426; Citations = 2**

3. Antonella Tramutola, Simona Lanzillotta, Giuseppe Aceto, Sara Pagnotta, **Gabriele Ruffolo**, Pierangelo Cifelli, Federico Marini, Cristian Ripoli, Eleonora Palma, Claudio Grassi, Fabio Di Domenico, Marzia Perluigi, Eugenio Barone. Intranasal administration of KYCCSRK peptide rescues brain insulin signaling activation and reduces AD-like neuropathology in a mouse model for Down syndrome. *Antioxidants* (2023) **IF = 7.67; Citations = 1**
4. **Gabriele Ruffolo**, Alessandro Gaeta, Beatrice Cannata, Camilla Pinzaglia, Eleonora Aronica, Alessandra Morano, Pierangelo Cifelli, and Eleonora Palma. Neurotransmission in Human Tissues Is Modulated by Cannabidiol. *Life* (2022) **IF = 3.251; Citations = 0**
5. **Gabriele Ruffolo**, Veronica Alfano, Alessia Romagnolo, Till Zimmer, James D. Mills, Pierangelo Cifelli, Alessandro Gaeta, Alessandra Morano, Jasper Anink, Angelika Mühlebner, Annamaria Vezzani, Eleonora Aronica & Eleonora Palma. GABA<sub>A</sub> receptor modulation by cytokines in human epileptogenic gangliogliomas. *Scientific Reports* (2022) **IF = 4.379; Citations = 3**
6. Alessandra Morano, Emanuele Cerulli Irelli, Enrico M. Salamone, Biagio Orlando, Martina Fanella, Emanuele Tinelli, **Gabriele Ruffolo**, Luigi Zuliani, Jinane Fattouch, Mario Manfredi, Anna T. Giallonardo, Carlo Di Bonaventura. Late-onset seizures and epilepsy: electro-clinical features suggestive of autoimmune etiology. *Frontiers in Neurology*. (2022) **IF = 3.552; Citations = 0**
7. Marco Ceccanti, Laura Libonati, **Gabriele Ruffolo**, Pierangelo Cifelli, Federica Moret, Vittorio Frasca, Eleonora Palma, Maurizio Inghilleri, Chiara Cambieri. Effects of 3,4-diaminopyridine on myasthenia gravis: preliminary results of an open-label study. *Frontiers in Pharmacology* (2022); **IF = 4.400; Citations = 1**
8. Veronica Alfano, Alessia Romagnolo, James D. Mills, Pierangelo Cifelli, Alessandro Gaeta, Alessandra Morano, Angelika Mühlebner, Eleonora Aronica, Eleonora Palma & **Gabriele Ruffolo\***. Unexpected effect of IL-1beta on the function of GABA<sub>A</sub> receptors in pediatric focal cortical dysplasia. *Brain Sciences* (2022); **IF = 3.17; Citations = 2**  
