

LABORATORY OF COGNITIVE AND COMPUTATIONAL NEUROSCIENCE (UCM-UPM)

CENTER FOR BIOMEDICAL TECHNOLOGY

RESEARCH AND EDUCATIONAL ACTIVITIES 2012



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BOOK Chapters (in English)

- María Eugenia López, Pablo Campo, Irene García- Morales, Antonio Gil-Nagel, Francisco del Pozo, Fernando Maestú. Role of medial temporal lobe in working and episodic memory during encoding. In Temporal Lobe: Anatomy, Functions and Pathology (2012). Chapter 6, pp. 119- 140. Nova Science Publishers, Inc.
- Fernando Maestú, Elena Solesio and Ricardo Bajo. Towards the understanding of healthy and pathological aging through MEG. In Supek S and Aine C (editors), MEG: from signals to Dynamic Cortical Networks. Springer-Berlag in press

ARTICLES in scientific journals (in English)

1. Munar E, Nadal M, Castellanos N, Flexas A, Maestú F, Mirasso C, Cela-Conde CJ. Aesthetic appreciation: event-related field and time frequency analysis. *Frontiers in human neuroscience*. 2012, doi: 10.3389/fnhum.2011.00185; Jan2012 V5, article185. Impact Factor:2.339
2. Bajo R, Castellanos NP, López ME, Ruiz JM, Montejo P, Montenegro M, Llanero M, Gil P, Yubero R, Baykova E, Paul N, Aurtenetxe S, Del Pozo F, Maestú F. Early dysfunction of functional connectivity in healthy elderly with subjective memory complaints. *Age (Dordr)*. 34(2):497-506, 2012. Impact Factor: 6.280
3. Montejo P, Montenegro M, Fernández MA, Maestú F. Memory complaints in the elderly: Quality of life and daily living activities. A population based study. *Arch Gerontol Geriatr*. Mar-Apr;54(2):298-304, 2012. Impact Factor:3.348
4. Campo P, Garrido MI, Moran RJ, Maestú F, García-Morales I, Gil-Nagel A, Del Pozo F, Dolan RJ, Friston KJ. Remote Effects of Hippocampal Sclerosis on Effective Connectivity during Working Memory Encoding: A Case of Connectional Diaschisis? *Cerebral Cortex* Jun;22(6):1225-36,2012. Impact Factor: 6.844
5. Solesio-Jofre E, Lorenzo-López L, Gutiérrez R, López-Frutos JM, Ruiz-Vargas JM, Maestú F. Age-Related Effects in Working Memory Recognition Modulated by Retroactive Interference. *J Gerontol A Biol Sci Med Sci*. 67(6):565-72, 2012. Impact Factor:3.986
6. De hoyos A, Portillo J, Portillo I, Marín P, Maestú F, Poch-Broto J, Ortiz T, Hernando A. Comparison and Improvements of LCMV and MUSIC Source Localization Techniques. *Journal of Neuroscience Methods*. 15;205(2):312-23, 2012. Impact Factor:2.262
7. Becker J, Bajo, R, Fabrizio M, Sudre G, Cuesta P, Haridis A, Ambrose T, Aizenstein H, Lopez O, Wolk D, Parkkonen P, Maestú F, Bagic A. Neuronal Functional Connectivity Measured with Magnetoencephalography Identifies Persons with HIV Disease. *Brain Imaging and Behavior*. 6(3):366-73, 2012. Impact Factor: 0.859
8. Bajo R, Castellanos NP, Cuesta P, Aurtenetxe S, Garcia-Prieto J, Gil-Gregorio P, Del-Pozo F, Maestú F. Differential patterns of connectivity in progressive mild cognitive impairment. *Brain Connectivity*, 2(1):21-4, 2012. Impact Factor: To be released in 2013 expected 2

