ALLEGATO F - D.R. n. 2665/2021 del 15.10.2021, codice concorso 2021POR046

PROFESSIONAL CV BY PROF. CLAUDIO BABILONI (AI FINI DELLA PUBBLICAZIONE SU DOMINIO PUBBLICO)

SUMMARY OF THE ACHIEVEMENTS

Academic appointments

Received *PhD in Biomedical Sciences* (Aalborg University, Denmark) in 2000 and was appointed *Associate Professor in Physiology* in 2007 (University of Foggia, Italy), more than *13 years ago*.

Chief lecturing in Physiology

59 academic educational credits (CFU) for Degree Courses at University of Foggia (2008-2012) and 115 CFU at Sapienza University of Rome (2013-2021). In total, 174 CFU.

Institutional commitments at Sapienza University of Rome

Member of

- Faculty of Pharmacy and Medicine
- Council of the Department of Physiology and Pharmacology "Erspamer"
- Department Quality Team
- Department Ethical Committee
- Council of the PhD Course in "Neurosciences and Psychiatry"
- Council of the Residency School in "Medicine of Sport and Physical Exercise"
- Ethical evaluation of Departmental research projects on Physiology
- Team of European Civic University CIVIS (https://civis.eu/it) for Domain 15 "Neurophysiology, Neurosciences, and Neurodegenerative Disease".

Organization, direction, and coordination of national and international research groups

Principal investigator

- 23 projects granted by Italian Sponsors for research for a total financing of 1,152,187 (one million-152,187) Euro
- 6 projects granted by International Sponsors for research for a total financing of 1,411,448.64 (one million-411,449)

Total national and international financing: 2,550,635 (two million-563,635) Euro.

Co-founder and leader of the PDWAVES Consortium from 2014 for investing abnormalities in neurophysiological mechanisms of quiet vigilance in patients suffering from Parkinson's, Lewy Body, and Alzheimer' diseases by advanced EEG techniques (www.pdwaves.eu/). The Consortium includes 13 Scientific Institutions based in Italy (IRCCS, Academia), Switzerland, Hungary, Austria, and Turkey.

Former scientific tutor (PhD and/or post-doc) of excellent neuroscientists

- Prof. Claudio Del Percio (Associate Professor in Physiology at UNIROMA1)
- Prof. Fabrizio Vecchio (Associate Professors in Physiology at eCAMPUS UNICO)
- Prof. Alfredo Brancucci (Associate Professors in Physiology at UNICH)
- Dr. Paolo Capotosto (Lecturer and RTD-B in Bioengineering at UNICH).

Editorial Board of international scientific journals

Regular Editorial Board Member of NeuroImage (3 years), Clinical Neurophysiology (6 years), Current Alzheimer Disease (5 years), and Journal of Alzheimer Disease (9 years, four of which as Senior Editor). On-demand reviewer for many neuroscientific journals.

International prizes, appointments, and ranks

2006 *Prix Lèon et Henri Fredericq* (Classes de Sciences), received by Académie Royale (des Sciences, des Lettres ex des Beaux-Arts) de Belgique (Degree Diploma).

2013 *Award of Honor* received by the Scientific Committee of the "Second International Conference on Basic and Applied Physiology" held in SMS Medical College, Jaipur, India, on December 21 and 22, 2013.

October 22, 2019 (nowadays there is a fee of 40 Euro to pay). Ranked as Italian "top 36" for *Neurosciences and Psychology* by *Top Italian Scientists* via Academy pages at https://topitalianscientists.org/top-italian-scientists/Claudio%20Babiloni.

October 26, 2021. Ranked as World "top 7" expertise for *Electroencephalography* at https://expertscape.com/ex/electroencephalography by *ExpertScape* Rating Company https://expertscape.com/ex/electroencephalography by https://expertscape.com/ex/elec

Officer in neuroscientific societies and organizing roles

Member of

- Italian Society of Psychophysiology (SIPF) Steering Committee as Officer in 2002-2005 and Auditor in 2008-2009 http://www.sipf.it/Directivi-Precedenti.
- Electrophysiology Professional Interest Area (E-PIA) Steering Committee as *Communication Chair* in 2017-2019 and *Chair* in 2019-2021.
- Working group of International Federation of Clinical Neurophysiology (IFCN) for promoting "IFCN Guidelines on EEG" as Senior Co-Leader http://www.ifcn.info/sigs/sig-functional-brain-connectivity-as-revealed-by-eeg-meg/ from 2018 to date.
- Global Brain Consortium Steering Committee as *Co-leader* of the Workgroup on "International Clinical Care Translation using EEG" from 2019 to date https://globalbrainconsortium.org/.

Member of organizing committees for

- SIPF Congresses in 2002-2005 and 2009 (http://www.sipf.it/Archivio-Congressi).
- E-PIA Day Scientific Sessions in 2017 (London), 2018 (Chicago), 2019 (Los Angeles), 2020 (virtual), and 2021 (virtual).
- Meeting entitled "International Federation of Clinical Neurophysiology Guidelines on the Frequency and Topographical Analysis of Resting State EEG: The Controversies" in 2017 (Chengdu, China) https://dff.uniroma1.it/it/node/6125.
- Meeting entitled "Rome Training Meeting" for European Marie S. Curie ITN-ETN H2020 project "BBDiag" in 2018 (Rome, Italy) https://web.uniroma1.it/dff/it/dff/ricerca/blood-biomarker-based-diagnostic-tools-early-stage-ad.
- 17th European Congress of Clinical Neurophysiology (ECCN) in 2019 (Warsaw, Poland) http://eccn2019.com/committees/.
- 5th International Congress of Basic and Clinical Multimodal Imaging (BaCI2021) in 2021 (Virtual) https://baciconference2021.com/.
- Session Chair of Scientific Symposium organized by Electrophysiology Professional Interest Area and Neuromodulatory Subcortical System Professional Interest Areas (ISTAART-Alzheimer's Association), May 4, 2021 (virtual).
- Organizer and Session Chair in the Meeting of Electrophysiology Professional Interest Area (ISTAART-Alzheimer's Association) and Latin American Dementia Network, scheduled on October 30 and il 31, 2021 virtual https://twitter.com/AgustinMIbanez/status/1448346412345970690.

Role in editorial initiatives by scientific societies

- Working group of International Federation of Clinical Neurophysiology (IFCN) for promoting "IFCN Guidelines on EEG" as Senior Co-Leader https://www.sciencedirect.com/science/article/pii/S1388245719311642 from 2018 to date.
- Working group of European Societies of Clinical Neurosciences for writing the paper entitled "Clinical Practice Guideline Protocol: Recommendations for the Biomarker-Based Diagnosis of Dementia. A European Inter-Societal Delphi Consensus" (Principal Author: Prof. Giovanni Frisoni, University of Geneve, Switzerland).
- Working group of IFCN and International League Against Epilepsy (ILAE https://www.ilae.org/) for writing the paper entitled "Source imaging of scalp EEG signals in presurgical evaluation of patients with drug-resistant focal epilepsy" (Principal Author: Dr. Stefan Rampp, University Hospital in Erlangen, Germany).

 Working group of Network of European funding for Neuroscience research (NEURON), Joint Programme Neurodegenerative Disease Research (JPND), and Human Brain Project (HBP) for producing the Shared European Brain Research Agenda (SEBRA) for the European H2021-2027 Program.

Invited as chairman or speaker in neuroscientific conferences

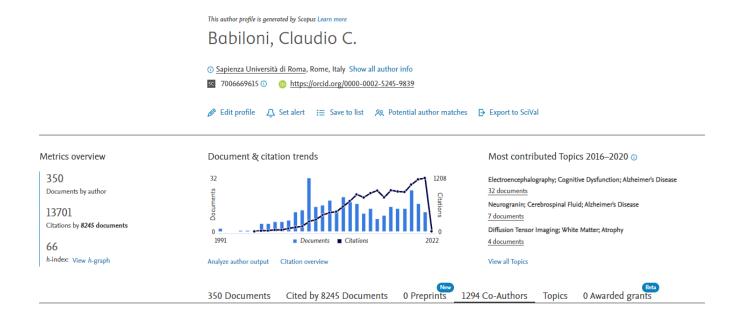
- 68 times in *national* scientific conferences.
- 130 times in *international* scientific conferences.

Papers published in international peer-reviewed journals

Total papers (1991-2020)	Scopus	338
Total papers (1991-2020)	PubMed	295
Total Impact factor (1991-2020)	ISI	1,218
Mean Impact factor (1991-2020)	ISI	4.1
Total citations (1991-2020)	Scopus	13,680
Mean citations (1991-2020)	Scopus	40.5
Hindex	Scopus	66
H index	Google Sch.	83
Papers with IF		295
Papers with IF authored as First or Last Author	•	156
Papers with IF based on original experiments		264
Papers with IF based on reviews		31
Total papers last 10 years (2011-2020)	Scopus	145
Total papers last 10 years (2011-2020)	PubMed	130
Total Impact factor last 10 years (2011-2020)	ISI	597
Mean Impact factor last 10 years (2011-2020)	ISI	4.6
Total citations last 10 years (2011-2020)	Scopus	3,206
Mean citations last 10 years (2011-2020)	Scopus	22
Papers with IF (2011-2020)		130
Papers with IF authored as First or Last Author (2011-2020)		
Papers with IF based on original experiments (2011-2020)		
Papers with IF based on reviews (2011-2020)		23

Temporal continuity of the scientific production over more than 20 years

Scopus source reports citations by 8,245 documents and 1,294 Co-Authors as a sign of scientific networking. More details in the following snapshot of October 25, 2021.



PART I – GENERAL INFORMATION

Full Name: Claudio Babiloni

Date of BirthomissisPlace of BirthomissisCitizenshipItalian

Permanent Address omissis

Institutional Address Sapienza University of Rome, Department of Physiology and Pharmacology "Erspamer", P.le

A. Moro 5, 00185 Roma, Italy **Mobile Phone Number** omissis

E-mail omissis

Spoken Languages Italian (mother tongue), English

ORCID ID: 7006669615

Place omissis

Date October 26, 2021

Web: https://web.uniroma1.it/dff/en.

Web: https://web.uniroma1.it/dff/it/Laboratorio-di-Neuroscienze-delle-funzioni-superiori-dell-Uomo.

Web: www.pdwaves.eu.

PART II - EDUCATION

University graduation. Master-degree in Psychology, 1987, Sapienza University of Rome (Rome, Italy), graduation grade: 110/110 cum laude.

Cambridge English: First (FCE), 1998, today known as B2 First.

PhD title. "Biomedical Sciences and Engineering", 2000, International Doctoral School in Biomedical Sciences and Engineering, University of Aalborg, Aalborg (Denmark). Acknowledged ("equipollenza") by Italian Ministry of University and Scientific Research in 2001.

Licensure. Diploma Liceo Scientifico "L. Pasteur" (Rome, Italy); grade: 60/60.

PART III - TEACHING EXPERIENCE AND THIRD MISSION FOR GENERAL PUBLIC

TEACHING EXPERIENCE

Chief lecturing in Physiology at University of Foggia (2008-2012): 59 academic educational credits (CFU)

Academic years 2008-2009 (16 University Educational Credits, 16 CFU)

Module of 6 CFU Human Physiology teaching (first Semester of second Course year) in Dentistry, (Coordinator of teaching: Prof. Claudio Babiloni), Department of Experimental and Clinical Medicine, UNIFG.

Module of 10 CFU Human Physiology teaching (first Semester of second Course year) in Motor Sciences (Coordinator of teaching: Prof. Claudio Babiloni), Department of Experimental and Clinical Medicine, UNIFG.

Academic years 2009-2010 (13 CFU)

Module of 3 CFU Human Physiology teaching (first Semester of second Course year) in Dentistry, (Coordinator of teaching: Prof. Claudio Babiloni), Department of Experimental and Clinical Medicine, UNIFG.

Module of 10 CFU Human Physiology teaching (first Semester of second Course year) in Motor Sciences (Coordinator of teaching: Prof. Claudio Babiloni), Department of Experimental and Clinical Medicine, UNIFG.

Academic years 2010-2011 (15 CFU)

Module of 7 CFU Human Physiology teaching (first Semester of second Course year) in Dentistry, (Coordinator of teaching: Prof. Claudio Babiloni), Department of Experimental and Clinical Medicine, UNIFG.

Module of 8 CFU Human Physiology teaching (first Semester of second Course year) in Motor Sciences (Coordinator of teaching: Prof. Claudio Babiloni), Department of Experimental and Clinical Medicine, UNIFG.

Academic years 2011-2012 (15 CFU)

Module of 7 Human Physiology teaching (first Semester of second Course year) in Dentistry, (Coordinator of teaching: Prof. Claudio Babiloni), Department of Experimental and Clinical Medicine, UNIFG.

Module of 8 Human Physiology teaching (first Semester of second Course year) in Motor Sciences (Coordinator of teaching: Prof. Claudio Babiloni), Department of Experimental and Clinical Medicine, UNIFG.

Chief lecturing in Physiology at Sapienza University of Rome (2013-2021): 115 academic educational credits (CFU)

Academic years 2013-2014 (6 CFU)

Module of 4 CFU of Human Physiology teaching (first Semester of second Course year) in Medicine and Surgery Course "E", at Polo Pontino of Latina, (Coordinator of teaching: Prof. Fabio Babiloni), Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 1 CFU of Human Physiology teaching (first Semester of first Course year) in integrated Course of Anatomophysiological bases of the human body (code: 1034952; Coordinator of integrated Course: Prof. Claudio Babiloni) in Nursing Sciences Course "P" at Polo of Cassino, Department of Public Health and Infectious Diseases. UNIROMA1.

Module of 1 CFU of Human Physiology teaching (first Semester of first Course year) in integrated Course of Anatomophysiological bases of the human body (code: 1034830; Coordinator of integrated Course: Prof. Massimiliano Renzi) in Physiotherapy Course at Polo of Cassino, Department of Medicine and Pharmacology. Department of Anatomical Histological Sciences, Medical Law and Locomotor System, UNIROMA1.

Academic years 2014-2015 (13 CFU)

Module of 1 CFU of Human Physiology teaching (first Semester of the first Course year) in the integrated Course of Anatomophysiological bases of the human body (code: 1034952; Coordinator of integrated Course: Prof. Claudio Babiloni) in Nursing Sciences Course "P" at Polo of Cassino, Department of Public Health and Infectious Diseases. UNIROMA1.

Module of 4 CFU of Human Physiology teaching (first Semester of second Course year) in Medicine and Surgery Course "E", at Polo Pontino of Latina, (Coordinator of teaching: Prof. Fabio Babiloni), Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 2 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of Course: Prof. Clara Nervi) for Orthopedic Techniques Course at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of

Neuroeconomics and Neuromarketing (Coordinator of teaching: Prof. Fabio Babiloni) for Psychology of Communication and Marketing Course, Department of Development and Socialization processes, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Rosa Vaccaro) for Speech Therapy Course, Department of Sense Organs, UNIROMA1.

Academic years 2015-2016 (12 CFU)

Module of 4 CFU of Human Physiology teaching (first Semester of second Course year) in Medicine and Surgery Course "E", at Polo Pontino of Latina, (Coordinator of teaching: Prof. Fabio Babiloni), Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 2 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of Course: Prof Clara Nervi) for Orthopedic Techniques Course at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Neuroeconomics and Neuromarketing (Coordinator of teaching: Prof. Fabio Babiloni) for Psychology of Communication and Marketing Course, Department of Development and Socialization Processes, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Rosa Vaccaro) for Speech Therapy Course, Department of Sense Organs, UNIROMA1.

