



## Curriculum Vitae et studiorum by Prof. Claudio Babiloni

### Operative place

Department of Physiology and Pharmacology “V. Erspamer”,  
 University of Rome “La Sapienza”  
 P.le A. Moro, 5  
 00185 - Rome, Italy  
 Tel (fax): 0039 064991 0989 (0917)  
 Email [claudio.babiloni@uniroma1.it](mailto:claudio.babiloni@uniroma1.it)

### Part I – General Information

Full Name	Claudio Babiloni
Date of Birth	22th of March 1962
Place of Birth	Rome (Italy)
Citizenship	Italian
Permanent Address	Via Piave 52, I-00187 Rome (Italy)
Mobile Phone Number	0039 3462122930
E-mail	<a href="mailto:claudio.babiloni@uniroma1.it">claudio.babiloni@uniroma1.it</a>
Spoken Languages	Italian (mother tongue), English (First Certificate of Cambridge)

### Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
University graduation	1987	University of Rome "La Sapienza"	Degree in Psychology (cum laude)
Post-graduate studies			
PhD	2001	University of Aalborg (DK)	Biomedical Sciences and Engineering
Specialty			
Pre-doctorate training			Institute of Human Physiology

### Part III – Appointments

IIIA – Academic Appointments [Years, Institutions, Positions]

Start	End	Institution	Position
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12/16/1988	3/14/1989	University of Rome "La Sapienza"	Assistant Technician
3/15/1989	8/8/2000	University of Rome "La Sapienza"	Executive (funzionario) Technician
8/9/2000	12/30/2000	University of Rome "La Sapienza"	Executive (D2) Technician
12/31/2000	12/31/2003	University of Rome "La Sapienza"	High professional (EP) 1
1/1/2004	12/15/2007	University of Rome "La Sapienza"	High professional (EP) 2
12/16/2007	12/15/2010	University of Foggia (Italy)	Associate Professor
12/16/2010	12/26/2012	University of Foggia (Italy)	Tenured Associate Professor
12/27/2012	onwards	University of Rome "La Sapienza"	Tenured Associate Professor

### IIIB – Other Appointments

Start      End      Institution      Position

1/1/2008	12/31/2008	San Raffaele Cassino Hospital	Scientific Consultant
1/1/2009	12/31/2009	San Raffaele Cassino Hospital	Scientific Consultant
1/1/2010	12/31/2010	San Raffaele Cassino Hospital	Scientific Consultant
1/1/2011	12/31/2011	San Raffaele Cassino Hospital	Scientific Consultant
1/1/2012	12/31/2012	San Raffaele Cassino Hospital	Scientific Consultant

### Part IV – Teaching experience

Year      Institution      Lecture/Course

2005	University of Rome "La Sapienza"	Physiology/Education and Formation
2006	University of Rome "La Sapienza"	Physiology/Education and Formation
2007	University of Rome "La Sapienza"	Physiology/Education and Formation
2008	University of Foggia	Physiology/Motor Sciences
2009	University of Foggia	Physiology/Motor Sciences, Dentistry
2010	University of Foggia	Physiology/Motor Sciences, Dentistry
2011	University of Foggia	Physiology/Motor Sciences, Dentistry
2012	University of Foggia	Physiology/Motor Sciences, Dentistry

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

Year      Title

1996	Prize of Accademia Medica Romana (1.500.000 Lire) to develop a scientific research with University of Munich (D).
1998-date	Member of Italian Society of Physiology
2001-date	Member of Italian Society of Psychophysiology
2001,2002,	“Travel award” (500 USA dollars) of Organization for Human Brain Mapping

2003

2006

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

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

1) EUROPEAN COMMISSION 7TH FRAMEWORK PROGRAMME IMI Call topic:  
IMI\_Call\_2008\_1\_11: Neurodegenerative Disorders

IMI Joint Undertaking

TITLE: Prediction of cognitive properties of new drug candidates for neurodegenerative diseases in early clinical development. (PHARMA-COG)

Name of the coordinating person: Dr Jill Richardson  
GlaxoSmithKline  
GlaxoSmithKline  
Gunnels Wood Road  
Stevenage  
SG1 2NY  
UK

List of participants:

- 1 (Coordinator)/EFPIA GlaxoSmithKline R&D Ltd GSK
- 2 (Managing entity of IMI JU funding)/HE-HOSP Université de la Méditerranée, Aix Marseille II UnivMed
- 3 RES-HOSP Institut d'investigacions Biomediques August Pi I Sunyer IDIBAPS
- 4 HE-HOSP Université de Lille 2 UL2
- 5 HE-HOSP Universitätsklinikum Leipzig ULEI
- 6 HE Universidad de Murcia UMU
- 7 HE-HOSP Universität Duisburg-Essen DUE
- 8 RES Centre National de la Recherche Scientifique CNRS
- 9 RES Institut National de la Santé et de la Recherche Médicale INSERM
- 10 HE University of Verona UNIVR
- 11 RES Provincia Lombardo-Veneta - Ordine Ospedaliero di San Giovanni di Dio - Fatebenefratelli IRCCS-FBF
- 12 HE Università degli Studi di Foggia UNIFG (Claudio Babiloni)
- 13 HE-HOSP Mario Negri Institute MNI
- 14 SME Innovative Concepts in Drug Development ICDD
- 15 SME Alzprotect ALZP
- 16 SME Qualissima QUAL
- 17 SME ExonHit Therapeutics EHT
- 18 SME Innovative Health Diagnostics IHD
- 19 ASSO Alzheimer Europe AlzE
- 20 EFPIA Astra Zeneca AB AZ
- 21 EFPIA Boehringer-Ingelheim International GMBH BI
- 22 EFPIA Novartis pharma AG Novartis
- 23 EFPIA Institut de Recherche Servier Servier
- 24 EFPIA UCB Pharma, SA UCB
- 25 EFPIA Merck Serono ME
- 26 EFPIA Lilly Lilly
- 27 EFPIA Janssen Pharmaceutica N.V. J&J PRD
- 28 EFPIA F. Hoffmann-LaRoche Roche