9. Munar E, Nadal M, Rosselló J, Flexas A, Moratti S, Maestú F, Marty G, Cela-Conde CJ. Lateral orbitofrontal cortex involvement in initial negative aesthetic impression formation. PLoS One. 7(6):e38152, 2012. Impact Factor:4.411
10. Maestu C, Cortes A, Vazquez JM, Del Rio D, Gomez-Arguelles JM, Del Pozo F, Nevado A. Increased brain responses during subjectively-matched mechanical pain stimulation in fibromyalgia patients as evidenced by MEG. Clin Neurophysiol. 2012 Oct 30. doi:pii: S1388-2457(12)00653-0. 10.1016/j.clinph.2012.09.015. [Epub ahead of print]. Impact Factor:3.406
11. Nevado A, Hadjipapas A, Kinsey K, Moratti S, Barnes GR, Holliday IE, Green GG. Estimation of functional connectivity from electromagnetic signals and the amount of empirical data required. Neurosci Lett. 2012 Mar 28;513(1):57-61. doi:10.1016/j.neulet.2012.02.007. . Impact Factor:2.105
12. Alberto Fernández, Pilar Zuluaga, Daniel Abásolo, Carlos Gómez, Anahi Serra, María Andreína Méndez, Roberto Hornero, "Brain oscillatory complexity across the life-span", Clinical Neurophysiology, vol. 123, 11, pp. 2154-2162, Noviembre, 2012. Impact Factor:3.406
13. David Santamarta, Daniel Abásolo, Manuel Martínez-Madrigal, Roberto Hornero, "Characterisation of the intracranial pressure waveform during infusion studies by means of central tendency measure", Acta Neurochirurgica, 154, pp. 1595-1602, Agosto, 2012. Impact Factor:1.520
14. Daniel Álvarez, Roberto Hornero, J. Víctor Marcos, Félix del Campo, "Feature selection from nocturnal oximetry using genetic algorithms to assist in obstructive sleep apnoea diagnosis", Medical Engineering and Physics, vol. 34, pp. 1049-1057, Agosto, 2012. Impact Factor:1.623
15. Gonzalo C. Gutiérrez-Tobal, Roberto Hornero, Daniel Álvarez, J. Víctor Marcos, Félix del Campo, "Linear and nonlinear analysis of airflow recordings to help in sleep apnoea-hypopnoea syndrome diagnosis", Physiological Measurement, 33, pp. 1261-1275, Julio, 2012. Impact Factor:1.677
16. Jesús Poza, Carlos Gómez, María T. Gutiérrez, Nuria Mendoza, Roberto Hornero, "Effects of a multi-sensory environment on brain-injured patients: assessment of spectral patterns", Medical Engineering and Physics, Aceptado, Junio, 2012. Impact Factor:1.623
17. Ricardo Bruña, Jesús Poza, Carlos Gómez, Alberto Fernández, María García and Roberto Hornero, "Analysis of spontaneous MEG activity in mild cognitive impairment and Alzheimer's disease using spectral entropies and statistical complexity measures", Journal of Neural Engineering, vol. 9, 3, pp. 036007, Junio, 2012 . Impact Factor:3.837
18. María Andreína Méndez, Pilar Zuluaga, Alfonso Rodríguez-Palancas, Roberto Hornero, Carlos Gómez, Javier Escudero, Tomás Ortiz, Alberto Fernández, "Complexity analysis of spontaneous brain activity: effects of depression and