Academic years 2016-2017 (15 CFU)

Module of 4 CFU of Human Physiology teaching (first Semester of second Course year) in Medicine and Surgery Course "E", at Polo Pontino of Latina, (Coordinator of teaching: Prof. Fabio Babiloni), Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 2 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of Course: Prof Clara Nervi) for Orthopedic Techniques Course at Polo Pontino of Latina, Department of Medicine and Pharmacology, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of integrated Course: Prof. Rita Businaro) for Therapy of Neuro- and Psychomotricity of Childhood at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Neuroeconomics and Neuromarketing (Coordinator of teaching: Prof. Fabio Babiloni) for Psychology of Communication and Marketing Course, Department of Development and Socialization processes, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Rosa Vaccaro) for Speech Therapy Course, Department of Sense Organs, UNIROMA1.

Academic years 2017-2018 (15 CFU)

Module of 4 CFU of Human Physiology teaching (first Semester of second Course year) in Medicine and Surgery Course "E", at Polo Pontino of Latina, (Coordinator of teaching: Prof. Fabio Babiloni), Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 2 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of Course: Prof Clara Nervi) for Orthopedic Techniques Course at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of integrated Course: Prof. Claudio Babiloni) for Therapy of Neuro- and Psychomotricity of Childhood at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology (first Semester of first Course year) for integrated Course of Neuroeconomics and Neuromarketing (Coordinator of teaching: Prof. Fabio Babiloni) for Psychology of Communication and Marketing Course, Department of Medicine and Psychology UNIROMA1, and for Biomedical Scientific Communication Course, Department of

Anatomical, Histological, Legal Medicine, and Locomotor Apparatus, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Rosa Vaccaro) for Speech Therapy Course, Department of Sense Organs, UNIROMA1.

Academic years 2018-2019 (18 CFU)

Module of 4 CFU of Human Physiology teaching (first Semester of second Course year) in Medicine and Surgery Course "E", at Polo Pontino of Latina, (Coordinator of teaching: Prof. Fabio Babiloni), Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 2 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of Course: Prof Clara Nervi) for Orthopedic Techniques Course at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of integrated Course: Prof. Claudio Babiloni) for Therapy of Neuro- and Psychomotricity of Childhood at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Neuroeconomics and Neuromarketing (Coordinator of teaching: Prof. Fabio Babiloni) for Psychology of Communication and Marketing Course, Department of Medicine and Psychology UNIROMA1, and for Biomedical Scientific Communication Course, Department of Anatomical, Histological, Legal Medicine, and Locomotor Apparatus, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Rosa Vaccaro) for Speech Therapy Course, Department of Sense Organs, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Luciana De Angelis) for Physiotherapy Course, Department of Human Neurosciences, UNIROMA1.

Academic years 2019-2020 (18 CFU)

Module of 4 CFU of Human Physiology teaching (first Semester of second Course year) in Medicine and Surgery Course "E", at Polo Pontino of Latina, (Coordinator of teaching: Prof. Fabio Babiloni), Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 2 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of Course: Prof Clara Nervi) for Orthopedic Techniques Course at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of integrated Course: Prof. Claudio Babiloni) for Therapy of Neuro- and Psychomotricity of Childhood at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Rosa Vaccaro) for Speech Therapy Course, Department of Sense Organs, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Luciana De Angelis) for Physiotherapy Course, Department of Human Neurosciences, UNIROMA1.

Academic years 2020-2021 (18 CFU)

Module of 4 CFU of Human Physiology teaching (first Semester of second Course year) in Medicine and Surgery Course "E", at Polo Pontino of Latina, (Coordinator of teaching: Prof. Fabio Babiloni), Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 2 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of Course: Prof Clara Nervi) for Orthopedic Techniques Course at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Histology, Anatomy and Physiology (Coordinator of integrated Course: Prof. Claudio Babiloni) for Therapy of Neuro- and Psychomotricity of Childhood at Polo Pontino of Latina, Department of Biotechnology and Medical-Surgery Sciences, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Rosa Vaccaro) for Speech Therapy Course, Department of Sense Organs, UNIROMA1.

Module of 3 CFU of Human Physiology teaching (first Semester of first Course year) in the integrated Course of Anatomo-Physiological Bases of the Human Body (Coordinator of integrated Course: Prof. Luciana De Angelis) for Physiotherapy Course, Department of Human Neurosciences, UNIROMA1.

Other academic lecturing activities

Lecturing in Physiology at University of Foggia (2008-2013) as a member of the Council of the Doctorate School of Biomedical Science and Technology.

Lecturing in Physiology at Sapienza University of Rome (2014- to date) as a member of the Council of the Doctorate School of Neurophysiology and Experimental-Clinical Neurosciences and Psychiatry.

Lecturing in Physiology at Sapienza University of Rome (2014- to date) as a member of the Council of the Residency School in "Medicine of Sport and Physical Exercise".

THIRD MISSION AND DISSEMINATION OF SCIENTIFIC CONTENTS TO THE GENERAL PUBLIC

Seminars on Neurophysiology for the general public

Cycle of seminars entitled "**Cervello abile in corpo sano**", held at the Liceo Scientifico Statale "Augusto Righi" (Via Campania, 63, Roma) https://www.liceoaugustorighiroma.it/pvw/app/RMLS0023/pvw_sito.php
February 25, 2019 (h 08:30 - 14:00)

February 26, 2019 (h 10:30 - 14:00).

"Percorso per le competenze trasversali e per l'orientamento (PCTO) of Sapienza University of Rome 2019-2020": Cycle of seminars entitled "**Cervello abile in corpo sano**", held at the Department of Physiology and Pharmacology "Erspamer"

- 1) January 21, 2020 (h 15-00-17-00) "L'evoluzione del cervello: siamo scimmie?"
- 2) January 28, 2020 (h 15-00-17-00) "Il linguaggio segreto delle cellule nervosa."
- 3) February 4, 2020 (h 15-00-17-00) "Smontando il cervello."
- 4) February 11, 2020 (h 15-00-17-00) "Il cervello tra realtà e sogno."
- 5) February 18, 2020 (h 15-00-17-00) "Il cervello e l'azione Vincente."
- 6) February 25, 2020 (h 15-00-17-00) "Il cervello si specchia nell'altro."

Cycle of seminar entitled "**Cervello abile in corpo sano**", held at the Liceo Scientifico Statale "Augusto Righi" (Via Campania, 63, Roma) https://www.liceoaugustorighiroma.it/pvw/app/RMLS0023/pvw_sito.php
February 25, 2020 (h 08:00 - 13:00).

"Percorso per le competenze trasversali e per l'orientamento (PCTO) of Sapienza University of Rome 2020-2021": Cycle of seminars entitled "**Cervello abile in corpo sano**", held at the Department of Physiology and Pharmacology "Erspamer" or virtually by Google Meet platform during the lockdown period for covid-19 pandemic:

- 1) February 23, 2020 (h 15-00-17-00) "L'evoluzione del cervello: siamo scimmie?"
- 2) March 2, 2020 (h 15-00-17-00) "Il linguaggio segreto delle cellule nervose."
- 3) March 16, 2020 (h 15-00-17-00) "Smontando il cervello."
- 4) March 23, 2020 (h 15-00-17-00) "Il cervello tra realtà e sogno."
- 5) March 30, 2020 (h 15-00-17-00) "Il cervello e l'azione vincente."
- 6) April 13, 2020 (h 15-00-17-00) "Il cervello si specchia nell'altro."

Seminar entitled "**Alla rierca della memoria**", held at the Liceo Scientifico Statale "Augusto Righi" (Via Campania, 63, Roma) https://www.liceoaugustorighiroma.it/pvw/app/RMLS0023/pvw_sito.php

May 7, 2021 (h 15:30-17:00).

Project of Third Mission entitled "Le vie della scienza, fra passato, presente e futuro", promoted by "Associazione "FormaScienza" http://www.formascienza.org. Participation with the role of expert in Neurosciences in the YouTube dissemination program entitled "Science experience -Surfing on brain waves" https://www.youtube.com/watch?v=DLGtwIhxOQM May 11, 2021.

Articles on Neurophysiology for the general public

Article entitled **"Surfing on brain waves"**, published in **"Magazine StaR"** at http://www.facebook.page at https://www.facebook.com/stoccolmaaroma/posts/4452794444755423 July 21, 2021.

Dissemination on Neurophysiology for the general public by social media

- Active **LinkedIn** page of ISTAART Electrophysiology Professional Interest Area updated as "Communication Chair", "Chair", and "Immediately Past Chair" (2017-2021): https://www.linkedin.com/groups/13630577/.
- Alzheimer's Association ISTAART PIA Relay Podcast Claudio Babiloni interviews Joe Kane at
 https://www.dementiaresearcher.nihr.ac.uk/istaart-pia-relay-podcast-claudio-babiloni-joe-kane/, hosted by Dr
 Claudio Babiloni at the website of "Dementia Researcher".
- Active Personal LinkedIn page at https://www.linkedin.com/in/claudio-babiloni-bb83a025/.
- Active Personal Twitter account at <u>@Babiloni.Claudio, Rome, Joined in July 2019</u>, 104 Following people, 229 Followers, and 251 released Tweets with brain research contents (dated to October 21, 2021). Tweets earned 63.9K impressions (703 per day) over 91-day period from July 23 to October 21, 2021. Top Tweet at https://twitter.com/BabiloniClaudio/status/1437184605421965313 with 6,380 Impressions and 219 Total engagements.
- Active **YouTube Channel** with online presentations of Claudio Babiloni's research talks held in scientific conferences in 2020-2021. See https://www.youtube.com/channel/UCJF6bAQkFcPFt8vHcLRy9-Q.
- Updated Personal **ResearchGate** page at https://www.researchgate.net/profile/Claudio-Babiloni-2.
- Updated Personal Google Scholar page at https://scholar.google.it/citations?user=HwkoCAkAAAAJ&hl=it.

PART IV - APPOINTMENTS

ACADEMIC APPOINTMENTS

July 2021 – to date, Sapienza University of Rome, **Team Member of the CIVIS Domain 15** ("Neurosciences, Neurophysiology, and Neurodegenerative Disorders") of Health Hub for Sapienza University of Rome as CIVIS Unit https://civis.eu/en/.

April 2018 – to date, Department of Physiology and Pharmacology "V. Erspamer", Sapienza University of Rome, **Member of the Department Quality Team** for planning Departmental research of excellence.

November 2014 – to date, **Member of the Council of the Doctorate School** in Neurophysiology and Experimental-Clinical Neurosciences and Psychiatry, Sapienza University of Rome.

November 2014 – to date, **Member of the Council of the Residency School** in Medicine of Sport and Physical Exercise, Sapienza University of Rome.

May 2014 - to date, Department of Physiology and Pharmacology "V. Erspamer", Sapienza University of Rome, **Member of the Department Ethical Committee**

September 4, 2013; September 3, 2014; September 4, 2015; September 6, 2016; September 3, 2020; September 3, 2021; Sapienza University of Rome, **Room Chair of the Committee** for admission of candidates to the Courses of Medicine and Surgery, Dentistry, Paramedical personnel.

December 27, 2012 – to date, **Associate Professor of Physiology** at Departments or Molecular Medicine and Department of Physiology and Pharmacology "V. Erspamer", Sapienza University of Rome,

November 2008- to December 26, 2012, **Member of the Council of the Doctorate School** of Biomedical Science and Technology, University of Foggia.

December 7, 2007 – to December 26, 2012, **Associate Professor of Physiology** at Department of Clinical and Experimental Medicine, University of Foggia (Foggia, Italy).

December 1987 – December 6, 2007, **Technician in Physiology** at Institute of Human Physiology / Department of Physiology and Pharmacology "V. Erspamer", Sapienza University of Rome.

EDITORIAL ACTIVITIES

Editorial Board Member in international scientific journals

2011-June 2017, Editorial Board Member in Clinical Neurophysiology (Impact Factor 2020 of 3.702).

2016- to date, Editorial Board Member in Current Alzheimer Disease (Impact Factor 2020 of 3.499).

2013-2016, Editorial Board Member in NeuroImage (Impact Factor 2020 of 6.556).

2015 and 2019- to date, Associate Editor in Journal of Alzheimer's Disease (Impact Factor 2020 of 4.472).

2012-2014, 2016-2018, Senior Editor in Journal of Alzheimer's Disease.

Reviewer on-demand for international scientific journals

Neurobiology of Aging, International Journal of Psychophysiology, NeuroReport, Journal of Psychophysiology, Psychophysiology, Epilepsy, Cortex, Medical Research Monitor, Brain Research Bulletin, Brain Research, Experimental Brain Research, Journal of Neurophysiology, Journal of Applied Physiology, Brain, Cerebral Cortex, Human Brain Mapping, IEEE Transactions on Neural Systems & Rehabilitation Engineering, IEEE Transactions on Biomedical Engineering. Aging and Clinical Experimental research. Experimental Brain Research, BMC, PNAS, Journal of Neuroscience, Clinical Neurophysiology, Journal of Alzheimer's disease, and Current Alzheimer Disease.

ORGANIZATION OF NEUROSCIENCE CONFERENCES

Member of the Organizing Committee of SIPF annual congresses

- X SIPF Congress (Italian Society of Psychophysiology) Rome (Italy), 5 7 Dec 2002.
- XI SIPF Congress (Italian Society of Psychophysiology) Pisa (Italy), 14 16 Dec 2003.
- $\bullet \quad XII \ SIPF \ Congress \ (Italian \ Society \ of \ Psychophysiology) \ Alghero \ (Italy), 9-11 \ Oct \ 2004.$
- XIII SIPF Congress (Italian Society of Psychophysiology) Massa Carrara (Italy), 2 4 Dec 2005.
- XVII SIPF Congress (Italian Society of Psychophysiology) Siena (Italy), 28 31 Oct 2009.

See for further details http://www.sipf.it/Archivio-Congressi.

Membership in international steering and/or organizing committees of scientific congresses

2017-2019 As "Communications Chair" of the Electrophysiology Professional Interest Area (E-PIA) of the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART), he co-organized and co-chaired the "E-PIA Day Scientific Session" the day before the Alzheimer's Association International Conference (AAIC) in 2017 (London), 2018 (Chicago), and 2019 (Los Angeles).

2017 As Leader of International Federation of Clinical Neurophysiology (IFCN) Workgroup for writing the article

entitled "IFCN Guidelines for topographic and frequency analysis of EEG", he co-organized the Conference "International Federation of Clinical Neurophysiology Guidelines on the Frequency and Topographical Analysis of Resting State EEG: The Controversies", September 25th, 2017, Chengdu, China, http://dff.uniroma1.it/it/node/6125.

As Communications Chair of E-PIA, he co-organized and co-chaired the Symposium entitled "Natural History of Dementia with Lewy Bodies: What Prodromal Stage?", held at Sapienza University of Rome (Italy) on September 13rd, 2018. The discussion was moderated by Prof. Claudio Babiloni (Sapienza University of Rome). Invited talks by Prof. Dag Aarsland (Chair of Old Age Psychiatry at King's College of London), Claudio Babiloni, and Prof. Laura Bonanni (University of Chieti, Italy) https://news.uniroma1.it/13092018_1100.