*\*corresponding author*
9. Pierangelo Cifelli, **Gabriele Ruffolo**, Marco Ceccanti, Chiara Cambieri, Laura Libonati, Eleonora Palma, and Maurizio Inghilleri. Classical and Unexpected Effects of Ultra-Micronized PEA in Neuromuscular Function. *Biomolecules* (2022); **IF = 4.569; Citations = 0**
10. Stefania Scalise, Clara Zannino, Valeria Lucchino, Michela Lo Conte, Luana Scaramuzzino, Pierangelo Cifelli, Tiziano D'Andrea, Katuscia Martinello, Sergio Fucile, Eleonora Palma, Antonio Gambardella, **Gabriele Ruffolo\***, Giovanni Cuda, and Elvira Immacolata Parrotta. Human iPSC Modeling of Genetic Febrile Seizure Reveals Aberrant Molecular and Physiological Features Underlying an Impaired Neuronal Activity. *Biomedicines* (2022); **IF = 6,081; Citations = 4**  
*\*corresponding author*
11. Apostolos Mikroulis, Marco Ledri, **Gabriele Ruffolo**, Eleonora Palma Gunther Sperk, Jesmond Dalli, Annamaria Vezzani, Merab Kokaia. Lipid mediator n-3 docosapentaenoic acid-derived protectin D1 enhances synaptic inhibition of hippocampal principal neurons by interaction with a G-protein-coupled receptor. *FASEB Journal* (2022); **IF = 4.34; Citations = 5**
12. Alessandra Morano, Emanuele Cerulli Irelli, Martina Fanella, Biagio Orlando, Enrico Michele Salamone, Emanuele Tinelli, **Gabriele Ruffolo**, Luigi Zuliani, Jinane Fattouch, Mario Manfredi, Anna Teresa Giallonardo, Carlo Di Bonaventura. Olfactory impairment in autoimmune encephalitis: another piece of the puzzle. *Journal of Neurology* (2022); **IF = 4.849; Citations = 0**
13. Till S Zimmer, Bastian David, Diederik W M Broekman, Martin Schidlowski, **Gabriele Ruffolo**, Anatoly Korotkov, Nicole N van der Wel, Peter C van Rijen, Angelika Mühlebner, Wim van Hecke, Johannes C Baayen, Sander Idema, Liesbeth François, Jonathan van Eyll, Stefanie Dedeurwaerdere, Helmut W Kessels, Rainer Surges, Theodor Rüber, Jan A Gorter, James D Mills, Erwin A van Vliet, Eleonora Aronica. Seizure-mediated iron accumulation and dysregulated iron metabolism after status epilepticus and in temporal lobe epilepsy. *Acta Neuropathol* (2021); **IF = 17.008; Citations = 18**