- antidepressant treatment", Journal of Psychopharmacology, vol. 26, pp. 636-643, Mayo, 2012 . Impact Factor:3.036
19. Alberto Fernández, Pilar Zuluaga, Daniel Abásolo, Carlos Gómez, Anahi Serra, María Andreína Méndez, Roberto Hornero, "Brain oscillatory complexity across the life-span". Clinical Neurophysiology 2012; 123 2154-2162. . Impact Factor:3.406
20. Alberto Fernández, Carlos Gómez, Roberto Hornero, Juan José López-Ibor, "Complexity and Schizophrenia". Progress in Neuro-Psychopharmacology & Biological Psychiatry, Aceptado, Abril, 2012 . Impact Factor:3.247
21. María Andreína Méndez, Pilar Zuluaga, Alfonso Rodríguez-Palancas, Roberto Hornero, Carlos Gómez, Javier Escudero, Tomás Ortiz, Alberto Fernández. "Complexity analysis of spontaneous brain activity: effects of depression and antidepressant treatment", Journal of Psychopharmacology 2012; 26, 636-643. . Impact Factor:3.036
22. del Río, D., López-Higes, R., Martín-Aragoneses, M.T. (2012) . Canonical word order and interference-based integration costs during sentence comprehension: The case of Spanish subject- and object-relative clauses. The Quarterly Journal of Experimental Psychology, 65 (11): 2108-2128. Impact Factor:1.964
23. Becker JT, Cuesta P, Fabrizio M, Sudre G, Vergis EN, Douaihy A, Bajo R, Schubert A, Lopez OL, Parkkonen L, Maestu F, Bagic A. Brain structural and functional recovery following initiation of combination antiretroviral therapy. J Neurovirol. 2012 (in press) . Impact Factor:2.310
24. Del Río D, Cuesta P, Bajo R, García-Pacios J, López-Higes R, Del-Pozo F, Maestú F. Efficiency at Rest: Magnetoencephalographic Resting-State Connectivity and Individual Differences in Verbal Working Memory. Int J Psychophysiol. 2012 in press. Impact Factor:2.144
25. Pacios J, Gutierrez R, Solesio-Jofre E, Moratti S , Ruiz-Vargas JM, López-Frutos JM, Lorenzo-López L, del Pozo F, Maestú F. Early prefrontal activation as a mechanism to prevent forgetting in the context of interferente. American Journal of Geriatric Psychiatry. 2012 in press. Impact Factor:3.566
26. Massimiliano Zanin, Pedro Sousa, David Papo, Ricardo Bajo, Juan García-Prieto, Francisco del Pozo, Ernestina Menasalvas & Stefano Boccaletti Optimizing Functional Network representation of Multivariate Time Series Scientific Reports 2. in press. Impact Factor: to be released in 2013 expected 2
27. Aurtenetxe S, Castellanos NP, Moratti S, Bajo R, Gil P, Beitia G, Del-Pozo F, Maestú F. Dysfunctional and compensatory duality in mild cognitive impairment during a continuous recognition memory task. Int J Psychophysiol. 2012 Nov 23. doi:pii: S0167-8760(12)00668-X. 10.1016/j.ijpsycho.2012.11.008. In press. Impact Factor: 2.144
28. Castellanos NP, Sun L, Grützner C, Koethe D, Rivolta D, Wibral M, Cranaster L, Singer W, Uhlhaas PJ. Evidence for Dysregulated High-Frequency Oscillations during Sensory Processing in Medication-Naïve First, Episode

- Schizophrenia. Biological Psychiatry (under second revision). Impact Factor: 8.283
29. Jurado-Parras MT, Sánchez-Campusano R, Castellanos NP, del-Pozo F, Gruart A, Delgado-García JM. Differential contribution of hippocampal circuits to appetitive and consummatory behaviors during operant conditioning of behaving mice. Journal of Neuroscience (accepted). Impact Factor: 7.115

Total accumulated impact factor for the year 2012: 93.779

ARTICLES in scientific journals (in Spanish)

- Alberto Fernandez, Pedro Gil Gregorio, Fernando Maestu. Actividad espontanea electroencefalografica y magnetoencefalografica como marcador de la enfermedad de Alzheimer y el deterioro cognitivo leve. Revista española de Geriatría y Gerontología, 2012;47(1):27–32
- Fernando Maestú. Manual de Psicología de la Memoria. Psicothema, 24 (4): 681

ARTICLES in scientific journals (submitted)