2020-2021 As "Chair" of the E-PIA, he co-organized and co-chaired the "E-PIA Day Scientific Session" the day before the Alzheimer's Association International Conference (AAIC) on July 26, 2020 (Virtual due to covid-19 pandemic) https://action.alz.org/PersonifyEbusiness/Default.aspx?TabID=1634 and on September, 14, 2021 (Virtual due to covid-19 pandemic).

2018 As Member of the Steering Committee of European Horizon2020 Marie Skłodowska Curie project "Blood Biomarker-based Diagnostic Tools for Early-Stage Alzheimer's Disease (BBDiag)", he co-organized the "Rome Training Meeting", held at the Sapienza University of Rome (March 19th-21st, 2018) https://web.uniroma1.it/dff/ricerca/blood-biomarker-based-diagnostic-tools-early-stage-ad,

Member of the Scientific Organizing Committee of the Day entitled "Amyloid and Alzheimer Disease: EEG windows of brain hyper-excitability in patients?" in the Rome Summer School of the H2020 Twinning Project "Synanet", June 15th, 2018, Rome, Italy, https://www.synanet2020.com/.

2018 As Co-leader of the IFCN Special Interest Group on "Brain functional connectivity in Clinical Neurophysiology", he co-organized the First Scientific Meeting of the Group during the International Conference of Clinical Neurophysiology (ICCN) 2018, Washington, USA, May 1st - 6th 2018. http://www.ifcn.info/sigs/sig-functional-brain-connectivity-as-revealed-by-eeg-meg/.

2019 Member of the Scientific Organizing Committee of the 17th European Congress of Clinical Neurophysiology (ECCN), held on June 5th-8th, 2019 in Warsaw, Poland http://eccn2019.com/committees/.

As Co-leader of the Workgroup "International Clinical Care Translation using EEG" committed to by the Steering Committee of Global Brain Consortium, he co-organized and co-chaired Symposium entitled "Neural basis of human consciousness: phenomena, paradigms, and exploring techniques", held at Sapienza University of Rome (Italy) on June 12th, 2019. The discussion was moderated by Prof. Alan Evans (McGill University, Montreal, Canada), Coordinator of the Global Brain Consortium. Invited talks by Prof. Claudio Babiloni (Organizer, Sapienza University of Rome), Prof. Aina Puce (Indiana University, USA), and Prof. Margitta Seeck (University of Geneva, Switzerland). https://web.uniroma1.it/neuroscienzesapienza/node/9048.

As Member of the Scientific Board, he co-organized the 5th International Congress of Basic and Clinical Multimodal Imaging (BaCI2021), held on October 14th-17th, 2021 (Virtual due to covid-19 Pandemic) https://baciconference2021.com/.

PART V - SOCIETY MEMBERSHIPS AND COMMITMENTS, AWARDS, AND HONORS

SCIENTIFIC SOCIETY MEMBERSHIPS AND COMMITMENTS

1998 – to date Member of Italian Society of Physiology (SIF) https://fisiologiaitaliana.org/.

2001 – to date **Member** of Italian Society of Psychophysiology (SIPF) www.sipf.it.

2002-2005 Officer of the Steering Committee ("Comitato Direttivo") of the Italian Society of Psychophysiology (SIPF).

2008-2009 **Auditor** of the Steering Committee of the Italian Society of Psychophysiology (SIPF) http://www.sipf.it/Direttivi-Precedenti.

December 2014 – to date **Co-found and lead** the **PDWAVES Consortium** for investing abnormalities in neurophysiological mechanisms of quiet vigilance in patients suffering from Parkinson's, Lewy Body, and Alzheimer'

diseases by advanced EEG techniques (<u>www.pdwaves.eu/</u>). The Consortium includes 13 Scientific Institutions based in Italy (IRCCS, Academia), Switzerland, Hungary, Austria, and Turkey.

2016 **Project Leader** of International Federation of Clinical Neurophysiology (IFCN) Workgroup for writing the position article entitled "IFCN Guidelines for topographic and frequency analysis of EEG", committed to by the President of IFCN Executive Committee.

https://www.uniroma1.it/it/node/37938 and https://www.sciencedirect.com/science/article/pii/S1388245719311642.

2017-2019 elected **Communications Chair** of the Electrophysiology Professional Interest Area of the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART) 2019-2021 elected **Chair** of E-PIA (**Immediately Past Chair** in 2021-2023) https://action.alz.org/personifyebusiness/Membership/ISTAART/PIA/Electrophysiology.aspx.

2018 – to date **Co-leader** of the International Federation of Clinical Neurophysiology (IFCN) Special Interest Group on "Brain functional connectivity in Clinical Neurophysiology", committed to by the IFCN Executive Committee. http://www.ifcn.info/sigs/sig-functional-brain-connectivity-as-revealed-by-eeg-meg/.

2019 – to date **Co-leader** of the Workgroup on "International Clinical Care Translation using EEG", committed to by the Steering Committee of Global Brain Consortium https://globalbrainconsortium.org/.

2020 – to date "**Delegate expert**" of the European Chapter of IFCN for writing the position paper entitled "*Clinical Practice Guideline Protocol: Recommendations for the Biomarker-Based Diagnosis of Dementia. A European Inter-Societal Delphi Consensus*" (Principal Author: Prof. Giovanni Frisoni, University of Geneve, Switzerland). Initiative of several European Societies of Clinical Neurosciences.

2020 – to date "**Delegate expert**" of the European Chapter of IFCN for writing the position paper entitled "*Source imaging of scalp EEG signals in presurgical evaluation of patients with drug-resistant focal epilepsy*" (Principal Author: Dr. Stefan Rampp, University Hospital in Erlangen, Germany). Initiative of IFCN and International League Against Epilepsy (ILAE) https://www.ilae.org/.

2020 – to date "**Delegate expert**" of the European Chapter of IFCN for producing the Shared European Brain Research Agenda (SEBRA) for European H2021-2027 Program. Institutional Partners including Network of European funding for Neuroscience research (NEURON), Joint Programme –Neurodegenerative Disease Research (JPND), and Human Brain Project (HBP).

July 2021 – to date "**Honorarium Member**" of Italian Society on Neurofeedback and Quantitative EEG (SINQ) https://sinq.org.

September 2021 – to date "**Member**" of European Academy of Neurology (EAN) https://www.ean.org/ and "**Member**" of the Panel in Clinical Neurophysiology for producing a societal position paper on "Clinical Neurophysiology for Dementia assessment".

2021-2023 "Officer" of the Steering Committee of the Italian Society of Psychophysiology (SIPF).

AWARDS

1996 "Prize of Accademia Medica Romana" (1.500.000 Lire) to develop scientific research with University of Munich (D).

2001, 2002, 2003 "Travel award" (500 USA dollars) received by Organization for Human Brain Mapping.

2006 "**Prix Lèon et Henri Fredericq** (Classes de Sciences)" received by Académie Royale (des sciences, des lettres ex des beaux-arts) de Belgique (Degree Diploma).

2013 "**Award of Honor**" received by the Scientific Committee of the "Second International Conference on Basic and Applied Physiology" held in SMS Medical College, Jaipur, India, on December 21st and 22nd, 2013.

RANKING IN THE FIELD OF NEUROSCIENCES

Ranked as "Italian Top 50" for **Neurosciences and Psychology** by **Top Italian Scientists** via Academy pages at https://topitalianscientists.org/top-italian-scientists/Claudio%20Babiloni on October 21, 2021.

Ranked by **ExpertScape** Rating Company https://expertscape.com/ as World Top 2 expertise for **Alpha rhythms** at https://expertscape.com/ex/alpha+rhythms and World Top 7 expertise for **Electroencephalography** at https://expertscape.com/ex/electroencephalography on October 21, 2021.

PART VI - FUNDING INFORMATION (GRANTS AS PI-PRINCIPAL INVESTIGATOR)

Research expeditions that Prof. Claudio Babiloni has led as either Coordinator of Consortia or Principal Investigator of his Research Unit.

- 23 projects granted by **Italian** Sponsors for research for a total financing of 1,152,187 (one million-152,187) Euro
- 6 projects granted by **International** Sponsors for research for a total financing of 1,411,448.64 (one million-411,449) Furo.

Total national and international financing: 2,550,635 (two million-563,635) Euro.

Concerning the translation of research outcome from academia to industry, some of the listed grants were assigned by Pharmacological industries and Small-Medium Enterprises (SMEs) such as MENTISCURA, COOPERATIVA LA TRACCIA; and ALTOIDA, etc.

ITALIAN PROJECTS

1) Call and Sponsor: ANNUAL STRATEGIC PROGRAM OF ITALIAN MINISTRY OF HEALTH

Grant Agreement: RF-REL-2.2011

Title of the project: Diagnosis of incipient Alzheimer disease: development of ADNI-based imaging markers for use by the

National Health System (Italian-ADNI) Project duration: 36 months (2010-2013)

Applicant: Dr. Giovanni Frisoni, IRCCS Hospital S. Giovanni di Dio Fatebenefratelli of Brescia (Italy)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Foggia (Italy)

Funding for the University of Foggia: € 58,000.

2) Sponsor: Viiv Healthcare Italia

Title of the project: Brainwaves in HIV (EEG-HIV)

Applicant for donation: Prof. Claudio Babiloni, University of Foggia (Italy)

Project duration: 24 months (2011-2012)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Foggia (Italy)

Funding for the University of Foggia: € 15,000.

3) Call and Sponsor: GRANT FOR YOUNG RESEARCHERS OF ITALIAN MINISTRY OF HEALTH, 2008

Ministero della Salute – Direzione Generale della Ricerca Scientifica e Tecnologica

Grant Agreement: GR-2008-1143090

Title of the project: Does rehabilitation with a 10-Hz sensory stimulation improve brain rhythms and cognitive-motor performance in neurological patients? Towards Internet-based clinical applications at subjects (10-Hz rehabilitation)

Project duration: 48 months (2012-2015)

Applicant: Dr. Claudio Del Percio, IRCCS Hospital San Raffaele Pisana of Rome (Italy)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Foggia

Funding for the University of Foggia: € 120,000.

4) Call and Sponsor: GRANT FOR NETWORKS OF SCIENTIFIC LABS

Grant Agreement: PO Puglia FESR, Asse I, Linea 1.2, 2007-2013, PO Puglia FES 2007-2013, Asse IV.

Title of the project: Network of labs for innovation in the field of functional foods (LA.I.F.F.)

Project duration: 48 months (2012-2015)

Applicant: Prof. Matteo Del Nobile, Department BioAgroMed of University of Foggia (Italy)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Foggia (Italy)

Funding for the Research Unit: € 115,000.

5) Call and Sponsor: GRANT FOR YOUNG RESEARCHERS OF ITALIAN MINISTRY OF HEALTH

Grant Agreement: GR-2008-1143091

Title of the project: Prediction of cognitive decline in mild cognitive impairment (MCI) subjects carrying genetic risk factors based on quantitative EEG and transcranial magnetic stimulation markers (EEGPredictAD)

Project duration: 48 months (2012-2015)

Applicant: Dr. Fabrizio Vecchio, IRCCS Hospital Oasi Maria SS of Troina, Enna (Italy)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Foggia (Italy)

Funding for the University of Foggia: € 110,000.

6) Call and Sponsor: NATIONAL OPERATIVE PLAN OF ITALIAN MINISTRY OF UNIVERSITY AND SCIENTIFIC AND TECHNOLOGICAL RESEARCH (GRANT PON02_00186_2937475)

Grant Agreement: 6573

Title of the project: Technological and innovative clinical protocols for the production of functional foods (Pro.Ali.Fun.)

Project duration: 48 months (2012-2015)

Applicant: Prof. Agostino Sevi, D.A.Re. of University of Foggia (Italy)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Foggia (Italy)

Funding for the Research Unit: € 51,700.

7) Call and Sponsor: "SMART CITIES" CALL OF NATIONAL OPERATIVE PLAN OF ITALIAN MINISTRY OF UNIVERSITY AND SCIENTIFIC AND TECHNOLOGICAL RESEARCH (GRANT PON04a2 C)

Grant Agreement: 6573

Title of the project: SMART HEALTH 2.0 (SH2.0)

Project duration: 48 months (2012-2015)

Applicant: Dr. Marco Scandelin, Noemalife, s.r.l. (Italy)

Prof. Claudio Babiloni is Consultant of University of Bari (Principal Investigator: Prof. Loreto Gesualdo, Department DETO,

Italy)

Funding for the Research Unit: € 100,000.

8) Call and Sponsor: ANNUAL RESEARCH CALL OF SAPIENZA UNIVERSITY OF ROME 2013,

Grant Agreement: prot. C26A13WKEJ

Title of the project: Multi-scale markers of cholinergic neurotransmission and on-going EEG rhythms in a mouse model of

Alzheimer's disease (TASTPM)

Project duration: 12 months (2013-2014)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Funding for the Research Unit: € 12,000.

9) Call and Sponsor: ANNUAL STRATEGIC PROGRAM OF ITALIAN MINISTRY OF HEALTH

Grant Agreement: RF-2010-2319113

Title of the project: GRID-based System for the Evaluation of the effects of Cognitive Rehabilitation in Patients with Alzheimer's

disease and Parkinson's Disease (GRIDCORE) Project duration: 48 months (2013-2016)

Applicant: Prof. Claudio Babiloni, IRCCS Hospital S. Raffaele Pisana, Rome (Italy).

Funding for the Research Unit: € 110,000.

10) Call and Sponsor: ANNUAL STRATEGIC PROGRAM OF ITALIAN MINISTRY OF UNIVERSITY AND SCIENTIFIC AND TECHNOLOGICAL RESEARCH

Grant Agreement: 2010SH7H3F

Title of the project: Functional connectivity and neuroplasticity in physiological and pathological aging (CONNAGE)

Project duration: 36 months (2013-2015)

Applicant: Prof. Paolo Rossini, Catholic University of Rome (Italy)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Foggia (Italy)

Funding for the University of Foggia: € 121,000.

11) Call and Sponsor: ANNUAL STRATEGIC PROGRAM OF ITALIAN MINISTRY OF HEALTH

Grant Agreement: RF-2010-2319722

Title of the project: Italian network for autosomal dominant Alzheimer's disease and frontotemporal lobar degeneration (Italian DIANf)

Project duration: 48 months (2013-2016)

Applicant: Prof. Giovanni Frisoni, IRCCS Hospital S. San Giovanni di Dio Fatebenefratelli of Brescia (Italy).

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Rome "La Sapienza" (Italy)

Funding for the University of Rome "La Sapienza": € 28,700.

12) Call and Sponsor: ANNUAL RESEARCH CALL OF SAPIENZA UNIVERSITY OF ROME 2014,

Grant Agreement: prot. C26A14929P

Title of the project: Multi-scale markers of cholinergic neurotransmission and on-going EEG rhythms in mice undergoing to enriched environment (NEURICH)

Project duration: 12 months (2014-2015)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Funding for the Research Unit: € 24,000.

13) Call and Sponsor: Line 4.1.1.1 del POR FESR Sicilia 2007-2013, Regional Operative Program of MIUR (POR) of

the Italian Regione Sicilia Grant Agreement: Progetto 1468

Title of the project: Virtual Environment for a Superior neuro-Psychiatry (VESPA)

Applicant: Dr. Marco Pappalardo (Software engineering, Catania, Italy).

Project duration: 36 months (2014-2016)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Rome "La Sapienza" (Italy) as Subcontractor

of the Sicilian Unit of IRCCS Oasi of Troina, Enna, Italy. Funding for the University of Rome "La Sapienza": € 85,000.