14. Miriam Sciacaluga, Alfredo Megaro, Giovanni Bellomo, **Gabriele Ruffolo**, Michele Romoli, Eleonora Palma, Cinzia Costa. An Unbalanced Synaptic Transmission: Cause or Consequence of the Amyloid Oligomers Neurotoxicity? *Int. J. Mol. Sci.* (2021); **IF = 5.923; Citations = 20**
15. Federica Avorio, Emanuele Cerulli Irelli, Alessandra Morano, Martina Fanella, Biagio Orlando, Mariarita Albini, Luca M Basili, **Gabriele Ruffolo**, Jinane Fattouch, Mario Manfredi, Emilio Russo, Pasquale Striano, Marilia Carabotti, Anna T Giallonardo, Carola Severi, Carlo Di Bonaventura. Functional Gastrointestinal Disorders in Patients With Epilepsy: Reciprocal Influence and Impact on Seizure Occurrence. *Front Neurol.* (2021); **IF = 3.856; Citations = 5**
16. André Altmann [...] **Gabriele Ruffolo** [...] Sisodiya S. A systems-level analysis highlights microglial activation as a modifying factor in common epilepsies. *Neuropathol Appl Neurobiol.* (2021). **IF = 8.09; Citations = 11**
17. Pierangelo Cifelli, Silvia Di Angelantonio, Veronica Alfano, Alessandra Morano, Eleonora De Felice, Eleonora Aronica, **Gabriele Ruffolo\***, Eleonora Palma. Dissecting the Molecular Determinants of GABA A Receptors Current Rundown, a Hallmark of Refractory Human Epilepsy. *Brain Sciences.* (2021); **IF = 3.114; Citations = 4**  
\*corresponding author
18. **Gabriele Ruffolo**, Erwin A. van Vliet, Eleonora Aronica, Eleonora Palma. Editorial: Epilepsy and Neurodevelopmental Diseases. *Frontiers in Cellular Neuroscience* (2020); **IF = 3.921; Citations = 0**
19. **Gabriele Ruffolo**, Katuscia Martinello, Angelo Labate, Pierangelo Cifelli, Sergio Fucile, Giancarlo Di Gennaro, Andrea Quattrone, Vincenzo Esposito, Cristina Limatola, Felice Giangaspero, Eleonora Aronica, Eleonora Palma & Antonio Gambardella. Modulation of GABAergic dysfunction due to SCN1A mutation linked to Hippocampal Sclerosis. *Annals of clinical and translational neurology.* (2020); **IF = 3.660; Citations = 3**
20. Cifelli Pierangelo\*, **Ruffolo Gabriele\***, De Felice Eleonora, Alfano Veronica, van Vliet Erwin Alexander, Aronica Eleonora, Palma Eleonora. Phytocannabinoids in Neurological Diseases: Could They Restore a Physiological GABAergic Transmission? *International Journal of Molecular Sciences.* (2020); **IF = 4.556; Citations=25**  
\*shared the first authorship
21. **Gabriele Ruffolo**, Pierangelo Cifelli, Catarina Lourenço, Eleonora De Felice, Cristina Limatola, Ana M. Sebastião, Maria J. Diógenes, Eleonora Aronica & Eleonora Palma. Rare diseases of neurodevelopment: maintain the mystery or use a dazzling tool for investigation? The case of Rett syndrome. *Neuroscience* (2019); **IF = 3.056; Citations = 5**
22. Cristina Roseti, Pierangelo Cifelli\*, **Gabriele Ruffolo\***, Elena Barbieri, Michele Guescini, Vincenzo Esposito, Giancarlo Di Gennaro, Cristina Limatola, Aldo Giovannelli, Eleonora Aronica & Eleonora Palma. Erythropoietin increases GABAA currents in human cortex from TLE patients. *Neuroscience* (2019); **IF = 3.056; Citations = 6**  
\* shared first authorship
23. Antonio Musarò, Gabriella Dobrowolny, Chiara Cambieri, Emanuela Onesti, Marco Ceccanti, Vittorio Frasca, Annalinda Pisano, Bruna Cerbelli, Elisa Lepore, **Gabriele Ruffolo**, Pierangelo Cifelli, Cristina Roseti, Carla Giordano, Maria Cristina Gori, Eleonora Palma & Maurizio Inghilleri. Neuromuscular Magnetic stimulation counteracts muscle decline in ALS patients: results of a double blind, randomized, controlled study. *Scientific Reports* (2019); **IF = 3,998; Citations = 16**
24. **Gabriele Ruffolo**, Pierangelo Cifelli, Cristina Roseti, Maria Thom, Erwin A. van Vliet, Cristina Limatola, Eleonora Aronica & Eleonora Palma. A novel GABAergic dysfunction in human Dravet syndrome. *Epilepsia.* (2018); **IF = 5.562; Citations = 36**
25. **Gabriele Ruffolo**, Carlo Di Bonaventura, Pierangelo Cifelli, Cristina Roseti, Jinane Fattouch, Alessandra Morano, Cristina Limatola, Eleonora Aronica, Eleonora Palma, Anna Teresa Giallonardo. A novel action of