29 EFPIA H. Lundbeck A/S LDB

Associated Partner ORG European Medicines Agency EMEA

• Budget required for UNIFG (research unit scientific responsible: Prof. Claudio Babiloni): € 568.000 (under negotiation with European Board)

2) EUROPEAN COMMISSION 7TH FRAMEWORK PROGRAMME CAPACITIES - RESEARCH INFRASTRUCTURES CALL IDENTIFIER: FP7-INFRASTRUCTURES-2010-2 PROPOSAL FULL TITLE: Diagnostic enhancement of confidence by an International distributed environment

Proposal acronym: DECIDE

Type of funding scheme: combination of collaborative projects and coordination and support

Actions: (cp-csa)

Workprogramme topics

Addressed: infra-2010-1.2.3: virtual research communities

Name of coordinating Person: Laura Leone

Coordinating institution: GARR

Participant no. Participant organisation name country

1 Consortium garr – garr (coordinator) Italy

2 Consiglio nazionale delle ricerche - cnr Italy

3 Cometa consorzio multi ente per la promozione e l'adozione di Tecnologie di calcolo avanzato – cometa Italy

4 Provincia lombardo veneta ordine ospedaliero di san giovanni di dio

Fatebenefratelli – fbf Italy

5 Università vita-san raffaele – hsr-u Italy

6 Università degli studi di genova - unige Italy

7 Università degli Studi di Foggia - UNIFG Italy

8 Fondazione sdn - sdn Italy

9 Maat france – maat-g france

10 Imperial college of science, technology and medicine - icl uk

11 Uniwersytet warszawsky – uwar

Budget required for UNIFG (research unit scientific responsible: Prof. Claudio Babiloni): € 110.500

3) PROGETTO PARTE DI PROGRAMMA STRATEGICO (ANNUAL STRATEGIC PROGRAM OF ITALIAN MINISTRY OF HEALTH)

Ministero della Salute – Direzione Generale della Ricerca Scientifica e Tecnologica

INSTITUTION PRESENTING THE STRATEGIC PROGRAM: 2. Centro S.Giovanni di Dio Fatebenefratelli Istituto di Ricovero e Cura a Carattere Scientifico (IRCCS)

TITLE OF THE PROJECT (max 300 caratteri): PROJECT 2: Diagnosis of incipient Alzheimer disease: development of ADNI-based imaging markers for use by the National Health System.

APPLICANT: Dr. Giovanni Frisoni

Budget required for UNIFG (research unit scientific responsible: Prof. Claudio Babiloni): € 58.000

4) PROPOSTA PROGETTO “GIOVANI RICERCATORI 2008” (GRANT FOR YOUNG RESEARCHERS OF ITALIAN MINISTRY OF HEALTH)

Ministero della Salute – Direzione Generale della Ricerca Scientifica e Tecnologica

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#

Codice del progetto / Project's code GR-2008-1143090

INSTITUTION ACCEPTING THE PROJECT: Istituto San Raffaele Pisana

Research type: length: 36

APPLICANT: Del Percio Claudio

Total budget of the project: € 420.000,00

Funding required to the Ministry of Health: € 420.000,00

Budget required for UNIFG (research unit scientific responsible: Prof. Claudio Babiloni): € 120.000

5) PROPOSTA PROGETTO “GIOVANI RICERCATORI” (GRANT FOR YOUNG RESEARCHERS OF ITALIAN MINISTRY OF HEALTH)

Ministero della Salute – Direzione Generale della Ricerca Scientifica e Tecnologica

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

Codice del progetto / Project's code GR-2008-1143091

Institution accepting the project: Associazione Oasi Maria SS.

RESEARCH TYPE: Ricerca orientata alle problematiche socio-sanitarie emergenti

Length: 36 months

APPLICANT: Vecchio Fabrizio

Total budget of the project: € 430.000,00

Funding required to the Ministry of Health: € 430.000,00

Budget required for UNIFG (research unit scientific responsible: Prof. Claudio Babiloni): € 110.000

6) PROPOSTA PROGETTO “RICERCA FINALIZZATA” (ANNUAL STRATEGIC PROGRAM OF ITALIAN MINISTRY OF HEALTH)

Ministero della Salute – Direzione Generale della Ricerca Scientifica e Tecnologica

TITLE OF THE PROJECT: GRID-based System for the Evaluation of the effects of Cognitive Rehabilitation in Patients with Alzheimers Disease and Parkinsons Disease

Codice del progetto / Project's code RF-2010-2319113

Institution accepting the project: S. Raffaele Pisana, Roma.

RESEARCH TYPE: Ricerca orientata alle problematiche socio-sanitarie emergenti

Length: 36 months

APPLICANT: Prof. Claudio Babiloni

Total budget of the project: € 420.000,00

Funding required to the Ministry of Health: € 241.340,00

Budget required for the research unit of Prof. Claudio Babiloni (Coordinator): € 119.787,00

7) PROGRAMMI DI RICERCA SCIENTIFICA DI RILEVANTE INTERESSE NAZIONALE RICHIESTA DI COFINANZIAMENTO (D.M. 1152/ric del 27/12/2011) Anno 2010-2011 - prot. 2010SH7H3F (ANNUAL STRATEGIC PROGRAM OF ITALIAN MINISTRY OF UNIVERSITY AND SCIENTIFIC AND TECHNOLOGICAL RESEARCH)

TITLE OF THE PROJECT: “Connettività funzionale cerebrale e neuroplasticità nell'invecchiamento fisiologico e patologico”

Testo inglese

“Functional connectivity and neuroplasticity in physiological and pathological aging”

Area Scientifico-disciplinare 06: Scienze mediche 75%; 05: Scienze biologiche 25%

Participant no. Participant organisation name country

1 Università Cattolica di Roma (coordinator) Italy

2 Università degli Studi di Foggia - UNIFG Italy

3 Università di Roma Sapienza, Italy

4 CNR, Roma – Italy,

5 Università degli Studi di Chieti, Chieti, Italy

6 Università degli Studi di Milano, Milano, Italy

7 Università Campus Biomedico, Roma, Italy

Budget required for UNIFG (research unit scientific responsible: Prof. Claudio Babiloni): € 121.000

8) THE EU JOINT PROGRAMME FOR NEURODEGENERATIVE DISEASES (JPND):

TITLE OF THE PROJECT: "Multi-centre cohort-studies in Lewy-body dementia: challenges in harmonizing different clinical and biomarker protocols"

Coordinator: Prof. Dag Aarsland (Norway Centre for Age-related Diseases, Stavanger University).