1. De Vicente, F., Díaz-Berciano, C., Coello, M.T. & López-Sanz, D. (2012). Effects of personality traits on learned helplessness. Eviado a Journal of Personality and Social Psychology.
2. Ceferino Maestu, Manuel Blanco, Angel Nevado, Julia Romero, Patricia Rodríguez-Rubio, Javier Galindo, Juan Bautista Lorite, Francisco de las Morenas, Pedro Fernández-Argüelles. Reduction of pain thresholds in fibromyalgia after very low intensity magnetic stimulation: a double-blind randomised placebo-controlled clinical trial. Submitted.
3. Rivolta D, Castellanos N, Stawowsky C, Wibral M, Grützner C, Koethe D, Birkner K, Cranaster L, Singer S, Leweke M, Uhlhaas PJ. Source-reconstruction of event-related fields in medication-naïve, first episode patients reveals enhanced excitability of cortical networks during complex visual processing. American Journal of Psychiatry (submitted). Impact factor: 12.53
4. Guiomar Niso, Ricardo Bruña, Ernesto Pereda, Ricardo Gutiérrez, Ricardo Bajo, Fernando Maestú, Francisoco del-Pozo HERMES: towards an integrated toolbox to characterize functional and effective brain connectivity. NeuroInformatics. Submitted Oct 04, 2012.

CONFERENCES (proceedings and abstracts)

- Nevado A, Maestú C, Cortés A, Vázquez JM, del Rio D, Gómez-Argüelles JM, Pozo F, Maestú, F. Central pain augmentation in fibromyalgia during subjectively-matched mechanical stimulation. III International Symposium for the Study of Chronic Pain and Fibromyalgia. Palma, 12-13 julio 2012. University of Balearic Islands. España.
- Nevado A, Maestú C, Cortés A, Vázquez JM, del Rio D, Gómez-Argüelles JM, Pozo F, Maestú, F. Aumento de la respuesta central en pacientes con fibromialgia durante la estimulación mecánica tras ajustar el nivel subjetivo de dolor. VIII Congreso de la Sociedad Española de Psicofisiología y Neurociencia Cognitiva y Afecitiva. 3-6 de julio de 2012. Barcelona. España.
- Nevado A, Maestú C, Cortés A, Vázquez JM, del Rio D, Gómez-Argüelles JM, Pozo F, Maestú, F. Central pain augmentation in fibromyalgia during subjectively-matched mechanical stimulation." 8th FENS Forum of Neuroscience. Barcelona, España, julio 14-18, 2012.
- Sara Aurtenetxe, Nazareth P. Castellanos, M. Eugenia López, Pablo Cuesta, Pilar Garces, Ricardo Bajo, Juan García Prieto, Pedro Montejo, Pedro Gil, María Luisa Delgado, Octavio Jose Rodriguez Gómez, Alberto Marcos, Francisco del Pozo, Fernando Maestú. Brain dynamics of mild cognitive impairment during face encoding. 18th International Conference on Biomagnetism (BIOMAG). Paris, 2012 (Francia).
- M. Eugenia López, Nazareth P. Castellanos, Sara Aurtenetxe, Pilar Garces, Pablo Cuesta, Ricardo Bajo, Juan García Prieto, Mercedes Montenegro, Raquel Yubero, María Luisa Delgado, Alberto Marcos, Francisco del Pozo, Fernando Maestú. Connectivity and task- induced deactivation in the DMN. A MEG study in Mild Cognitive Impairment (MCI). 18th International Conference on Biomagnetism (BIOMAG). Paris, 2012 (Francia).
- Pablo Cuesta, Pilar Garcés, Sara Aurtenetxe , M.Eugenía López, Nazareth P. Castellanos, Ricardo Bajo, Juan García-Prieto, Pedro Montejo, Pedro Gil , Ana Barabash , J.Antonio Cabranes , Miguel Sancho, Francisco del Pozo, Alberto Marcos , Fernando Maestú. Resting state functional connectivity patterns associated with ApoE genotype. A MEG study in Mild Cognitive Impairment (MCI). 18th International Conference on Biomagnetism (BIOMAG). Paris, 2012 (Francia).
- Pilar Garcés, Pablo Cuesta , M. Eugenia López, Sara Aurtenetxe , Nazareth P. Castellanos, Ricardo Bajo, Juan García-Prieto, Mercedes Montenegro, María Luisa Delgado, Alberto Marcos, Raquel Yubero, Miguel Sancho, Francisco del Pozo, Fernando Maestú. Alterations of cross-frequency coupling in MEG resting state recordings in Mild Cognitive Impairment patients (MCI).