14) Sponsor: Viiv Healthcare Italia

Title of the project: Brainwaves in HIV (EEG-HIV)

Applicant for research contract: Prof. Massimo Andreoni (University of Rome "Tor Vergata").

Project duration: 24 months (2014-2015)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Rome "La Sapienza" (Italy)

Funding for the University of Rome "La Sapienza": € 25,000.

15) Call and Sponsor: ANNUAL RESEARCH CALL OF SAPIENZA UNIVERSITY OF ROME 2015,

Grant Agreement: prot. C26A15A5PN

Title of the project: Effect of Abeta lowering drug (BACE-i ER-901356) on EEG markers in TASTPM mice.

Project duration: 12 months (2015-2016)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Funding for the Research Unit: € 9,000.

16) Call and Sponsor: ANNUAL RESEARCH CALL OF SAPIENZA UNIVERSITY OF ROME 2016,

Grant Agreement: prot. 185279

Title of the project: Does enriched environment enhance cortical connectivity and hippocampal neuroplasticity in mice?

Project duration: 12 months (2016-2017)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Funding for the Research Unit: € 38,000. Project duration: 48 months (2016-2017)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Rome "La Sapienza" (Italy)

Funding for the University of Rome "La Sapienza": € 145,200.

17) Call and Sponsor: ANNUAL RESEARCH CALL OF SAPIENZA UNIVERSITY OF ROME 2017,

Grant Agreement: prot. 185279

Title of the project: EEG markers of cortical arousal in mice with glioblastoma

Project duration: 12 months (2017-2018)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Funding for the Research Unit: € 11,000.

18) Call and Sponsor: ""Horizon 2020" PONI&C 2014-2020 del MIUR

Title of the project: Innovative platform for the prediction of the progression of chronic renal disease, therapy response, and

poractive assitence (PRE.MED.)

Project duration: 12 months (2017-2018)

Applicant: Dr. Domenico Coiro, Cooperativa EDP La Traccia, s.r.l. of Matera (Italy)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Rome "La Sapienza" (Italy) as Subcontractor

of Cooperativa EDP La Traccia s.r.l.

Funding for the Research Unit: € 20,000.

19) Sponsor: Viiv Healthcare Italia

Title of the project: Brainwaves in HIV (EEG-HIV) Applicant for donation: Prof. Claudio Babiloni.

Project duration: 24 months (2018)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Rome "La Sapienza" (Italy)

Funding for the University of Rome "La Sapienza": € 15,000.

20) Call and Sponsor: ANNUAL RESEARCH CALL OF SAPIENZA UNIVERSITY OF ROME 2018,

Grant Agreement: prot. RM11816427CB2626

Title of the project: "Cortical functional connectivity in multiple sclerosis: A longitudinal qEEG study"

Project duration: 12 months (2018-2019)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Funding for the Research Unit: € 10,000.

21) Call and Sponsor: ANNUAL RESEARCH CALL OF SAPIENZA UNIVERSITY OF ROME 2019,

Grant Agreement: prot. RG11916B865DA8F6

Title of the project: "Cortical source activities of resting state electroencephalographic (rsEEG) rhythms in patients with

Alzheimer's disease dementia and epilepsy" Project duration: 12 months (2018-2019)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Funding for the Research Unit: \in 34,000 + \in 23,787 for an annual contract of fellowship = \in 57,787.

22) Call and Sponsor: ANNUAL RESEARCH CALL OF SAPIENZA UNIVERSITY OF ROME 2020,

Grant Agreement: prot. CC120172B3B6A65C

Title of the project: "Ten webinars on brain oscillatory activities underpinning sleep-wake cycle and higher functions and dysfunctions"

Project duration: 12 months (2020-2021)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Funding for the Applicant: € 3,000.

23) Call and Sponsor: ANNUAL RESEARCH CALL OF SAPIENZA UNIVERSITY OF ROME 2020,

Grant Agreement: prot. RM120172B3AC2210

Title of the project: "Cortical source activities of resting state electroencephalographic (rsEEG) rhythms in patients with mild

cognitive impairment and epileptiform activity"

Project duration: 12 months (2021-2022)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Funding for the Research Unit: € 10,000.

INTERNATIONAL PROJECTS

1) Call and Sponsor: EUROPEAN COMMISSION 7TH FRAMEWORK PROGRAMME IMI Call topic:

IMI_Call_2008_1_11: Neurodegenerative Disorders IMI-1 Joint Undertaking

Grant Agreement: 115009

Title of the project: Prediction of cognitive properties of new drug candidates for neurodegenerative diseases in early clinical

development. (PHARMA-COG; www.pharmacog.org)

Project duration: 72 months (2010-2015)

Applicant: Dr Jill Richardson, GlaxoSmithKline (UK)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Foggia (Italy)

Funding for University of Foggia: € 568,000

2) Call and Sponsor: EUROPEAN COMMISSION 7TH FRAMEWORK PROGRAMME CAPACITIES - RESEARCH INFRASTRUCTURES CALL IDENTIFIER: FP7-INFRASTRUCTURES-2010-2

Grant Agreement: RI-261593

Title of the project: Diagnostic enhancement of confidence by an International distributed environment (proposal acronym:

DECIDE; www.eu-decide.eu)

Project duration: 42 months (2010-2013)

Applicant: Dr. Laura Leone, Consortium "Gestione Ampliamento Rete Ricerca" (GARR) of Rome (Italy).

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Foggia (Italy)

Funding for the University of Foggia: € 148,000.

3) Sponsor: MENTISCURA Medical Device (https://www.mentiscura.com/)

Title of the project: MENTISCURA TOOL.

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Project duration: 48 months (2016-2017)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Rome "La Sapienza" (Italy)

Funding for the University of Rome "La Sapienza": € 145,200.

4) Sponsor: Altoida Medical Device (AMD; www.altoida.com)

Title of the project: Dementia Early Screening and Disease Progression Tracking in the clinical practice by means of ALTOIDA Augmented Reality MedTech (ALTOIDA AR)

Applicant: Prof. Claudio Babiloni, University of Rome "La Sapienza" (Italy)

Project duration: 36 months (2017-2019)

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Rome "La Sapienza" (Italy)

Funding for the University of Rome "La Sapienza": € 55,000.

5) Call EU Joint Programme – JPND Neurodegenerative Disease Research 2016 call "Working Groups for Harmonization and Alignment in Brain Imaging Methods for Neurodegeneration"

Grant Agreement: FNS 31ND30_171200

Title of the project: Harmonization of acquisition and processing of Brain Imaging Biomarkers for Neurodegenerative Diseases:

A strategic Research Agenda for best-practice guidelines (SRA-NED)

Project duration: 9 months (2016-2017)

Applicant: Prof. Giovanni Frisoni, University of Genève (Switzerland).

Prof. Claudio Babiloni is the Working Group Leader of EEG biomarkers (University of Rome "La Sapienza", Italy)

Funding for the University of Rome "La Sapienza": financial reimbursement for the participation to the meetings of the Working Group Leader of EEG biomarkers.

6) HORIZON 2020, H2020-MSCA-ITN-2016 (Marie Skłodowska-Curie Innovative Training Networks; MSCA-ITN-ETN)

Grant Agreement: 721281

Title of the project: Blood Biomarker-based Diagnostic Tools for Early-Stage Alzheimer's Disease (BBDiag)

Project duration: 48 months (2017-2020)

Applicant: Prof. Genhua Pan (University of Plymouth, UK).

Prof. Claudio Babiloni is Principal Investigator of a Research Unit of University of Rome "La Sapienza" (Italy) and Scientific Responsible for two early-stage researchers, namely Mrs. Jessica Janson (Germany) and Mrs. Marina Blūma Selivanova (Russia).

Funding for the University of Rome "La Sapienza": € 495,448.64.

PART VII - RESEARCH ACTIVITIES

BRIEF DESCRIPTION

On the whole, our EEG studies globally aim at understanding *neurophysiological oscillatory mechanisms* reflecting cortical neural synchronization that underpins *vigilance transitions*, *consciousness*, *sensorimotor*, and *cognitive* functions.

In this context, our applications of EEG techniques in patients with *Alzheimer's disease*, *Lewy body diseases*, and other brain disorders allow the exploration of the contribution of ascending activating (cholinergic, dopaminergic, serotoninergic, etc.) and thalamocortical-corticothalamic systems on human higher functions as well as the role of EEG biomarkers in Clinical Neurophysiology.

In our methodological approach, structural and magnetic resonance imaging is used for correlation studies investigating the *structural and functional connectivity* at the basis of EEG rhythms, while transcranial magnetic stimulation is used for perturbing cortical neural oscillating systems underpinning those rhythms with the aim to understand the underlying *causal* neurophysiological mechanisms.

MAIN RESEARCH KEYWORDS

- Cortical neurophysiology of sleep, vigilance, consciousness, pain, sensorimotor interactions, and cognition as revealed by EEG rhythms;
- Neural efficiency in athletes;
- Clinical neurophysiology of Alzheimer's and Lewy body diseases in humans and animal disease models.

FOREIGN VISITING SCHOLARS ASKING FOR HIGH-TRAINING IN PROF. CLAUDIO BABILONI'S LAB

Mr. Sven van Dijkman (The Netherland), Master's degree thesis (Erasmus program), The Netherlands, 2008-2009.

PhD Christoph Kreinbucher (Austria), post-doctoral fellowship, Austria, February - March 2013.

Eng. Weiwei Peng (China), PhD student, University of Hong Kong (China), May 2013 - February 2014.

Prof. Anmin Li (China), Professor, Kinesiology School, Shanghai University of Sport, Yangpu, Shanghai (P. R. China), September 2014 - September 2015.

Mrs. Ketura Berry (USA), post-postgraduate, Bowdoin College, Brunswick (Maine), USA, January - May 2015.

Mr. Ondra Strycek (Czech Republic), PhD student, Masaryk University; First Department of Neurology, St. Anne's Hospital and School of Medicine; Central European Institute of Technology (CEITEC), Brno (Czech Republic), October 8th, 2015 - December 12th, 2015.

Dr. Ana Buján (Spain), post-doctoral fellowship, University of A Coruña, Spain, May 2015 - April 2016.

Dr. Jessica Janson (Germany), Early-Stage Researcher – PhD (MSCA-ITN-ETN; HORIZON 2020, Marie Skłodowska-Curie Innovative Training Networks). Title of the project: Blood Biomarker-based Diagnostic Tools for Early-Stage Alzheimer's Disease (BBDiag), https://cordis.europa.eu/project/id/721281/it, June 2017-May 2020.

Dr. Marina Selivanova Blūma (Russia), Early-Stage Researcher – PhD (MSCA-ITN-ETN; HORIZON 2020, Marie Skłodowska-Curie Innovative Training Networks). Title of the project: Blood Biomarker-based Diagnostic Tools for Early-Stage Alzheimer's Disease (BBDiag), https://cordis.europa.eu/project/id/721281/it, July 2017-June 2020.

Prof. Francisco Fraga (Brazil), Associate Professor, Engineering, Department of Engineering, Modelling and Applied Social Sciences Center, Federal University of ABC, Santo André, SP, Brazil, July 2019 - July 2020.

Ms. Alba Fernandez (Spain), PhD fellow, Department of Clinical Psychology and Psychobiology, University of Santiago de Compostela (USC), Santiago de Compostela, Spain, May 2021-July 2021.

Ms. Marco Rizzo (Denmark), PhD fellow, Department of Health Science and Technology, University of Aalborg (USC), Aalborg, Denmark, July 2021-September 2021.

SCIENTIFIC MENTOR OF EXCELLENT EARLY-STAGE RESEARCHERS IN NEUROPHYSIOLOGY

Tutor of **Prof. Claudio Del Percio** during his final year thesis of the master's degree in Electronic Engineering (2000), PhD Course in Neurophysiology at the Department of Physiology and Pharmacology, Sapienza University of Rome (2000-2004; thesis title "Cortical sources of EEG rhythms during physiological and pathological aging"), and post-doc on the same topic for several years. To date, Claudio Del Percio is **Associate Professor in Physiology** at the Department of Physiology and Pharmacology "Erspamer", Sapienza University of Rome, Italy.

Tutor of **Prof. Fabrizio Vecchio** during his final year thesis of the master's degree in Electronic Engineering (2000), PhD Course in Neurophysiology at the Department of Physiology and Pharmacology, Sapienza University of Rome (2001-2005; thesis title "Functional coupling of cortical EEG rhythms during short- and long-term episodic memory"), and post-doc for years on the topic of human brain functions as revealed by quantitative EEG activity. To date, Fabrizio Vecchio is **Associate Professor of Physiology** at eCampus University of Como, Italy from 2021. http://www.sanraffaele.it/ricerca/laboratori/15/laboratorio-di-brain-connectivity.

Tutor of **Prof. Alfredo Brancucci** as post-doc at the Department of Physiology and Pharmacology, Sapienza University of Rome (2002 – 2005) and Head of him (2006) as Research Assistant at Istituto Nazionale di Medicina e Scienza dello Sport (CONI-Servizi, Rome) on the topic of human brain functions as revealed by quantitative EEG activity. To date, Alfredo Brancucci is **Associate Professor of Psychobiology** at University of Chieti "D'Annunzio", Chieti, Italy https://www.unich.it/ugov/person/637.

Tutor of **Dr. Paolo Capotosto** during his final year thesis of the master's degree in Electronic Engineering (2000) and co-Tutor (together with Prof. Maruzio Corbertta) during his PhD Course in "Functional Neuroimaging: from cells to systems" (2005-2009; thesis title "Alpha rhythms reveal cortical neural synchronization related to cognition in humans") at the Institute for Advanced Biomedical Technologies (ITAB), University G. d'Annunzio of Chieti. To date, Dr. Paolo Capotosto is **Assistant Professor (RTD-B) of Bioengineering** at University of Chieti "D'Annunzio", Chieti, Italy, https://www.unich.it/ugov/person/2285.

Tutor of **Dr. Davide Vito Moretti** during his PhD Course in Neurophysiology at Sapienza University of Rome (1999-2004; thesis title "Quantitative EEG in Alzheimer's disease") on the topic of human brain functions as revealed by quantitative EEG activity. To date, Dr. Davide Vito Moretti is consultant neurologist, **Chief of the Clinical Neurophysiology Service**, and researcher at the National Institute of Research and Care (IRCCS) for Mental disorders and Dementia S John of God, Brescia, Italy https://orcid.org/0000-0003-0611-1169 and https://www.researchgate.net/profile/Davide_Moretti.

Tutor of **Dr. Ivano Triggiani** during his PhD Course in Biomedical Sciences and Technologies at the Department of Clinical and Experimental Medicine, University of Foggia (2008-2012; thesis title "Resting state cortical EEG rhythms in human subjects: biomedical applications"), and post-doc for years on the topic of human brain functions as revealed by quantitative EEG activity. To date, Dr. Ivano Triggiani is **Research Physiologist** at the Department of Clinical and Experimental Medicine, National Institutes of Health, Bethesda, United States https://orcid.org/0000-0003-3291-9452 and https://www.linkedin.com/in/aitriggiani/.

Tutor of **Dr. Francesco Infarinato** during his final year thesis of the master's degree in Electronic Engineering (2006), PhD Course in Neurophysiology at the Department of Physiology and Pharmacology, Sapienza University of Rome (2007-2011; thesis title "Event-related changes of cortical alpha rhythms in élite athletes: Applications of high-resolution EEG to Sport Science"), and post-doc for years on the topic of human brain functions as revealed by quantitative EEG activity. To date, Dr. Francesco Infarinato is **Chief of the Bioengineering of Rehabilitation Lab** at National Institute of Research and Care (IRCCS) San Raffaele Pisana, Rome, Italy. http://www.sanraffaele.it/ricerca/laboratori/16/laboratorio-di-bioingegneria-della-riabilitazione.