Length: 2014-2015.

ADDITIONAL PARTICIPANT IN THE WORKING GROUP: Prof. Claudio Babiloni

## Part VII – Research Activities

Keywords

Short Description [maximum 200 words]

Neurophysiology of Cerebral cortex and Human Cognition	FUNCTIONAL NEUROIMAGING OF COGNITIVE FUNCTIONS. Our studies aimed at understanding neurophysiological mechanisms of cerebral cortex activity during resting state and cognitive-motor processes as revealed by neurophysiological and neuroimaging techniques including electroencephalography (EEG), magnetoencephalography (MEG), transcranial magnetic stimulation (TMS), and functional magnetic resonance imaging (fMRI) in humans. We contributed to the development of innovative procedures to do it combining the above physiological techniques.
Clinical Neurophysiology	
Neurophysiology of Visual primary consciousness	
Neurophysiology of Pain and Sensorimotor interactions	
Cortical EEG rhythms and Alzheimer's disease	
Neuroplasticity in Athletes and Musicians	
Bain activity and Cognition in Subjects with body weight disorders	
	FUNCTIONAL NEUROIMAGING OF BRAIN ACTIVITY AND COGNITIVE FUNCTIONS IN NEUROLOGICAL PATIENTS. Our neuroimaging studies aimed at understanding clinical neurophysiological mechanisms of cerebral cortex activity during resting state and cognitive-motor processes in Alzheimer's disease, Parkinson disease, Consciousness diseases, Developmental cognitive disabilities as revealed by EEG, TMS, and MRI techniques. Development and validation of EEG, TMS, and MRI markers for the early diagnosis and prognosis of the mentioned pathological conditions. We contributed to the development of innovative procedures to do it, especially by EEG techniques.
	FUNCTIONAL NEUROIMAGING OF BRAIN ACTIVITY RELATED TO VISUAL PRIMARY CONSCIOUSNESS. Our EEG studies have shown that visual primary consciousness is related to a peak of activity of the cortical sources of evoked potentials around 300-400 msec post-stimulus. The topography of this activity depends on the nature of the visual stimulus, namely dorsal parietal for spatial stimuli, frontal for executive operation on the stimuli, and distributed for emotional stimuli. The TMS interference of parietal cortex reduces the experience of visual primary consciousness of visual spatial stimuli. It is concluded that primary visual consciousness is an experience depending on a puzzle of cortical networks activated as a function of the nature of the stimuli and mental operation rather than on a "visual primary consciousness" cortical region.
	FUNCTIONAL NEUROIMAGING OF BRAIN ACTIVITY AND ANTICIPATION OF PAIN. Our EEG studies have been focused on anticipatory alpha rhythms preceding warned pain stimuli in condition of resting state and voluntary movements of ipsilateral or contralateral hand.

Results showed a gating of anticipatory cortical activity (i.e. desynchronization of alpha rhythms) over primary sensorimotor area ipsilateral to both pain stimuli and voluntary hand movements, when compared to anticipatory cortical activity related to resting condition or the event of ipsilateral pain stimulus associated to contralateral voluntary movement. Furthermore, perception of the pain was reduced in the case of simultaneous pain and voluntary movements at the same side. These results disclosed a gating model of anticipatory sensorimotor cortical activity, pain perception, and ipsilateral voluntary movements, possibly at the basis of the use of a hand during severe pain applied on it.

**FUNCTIONAL NEUROIMAGING OF NEURODEGENERATION IN ALZHEIMER'S DISEASE PATIENTS AS A LESIONAL MODEL FOR UNDERSTANDING THE PHYSIOLOGICAL MECHANISMS AT THE BASIS OF RESTING STATE EEG RHYTHMS.** Our EEG studies have been focused on resting state EEG rhythms in normal elderly (Nold), amnesic mild cognitive impairment (MCI), and Alzheimer's disease (AD) subjects. Results showed that with respect to Nold subjects, MCI and AD patients showed pathologically increased delta rhythms and a reduction of alpha rhythms, the effects being more pronounced in AD than MCI patients. These changes of EEG rhythms were correlated to global cognitive status as revealed by mini mental state evaluation exam as well as attention and memory scores. Furthermore, they were related to signs of neurodegeneration such as atrophy of cortical grey matter and hippocampus. Finally, alpha rhythms were relatively protected by a decline in AD patients who responded to 1 year of Acetylcholine esterase inhibitors therapy compared to non-responders, These rhythms were especially impaired in MCI and AD subjects carrying genetic risk factors including APOE4 allele and Cystatin B haplotype. These results suggest that resting state EEG rhythms are impaired by neurodegenerative processes in preclinical (MCI) and overt manifestation of AD, thus leading support to the hypothesis that cholinergic systems are crucial to regulate cortical synchronization mechanisms at the basis of resting state EEG rhythms.

**BRAIN NEUROPLASTICITY IN ATHLETES (SPORT MEDICINE) AND MUSICIANS.** Our EEG studies have been focused on alpha rhythms in condition of resting state and cognitive-motor tasks in elite athletes and musicians to test the hypothesis of brain neural efficiency, as revealed by ample resting state alpha rhythms and selected event-related cortical activity. Results showed that in elite athletes (i.e. karate, fencing, golf, shooters) this is true for resting state alpha rhythms and certain experimental conditions (i.e. voluntary movement, movement observation, focused attention) but not others (i.e. balance). In the musicians, simultaneous recordings of EEG activity in quartets engaged in concert disclosed peculiar frontal activity related to emotional empathy.