lacosamide on GABAA currents sets the ground for a synergic interaction with levetiracetam in treatment of epilepsy. *Neurobiology of Disease*. (2018); **IF = 5.160; Citations = 23**

26. Patrizia Ambrogini, Maria Cristina Albertini, Michele Betti, Claudia Galati, Davide Lattanzi, David Savelli, Michael Di Palma, Stefania Saccomanno, Desirée Bartolini, Pierangelo Torquato, **Gabriele Ruffolo**, Fabiola Olivieri, Francesco Galli, Eleonora Palma, Andrea Minelli, Riccardo Cuppini. Neurobiological Correlates of Alpha-Tocopherol Antiepileptogenic Effects and MicroRNA Expression Modulation in a Rat Model of Kainate-Induced Seizures. *Molecular Neurobiology*. (2018); **IF = 4.586; Citations = 24**
27. Eleonora Palma, **Gabriele Ruffolo**, Pierangelo Cifelli, Cristina Roseti, Erwin A. van Vliet and Eleonora Aronica, Modulation of GABAA Receptors in the Treatment of Epilepsy. *Current pharmacological Design* (2017); **IF = 2.757; Citations = 20**
28. Antonio Gambardella, Angelo Labate, Pierangelo Cifelli, **Gabriele Ruffolo**, Laura Mumoli, Eleonora Aronica, Eleonora Palma. Pharmacological modulation in mesial temporal lobe epilepsy: current status and future perspectives. *Pharmacological Research* (2016); **IF = 4.480; Citations = 15**
29. Alessandra Morano, Pierangelo Cifelli, Paolo Nencini, Letizia Antonilli, Jinane Fattouch, **Gabriele Ruffolo**, Eleonora Aronica, Cristina Limatola, Carlo Di Bonaventura, Eleonora Palma and Anna Teresa Giallonardo. Cannabis in Epilepsy: From clinical practice to basic research, focusing on the possible role of cannabidiol. *Epilepsia open* (2016); **IF = 3.364; Citations = 25**
30. **Gabriele Ruffolo**, Anand Iyer, Pierangelo Cifelli, Cristina Roseti, Angelika Mühlebner, Jackelien van Scheppingen, Theresa Scholl, Johannes A. Hainfellner, Martha Feucht, Pavel Krsek, Josef Zamecnik, Floor E. Jansen, Wim G. M. Spliet, MD, Cristina Limatola, Eleonora Aronica Eleonora Palma. Functional aspects of early brain development are preserved in Tuberous Sclerosis Complex (TSC). *Neurobiology of Disease* (2016); **IF = 5.020; Citations = 39**
31. Eleonora Palma, Jorge Mauricio Reyes-Ruiz, Diego Lopergolo, Cristina Roseti, Cristina Bertollini, **Gabriele Ruffolo**, Pierangelo Cifelli, Emanuela Onesti, Cristina Limatola, Ricardo Miledi and Maurizio Inghilleri. Acetylcholine receptors from human muscle as pharmacological targets for ALS therapy. *Proc. Natl. Acad. Sci. U.S.A.* (2016); **IF = 9.661; Citations = 39**
32. Cristina Roseti, Erwin A van Vliet, Pierangelo Cifelli, **Gabriele Ruffolo** · Johannes C Baayen, Maria Amalia Di Castro, Cristina Bertollini, Cristina Limatola, Eleonora Aronica, Annamaria Vezzani, Eleonora Palma. GABAA currents are decreased by IL-1 $\beta$  in epileptogenic tissue of patients with temporal lobe epilepsy: Implications for ictogenesis. *Neurobiology of Disease* (2015); 82. DOI:10.1016/j.nbd.2015.07.003; **IF = 4.856; Citations = 110**

## Part X – Participation to National and International Congresses

<b>Jan 28<sup>th</sup> 2023</b>	<b>Selected Speaker for “Discussione in epilessia sperimentale 2”, LICE (Italian Chapter of Interlational League Against Epilepsy)</b>
<b>Oct 27<sup>th</sup>-28<sup>th</sup> 2022</b>	<b>Invited Speaker at: “Update in Epilettologia Sperimentale”, Università di Perugia</b>
<b>Sept 19<sup>th</sup>-20<sup>th</sup> 2022</b>	<b>Oral Presentation, as member of the organizing Commettee</b> at the meeting "Synaptic Function in epileptic disorders: from basic research to clinical implications", network EpiEpinet. Università di Roma “Sapienza”. Title: “Pharmacological aspects in epilepsy research”
<b>Sept 14<sup>th</sup>-16<sup>th</sup> 2022</b>	<b>Selected SPEAKER at “72° Congresso Nazionale SIF”</b> . Title: Neuroinflammation and GABAergic function: a complex relationship. Università di Bari. (September 14th-16th 2022)
<b>Jul 21<sup>st</sup> 2022</b>	<b>Invited SPEAKER at “DISCAB Seminar Series 2022”</b> . Title: “Alterations of synaptic transmission in neurodevelopmental disorders”. Università degli Studi