Tutor of **Dr. Roberta Lizio** during her final year thesis of the master's degree in Electronic Engineering (2006), PhD Course in Neurophysiology at the Department of Physiology and Pharmacology, Sapienza University of Rome (2007-2011; thesis title "Resting state cortical rhythms in the preclinical stages of Alzheimer's Disease: applications of qEEG to amnesic Mild Cognitive Impairment"), and post-doc for years on the topic of human brain functions as revealed by quantitative EEG activity. To date, Dr. Roberta Lizio is **Researcher in Neurophysiology** at the at the National Institute of Research and Care (IRCCS) SDN for Diagnostic Imaging, Naples, Italy https://loop.frontiersin.org/people/282522/bio.

Tutor of **Dr. Giuseppe Noce** during his final year thesis of the master's degree in Electronic Engineering (2012) and PhD Course in Clinical Experimental Neuroscience and Psychiatry at the Department of Physiology and Pharmacology, Sapienza University of Rome (2013-2017; thesis title "Neurophysiological mechanisms of quiet vigilance in HIV patients: an electroencephalography research program") on the topic of human brain functions as revealed by quantitative EEG activity. To date, Dr. Giuseppe Noce is **Researcher in Neurophysiology** at the at the National Institute of Research and Care (IRCCS) SDN for Diagnostic Imaging, Naples, Italy. https://www.sdn-napoli.it/author/giuseppe-noce/ and https://scholar.google.it/citations?user=1WqmvjwAAAAJ&hl=it.

Tutor of **Dr. Susanna Lopez** during her final year thesis of the master's degree in Electronic Engineering (2012) and PhD Course in Clinical Experimental Neuroscience and Psychiatry at the Department of Physiology and Pharmacology, Sapienza University of Rome (2014-2018; thesis title "Backtranslation of EEG biomarkers of Alzheimer's Disease from patients to mouse models") on the topic of human brain functions as revealed by quantitative EEG activity. To date, Dr. Susanna Lopez is **Post-doc in Neurophysiology** at the Department of Emergency and Organs Transplant (D.E.T.O.), University of Bari, Italy. https://www.researchgate.net/profile/Susanna-Lopez.

SCIENTIFIC DISSEMINATION AT CONGRESSES

Invited presentations to conferences of national (Italian) scientific societies

- 1. Talk: "High resolution EEG". VI Congress of Italian Society of Psychophysiology, 27-29 November 1997, Pisa (Italy).
- 2. Talk: "Neuroimaging funzionale della corteccia cerebrale dell'Uomo" 20 ottobre 1998, Università degli Studi di Chieti "G. D'Annunzio" (Italy).
- 3. Talk: "Event-related Desynchronization/Synchronization: Advanced data analysis and representation techniques". Congress of Italian Society of Clinical Neurophysiology, 14-16 June 1999, Portoferraio (Italy).
- Talk: "High resolution EEG and human movements" Symposium: Programmazione del Movimento, VIII Congress of Italian Society of Psychophysiology (SIPF), 1-3 dicembre 2000, Genova (Italy).
- 5. Chairman: Session "Free communications", VIII Congress of Italian Society of Psychophysiology (SIPF), 1 dicembre 2000, Genova (Italy).
- 6. Talk: "Human cortical EEG rhythms during the observation of simple aimless movements. A high-resolution EEG study". LIII Congress of the Italian Society of Physiology, 16-19 settembre 2002 Ferrara (Italy).
- 7. Talk: "High resolution EEG and human memory" X Congress of the Italian Society of Psychophysiology, December 5-7, 2002, Roma (Italy).
- 8. Talk: "Cerebral rhythms in the early stage of Alzheimer disease: a multi-centric Italian study", Symposium "Informatic and diagnostic imaging in dementia" VII ITINAD Annual meeting, May 22-24, 2003, Sorrento (Italy) http://www.itinad.com/home/index.php.

- Talk: "Neuroimaging and high-resolution EEG for the study of brain functions", "Meeting of Roman Physiology Workgroup", 31 Maggio 2003 Roma (Italy).
- 10. Chairman: Session "Sensory systems"; V Congress of the Associazione Fatebenefratelli per la Ricerca, September 25-27, 2003 Roma, (Italy).
- 11. Talk: "Cortical EEG rhythms in dementia", V Congress of the Associazione Fatebenefratelli per la Ricerca, September 25-27, 2003 Roma, (Italy).
- 12. Talk: "Cortical EEG rhythms in human memory", LIV Congress of the Italian Society of Physiology, September 29-October 2, 2003, Chieti, (Italy).
- 13. Chairman: Session "Psychophysiology of memory", XI Congress of the Italian Society of Psychophysiology, December 14-16, 2003, Pisa, (Italy).
- 14. Talk: "High-resolution EEG of memory", XI Congress of the Italian Society of Psychophysiology, December 14-16, 2003, Pisa, (Italy).
- 15. Chairman: Sessione Poster "Psicofisiologia", Annual Congress of the Italian Society of Clinical Neurophysiology, May 21-23, 2004, Pescara, (Italy).
- Talk: "Human sensorimotor integration as revealed by EEG, MEG and fMRP', Annual Congress of the Italian Society of Clinical Neurophysiology, May 21-23, 2004, Pescara, (Italy).
- Talk: "Cerebral rhythms in dementia and preliminary statistics of multi-modal neuroimaging. Data by ITINAD VI group", Symposium" VIII ITINAD
 Annual meeting, June 3-5, 2004, Sorrento (Italy) https://www.itinad.com/home/index.php.
- Chairman: Symposium "Consciousness and Brain: an interdisciplinary approach", XII Congress of the Italian Society of Psychophysiology, October 9-11, 2004. Alghero. (Italy).
- 19. Talk: "Subliminal visuo-spatial processes in humans: a high-resolution EEG study", Symposium "Consciousness and Brain: an interdisciplinary approach", XII Congress of the Italian Society of Psychophysiology, October 9-11, 2004, Alghero, (Italy).
- Talk: "Distributed sources of EEG rhythms in dementia and its preclinical stage", Session entitled "Functional exploration of brain for the understanding of neuronal basis of mental diseases and of pharmacological modulation", Annual Congress of the Italian Society of Psychopathology, February 22-26, 2005 Rome, (Italy) http://www.sopsi.it/congres/2005/ind.htm.
- Talk: "Frontal alpha rhythm is reduced during the expectancy of painful stimulation. A high-resolution EEG study." Round table: "Mechanisms of cognitive modulation" Conference: "Pain and analgesia state of art in Italy". Modena, 6-7 Maggio 2005, www.oic.it/dolore.
- Talk: "Prediction and classification of cognitive impairment in aging: a multi-centric EEG study". Data by ITINAD VI group", Symposium" IX ITINAD Annual meeting, May 26-28, 2005, Sorrento (Italy). http://www.itinad.com/home/index.php.
- Talk: "Visual-spatial consciousness in the human parieto-occipital", Symposium "From neurons to consciousness", XIII Congress of the Italian Society
 of Physiology, September 27-29, 2005, Florence, (Italy). https://www.sifpalermo.com/topics.htm.
- Chairman: Symposium "Psychophysiology of consciousness", XIII Congress of the Italian Society of Psychophysiology, December 2-4, 2005, Massa Carrara, (Italy).
- 25. Talk: "The consciousness of visuo-spatial stimuli in parieto-occipital cortical areas in humans", Symposium "Psychophysiology of consciousness", XIII Congress of the Italian Society of Psychophysiology, December 2-4, 2005, Massa Carrara, (Italy).
- Talk: "Cerebral rhythms in aging and dementia", Symposium "EEG analysis based on new artificial intelligence approach for early detection of Alzheimer disease ITINAD Annual meeting, June 8-10, 2006, Rome (Italy) http://www.itinad.com/home/index.php.
- 27. Talk "Cerebral plasticity in elite athletes: a high-resolution EEG study", Third Meeting of the Interuniversity Institute of Myology, Rome (Italy), November 9-11, 2006, http://iim.altervista.org/terzo_meeting.html.
- Talk: "Neural correlated of primary visual consciousness", Symposium "Psychophysiology of consciousness", XIV Congress of the Italian Society of Psychophysiology, December 1-3, 2006, Pisa, (Italy).
- Chairman: Symposium "Psychophysiology of consciousness", XIV Congress of the Italian Society of Psychophysiology, December 1-3, 2006, Pisa, (Italy)
- 30. Talk: "Neural correlated of primary visual consciousness", Symposium "Psychophysiology of consciousness", XIV Congress of the Italian Society of Psychophysiology, December 1-3, 2006, Pisa, (Italy). 51. Talk "Cerebral plasticity in elite athletes: a high-resolution EEG study", Third Meeting of the Interuniversity Institute of Myology, Rome (Italy), November 9-11, 2006, http://iim.altervista.org/terzo_meeting.html.
- 31. Talk: "Neural correlated of primary visual consciousness", Symposium "Psychophysiology of consciousness", XIV Congress of the Italian Society of Psychophysiology, December 1-3, 2006, Pisa, (Italy).
- 32. Chairman: Symposium "Psychophysiology of consciousness", XIV Congress of the Italian Society of Psychophysiology, December 1-3, 2006, Pisa, (Italy).
- 33. Talk: "Neural correlated of primary visual consciousness", Symposium "Psychophysiology of consciousness", XIV Congress of the Italian Society of Psychophysiology, December 1-3, 2006, Pisa, (Italy).
- 34. Talk: "Neurophysiology of primary consciousness", Symposium "Psychophysiology of consciousness", XV Congress of the Italian Society of Psychophysiology, November 30-December 2, 2007, Pisa (Italy).
- 35. Talk: "Brain rhythms and cognitive decline along pathological aging", III National Congress of Italian Federation of Medical Geriatric (FIMeG)– Aging and genetics, June 22-25, 2008, Rome (Italy).
- 36. Chairman and Talk: "Coordination of cortical neural activity as revealed by EEG rhythms", Symposium "Basic brain circuits: how much and what?", XVI Congress of the Italian Society of Psychophysiology, November 27-29, 2008, Pisa (Italy).
- 37. Talk: "EEG correlates of cognitive functions", VIII Congress of the Italian Society of Neurologic Rehabilitation (SIRN), November 17-19, 2008, Montecatini Terme (Italy).
- Talk: "In Alzheimer's disease loosening the brain may be losing the mind: disruption of functional connectivity and dementia", XIII Congress of the Italian Society of Psychopathology (SOPSI), February 10-14, 2009, Rome (Italy).
- 39. Talk: "Cognitive Neuroscience and sport", XVII Congress of the Italian Association of Sport Psychology and Physical Exercise (AIPS), May 16-18, 2009, Senigallia (Italy).
- 40. Chairman and Talk: "EEG rhythms in musicians playing in ensemble", Symposium "Music and Science", XVII Congress of the Italian Society of Psychophysiology, October 28-31athel, 2009, Siena (Italy).
- 41. Talk: "Cortical EEG rhythms in Alzheimer's disease". Workshop "Alzheimer's disease", June 3, 2010, Bari (Italy).
- 42. Talk: "Advanced quantitative EEG techniques for the study of neural correlates of cognitive decline in children" International Congress of IASSID, October 21-23, 2010, Rome (Italy).
- 43. Talk: "Neuroplasticity". Workshop of Italian Society of Physical and Rehabilitative Medicine (SIMFER), November 15-17, 2010, Manfredonia (Italy).

- 44. Talk: "Abnormal cortical neural synchronization in Alzheimer's disease" XVIII Congress of the Italian Society of Psychophysiology, November 24-27, 2010, Palermo (Italy).
- 45. Talk: "Cholinergic systems, resting state brain rhythms, and cognition in humans: a qEEG approach", XIV Congress of the Italian Society of Psychopathology (SOPSI), February 15-19, 2011, Rome (Italy).
- 46. Talk: "Abnormal cortical neural synchronization in Alzheimer's disease" XXI Congress of the Italian Society of Psychophysiology, November 14-17, 2011, Brescia, (Italy).
- 47. Talk: "Measuring neural basis of cognitive motor functions in elite athletes: is there a "neural efficiency"?, Symposium "Game, Drama, Ritual in Martial Arts and Combat Sports" organized by Italian Federation of Judo, Karate and Martial Arts, June 10, 2012, Genova (Italy). http://www.uipasc.it/preparazioneatleticasportcombattimento/attachments/article/136/IMACSSS%202012Conference%20Genova%20%203rdAnnouncement.pdf.
- 48. Talk: "Functional connectivity in cognitive disorders", Symposium "Effective and functional connectivity in EEG and fMRI", XXI Congress of the Italian Society of Psychophysiology, October 24-26, 2013, Lecce, (Italy). http://www.sipf.it/index.php?option=com_content&task=view&id=20&Itemid=34&anno=_11_2013.
- 49. Talk: "Cortical sources of resting state EEG rhythms in PDD and AD: do they reflect specific or common network disease processes?" in the Symposium "Focus on Non-AD dementia". The 3rd Conference of Abruzzo of Italian Society of Neurology Section on Dementia (SINDEM), Chieti, Italy on 23rd of March 2015, http://www.sindem.it/SchedaNews.aspx?IDNews=133.
- 50. Talk: "Oscillatory mechanisms of brain neural synchronization in Alzheimer's disease: can they be captured by biomarkers?" in the Symposium "Novelties on: clinical and therapeutics of dementia and neurodegenerative disorders". The 10th Conference of Italian Society of Neurology Section on Dementia (SINDEM), Genova, Italy on 26-28th of March 2015, http://www.sindem.it/.
- 51. Talk: "Evaluation of brain function by the study of cortical EEG rhythms" in the Symposium "Brain Wave in HIV". The 7° Italian Conference on AIDS and Retroviruses (ICAR), Riccione, Italy on 17th-19th of May 2015, www.icar2015.com.
- 52. Talk: "Neural efficiency in athletes: Is it a useful concept in the training of high-performance athletes?"" in the Symposium "Towards Olympics in Rio De Janeiro". Institute of Sport Science, Italian Committee for Olympics (CONI), Rome, Italy on 3rd of June 2015, www.medicinaescienza.coni.it/.
- 53. Talk: "EEG rhythms in HIV" in the Symposium "Brain Wave in HIV, Rome, Italy on 22nd of June 2015, http://www.makevent.it/static/upload/sav/0000/savethedate-brain-wave-22_06-roma.pdf.
- 54. Talk: "Human Man Interaction When Brain Fails" in the Symposium "Human Man Interaction in Medicine". The Human-Machine Interaction Summer School (HMISS), Monopoli, Italy on 14-18th of September 2015, https://www.hmiss.it/.
- 55. Talk: "Measuring neural basis of cognitive motor functions in elite athletes is there a "neural efficiency" in the Symposium "Movement, sport, education and nutrition in developmental age", Milan, Italy on 2nd of October 2015, http://www.fijlkam.it/.
- 56. Talk: "Effects of Quadrato motor training on EEG rhythms in mild cognitive impairment" in the event of Public engagement entitled "Charity concert for 15 years of Research by Paoletti Foundation", Milan, Italy on 27th of November 2015.
- 57. Talk: "Effects of Quadrato motor training on EEG rhythms in mild cognitive impairment" in the event of Public engagement entitled "Charity concert for 15 years of Research by Paoletti Foundation", Rome, Italy on 17th of December 2015.
- 58. Talk: "Electroencephalography and cognitive impairment" in the Summer School on "Neurophysiology and Psychophysiology by the use of EEG Techniques". Lecce, Italy on 1-3rd of September 2016, http://www.istitutosantachiara.it/SUMMER-SCHOOL.html.
- 59. Talk: "ICT solutions for the prevention and early diagnosis of pathological aging with cognitive decline in Apulia Region: The SMARTAGING and MINDBRAIN projects" in the Symposium "Workshop on Final Results and Future Works of ICT projects in Apulia Region". The 2016 IEEE Italy Section Medical Informatics Summer School (ISMISS), Trani Italy, on 13-17th of September 2016, http://www.ismiss.it/.
- Talk: "Oscillatory mechanisms of brain neural synchronization in Alzheimer's disease: can they be captured by biomarkers?". The 12th Conference of Italian Society of Neurology – Section on Dementia (SINDEM), Florence, Italy on 16-18th of March 2017, http://www.sindem.it/.
- 61. Talk: "Oscillatory mechanisms of brain neural synchronization in HIV". "Clinical impact of new monitoring techniques in HIV, HCV and other viruses". Rome, Italy on 8-9th of March 2017, <a href="http://www.simit.org/IT/formazione/congressi-e-corsi.xhtml/congresso/2684-convegno-nazionale-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impac
- 62. Talk: "Neural efficiency in athletes". Erasmus Program "Sport at School" (H2020. G.A. 2015-3114/001-001), Rome, Italy on 14th of March 2017, http://www.ksportatschool.eu/
- 63. Chairman: "Psychophysiology of neurodegenerative dementing disorders: brain (dys)function emerges" in XXVI Congress of the Italian Society of Psychophysiology, 15th 18th of November 2018, Torino, (Italy). https://www.sipf.it/event-2943330.
- Talk: "Athletes' brain at work" in the Symposium "Brain and muscles". University of Motor Science "Foro Italico", January 18th, 2019, Rome, Italy.
- 65. Talk: "Neurophysiology: EEG and video polysomnography." The 14th Conference of Italian Society of Neurology Section on Dementia (SINDEM), on March 7-9th 2019, Florence, Italy http://www.sindem.it/.
- 66. Talk: "Cortical resting state EEG rhythms in Alzheimer's, Parkinson's, and Lewy body diseases in prodromal and dementia stages" https://youtu.be/fSdW9WSX1HQ presented at XXVIII Annual Conference of Italian Society of Psychophysiology and Cognitive Neuroscience in 2020 (SIPF; November 21st, 2020) https://www.sipf.it/virtuale.
- 67. Talk: "Quantitative EEG in consciousness disorders" https://youtu.be/-pn1yfigfKw presented in the Symposium entitled "Psychophysiology of disorders of consciousness: from diagnosis to therapy" (November 30th, 2020) at the 50th Congress of Italian Society of Neurology held in 2020 https://www.neuro.it/web/eventi/NEURO/index.cfm (SIN2020).
- 68. Talk: "What do qEEG techniques tell us about Alzheimer's disease?", Webinar Series 2021 of Società Italiana di Neurofeedback e qEEG (SINQ) held in June 12, 2021 https://sinq.org/webinar/.