**FUNCTIONAL NEUROIMAGING OF BRAIN ACTIVITY AND COGNITIVE FUNCTIONS IN WEIGHT DISORDERS (SPORT MEDICINE).** Our EEG studies have been focused on brain activity related to cognitive functions in people with weight disorders to test the hypothesis of brain neural inefficiency in the processing of food and body image stimuli in obese and underweight subjects. Results showed some abnormal EEG activity of obese and underweight subjects during attention task using

food or body image visual stimuli, thus suggesting that body weight homeostasis may depend on attention to food and body image information contents.

## Part VIII – Editorial activity, Talks, and Publications

### Reviewer for International scientific journals

Journal of Alzheimer's disease (Senior Editor 2014, 2016), Clinical Neurophysiology (Editorial Board), NeuroImage, Neurobiology of Aging, International Journal of Psychophysiology, NeuroReport, Journal of Psychophysiology, Psychophysiology, Epilepsia, 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, others.

### Invited scientific talks

1. Talk: "Movement-related cortical potentials as modeled by high resolution EEG techniques, Meeting at Neurology Department of University of Munich "Ludwig Maximilians", October 1996 (Germany).
2. Talk: "High resolution EEG". VI Congress of Italian Society of Psychophysiology, 27-29 November 1997, Pisa (Italy).
3. Talk: "Neuromagnetic fields associated with planning and performance of simple voluntary unilateral one-digit movements". 11<sup>th</sup> International Conference on Biomagnetism (BIOMAG98), 28 August – 2 September 1998, Sendai (Japan).
4. Talk: "Comparison of spatial-temporal features of human MU ERD and mean movement-related potentials: a high spatial resolution EEG study". The 9<sup>th</sup> world congress of psychophysiology 14-19 September 1998, Sicily.
5. Chairman: Symposium n. 22 on "Event-related Changes of Rhythmic Activity in the Brain (ERD, ERS). The 9<sup>th</sup> world congress of psychophysiology 14-19 September 1998, Sicily.
6. Talk: "Neuroimaging funzionale della corteccia cerebrale dell'Uomo" 20 ottobre 1998, Università degli Studi di Chieti "G. D'Annunzio" (Italy).
7. Talk: "Motor Processing and Motor Imagery". International Workshop "Basic and Clinical Application of Human Brain Mapping: Effective Use of EEG/ERP Neuroinformatics" 30-31 January 1999. Aalborg (Denmark).
8. Talk: "Human brain activity related to voluntary movements" 12 marzo 1999, Università di Roma "La Sapienza" (Italy).
9. Talk: "Event-related Desynchronization/Synchronization: Advanced data analysis and representation techniques". Congress of Italian Society of Clinical Neurophysiology, 14-16 June 1999, Portoferraio (Italy).
10. 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).
11. Talk: "High Resolution EEG: Mapping ERPs or EEG Rhythmic Changes?" International Workshop "The Acting Brain". September 21-22, 2000, Trieste (Italy).
12. Talk: "EEG ad alta risoluzione e programmazione del movimento: confronto tra potenziale evento-correlato e desincronizzazione evento-correlata" Simposio: Programmazione del Movimento, VIII Congresso Nazionale della Società Italiana di Psicofisiologia (SIPF), 1-3 dicembre 2000, Genova (Italy).
13. Chairman: Sessione "Free communications", VIII Congresso Nazionale della Società Italiana di Psicofisiologia (SIPF), 1 dicembre 2000, Genova (Italy).
14. 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).
15. 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).
16. 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).
17. Chairman: Sessione "Quantitative EEG analysis", XV International Congress of Clinical Neurophysiology, May 18 2001, Buenos Aires (Argentina).
18. 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).
19. 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).
20. Talk: "Modelli di ritmi cerebrali dell'Uomo durante memoria episodica a breve e lungo termine: il contributo dell'EEG ad alta risoluzione" X Congress of the Italian Society of Psychophysiology, December 5-7, 2002 Roma (Italy).
21. Chairman: Sessione "Clinical relevance of brain topography findings II" 13th International Society for Brain Electromagnetic Topography (ISBET), October 29, 2002 Napoli (Italy).