	dell' <b>Aquila</b> · Dipartimento di Scienze Cliniche Applicate e Biotecnologiche
<b>Jul 4<sup>th</sup>-8<sup>th</sup> 2022</b>	<b>Selected SPEAKER, winner of travel grant</b> at XVI Workshop on Neurobiology of Epilepsy – WONOEP 2022. Title: When anti-inflammatory mediators cannot keep the pace: effect of IL-10 and IL-1beta on GABAergic neurotransmission in gangliogliomas. Talloires, France
<b>Jan 11<sup>th</sup> 2022</b>	<b>Selected s SPEAKER</b> at “2nd EpiEpiNet Meeting” (EpiEpiNet Network, H2020). Titolo: “Cytokines as potential modulators of neurotransmission in drug-resistant epilepsy: a potential beneficial effect of IL-10” Instituto de Medicina Molecular, Lisbon, Portugal (held on-line due to COVID restrictions).
<b>Jul 29<sup>th</sup>-31<sup>st</sup> 2021</b>	<b>SPEAKER and MODERATOR</b> at “14th annual meeting of Young Researchers in Physiology”, Società Italiana di Fisiologia. Centro Universitario di Bertinoro, Italy
<b>Jun 18<sup>th</sup> 2021</b>	<b>Selected SPEAKER</b> at the meeting: “From genes, synapses and circuits to pave the way for novel drugs and strategies”, EpiEpinet Network, Rome. (held on-line due to COVID restrictions).
<b>Jan 20<sup>th</sup> 2021</b>	<b>Selected SPEAKER</b> at “Epileptogenesis and Epilepsy Network Kick-off meeting”, Università Sapienza, Rome.
<b>Jan 22<sup>nd</sup> 2020</b>	<b>Selected SPEAKER</b> at “Discussione di Epilettologia Sperimentale”, Italian League Against Epilepsy, Sapienza University, Rome.
<b>Jan 17<sup>th</sup> 2020</b>	<b>Invited SPEAKER</b> at “SWO Midwinter meeting”, Nederlandse Liga tegen Epilepsie (host: Prof. E. Aronica, Amsterdam UMC): GABAergic dysfunction of Hippocampal Sclerosis Linked to SCN1A Mutation with Reduced interneuronal excitability
<b>Jan 9<sup>th</sup> 2019</b>	<b>Selected SPEAKER</b> for the event “Se iniziassi una carrier scientifica oggi...” promoted by “Facoltà di Medicina e Psicologia, Sapienza University” and “Dottorato di ricerca in neuroscienze clinico/sperimentali e psichiatria”
<b>Oct 4<sup>th</sup> 2019</b>	<b>Poster presentation</b> at Amsterdam Neuroscience Meeting, (Amsterdam, The Netherlands): A novel GABAergic dysfunction in human Dravet syndrome.
<b>Dec 12<sup>th</sup>-13<sup>th</sup> 2018</b>	<b>Selected SPEAKER</b> at 3rd Annual SynaNet Project Meeting (Instituto de Medicina Molecular, Lisboa, Portugal): “A novel GABAergic dysfunction in human Dravet syndrome”
<b>Jan 26<sup>th</sup>-27<sup>th</sup> 2017</b>	<b>Poster presentation</b> at First annual scientific meeting of SynaNet network: Effect of Lacosamide on GABA <sub>A</sub> -evoked currents

#### Part XI – Editorial and Scientific Boards

<b>2023</b>	<b>Member of the Organizing Committee</b> of the event “Discussione in Epilettologia Sperimentale”, by “Lega Italiana Contro l’ Epilessia” (LICE). University of Rome “Sapienza”
-------------	--

2022	<b>Member of the Organizing Committee</b> of the workshop "Synaptic Function in epileptic disorders: from basic research to clinical implications", network EpiEpinet
2021	<b>Review editor for</b> "Frontiers in Neurology", in the field of "Epilepsy"
2021	<b>Young Member of Italian Society of Physiology</b> , collaborating with the Society's board of Directors on specific projects fostering the research activities and networks of the Young Researchers in Physiology.
2020	<b>Review editor for</b> "Frontiers in Cellular Neuroscience"
2020	<b>Editorial Contribution</b> for the Special Issue entitled: "Epilepsy and Neurodevelopmental Diseases" (Frontiers in Cellular Neuroscience)
2017 - Present	<b>Reviewer</b> for international peer-reviewed journals ( <i>Journal of Pediatric Epilepsy, Scientific Reports, Journal of chemical neuroanatomy, Neurological Research, Molecular Neurobiology, International Journal of Molecular Sciences, Journal of Neuroinflammation</i> ).
2016	<b>Member of the Organizing Committee</b> of the "First Synanet Workshop", a project supported by the Horizon2020 European program.

Autorizzo il trattamento dei dati personali presenti nel CV in conformità con l'art. 13 del Decreto Legislativo 30 giugno 2003, n. 196 (Codice in materia di protezione dei dati personali) e dell'articolo 13 del GDPR (Regolamento UE 2016/679)

Roma, 10 giugno 2023

In fede,



Gabriele Ruffolo