Invited presentations to international conferences

- 1. Talk: "Movement-related cortical potentials as modeled by high resolution EEG techniques, Meeting at Neurology Department of University of Munich "Ludwig Maximilian", October 1996 (Germany).
- 2. Talk: "Neuromagnetic fields associated with planning and performance of simple voluntary unilateral one-digit movements". 11th International

- Conference on Biomagnetism (BIOMAG98), 28 August 2 September 1998, Sendai (Japan).
- Talk: "Comparison of spatial-temporal features of human MU ERD and mean movement-related potentials: a high spatial resolution EEG study". The 9th world congress of psychophysiology 14-19 September 1998, Sicily.
- Chairman: Symposium n. 22 on "Event-related Changes of Rhythmic Activity in the Brain (ERD, ERS). The 9th world congress of psychophysiology 14-19 September 1998, Sicily.
- 5. Talk: "Neuroimaging funzionale della corteccia cerebrale dell'Uomo" 20 ottobre 1998, Università degli Studi di Chieti "G. D'Annunzio" (Italy).
- Talk: "Motor Processing and Motor Imagery". International Workshop "Basic and Clinical Application of Human Brain Mapping: Effective Use of EEG/ERP Neuroinformatic" 30-31 January 1999. Aalborg (Denmark).
- Talk: "Integration of high-resolution EEG-MEG and functional magnetic resonance in the study of human movement-related ERD/ERS". 4th European Conference of the Federation of European Psychophysiology Societies 24 - 27 May 2000 Amsterdam (The Netherlands).
- 8. Talk: "High Resolution EEG: Mapping ERPs or EEG Rhythmic Changes?" International Workshop "The Acting Brain". September 21-22, 2000, Trieste (Italy).
- 9. Talk: "High resolution EEG: mapping the activity of cortical somatosensory system" in 12th Symposium "Brain topography on somatosensory and pain perception" of International Society for Brain Electromagnetic Topography (ISBET), March 8-10, 2001, Utsunomiya (Japan).
- Talk: "High resolution EEG for the study of brain functions: mapping ERPs or ERD/ERS". 24th International Epilepsy Congress, May 13-18, 2001, Buenos Aires (Argentina).
- Talk: "High resolution EEG: modelling time, space, and phase of brain oscillatory activity". XV International Congress of Clinical Neurophysiology, May 16-20, 2001, Buenos Aires (Argentina).
- Talk: "Cortical functional asymmetry related to visuospatial episodic long-term memory. A multi-modal rTMS-EEG study" XIII International Society for Brain Electromagnetic Topography (ISBET), October 27-29, 2002, Napoli (Italy).
- 13. Chairman: Session "Clinical relevance of brain topography findings II" 13th International Society for Brain Electromagnetic Topography (ISBET), October 29, 2002, Napoli (Italy).
- Chairman: Session "Cognitive functions I"; World Conference of Non-Invasive Functional Source Imaging (NFSI2003), September 12, 2003, Chieti, (Italy).
- 15. Talk: "Tutorial EEG/MEG"; World Conference of Non-Invasive Functional source Imaging (NFSI2003), September 12, 2003, Chieti, (Italy).
- 16. (Italy)
- 17. Talk: "Cortical rhythms in dementia"; XIV Congress of International Society for Brain Electromagnetic Topography (ISBET), November 2003 Santa Fe (USA).
- Talk: "Which kind of integration for EEG-MEG-fMRI data related to human working memory?" Symposium "Synergistic Information about Brain Function by Simultaneous EEG/fMRI: From Basics to Clinical Applications". International Congress of Biological Psychiatry, Sydney 9-13, February 2004.
- 19. Talk: "Mapping distributed sources of EEG in Alzheimer's disease: a multicentric EEG study"; XV Congress of International Society for Brain Electromagnetic Topography (ISBET), 11-14 April 2004, Urayasu (Japan).
- Talk: "Distributed sources of EEG rhythms in dementia" in the Session "Topographic and Time-Frequency Analysis of Brain Activity", Mediterranean Conference on Medical and Biological Engineering and Computing (MEDICON) Conference, Ischia, Italy, 31 July - 5 August 2004, http://www.medicon2004.unina.it.
- Talk: "Cortical motor rhythms in Alzheimer's disease"; http://www.iop-world.org/iop2004) in the Session "ERD/ERS studies on Human Cognition: General Aspects and Individual Differences". World Congress of International Organization of Psychophysiology, September 18-23, 2004, Thessaloniki (Greece).
- 22. Talk: "Unconscious visuo-spatial processes: a high-resolution EEG study"; http://www.iop-world.org/iop2004) in the Session "Consciousness and its brain". World Congress of International Organization of Psychophysiology, September 18-23, 2004, Thessaloniki (Greece).
- Chairman: in the Session "Consciousness and its brain". World Congress of International Organization of Psychophysiology, September 18-23, 2004, Thessaloniki (Greece), http://www.iop-world.org/iop2004.
- 24. Talk: "Cortical imaging: expectation of pain in the brain", Ph.D. and postgraduate Course "Advanced human EEG-ERP mapping and source imaging in basic research and clinical practice related to cortical plasticity and pain", The International Doctoral School in biomedical science and engineering, Aalborg University; November 25-26, 2004, Aalborg, (Denmark). http://www.smi.hst.aau.dk/.
- 25. Talk: "Cortical sources of electroencephalographic rhythms in aging", Symposium "EEG-based Neuroimaging in Psychiatry", VIII World Congress of Biological Psychiatry, 28 June-3 July 2005, Vienna (Austria) http://www.wfsbp-vienna2005.com/.
- Talk: "Distributed sources of EEG rhythms in Mild Cognitive Impairment: integrating genotype and phenotype data", II International Conference on Computational Intelligence in Medicine and Healthcare (CIMED), 29 June-1 July 2005 http://www.uninova.pt/cimed2005/index.htm.
- 27. Talk "Cortical rhythms in dementia" in 1st plenary session: Current applications, MEG Applications Conference, September 15-17, 2005, Xylokastro, Greece http://www.uth.tmc.edu/clinicalneuro/mega.htm.
- 28. Talk "Diagnostic criteria and issue of reimbursement of MEG in Italy" in 5th plenary session: Diagnostic criteria and issues of reimbursement of MEG applications. MEG Applications Conference, September 15-17, 2005, Xylokastro, Greece http://www.uth.tmc.edu/clinicalneuro/mega.htm.
- 29. Talk (Keynote): "What is "primary" in the human brain? The contribution of functional neuroimaging", International Society for Brain Electromagnetic Topography (ISBET) XVII Annual meeting, September 27-30, 2006, Chieti (Italy) http://www.isbet/2006.unich.it/.
- 30. Talk "Brain plasticity in qualified fencers: a high-resolution EEG study", Medical Symposium of the Fédération Internationale d'Escrime and International Wheelchair & Amputee Sports Federation. Congress Room Olympic Village, Torino (Italy), Wednesday, October 4, 2006.
- 31. Talk "Cerebral plasticity in elite athletes: a high-resolution EEG study", Third Meeting of the Interuniversity Institute of Myology, Rome (Italy), November 9-11, 2006, http://iim.altervista.org/terzo_meeting.html.
- 32. Chairman and talk: "Effects of Cholinergic Therapy on Sources of Cortical Rhythms in Mild Alzheimer's Disease ",Symposium "Imaging of Cholinergic Systems in Aging", 13th Annual Meeting of the Organization for Human Brain Mapping. Chicago, USA, June 9-14, 2007.
- 33. Chairman and talk: "Conversion from MCI to Alzheimer's disease is predicted by sources and coherence of brain EEG rhythms", Symposium "Biomarkers for pathological aging Role of neuro-imaging, EEG/MEG and genomics/proteomics", International Conference on Computational Intelligence in Medicine and Healthcare (CIMED) 2007. July 24-26, 2007, Plymouth, (UK).
- 34. Chairman and talk: "White matter vascular lesions correlate with alpha EEG sources in mild cognitive impairment", Symposium "Advances in Early

- Diagnosis and Care for AD invited special session", International Conference CIMED 2007. July 24-26, 2007, Plymouth (UK).
- 35. Talk: "Brain electromagnetic rhythms as a probe of neurodegenerative processes in Alzheimer's disease: new findings", Symposium "Recent developments of neuroimaging for early detection of Alzheimer's disease" at International Psychogeriatric Association (IPA) October 14-18, 2007, Osaka City (Japan).
- Talk: "Brain responses related to cognitive-motor processes in elite fencers", I Congress of Science and Technology in Fencing, February 15-17, 2008, Barcelona (Spain).
- 37. Talk: "Resting-state synchronizing brain activity in humans as revealed by LORETA", 13th European Congress of Clinical Neurophysiology, 4 8 May 2008, Istanbul (Turkey).
- 38. Talk: "Neural synchronization of cerebral cortex as revealed by quantitative EEG", International School of Neuroscience, July 21, 2008, Santiago de Compostela (Spain).
- 39. Talk: "Cholinergic systems and cortical rhythms in Alzheimer disease: new findings", International Conference IPEG, September 24-27, 2008, Rouffach (France).
- Talk: "Cholinergic systems and cortical rhythms in Alzheimer's disease: new findings", International Conference of World Psychiatry Association (WPA), April 2-6, 2009, Florence (Italy).
- 41. Talk: "Functional brain imaging", Workshop of European Space Agency, November 30, 2009, Amsterdam (NL).
- 42. Talk: "Cortical EEG rhythms in Alzheimer's disease", Conferences Frédéric Joliot 2009, March 9-10, 2009, Lille (France).
- 43. Talk: "Cortical neural synchronization across Alzheimer's disease progression as revealed by resting state EEG rhythms: new findings" International Congress "Aging and cognition", October 14-15, 2010, Dortmund (Germany).
- 44. Talk: "Advanced quantitative EEG techniques for the study of neural correlates of cognitive decline in children" Congress of The International Association for the Scientific Study of Intellectual Disabilities (IASSID), October 21-23, 2010, Rome (Italy).
- 45. Talk: "Mechanisms of cortical neural synchronization in humans as revealed by advanced EEG techniques" International Congress of Clinical Neurophysiology, October 28-November 2, 2010, Osaka (Japan).
- 46. Talk: "Resting State Cortical EEG Rhythms in Alzheimer's Disease" International Congress "Brain oscillations in cognitive impairment and neurotransmitters", April 29-May 1, 2011, Istanbul (Turkey).
- 47. Talk: "Cortical resting state EEG rhythms in Alzheimer's disease: do they reflect neurodegeneration?" Joint annual meeting SSCNP/ SNS/ SSS & SFDN Education, May 19-21, 2011, Lucerne (Swiss).
- 48. Talk: "Combining EEG and functional imaging: state of the art", 14th European Congress on Clinical Neurophysiology, June 21-25, 2011, Rome (Italy).
- 49. Talk: "Brains in concert": frontal oscillatory alpha rhythms and empathy in professional musicians". Workshop "Kinanesthesia, Empathy and Aesthesis in Music and Dance", September 11, 2012, Hanse-Wissenschaftskolleg (Institute for Advanced Study), Delmenhorst (Germany). http://www.h-w-k.de/index.php?id=1959.
- 50. Talk: "Cortical EEG rhythms in Alzheimer's disease: the challenge of the European PharmaCog and DECIDE projects", Workshop "Brain electrophysiology", June 15, 2012, University of Istanbul, Istanbul (Turkey). https://norobilim.com/tag/norobilim-com/page/2/.
- 51. Talk: "Integration of neurophysiologic and neuroimaging markers towards clinical applications in AD" Accompanying satellite workshop focused on Alzheimer's disease ("Leveraging Global Public-Private Partnerships to Accelerate Medical Product Development, First Joint IMI & C-Path Forum on the Value of PPPs"). Brussels, March 6, 2013.
- 52. Talk: "Analysis of Cortical EEG Rhythms in Neuro psychiatric Diseases" in COGNITIVE X International Cognitive Neuroscience Meeting April 19-21, 2013 Istanbul Bilgi University (Turkey).
- 53. Talk: "Report on Analysis of Cortical EEG Rhythms and Event-related potentials in PharmaCog Work packages" in the Round table on EEG module of PharmaCog project, Annual General Assembly of PharmaCog, Meeting June 2-4th, 2013 Lille 2 University (France).
- 54. Talk: "EEG markers of motor activity in wild type and TASTPM mice: A multi-laboratory data-sharing experience in the framework of PharmaCog project" in 12th FELASA SECAL Congress, Barcelona 10th-13th of June 2013, www.felasa2013.eu.
- 55. Talk: "EEG markers and Cholinergic systems in patients with Alzheimer's Disease" in Alzheimer's Association International Conference (AAIC) Boston 2013 July 15-17th (keynote on 16th), http://www.alz.org/aaic/.
- Talk: "Neural efficiency in athletes' brain as revealed by EEG" in The International Society of Sport Psychology (ISSP) Beijing (China) 2013 July 20-23rd (keynote on 22th), https://www.issponline.org/worldcongress.asp.
- 57. Talk: "Translational EEG markers for drug discovery in Alzheimer's disease: the approach of PharmaCog project" in 37th Congress of the International Union of Physiological Sciences, IUPS Birmingham (UK) 2013 July 25-27th (keynote on 25th), http://www.iups2013.org/.
- 58. Talk: "EEG and brain connectivity", Symposium "Advanced Neurophysiology", XXI World Congress of Neurology, September 21-26, 2013, Wien (Austria).
- 59. Talk: "Mechanisms of cortical neural synchronization and desynchronization related to primary consciousness in humans: evidence by quantitative electroencephalography". "Second International Conference on Basic and Applied Physiology", Jaipur (India), December 21 22, 2013. http://iconbap13.weebly.com/announcement.html
- 60. Talk: "Cortical Electroencephalographic Oscillatory Activity Reflects Neurodegenerative Processes in Alzheimer's Disease", "Second International Conference on Basic and Applied Physiology", Jaipur (India), December 21–22, 2013. http://iconbap13.weebly.com/announcement.html.
- 61. Talk: "Multimodal neuroimaging and neurophysiologic markers of Alzheimer's disease towards instrumental diagnosis and therapy monitoring" Multimodal neuroimaging and neurophysiologic markers of Alzheimer's disease—towards instrumental diagnosis and therapy monitoring". The 30th International Congress of Clinical Neurophysiology (ICCN) of the IFCN, Berlin (D), March 20–23, 2014. www.iccn2014.de.
- 62. Talk:" Neural synchronization mechanism related to social cognition unveiled by the analysis of intracranial EEG activity in humans". The 3rd International Congress on Epilepsy, Brain and Mind (EBM), Brno (Czech Republic), April 3–5, 2014. http://www.epilepsy-brain-mind2014.eu/.
- 63. Talk: "Translational aspects of animal EEG studies in the IMI PharmaCog Consortium for studies on Alzheimer's Disease". The 18th International Pharmaco EEG-Society (IPEG) Meeting 2014 in Leipzig, Germany, September 25th-28th September 2014. http://www.ipeg-society.org/IPEG-meetings/ipeg-meeting-2014-leipzig.
- 64. Talk: "Neurophysiologic mechanism of neural efficiency in humans: can it explain performances of athletes and patients with neurodegenerative diseases?". Special symposium "Trends in Neurophysiology of Movement Disorders". The Czech and Slovak Society for Clinical Neurophysiology Annual Conference 2014, 15–18 October, Olomouc, Czech Republic http://www.trends-neurophysiol2014.upol.cz/site2014/.
- 65. Talk: "Cortical sources of resting state EEG rhythms in PDD and AD: do they reflect specific network disease processes?" in the Symposium "Detection