22. 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>.
23. Talk: "NeuroImaging delle funzioni corticali nell'Uomo: elettroencefalografia ad alta risoluzione", "Meeting della Fisiologia Romana", 31 Maggio 2003 Roma (Italy).
24. Chairman: Sessione "Cognitive functions I"; World Conference of Non Invasive Functional Source Imaging (NFSI2003), September 12, 2003 Chieti, (Italy).
25. Talk: "Tutorial EEG/MEG" ; World Conference of Non Invasive Functional source Imaging (NFSI2003), September 12, 2003 Chieti, (Italy).
26. Chairman: Sessione "Apparati sensoriali"; V Congress of the Associazione Fatebenefratelli per la Ricerca, September 25-27, 2003 Roma, (Italy).
27. Talk: " Ritmi cerebrali nella demenza: uno studio EEG multicentrico", V Congresso dell'Associazione Fatebenefratelli per la Ricerca, September 25-27, 2003 Roma, (Italy).
28. Talk: " Ritmi cerebrali dell'Uomo nella memoria breve e lungo termine", LIV Congress of the Italian Society of Physiology , September 29-October 2, 2003 Chieti, (Italy).
29. Talk: "Cortical rhythms in dementia"; XIV Congress of International Society for Brain Electromagnetic Topography (ISBET), November, 2003 Santa Fe (USA).
30. Chairman: Sessione "Psicofisiologia della memoria", XI Congress of the Italian Society of Psychophysiology, December 14-16, 2003 Pisa, (Italy).
31. Talk: "Il contributo dell'EEG ad alta risoluzione nello studio della memoria", XI Congress of the Italian Society of Psychophysiology, December 14-16, 2003 Pisa, (Italy).
32. 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.
33. Talk: "Mapping distributed sources of EEG in Alzheimer's disease: a multicentric EEG study "; XV Congress of International Society for Brain Electromagnetic Topography (ISBET), April, 2004 Kioto (Japan).
34. Chairman: Sessione Poster "Psicofisiologia", Annual Congress of the Italian Society of Clinical Neurophysiology, May 21-23, 2004 Pescara, (Italy).
35. Talk: "Human sensorimotor integration as revealed by EEG, MEG and fMRI", Annual Congress of the Italian Society of Clinical Neurophysiology, May 21-23, 2004 Pescara, (Italy).
36. 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) <http://www.itinad.com/home/index.php>.
37. Talk: "Distributed sources of EEG rhythms in dementia" in the Session "Topographic and Time-Frequency Analysis of Brain Activity" MEDICON Conference, Ischia, Italy, 31 July - 5 August 2004 <http://www.medicon2004.unina.it>.
38. 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, Salonik (Greece).
39. 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, Salonik (Greece).
40. Chairman: <http://www.iop-world.org/iop2004> in the Session "Consciousness and its brain". World Congress of International Organization of Psychophysiology, September 18-23 2004, Salonik (Greece).
41. Chairman: Symposium "Consciousness and Brain: an interdisciplinary approach", XII Congress of the Italian Society of Psychophysiology, October 9-11, 2004 Alghero, (Italy).
42. 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).
43. 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/>
44. 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>.
45. 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 analgesistate of art in Italy". Modena, 6-7 Maggio 2005, [www.oic.it/dolore](http://www.oic.it/dolore).
46. Talk: "Prediction and classification of cognitive impairment in aging: a multi-centri 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>.
47. 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/>
48. 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, 29 June-1 July 2005 <http://www.uninova.pt/cimed2005/index.htm>
49. Talk "Cortical rhythms in dementia" in 1st plenary session: Current applications, MEG Applications Conference, September 15-17 2005, Xylocastro, Greece <http://www.uth.tmc.edu/clinicalneuro/mega.htm>.
50. Talk "Diagnostc criteria and issue of reimbursement of MEG in Italy" in 5st plenary session: Diagnostc criteria and issues of reimbursement of MEG applications. MEG Applications Conference, September 15-17 2005, Xylocastro, Greece <http://www.uth.tmc.edu/clinicalneuro/mega.htm>.
51. 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). <http://www.sifpalermo.com/topics.htm>.
52. Chairman: Symposium "Psychophysiology of consciousness", XIII Congress of the Italian Society of Psychophysiology, December 2-4, 2005 Massa Carrara, (Italy).

53. 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).
54. Talk: "Cerebral rhythms in aging and dementia", Symposium "EEG analysis based on new artificial intelligence approach for early detection of Alzheimer disease", X ITINAD Annual meeting, June 8-10, 2006 Rome (Italy) <http://www.itinad.com/home/index.php>.
55. 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.isbet2006.unich.it/>.
56. Talk "Brain plasticity in qualified fencers: a high resolution EEG study", Medical Symposium of the Fédération Internationale d'Esclime and International Wheelchair & Amputee Sports Federation. Congress Room Olympic Village, Torino (Italy), Wednesday, October 4, 2006.
57. 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](http://iim.altervista.org/terzo_meeting.html).
58. 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).
59. Chairman: Symposium "Psychophysiology of consciousness", XIV Congress of the Italian Society of Psychophysiology, December 1-3, 2006 Pisa, (Italy).
60. 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).
61. 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.
62. 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).
63. 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).
64. 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).
65. Talk: "Neurophysiology of primary consciousness", Symposium "Psychophysiology of consciousness", XV Congress of the Italian Society of Psychophysiology, November 30-December 2, 2007, Pisa (Italy).
66. 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).
67. Talk: "Resting-state synchronizing brain activity in humans as revealed by LORETA", 13th European Congress of Clinical Neurophysiology, 4 – 8 May 2008, Istanbul (Turkey).
68. Talk: "Neural synchronization of cerebral cortex as revealed by quantitative EEG", International School of Neuroscience, July 21, 2008, Santiago de Compostela (Spain).
69. Talk: "Cholinergic systems and cortical rhythms in Alzheimer disease: new findings", International Conference IPEG, September 24-27, 2008, Rouffach (France).
70. Talk: "Brain rhythms and cognitive decline along pathological aging", III National Congress FIMEG – Aging and genetics, June 22-25, 2008, Rome (Italy).
71. 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).
72. Talk: "EEG correlates of cognitive functions", VIII Congress of the Italian SIRN, November 17-19, 2008, Montecatini Terme (Italy).
73. Talk: "In Alzheimer's disease loosening the brain may be losing the mind: disruption of functional connectivity and dementia", XIII Congress of the Italian SOPSI, February 10-14, 2009, Rome (Italy).
74. 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).
75. Talk: "Cognitive Neuroscience and sport", XVII Congress of the Italian AIPS, May 16-18, 2009, Senigallia (Italy).
76. Talk: "Brain synchronization mechanisms and pathological imaging", Workshop "Brain aging and dementia", March 18-21, 2009, Catania (Italy).
77. Talk: "Functional brain imaging", Workshop of European Space Agency, November 30, 2009 Amsterdam (NL).
78. Talk: "Cortical EEG rhythms in Alzheimer's disease", Conférences Frédéric Joliot 2009, March 9-10, 2009, Lille (France).
79. Chairman and Talk: "EEG rhythms in musicians playing in ensemble", Symposium "Music and Science", XVII Congress of the Italian Society of Psychophysiology, October 28-31, 2009, Siena (Italy).
80. Talk: "Cortical EEG rhythms in Alzheimer's disease". Workshop "Alzheimer's disease", June 3, 2010, Bari (Italy).
81. 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 (D).
82. 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).
83. 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).
84. Talk: "Neuroplasticity". Workshop SIMFER, November 15-17, 2010, Manfredonia (Italy).
85. Talk: "Abnormal cortical neural synchronization in Alzheimer's disease" XVIII Congress of the Italian Society of Psychophysiology, November 24-27, 2010, Palermo (Italy).
86. Talk: "Cholinergic systems, resting state brain rhythms, and cognition in humans: a qEEG approach", XIV Congress of the Italian SOPSI, February 15-19, 2011, Rome (Italy).