18th International Conference on Biomagnetism (BIOMAG). Paris, 2012 (Francia).

- Sara Aurtenetxe*, M. Eugenia López*, Pablo Cuesta, Pilar Garces, Nazareth P. Castellanos, Ricardo Bajo, Juan García Prieto, Pedro Montejo, Pedro Gil, María Luisa Delgado, Jose Antonio Cabranes, Alberto Marcos, Francisco del Pozo, Fernando Maestú. Cognitive reserve modulates connectivity patterns of brain activity in aging. A MEG study in Mild Cognitive Impairment (MCI). 3rd Biennial Conference on Resting State Brain Connectivity. Magdeburg, 2012 (Alemania). * These authors have contributed equally to the study.
- M. Eugenia López, Nazareth P. Castellanos, Sara Aurtenetxe, Pilar Garces, Pablo Cuesta, Ricardo Bajo, Juan García Prieto, Mercedes Montenegro, Raquel Yubero, María Luisa Delgado, Alberto Marcos, Francisco del Pozo, Fernando Maestú. The connectivity patterns of the Default Mode Network. A MEG study in Mild Cognitive Impairment (MCI). 3rd Biennial Conference on Resting State Brain Connectivity. Magdeburg, 2012 (Alemania).
- Sara Aurteneche Vicandi Estudio de la interferencia durante una tarea de memoria en el deterioro cognitivo leve. Sociedad española de neurociencia cognitiva y afectiva. Barcelona Junio 2012
- Becker J, Fabrizio M, Sudre G, Cuesta P, Bajo R, Maestu F, Basic A. MEG-identified recovery of CNS functional connectivity in HIV disease after HAART. 11th International Symposium of Neurovirology and 2012 conference on HIV and the nervous system. New York (USA), May 29-June 2 2012.
- Juan García Prieto "Neural Networks applied to MEG recordings". II Encuentro IBERSINC Universidad de Zaragoza (BIFI, Zaragoza). 20 de Marzo de 2012.
- Juan García Prieto "What stands behind SVM: brief introduction." Instituto de Física Interdisciplinar y Sistemas Complejos, CSIC-UIB. 24 de Abril de 2012.
- Juan García Prieto "Magnetoencephalography and Functional Connectiviy for early diagnose of Alzheimer Disease" Instituto de Física Interdisciplinar y Sistemas Complejos, CSIC-UIB., 26 de Abril.
- Guiomar Niso, Sira Carrasco , María Gudín , Fernando Maestú, Francisoco del-Pozo MEG synchronization in a case of idiopathic generalized epilepsy 18TH International conference on biomagnetism (BIOMAG 2012) From 26-08-2012 to 30-08-2012. Paris, France.
- Guiomar Niso, Ricardo Bruña, Ernesto Pereda, Ricardo Gutiérrez, Ricardo Bajo, Fernando Maestú, Francisoco del-Pozo HERMES: A friendly connectivity analysis software. 18TH International conference on biomagnetism (BIOMAG 2012) From 26-08-2012 to 30-08-2012. Paris, France