- of neuropsychological deficits in PD scales and biomarkers". 10th International Congress on Non-Motor Dysfunctions in Parkinson's Disease and Related Disorders (NMDPD) Nice, France on December 4-7, 2014, http://www2.kenes.com/mdpd2014/Pages/Home.aspx.
- 66. Talk: "MRI and qEEG markers in Alzheimer's disease: can they be back-translated to mouse models?" in the Symposium "Challenges and progress from the first calls of the EU Innovative Medicines Initiative". The Festival of neuroscience. (BNA2015), Edinburgh, UK on 12th-15th of April 2015, www.bna2015.org.
- 67. Talk: "Of Mice and Men. The back-translation of EEG and MRI markers from humans to animals in the IMI PharmaCog project on Alzheimer's disease" in the Symposium "How to model cognitive impairment to assess new symptomatic drugs?" The 1st Congress on Dementia in Neurological Diseases and Mental Diseases (DN2MD), Lille, France on 5th and 6th of June 2015, http://www.dn2m.fr/.
- 68. Talk: "How challenge test can improve the sensitivity of the biomarker battery to test symptomatic treatments" in the Symposium "Clinical research in Alzheimer". The 12th Congress of the European Association for Clinical Pharmacology and Therapeutics (EACPT 2015), Madrid, Spain on 27-30th of June 2015, http://eacpt2015.org/.
- 69. Talk: "EEG/ERP Markers of Disease Progression in Prodromal Alzheimer's Disease: Advancements of European IMI Pharmacog Project" in the Symposium "Uses of electrophysiology in clinical trials". Electrophysiological Profession of Interest Area (PIA) Day (18th of July 2015) Satellite of The annual Alzheimer's Association International Conference (AAIC2015), Washington DC, USA on 18-23rd of July 2015, https://www.alz.org/aaic/.
- 70. Talk: "Human Man Interaction When Brain Fails" in the Symposium "Human Man Interaction in Medicine". The Human-Machine Interaction Summer School (HMISS), Monopoli, Italy on 14-18th of September 2015, http://www.hmiss.it/.
- 71. Chairman and talk: "Cortical Generation of On-going Delta and Alpha EEG Rhythms in Mouse Models of Alzheimer's disease and Alzheimer's disease Patients at Prodromic and Manifest Stages" in the Symposium "Of Mice and Men": impact of Alzheimer's disease on cortical generation of EEG rhythms in mice and humans towards a true translational model." 15th European Congress on Clinical Neurophysiology (ECCN2015), Brno, Czech Republic on September 30 October 3 2015, http://www.eccn2015.eu/.
- 72. Talk: "LORETA and brain ageing" in the Symposium "Probing brain ageing with neurophysiological techniques." 15th European Congress on Clinical Neurophysiology (ECCN2015), Brno, Czech Republic on September 30 October 3, 2015, http://www.eccn2015.eu/.
- 73. Talk: "Measuring neural basis of cognitive motor functions in elite athletes is there a "neural efficiency" in the Symposium "Movement, sport, education and nutrition in developmental age", Milan, Italy on 2nd of October 2015, http://www.fijlkam.it/.
- 74. Talk: ""Of Mice and Men": impact of Alzheimer's disease on cortical generation of EEG rhythms in mice and humans towards a true translational model." Expert meeting at the Headquarter of AbbVie Deutschland GmbH & Co. KG, Department of Pharmacology, Ludwigshafen, Germany on 8th of October 2015.
- 75. Talk: "Neuroimaging": Impact of Alzheimer's disease on cortical EEG rhythms in mice and humans towards a true back-translational model" in the 5th European Conference on Clinical Neuroimaging (ECCN2016), Rome, Italy on 14-15th of March 2016, www.euroccn.com/.
- 76. Talk: "Back-translation of Cortical EEG biomarkers from Humans to Mice for Drug Discovery in Alzheimer's disease: The PharmaCog project way." Electrophysiology Profession Interest Area (EPIA) Day 2016, taken place in conjunction with the Alzheimer's Association International Conference® (AAIC®), Toronto, Canada on 23rd of July 2016, http://www.surveygizmo.com/s3/2619916/PIA-Day-at-AAIC-2016.
- Talk: "Electroencephalography and cognitive impairment" in the Summer School on "Neurophysiology and Psychophysiology by the use of EEG Techniques". Lecce, Italy on 1-3rd of September 2016, http://www.istitutosantachiara.it/SUMMER-SCHOOL.html.
- 78. Talk: "Back-translation of cortical EEG biomarkers from humans to mice for drug discovery in Alzheimer's disease: The PharmaCog project way." The European CNS Summit 2016 (CNS 2016). London, United Kingdom on 12-14th of September 2016, http://european-cns.com/.
- 79. Talk: "ICT solutions for the prevention and early diagnosis of pathological aging with cognitive decline in Apulia Region: The SMARTAGING and MINDBRAIN projects" in the Symposium "Workshop on Final Results and Future Works of ICT projects in Apulia Region". The 2016 IEEE Italy Section Medical Informatics Summer School (ISMISS), Trani Italy, on 13-17th of September 2016, http://www.ismiss.it/.
- 80. Talk: "Is there neural efficiency in the athletes' brain?". 7th International Congress of Psychologists of Slovenia (CNS 2016). Kranjska Gora, Slovenia on 21-23th of September, 2016, http://www.psi-kongres.eu/index.php/en/programme/.
- 81. Talk: "Of mice and man": EEG biomarkers in human and mouse models of Alzheimer's disease in IMI PharmaCog project." Biomarker Summit Europe (GTB), Berlin (GER) on 5-7th of October 2016, https://www.gtcbio.com/conferences/biomarker-summit-europe-overview.
- 82. Talk: "Public-private initiative to align EEG biomarkers of Alzheimer's disease in human and mouse models for early stages of drug discovery: the achievements of IMI PharmaCog project." The 19th Biennial Meeting of the Pharmaco-EEG Society (IPEG), Nijmegen, The Netherlands on 26-30th of October 2016, http://www.ipeg-society.org/.
- 83. Talk: "Prospects and challenges of Alzheimer's classification using resting-state EEG rhythms." The 19th Biennial Meeting of the Pharmaco-EEG Society (IPEG), Nijmegen, The Netherlands on 26-30th of October 2016, https://www.ipeg-society.org/.
- 84. Talk: "Oscillatory mechanisms of brain neural synchronization in Alzheimer's disease: can they be captured by biomarkers?". The 12th Conference of Italian Society of Neurology Section on Dementia (SINDEM), Florence, Italy on 16-18th of March 2017, http://www.sindem.it/.
- 85. Talk: "Oscillatory mechanisms of brain neural synchronization in HIV". "Clinical impact of new monitoring techniques in HIV, HCV and other viruses". Rome, Italy on 8-9th of March 2017, <a href="http://www.simit.org/IT/formazione/congressi-e-corsi.xhtml/congresso/2684-convegno-nazionale-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impact-impac
- 86. Talk: "The scientific Story 1 of the PharmaCog project". The IMI Projects: Close–out meeting of the FP7 IMI PharmaCog project, Brussels, Belgium on 24th of March 2017.
- 87. Talk: "EEG-MRI biomarkers in Alzheimer's disease in the European PharmaCog project". The 18th Kuopio Bio-NMR Workshop: MRI of Brain Plasticity, Kuopio, Finland, on 8-9th of June 2017, http://www.uef.fi/en/web/bionmrworkshop/program.
- 88. Talk: "Empathy of the Musical Brain in Musicians Playing in Ensemble" in the Symposium "Interpersonal, inter-brain coordination among musicians". The Neurosciences and Music VI, an International conference, Boston, USA, on 15-18th of June 2017, http://www.fondazione-mariani.org/en/nmvi-boston-2017-cover-en.html.
- 89. Talk: "Neurophysiological markers of Alzheimer's Disease" in the Panel of Experts "Innovative analysis of electromagnetic brain signals for early diagnosis of Alzheimer and related dementias" under the patronage of the International Federation of Clinical Neurophysiology (IFCN) www.ifcn.info, Rome, Italy, on 19-20th of June 2017.
- 90. Talk: "Markers Can be Back-Translated from Prodromal Alzheimer's Disease Patients to Healthy Young Volunteers Under a Cognitive Challenge" in the Symposium "Electrophysiology, Complexity, and Alzheimer's Disease: Translation and Back-Translation". 3rd International Conference on Basic and Clinical Multimodal Imaging (BaCl), September 2, 2017, Bern, Switzerland, BaCl, http://www.baci-conference.com.
- 91. Talk: "Brain neurophysiological mechanisms underpinning abnormal vigilance in AD" in the Conference of the H2020 Marie S. Curie ITN-ETN Project "BBDiag", September 11-15, 2017, Swansea, UK, http://bbdiag-itn-etn.eu.