87. Talk: "Abnormal cortical neural synchronization in Alzheimer's disease" XXI Congress of the Italian Society of Psychophysiology, November 14-17, 2011, Brescia, (Italy).
88. 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).
89. 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 (Swisse).
90. Talk: "Combining EEG and functional imaging: state of the art", 14th European Congress on Clinical Neurophysiology, June 21-25, 2011, Rome (Italy).
91. Talk: "Brains in concert": frontal oscillatory alpha rhythms and empathy in professional musicians". Workshop "Kinaesthesia, Empathy and Aisthesis 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>
92. 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). <http://norobilim.com/tag/norobilim-com/page/2/>
93. 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", June 10, 2012, Genova (Italy). <http://www.uipasc.it/preparazioneatleticasportcombattimento/attachments/article/136/IMACSSS%202012Conference%20Genova%20%203rdAnnouncement.pdf>.
94. 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 6th, 2013.
95. 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).
96. Talk: "Report on Analysis of Cortical EEG Rhythms and Event-related potentials in PharmaCog Workpackages" in the Round table on EEG module of PharmaCog project, Annual General Assembly of PharmaCog, Meeting - June 2-4, 2013 - Lille 2 University (France).
97. 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](http://www.felasa2013.eu).
98. 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/>.
99. Talk: "Neural efficiency in athletes' brain as revealed by EEG" in The International Society of Sport Psychology (ISSP) Beijing (China) 2013 July 20-23th (keynote on 22th), <http://www.issponline.org/worldcongress.asp>.
100. 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/>.
101. Talk: "EEG and brain connectivity", Symposium "Advanced Neurophysiology", XXI World Congress of Neurology, September 21-26, 2013, Wien (Austria).
102. 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](http://www.sipf.it/index.php?option=com_content&task=view&id=20&Itemid=34&anno=11_2013).
103. 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>
104. 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>.
105. 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](http://www.iccn2014.de).
106. 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/>.
107. Talk: "Translational aspects of animal EEG studies in the IMI PharmaCog Consortium for studies on Alzheimer's Disease". The 18th International Pharmacology EEG-Society (IPEG) Meeting 2014 in Leipzig, Germany, September 25th-28th September 2014. <http://www.ipeg-society.org/IPEG-meetings/ipeg-meeting-2014-leipzig>.
108. 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/>.
109. 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>.
110. 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>.
111. 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/>.
112. 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](http://www.bna2015.org).
113. 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](http://www.icar2015.com).
114. 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/](http://www.medicinaescienza.coni.it/).

115. 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/>.
116. Talk: "EEG rhythms in HIV" in the Symposium "Brain Wave in HIV, Rome, Italy on 22<sup>nd</sup> of June 2015, [http://www.makeevent.it/static/upload/sav/0000/savethedate-brain-wave-22\\_06-roma.pdf](http://www.makeevent.it/static/upload/sav/0000/savethedate-brain-wave-22_06-roma.pdf).
117. 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/>.
118. 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 18-23th of July 2015, <https://www.alz.org/aaic/>.
119. Talk: "Human Man Interaction When Brain Fails" in the Symposium "Human Man Interaction in Medicine". The Human-Machine Interaction Summer School (HMIS), Monopoli, Italy on 14-18th of September 2015, <http://www.hmiss.it/>.
120. 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/>.
121. 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/>.
122. 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.fijkam.it/>.
123. 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.
124. 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 27<sup>th</sup> of November 2015.
125. 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 17<sup>th</sup> of December 2015.

## Publications in peer-reviewed journals registered in MEDLINE

<http://www.ncbi.nlm.nih.gov/PubMed/> o ISI (up to 12<sup>th</sup> of December 2015)

1. Babiloni F., Babiloni C., L. Cecchi, P. Onorati, S. Salinari and A. Urbano. Statistical analysis of topographic maps of short-latency somatosensory evoked potentials in normal and parkinsonian subjects. *IEEE Transactions on Biomedical Engineering*, Piscataway, New Jersey, USA, 41(7): 617-624, 1994.
2. Babiloni F., Babiloni C., L. Fattorini, F. Carducci, P. Onorati and A. Urbano. Performances of surface Laplacian estimators: a study on simulated and real scalp potential distributions. *Brain Topography*, New York, USA, 8(1): 35-45, 1995.
3. Babiloni F., Babiloni C., F. Carducci, L. Fattorini, P. Onorati and A. Urbano. Spline Laplacian estimate of EEG potentials over a realistic magnetic resonance-constructed ,scalp surface model. *Electroenceph. clin. Neurophysiol.* Shannon, Ireland 98(4): 363-373, 1996.
4. Urbano A., Babiloni C., P. Onorati, Babiloni F., Human cortical activity related to unilateral unilateral movements. A high resolution EEG study. *NeuroReport*, London, UK, 8(1): 203-206, 1996.
5. Babiloni F., Babiloni C., C. Anello, F. Carducci, Fattorini L., Onorati P. and Urbano A. High resolution EEG: new model-dependent spatial deblurring method using a realistically shaped MR constructed subject's head model. *Electroenceph. clin. Neurophysiol.*, Shannon, Ireland, 102(2): 69-80, 1997.
6. Rossini P.M., Babiloni F., Babiloni C., A. Ambrosini, P. Onorati and A. Urbano. Topography of spatially-enhanced short-latency somatosensory evoked potentials. *NeuroReport*, London, UK, 8(4): 991-994, 1997.
7. Urbano A, Babiloni F., Babiloni C., A., Ambrosini, P., Onorati, and P.M. Rossini. Human short-latency cortical responses to somatosensory stimulation. A high resolution study *NeuroReport* , London, UK, 8(15): 3239-3243, 1997.
8. Babiloni F., Babiloni C., F. Carducci, M. Del Gaudio, P. Onorati and A. Urbano. A High resolution EEG method based on the correction of the surface laplacian estimate for subject's variable scalp thickness. *Electroenceph. clin. Neurophysiol.*, Shannon, Ireland, 103: 486-492, 1997.
9. Urbano A., Babiloni C., P., Onorati, A. Ambrosini, F., Carducci, L., Fattorini, and F. Babiloni. Responses of human primary sensorimotor and supplementary motor areas to internally-triggered unilateral and simultaneous bilateral one-digit movements. A high resolution EEG study. *European Journal of Neuroscience*, Cambridge, UK, 40(8): 285-289, 1998.
10. Babiloni F., F., Carducci, Babiloni C., A., Urbano. Improved realistic Laplacian estimate of highly-sampled EEG potentials with regularization techniques. *Electroenceph. clin. Neurophysiol.* Shannon, Ireland, 106(4): 336-343, 1998