INVITED TALKS

- Nazareth Castellanos. Brain injury society. Edinburgh March 2012
- Nazareth Castellanos. International association of functional neurology and rehabilitation. October 2012
- Nazareth Castellanos. Conferencias sobre neurociencia. Fundación Areces, Madrid
- Fernando Maestú. Functional connectivity as a measure of cognitive impairment in neurological disorders: AD and TBI. 42 annual meeting of the Japanese Society of Clinical Neurophysiology. Tokio (Japan) 12th November 2012.
- Fernando Maestú. The role of MEG in the early diagnosis of Alzheimer Disease: an approach from functional connectivity. CAMD MEG Symposium. Functional Connectivity, from Basics to clinical research. Obu, Nagoya (Japan) November 7th 2012
- Fernando Maestú. Functional connectivity as a method to evaluate cognitive impairment and recovery in neurological disorders: the role of MEG. I Reuniao neurociencias hospital Sao Joao. 14 Marzo 2012, Oporto (Portugal)
- Fernando Maestú. Conectividad funcional en el deterioro cognitivo: del envejecimiento con quejas subjetivas de memoria a la enfermedad de Alzheimer. XXVIII congreso Internacional AELFA. 5, 6 y 7 de Julio 2012.
- Fernando Maestú. Mapeo cerebral mediante Magnetoencefalografía. Congreso Internacional de rehabilitación Holística del daño cerebral adquirido: desafíos actuales y futuros. Madrid 15 y 16 de noviembre 2012.
- Fernando Maestú. Conectividad funcional como método para entender las alteraciones de red en patologías neurológicas. I congreso Internacional de neuropsicología e neurociencias – novos e velhos paradigmas. Oporto (Portugal) 16 y 17 de Noviembre 2012
- Fernando Maestú. La conectividad funcional como modelo para entender las enfermedades neurológicas. Ciclo de conferencias en neurociencia cognitiva. Instituto de Salud Carlos III. 22 de Noviembre 2012
- Fernando Maestú. El enigma de la Memoria Humana. Caixa Forum, Palma de Mallorca 21 Marzo 2012
- Fernando Maestú. Avances en neuroimagen: conectividad funcional e integración de funciones en el cerebro humano. Jornadas de Neurociencia y Psicología. Universidad Nacional de Educación a Distancia 28 de Noviembre de 2012.
- Fernando Maestú. Nuevas tecnologías de neuroimagen en el estudio de la función cognitiva en la discapacidad intelectual. Magnetoencefalografía. I foro de neuropsicología y discapacidad. CSIC 2 de Marzo de 2012.

SCIENTIFIC REPORTS

- Jose María Peña, Ernestina Menansalvas, et al MAGIC-AD annual report. This is a report of the activities of an international consortium with the aim of the validation of MEG technique in the early diagnosis of Alzheimer Disease

PARTICIPATION IN EDUCATIONAL COURSES

- Fernando Maestú. Técnicas de Neuroimagen. ISEP Madrid Julio 2012.
- Fernando Maestú y Javier Gonzalez Marqués. Magister en Neuropsicología Cognitiva. Dirección año 2012
- Fernando Maestú. Pruebas neurofisiológicas y de neuroimagen. Master en neuropsicología. Aten-D. Diciembre 2012
- Fernando Maestú. Taller: Técnicas de neuroimagen: observando el lenguaje en el cerebro. XXVIII congreso Internacional AELFA. 5, de Julio 2012.
- Fernando Maestú. Organizador del simposium: Oscilaciones y conectividad anatomo funcional. Congreso de la SEPNECA Barcelona, 4 Julio 2012
- Fernando Maestú. Tecnicas de neuroimagen funcional. Master Universitario en Psicología Clínica y de la salud. Universidad Camilo José Cela Noviembre 2012.
- Fernando Maestú. Neuroimagen Funcional. Curso online de introducción a la neuropsicología. Centro Médico Mar Menor Valencia. 18 Marzo, 2012.
- Fernando Maestú. Aplicazoa de la neuroimagen functional em neuropsicologia. CRIAP Psicología e Formacio Avancada. Lisboa 3 Marzo 2012
- Fernando Maestú. Aplicación e la neuromagen funcional em neuropsicología: MEG, RMf, PET and SPECT. Instituto Portugues de Psicología. Oporto 21 enero 2012.
- Fernando Maestú. Moderador en el congreso: VII jornadas Complutenses, VI congreso nacional de investigación para alumnos de pregrado en ciencias de la salud y XI congreso de ciencias veterinarias y biomédicas. 13 y 14 de Abril 2012, 2012, Facultad de Odontología UCM.