- 92. Talk: "ICT services for enriching early diagnosis and monitoring of Ad by MRI, FDG-PET, EEG and other biomarkers" in the Conference of the H2020 Marie S. Curie ITN-ETN Project "BBDiag", September 11-15, 2017, Swansea, UK, https://bbdiag-itn-etn.eu.
- 93. Talk: "The Neurophysiology of Resting State EEG (rsEEG) rhythms" in the Conference "International Federation of Clinical Neurophysiology Guidelines on the Frequency and Topographical Analysis of Resting State EEG: The Controversies", September 25, 2017, Chengdu, China, http://dff.uniroma1.it/it/node/6125.
- 94. Talk: "EEG features in dementia" in the Conference "Lewy Body Dementia: new perspectives", February 22 23, 2018, Chieti, Italy, https://www.unich.it/sites/default/files/flyer_chieti_22-23feb_0.pdf.
- Talk: "Cortical sources of resting state EEG rhythms in ADD, PDD, and DLB" in the Conference "Deutsche Gesellschaft für Klinische Neurophysiologie und Funktionelle Bildgebung", March 17, 2018, Berlin, Germany, www.dgkn-kongress.de.
- 96. Talk: "Cortical EEG biomarkers in patients with prodromal Alzheimer's disease: The PharmaCog project" in the IV Edition of Réunion Francophone de la Maladie d'Alzheimer & Syndromes Apparentés (RFMASA). June 12, 2018, Lille, France, http://rfmasa2018-lille.fr/.
- 97. Talk: "Amyloid and Alzheimer Disease: EEG windows of brain hyper-excitability in patients?" in the Rome Summer School of the H2020 Twinning Project "Synanet", June 15, 2018, Rome, Italy, https://www.synanet2020.com/.
- 98. Talk: "Neurophysiological mechanisms of cortical neural synchronization and connectivity in vigilance: EEG and MRI windows on the mind "in the Conference "Translational Neurobiology of the Pain System XXIII: Provoke, Probe and Modulate Pain Neuroplasticity", June 18-19, 2018, Alborg, Denmark, http://www.smi.hst.aau.dk/events/show/translational-neurobiology-of-the-pain-system-xxiii--provoke--probe-and-modulate-pain-neuroplasticity.cid355085.
- Talk: "Cortical excitability as revealed by cortical EEG biomarkers in patients with prodromal Alzheimer's and Lewy body diseases" in the Electrophysiology Professional Interest Area Pre-Conference (Annual Alzheimer's Association International Conference), July 21, 2018, Chicago, USA, https://www.alz.org/aaic/about/chicago.asp.
- 100. Chairman: "Non-Fluid, Non Imaging Markers of Alzheimer's disease" in the Annual Alzheimer's Association International Conference July 22-28, 2018, Chicago, USA, https://www.alz.org/aaic/about/chicago.asp.
- 101. Talk: "Abnormalities of resting state functional cortical connectivity in patients with dementia due to Alzheimer's and Lewy Body Diseases: An EEG Study" in the Symposium "Non-Neuroimaging Biomarkers of Alzheimer's disease", Annual Alzheimer's Association International Conference of July 22-28, 2018, Chicago, USA, https://www.alz.org/aaic/about/chicago.asp.
- 102. Talk: "Work Package 3 Mid-Term Report" in the Mid-Term Meeting of the H2020 Marie S. Curie ITN-ETN project with the short title "BBDiag", October 9-11, 2018, Madrid, Spain, https://bbdiag-itn-etn.eu..
- 103. Talk: "Spectral on-going EEG markers of exploratory movements in mouse models of physiological aging and Alzheimer's disease" in the XX Conference of International Pharmaco EEG Society, November 21-25, 2018, Zurich, Switzerland, http://www.ipeg-society.org/IPEG-meetings/ipeg-2018-zurich.
- 104. Talk: "Two European projects unveil translational on-going EEG markers of Alzheimer's disease in humans and mice "in the XX Annual Meeting of the H2020 Twinning project with the short title "Synanet", December 12 13, 2018, Lisbon, Portugal, https://www.synanet2020.com/.
- 105. Talk: "Systemic trojan horses into the brain: images from EEG mapping". in XVIII Congress "Brain Ischemia and Stroke", December 13–15, 2018, Rome, Italy.
- 106. Chairman: "Clinical care translation using EEG "in I° Global Brain Consortium Meeting, May 9–10, 2019, Montreal, (Canada). https://globalbrain.consortium.org/
- 107. Chairman: "Neurodegenerative dementing disorders, brain over-excitation, and EEG signatures: preclinical and clinical evidence "17th European Conference of Clinical Neurophysiology 2019 (ECCN2019), on June 5-8, 2019, Warsaw, Poland. http://eccn2019.com/.
- 108. <u>Talk:</u> "Cortical EEG rhythms in dementing disorders" <u>17th European Conference of Clinical Neurophysiology 2019 (ECCN2019), on June 5-8, 2019, Warsaw, Poland. http://eccn2019.com/.</u>
- 109. Talk: "IFCN Guidelines for mapping of EEG source activity and connectivity in clinical research." The 25th Annual Conference of Organization of Human Brain Mapping 2019 (HBM2019), on June 8-14, 2019, Rome, Italy. https://www.humanbrainmapping.org/i4a/pages/index.cfm?pageID=3882&activateFull=true/.
- 110. Chairman: "Scientific Session of Electrophysiology Professional Interest Area" in Pre-Conference PIA Day of Alzheimer's Association International Conference 2019 (AAIC2019), on July 12, 2019, Los Angeles, USA. https://www.alz.org/aaic/releases_2019/AAIC19-Wed-release-NewResearch.asp/.
- 111. Chairman: "Non-Fluid, Non-Imaging Markers of Alzheimer's disease" in <u>Alzheimer's Association International Conference 2019 (AAIC2019), on July 13-18, 2019, Los Angeles, USA. https://www.alz.org/aaic/releases_2019/AAIC19-Wed-release-NewResearch.asp/.</u>
- 112. <u>Talk:</u> "Abnormalities of Electroencephalographic (EEG) Markers in Quiet Wakefulness Are Related to Motor Deficits, Cognitive Symptoms, and Visual Hallucinations in PD patients" in <u>Alzheimer's Association International Conference 2019 (AAIC2019)</u>, on July 13-18, 2019, Los Angeles, USA. https://www.alz.org/aaic/releases <u>2019/AAIC19-Wed-release-NewResearch.asp/</u>.
- 113. Talk: "Cortical sources of resting state EEG rhythms unveil different abnormalities in neurophysiologic mechanisms of vigilance in Alzheimer's and Lewy Body diseases" (Keynote). 4th International Conference on Basic and Clinical Multimodal Imaging (BaCI), September 8-11, 2019, Chengdu, China, https://www.baci2019.com/index.html.
- 114. Co-Chairman: "Symposium-165 Information and communication technologies for assessment and intervention in older people with cognitive deficits," German Association for Psychiatry, Psychotherapy and Psychosomatics Annual Congress 2019 (DGPPN2019), on November 27-30, 2019, Berlin, Germany. http://dgppn.19annualmeeting.com/index.php.
- 115. Talk: "IFCN Recommendations on spatial and frequency analysis of resting state EEG rhythms in Clinical Neurophysiology", in the Session "Workgroup 1 on Standards and harmonization in brain techniques", II° Global Brain Consortium Meeting, February 28, 2020, Varadero, (Cuba). https://globalbrainconsortium.org/.
- 116. Co-Chairman: "Workgroup 6 on Clinical care translation using EEG " in II° Global Brain Consortium Meeting, February 28, 2020, Varadero, (Cuba). https://globalbrainconsortium.org/.
- 117. Talk: "Standardized protocols for EEG/ERP recordings in Clinical Neurophysiology", in the Session "Workgroup 6 on "Translational EEG techniques" II° Global Brain Consortium Meeting, February 28, 2020, Varadero, (Cuba). https://globalbrainconsortium.org/.
- 118. Talk: "Cortical sources of resting state EEG rhythms in patients with Alzheimer's and chronic kidney diseases in relation to cognitive deficits https://youtu.be/09JUJyJ8-RA, presented at the European Renal Association-European Dialysis and Transplant Association in 2020 https://www.era-edta.org/en/virtualcongress2020 (ERA-EDTA2020; June 9, 2020).
- 119. Talk: "Cortical resting state EEG rhythms in patients with Parkinson's and Lewy Body Diseases" https://youtu.be/BzaNnmC6JqU, presented at the Alzheimer's Association International Conference in 2020 https://aiac2020.vfairs.com (AAIC2020; July 29, 2020).

- 120. Talk: "rTMS on prefrontal cortex during memory processes affect EEG rhythms" https://www.youtube.com/watch?v=0-jMwQcORkM, presented at International Conference on Non-Invasive Brain Stimulation www.nibs-conference.de in 2020 (NIBS2020; November 13, 2020).
- 121. Talk: "Cortical resting state EEG source activity is related to clinical manifestations in patients with Alzheimer's, Parkinson's, and Lewy body diseases" https://youtu.be/5HoelbVICgQ, presented at Turkish Annual Clinical Neurophysiology EEG-EMG Virtual Congress in 2020 https://norofizyoloji2020.org (November 21, 2020).
- 122. Talk: "International Federation of Clinical Neurophysiology-endorsed recommendations on spatial and frequency analysis of resting state EEG rhythms in Clinical neurophysiology" https://youtu.be/E3cWV7xok0s presented at Ljubljana Clinical Neurophysiology Symposium 2020 in Session entitled "New guidelines in Clinical Neurophysiology https://www.kclj.si/nevrofiziologija (November 27, 2020).
- 123. Talk: "Hans Berger's dream: Alzheimer's Disease Affects EEG Rhythms and Vigilance" https://www.alz.org/research/for_researchers/grants/medsci-webinars/on-demand-research-webinars presented in the ISTAART- Alzheimer's Association webinar series 2021 (March 11, 2021).At https://youtu.be/MpZOQyoYhqA Claudio Babiloni answers to several questions that could not receive answers after the webinar due to time constraints. The answers are given during a dialogue with Dr. Francesca Farina and Dr. Xianghong Arakaki of ISTAART Electrophysiology Professional Interest Area (EPIA) https://action.alz.org/personifyebusiness/Membership/ISTAART/PIA/Electrophysiology.aspx.
- 124. Talk: "Cortical resting state EEG rhythms in Alzheimer's and Lewy body diseases" presented in the international ERASMUS+ webinar lecture series 2021 (April 14, 2021) https://www.med.uni-wuerzburg.de/international/studium-im-ausland/erasmus-international-lecture-series/.
- 125. Talk: "EEG measures probing the dysfunction of cholinergic, dopaminergic, and serotoninergic neuromodulatory systems in humans" presented in the ISTAART- Alzheimer's Association symposium entitled "EEG and neuroimaging methods to probe ascending neuromodulatory systems in Alzheimer's disease" (May 4, 2021) https://web.uniroma1.it/dff/en/node/6467.
- 126. Talk: "Abnormal EEG rhythms of quiet vigilance in Alzheimer's disease patients with subclinical epileptiform activity" in the Symposium entitled "Scientific Theatre Clinical Neurophysiology session" (November 30, 2020) at the 7th Congress of European Academy of Neurology (EAN) held in June 19, 2021 https://www.ean.org/congress2021.
- 127. Talk: "Cortical Sources of Resting State EEG Rhythms in Alzheimer's, Parkinson's, and Lewy Body Diseases"; http://www.iop-world.org) in the Session "Do Mental Disorders Surf on EEG Waves? Pathophysiological mechanisms revisited ". 20th World Congress of International Organization of Psychophysiology, September 7-11, 2021, Virtual.
- 128. Chairman: in the Session "Do Mental Disorders Surf on EEG Waves? Pathophysiological mechanisms revisited". 20th World Congress of International Organization of Psychophysiology, September 7-11, 2021, Virtual, http://www.iop-world.org.
- 129. Talk: "Different abnormalities of EEG markers in quiet wakefulness are related to visual hallucinations in patients with Parkinson's and Lewy Body Diseases "in the Symposium "Clinical Neurophysiology of Vigilance and Cognitive Systems in Affective and Dementing Disorders: New Insights". 5th International Conference on Basic and Clinical Multimodal Imaging (BaCl), October 14-17, 2021, Virtual Conference http://www.baci-conference.com.
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PART VIII – SELECTED PUBLICATIONS 2009-2020

N.	Authors, Title, Journal, Year, Volume, Pages, Impact factor (IF)	Citations (Scopus)	IF (Web of Science)
1	Babiloni C , Del Percio C, Rossini PM, Marzano N, Iacoboni M, Infarinato F, Lizio R, Piazza M, Pirritano M, Berlutti G, Cibelli G, Eusebi F. Judgment of actions in experts: a high-resolution EEG study in elite athletes. Neuroimage. 2009 Apr 1;45(2):512-21. IF2009 5.739.	73	5.739
2	Capotosto P, Babiloni C as corresponding.Author , Romani GL, Corbetta M. Frontoparietal cortex controls spatial attention through modulation of anticipatory alpha rhythms. J Neurosci. 2009 May 6;29(18):5863-72. IF2009 7.115.	313	7.178
3	Babiloni C, Vecchio F, Mirabella G, Buttiglione M, Sebastiano F, Picardi A, Di Gennaro G, Quarato PP, Grammaldo LG, Buffo P, Esposito V, Manfredi M, Cantore G, Eusebi F. Hippocampal, amygdala, and neocortical synchronization of theta rhythms is related to an immediate recall during Rey auditory verbal learning test. Hum Brain Mapp. 2009 Jul;30(7):2077-89. IF2009 6.256.	48	6.256
4	Del Percio C, Babiloni C as corresponding Author , Bertollo M, Marzano N, Iacoboni M, Infarinato F, Lizio R, Stocchi M, Robazza C, Cibelli G, Comani S, Eusebi F. Visuo-attentional and sensorimotor alpha rhythms are related to visuo-motor performance in athletes. Hum Brain Mapp. 2009 Nov;30(11):3527-40. IF2009 6.256.	89	6.256
5	Babiloni C , Vecchio F, Buffo P, Buttiglione M, Cibelli G, Rossini PM. Cortical responses to consciousness of schematic emotional facial expressions: a high-resolution EEG study. Hum Brain Mapp. 2010 Oct;31(10):1556-69. IF2010 5.107.	27	5.107
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9	Babiloni C , Vecchio F, Infarinato F, Buffo P, Marzano N, Spada D, Rossi S, Bruni I, Rossini PM, Perani D. Simultaneous recording of electroencephalographic data in musicians playing in ensemble. Cortex. 2011 Oct;47(9):1082-90. Epub 2011 May 19. IF2011 6.08.	44	6.08
10	Babiloni C, Buffo P, Vecchio F, Marzano N, Del Percio C, Spada D, Rossi S, Bruni I, Rossini PM, Perani D. Brains "in concert": Frontal oscillatory alpha rhythms and empathy in professional musicians. Neuroimage. 2011 Dec 13;60(1):105-116. IF2011 5.895.	75	6.252
11	Capotosto P, Corbetta M, Romani GL, Babiloni C . Electrophysiological correlates of stimulus-driven reorienting deficits after interference with right parietal cortex during a spatial attention task: A TMS-EEG Study. J Cogn Neurosci. 2012 Dec;24(12):2363-71. IF2012 5.175.	31	4.493
12	Babiloni C, Carducci F, Lizio R, Vecchio F, Baglieri A, Bernardini S, Cavedo E, Bozzao A, Buttinelli C, Esposito F, Giubilei F, Guizzaro A, Marino S, Montella P, Quattrocchi CC, Redolfi A, Soricelli A, Tedeschi G, Ferri R, Rossi-Fedele G, Ursini F, Scrascia F, Vernieri F, Pedersen TJ, Hardemark HG, Rossini PM, Frisoni GB. Resting state cortical electroencephalographic rhythms are related to gray matter volume in subjects with mild cognitive impairment and Alzheimer's disease. Hum Brain Mapp. 2013 Jun;34(6):1427-46.IF2013 6.924.	101	6.924
13	Babiloni C, Del Percio C, Caroli A, Salvatore E, Nicolai E, Marzano N, Lizio R, Cavedo E, Landau S, Chen K, Jagust W, Reiman E, Tedeschi G, Montella P, De Stefano M, Gesualdo L, Frisoni GB, Soricelli A. Cortical sources of resting state EEG rhythms are related to brain hypometabolism in subjects with Alzheimer's disease: an EEG-PET study. Neurobiol Aging. 2016 Aug 31;48:122-134. IF2016 5.117.	32	5.117
14	Babiloni C, Del Percio C, Lizio R, Noce G, Lopez S, Soricelli A, Ferri R, Pascarelli MT, Catania V, Nobili F, Amaldi D, Famà F, Orzi F, Buttinelli C, Giubilei F, Bonanni L, Franciotti R, Onofrj M, Stirpe P, Fuhr P, Gschwandtner U, Ransmayr G, Fraioli L, Parnetti L, Farotti L, Pievani M, D'Antonio F, De Lena C, Güntekin B, Hanoğlu L, Yener G, Emek-Savaş DD, Triggiani Al, Taylor JP, McKeith I, Stocchi F, Vacca L, Frisoni GB, De Pandis MF. Levodopa may affect cortical excitability in Parkinson's disease patients with cognitive deficits as revealed by reduced activity of cortical sources of resting state electroencephalographic rhythms. Neurobiol Aging. 2019 Jan;73:9-20. IF2019 4:347	15	4.347

		61.57	5.641	Mean
		985	90.254	Total
	González-Escamilla G, Bakardjian H, George N, Cavedo E, Lista S, Chiesa PA, Vergallo A, Lemercier P, Spinelli G, Grothe MJ, Potier MC, Stocchi F, Ferri R, Habert MO, Fraga FJ, Dubois B, Hampel H; INSIGHT-preAD Study Group. Resting-state posterior alpha rhythms are abnormal in subjective memory complaint seniors with preclinical Alzheimer's neuropathology and high education level: the INSIGHT-preAD study. Neurobiol Aging. 2020 Jun;90:43-59. IF2020 4.673			
15	Lopez S, Del Percio C, Forloni G, Frasca A, Drinkenburg WH, Lizio R, Noce G, Ferri R, Soricelli A, Stocchi F, Vacca L, Bordet R, Richardson JC, Babiloni C . Chronic BACE-1 Inhibitor Administration in TASTPM Mice (APP KM670/671NL and PSEN1 M146V Mutation): An EEG Study. Int J Mol Sci. 2020 Nov 28;21(23):9072. IF2020 5.923 Babiloni C, Lopez S, Del Percio C, Noce G, Pascarelli MT, Lizio R, Teipel SJ,	8	5.923 4.673	

Rome, October 26th, 2021.

Claudio Babiloni

Claudio Balilan.