11. Urbano A., Babiloni C, F., Carducci, L., Fattorini, P., Onorati, and F. Babiloni. Dynamic functional coupling of high resolution EEG potentials related to unilateral internally triggered one-digit movements. *Electroencephalography. and clinical Neurophysiol.* Shannon, Ireland,106: 477-487, 1998
12. Babiloni C, Carducci F, Pizzella V, Indovina I, Romani GL, Rossini PM and Babiloni F. Bilateral neuromagnetic activation of human primary sensorimotor cortex in preparation and execution of unilateral voluntary finger movements. *Brain Res* Shannon, Ireland,1999 May 8;827(1-2):234-236.
13. Mauguiere F, Allison T, Babiloni C, Buchner H, Eisen AA, Goodin DS, Jones SJ, Kakigi R, Matsuoka S, Nuwer M, Rossini PM, Shibasaki H. Somatosensory evoked potentials. *The International Federation of Clinical Neurophysiology. Electroencephalogr Clin Neurophysiol Suppl.* 1999; Shannon, Ireland, 52:79-90.
14. Rossini P.M, Babiloni C., Babiloni F., Ambrosini A., Onorati P., Carducci F. and Urbano A. "Gating" of human short-latency somatosensory evoked cortical responses during execution of movement. A high resolution electroencephalography study. *Brain Res Oct. 2: 843(1-2): 161-170*, 1999, Shannon, Ireland,
15. Babiloni C., Carducci F., Cincotti F., Rossini P. M., Neuper C., Pfurtscheller G., and Babiloni F., Human movement-related potentials vs. desynchronization of EEG alpha rhythm. a high resolution EEG study. *NeuroImage*, 1999 San Diego, USA. Dec;10(6):658-65.
16. Babiloni F., Carducci, F. C. Del Gratta, F. Cincotti, G.M. Roberti, G.L. Romani, P.M. Rossini, Babiloni C. Integration of high resolution EEG and functional magnetic resonance in the study of human movement-related potentials. *Methods of Information in Medicine*, 2000 Stuttgart, GER, Jun;39(2):179-82.
17. Babiloni F., F. Carducci, S. Cerutti, D. Liberati, P.M. Rossini, A. Urbano and Babiloni C. Comparison between human and artificial neural network detection of Laplacian-derived electroencephalographic activity related to unilateral voluntary movements. *Computers and Biomedical Research.* San Diego, USA, 33: 59-74, 2000.
18. Babiloni C., Babiloni F., Carducci F., Cincotti F., Del Percio C., De Pino G., Maestrini S., Priori A., Tisei P., Zanetti O. and Rossini P.M., Movement-Related Electroencephalographic Reactivity in Alzheimer Disease, *NeuroImage*, 2000 San Diego, USA , Aug;12(2):139-146.
19. Babiloni F., Babiloni C., L. Locche, F. Cincotti, P.M. Rossini and F. Carducci, High resolution EEG: source estimates of Laplacian-transformed somatosensory-evoked potentials using a realistic subject head model constructed from magnetic resonance images, *Medical & Biological Engineering & Computing*, 2000, London, UK, 38:512-519.
20. Babiloni C., Babiloni F., Carducci F., F. Cincotti, F. Rosciarelli, P.M. Rossini, L. Arendt-Nielsen, A. CN. Chen, Mapping of early and late human somatosensory evoked brain potentials to phasic galvanic painful stimulation. *Human Brain Mapping*, 2001 New York, USA, Mar;12(3):168-179.
21. Babiloni F, Cincotti F., Carducci F, Rossini PM, Babiloni C. Spatial enhancement of EEG data by surface laplacian estimation: the use of MRI-based head models. *Clin Neurophysiol. (ex Electroencephalogr Clin Neurophysiol )* 2001, Shannon, Ireland, 112(5): 724-727.
22. Cincotti F, Babiloni C, Carducci F, Del Gratta C, Romani GL, Rossini PM, and Babiloni F. "The use of fMRI priors for the estimation of cortical activity with high resolution EEG", *Electromagnetics 2001*, Taylor & Francis Philadelphia PA (USA), 21: 579-592,
23. Rossi S., Cappa S., Babiloni C., Pasqualetti P., Miniussi C., Carducci F., Babiloni F. and Rossini P.M., The role of the prefrontal cortex in long term memory: an "interference approach with repetitive transcranial magnetic stimulation (rTMS)., *Nature Neurosci.*, Sep. 4(9): 948-952, 2001, London, UK.
24. Babiloni F., Carducci F, Cincotti F, Del Gratta C, Pizzella V, Romani GL, Rossini PM, Tecchio F., and Babiloni C., Linear inverse source estimate of combined EEG and MEG data related to voluntary movements., *Human Brain Mapping*, New York, USA, Nov., Dec., 14 (4): 197-209, 2001,
25. Babiloni C., Babiloni F., Carducci F., Cincotti F., Rosciarelli F., Arendt-Nielsen L., Chen A.C. and Rossini P.M. Human brain oscillatory activity phase-locked to painful electrical stimulations. A multi-channel EEG study. *Human Brain Mapping* New York, USA 15(2): 112-23 2002,
26. Torquati K, Pizzella V, Della Penna S, Franciotti R, Babiloni C, Rossini PM, Romani GL. Comparison between SI and SII responses as a function of stimulus intensity. *Neuroreport.* London, UK, 2002 May 7;13(6):813-9.
27. Babiloni C, Babiloni F, Carducci F, Cincotti F, Coccozza G, Del Percio C, Moretti D, Rossini P. Human Cortical Electroencephalography (EEG) Rhythms during the Observation of Simple Aimless Movements: A High-Resolution EEG Study. *Neuroimage.* 2002 San Diego, USA, Oct;17(2):559-572, 2002.
28. Babiloni F., Babiloni C., Carducci F., Del Gratta C., Romani G. L., Rossini P. M. and Cincotti F., Cortical source estimate of combined high resolution EEG and fMRI data related to voluntary movements, *Methods of Information in Medicine*, Stuttgart, GER 2002;41(5):443-50.
29. Cincotti F, Mattia D, Babiloni C, Carducci F, Bianchi L, del R Millan J, Mourino J, Salinari S, Marciani MG, Babiloni F. Classification of EEG mental patterns by using two scalp electrodes and Mahalanobis distance-based classifiers. *Stuttgart, GER Methods Inf Med.* 2002;41(4):337-41.
30. Torquati K, Pizzella V, Della Penna S, Franciotti R, Babiloni C, Romani GL, Rossini PM. "Gating" effects of simultaneous peripheral electrical stimulations on human secondary somatosensory cortex: a whole-head MEG study. *Neuroimage.* 2003 Nov;20(3):1704-13.