ORGANIZATION OF EDUCATIONAL COURSES

- Semana de la ciencia (government of Madrid). Activity to promote the knowledge of MEG in scientist form other disciplines, scholars and the general public.
- Magnetoencephalography: from research to clinical applications. 15 June 2012.
- Jornada de aprendizaje en MEG para neurólogos y Neurofisiólogos. Ponente: Michael Funke, 12 de Junio de 2012.

ORGANIZATION OF INTERNATIONAL CONFERENCES

- Magnetoencephalography: from research to clinical applications. Center for Biomedical Technology 15 June 2012.

AWARDS

- To Fernando Maestú. 42 annual meeting of the Japanese Society of Clinical Neurophysiology. Tokio (Japan) 12th November 2012

SCIENTIFIC STAY

- Pablo Cuesta Department of Psychology, Goldsmiths College, University of London. Supervisor Bhattacharya J. London (UK).
- Pilar Garcés Max Planck Institute (Frankfurt-Germany). Study of resting state functional connectivity in the source space. Supervisor Michael Wibral.
- Juan García Prieto. IFISC Palma de Mallorca. Reservoir computing. Supervisor, Claudio Mirasso
- Sara Arunetxe Cognition and Brain Science Unit, University of Cambridge. Supervisor Rik Henson
- Javier García Pachos. University of Cambridge. Supervisor Michael Anderson

VISITING PROFESSORS AND STUDENTS (2012)

- Frank Hilary. Department of Psychology, The Pennsylvania State University. Study of functional networks on TBI.
- Dario Díaz Universidad de Castilla La Mancha. Learning MEG recordings and analysis procedure.
- James Becker (University of Pittsburgh). Study of cognitive impairment in HIV by means of MEG. Supported by the University of Pittsburgh
- Francisco Barceló (University of Balearic Islands). Executive function in the elderly. Supported by Spanish Minister of Science and Innovation
- Paloma Enriquez. Universidad Nacional de Educación a distancia. Understanding MEG process.
- Maria Grazia Vaccaro. Neuroimaging Research Unit of the National Research Centre. Lamezia-Terme, Italy learning clinical uses of MEG in stroke patients.
- Laura Pina. Hospital Gregorio Marañón de Madrid. Estudio de las técnicas de SVM para la clasificación de datos clínicos.
- Dr. Davide Rivolta. Post Doct at Max Planck Institute Brain Research. Frankfurt
- Isabella Premoli. PhD student at General Hospital in Tubingen.
- Javier Imperial College London. Learning MEG signal analysis
- Guillermo Alemany. Learning MEG process
- Noelia Serrano psychology student. Learning MEG process

RESEARCH PROJECTS

- Entendiendo las quejas de memoria en el envejecimiento: una aproximación desde la genética, la neuropsicología y la conectividad anatómico-funcional. PSI2012-38375-C03-01. IP Fernando Maestú 128.700eu
- Elemento para entender las quejas subjetivas de memoria en el envejecimiento: efectos del entrenamiento en tareas cognitivas y en la reorganización de redes funcionales. PSI2012-38375-c03-3. IP: Ramón López 76.050eu
- Estudio clínico, neuroanatómico y funcional mediante técnicas de neuroimagen en adultos con síndrome de Down con y sin demencia: patrones predictivos para el desarrollo de demencia. Fondo de Investigaciones Sanitarias. PI12/01695 IP. Fernando Moldenhauer, Hospital de la Princesa de Madrid 72.000eu
- Elekta Neuromag funding. Development clinical protocols with MEG 60.000eu