31. Ferretti A, Babiloni C, Gratta CD, Caulo M, Tartaro A, Bonomo L, Rossini PM, Romani GL. Functional topography of the secondary somatosensory cortex for nonpainful and painful stimuli: an fMRI study. *Neuroimage*. 2003 Nov;20(3):1625-38.
32. Babiloni C, Del Percio C, Babiloni F, Carducci F, Cincotti F, Moretti DV, Rossini PM. Transient human cortical responses during the observation of simple finger movements: a high-resolution EEG study. *Hum Brain Mapp*. 2003 Nov;20(3):148-57.
33. Babiloni C, Brancucci A, Babiloni F, Capotosto P, Carducci F, Cincotti F, Arendt-Nielsen L, Chen AC, Rossini PM. Anticipatory cortical responses during the expectancy of a predictable painful stimulation. A high-resolution electroencephalography study. *Eur J Neurosci*. 2003 Sep;18(6):1692-700.
34. Babiloni F, Babiloni C, Carducci F, Cincotti F, Rossini PM. The stone of madness' and the search for the cortical sources of brain diseases with non-invasive EEG techniques. *Clin Neurophysiol*. 2003 Oct;114(10):1775-80.
35. Tecchio F, Babiloni C, Zappasodi F, Vecchio F, Pizzella V, Romani GL, Rossini PM. Gamma synchronization in human primary somatosensory cortex as revealed by somatosensory evoked neuromagnetic fields. *Brain Res*. 2003 Oct 3;986(1-2):63-70.
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38. Moretti DV, Babiloni F, Carducci F, Cincotti F, Remondini E, Rossini PM, Salinari S, Babiloni C. Computerized processing of EEG-EOG-EMG artifacts for multi-centric studies in EEG oscillations and event-related potentials. *Int J Psychophysiol*. 2003 Mar;47(3):199-216.
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The screenshot shows a PubMed search results page for the query 'babiloni c'. The search results are sorted by 'Most Recent' and show 232 items. The first two results are:

- Classification of Single Normal and Alzheimer's Disease Individuals from Cortical Sources of Resting State EEG Rhythms.**  
 Babiloni C, Triggiani AI, Lizio R, Cordone S, Tattoli G, Bevilacqua V, Soricelli A, Ferri R, Nobili F, Gesualdo L, Millán-Calenti JC, Buján A, Tortelli R, Cardinali V, Barulli MR, Giannini A, Spagnolo P, Armenise S, Buenza G, Scianatico G, Logrosino G, Frisoni GB, Del Percio C.  
 Front Neurosci. 2016 Feb 23;10:47. doi: 10.3389/fnins.2016.00047. eCollection 2016.  
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- Clinical and biomarker profiling of prodromal Alzheimer's disease in workpackage 5 of the Innovative Medicines Initiative PharmaCog project: a 'European ADNI study'.**  
 Galluzzi S, Marizzoni M, Babiloni C, Albani D, Antelmi L, Bagnoli C, Bartres-Faz D, Cordone S, D'Elia M, Farotti L, Fiedler M, Fordini G, Giedd N, Hensch T, Jovalegh J, ...

The page also includes navigation options like 'Page 1 of 12', 'Next', and 'Last', along with filters and a search bar.

## Google Scholar "my citations"

The screenshot shows a Google Scholar profile for Claudio Babiloni, an Associate Professor of Physiology at the University of Rome 'La Sapienza', Italy. His research interests include Brain rhythms, Cognitive Neuroscience, and Aging. The profile shows a total of 9750 citations and a citation index of 59. A bar chart displays the number of citations per year from 2008 to 2015, showing a steady increase. Below the profile, a list of his publications is shown with their respective citation counts and years:

Titolo	Citato da	Anno
Estimation of the cortical functional connectivity with the multimodal integration of high-resolution EEG and fMRI data by directed transfer function	275	2005
Human movement-related potentials vs desynchronization of EEG alpha rhythm: a high-resolution EEG study	250	1999
Clinical neurophysiology of aging brain: from normal aging to neurodegeneration	240	2007

