

CARLO SESTIERI

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ACADEMIC HISTORY

- 2018-present Associate Professor**
M-PSI/02 Psychobiology and Physiological Psychology
Dept. of Neuroscience, Imaging and Clinical Sciences
University G. d'Annunzio of Chieti-Pescara, Italy
- 2015-2018 Assistant Professor**
M-PSI/02 Psychobiology and Physiological Psychology
Dept. of Neuroscience, Imaging and Clinical Sciences
University G. d'Annunzio of Chieti-Pescara, Italy
- 2007-2015 Post Doctoral Research Fellow**
Dept. of Neuroscience, Imaging and Clinical Sciences
University G. d'Annunzio of Chieti-Pescara, Italy
- 2007 Ph.D. *Functional Neuroimaging: from Cells to Systems***
Department of Clinical Science e Bioimages,
University G. d'Annunzio of Chieti-Pescara, Italy
- 2003 University Degree in *General and Experimental Psychology***
magna cum laude
University "La Sapienza", of Roma, Italy

TITLES

- 2014 National Scientific Habilitation for Associate Professor in Psychology

RESEARCH

RESEARCH PERIODS ABROAD

- 2007 – 2010 Visiting Researcher**
Dept. of Neurology; WashU, St. Louis, MO, USA
Supervisor: Prof. Maurizio Corbetta
- 2006 (Mar–Dec) Visiting Exchange PhD Student**
Dept. of Neurology; WashU, St. Louis, MO, USA
Supervisor: Prof. Maurizio Corbetta

GRANTS

- 2015-present** Annual individual founding of basic research
- 2017-2019 Principal Investigator**
BIAL Foundation Grant #159-2016. Duration: 18 months. Funds: 47000 €
Title: *Unraveling the neural mechanisms of human memory decisions with magnetoencephalography*

PUBLICATIONS

Bibliometric indices (Scopus)

Articles Published	32
Total Citations	1179
H-Index	18

Articles in peer-reviewed journals:

1. Guidotti R, Tosoni A, **Sestieri C**. Properties and temporal dynamics of choice- and action-predictive signals during item recognition decisions. *Brain Struct Funct*. 2020 Sep;225(7):2271-2286.
2. Patel GH, **Sestieri C**, Corbetta M. The evolution of the temporoparietal junction and posterior superior temporal sulcus. *Cortex*. 2019 Sep;118:38-50.
3. Guidotti R, Tosoni A, Perrucci MG, **Sestieri C**. Choice-predictive activity in parietal cortex during source memory decisions. *Neuroimage*. 2019 Apr 1;189:589-600
4. Spadone S, **Sestieri C**, Baldassarre A, Capotosto P. Temporal dynamics of TMS interference over preparatory alpha activity during semantic decisions. *Sci Rep*. 2017 May 24;7(1):2372.
5. **Sestieri C**, Shulman GL, Corbetta M. The contribution of the human posterior parietal cortex to episodic memory. *Nat Rev Neurosci*. 2017 Feb 17;18(3):183-192.
6. Capotosto P, Baldassarre A, **Sestieri C**, Spadone S, Romani GL, Corbetta M. Task and Regions Specific Top-Down Modulation of Alpha Rhythms in Parietal Cortex. *Cereb. Cortex*. 2017 Oct 1;27(10):4815-4822.
7. Tosoni A, Guidotti R, Del Gratta C, Committeri G, Sestieri C. Preferential coding of eye/hand motor actions in the human ventral occipito-temporal cortex. *Neuropsychologia*. 2016 Dec;93(PtA):116-127.
8. Piervincenzi C, Petrilli A, Marini A, Caulo M, Committeri G, **Sestieri C**. Multimodal assessment of hemispheric lateralization for language and its relevance for behavior. *Neuroimage*. 2016 Nov 15;142:351-370.
9. Navarra R, **Sestieri C**, Conte E, Salomone R, Mattei PA, Romani GL, Domizio S, Caulo M. Perinatal MRI diffusivity is related to early assessment of motor performance in preterm neonates. *Neuroradiol J*. 2016 Apr;29(2):137-45.
10. Pravatà E, Zecca C, **Sestieri C**, Caulo M, Riccitelli GC, Rocca MA, Filippi M, Cianfoni A, Gobbi C. Hyperconnectivity of the dorsolateral prefrontal cortex following mental effort in multiple sclerosis patients with cognitive fatigue. *Mult Scler*. 2016 Nov;22(13):1665-1675.
11. Spadone S, Della Penna S, **Sestieri C**, Betti V, Tosoni A, Perrucci MG, Romani GL, Corbetta M. Dynamic reorganization of human resting-state networks during visuospatial attention. *Proc Natl Acad Sci U S A*. 2015 Jun 30;112(26):8112-7.
12. Capotosto P, Spadone S, Tosoni A, **Sestieri C**, Romani GL, Della Penna S, Corbetta M. Dynamics of EEG rhythms support distinct visual selection mechanisms in parietal cortex: a simultaneous transcranial magnetic stimulation and EEG study. *J Neurosci*. 2015 Jan 14;35(2):721-30.
13. **Sestieri C**, Tosoni A, Mignogna V, McAvoy MP, Shulman GL, Corbetta M, Romani GL. Memory accumulation mechanisms in human cortex are independent of motor intentions. *J Neurosci*. 2014 May 14;34(20):6993-7006.
14. Pravatà E, **Sestieri C**, Colicchio G, Colosimo C, Romani GL, Caulo M. Functional connectivity MRI and post-operative language performance in temporal lobe epilepsy: initial experience. *Neuroradiol J*. 2014 Apr;27(2):158-62.
15. **Sestieri C**, Corbetta M, Spadone S., Romani GL, Shulman GL. Domain-general Signals in the Cingulo-opercular Network for Visuospatial Attention and Episodic Memory. *J Cogn Neurosci*. 2014 Mar;26(3):551-68.
16. Tagliamonte M, **Sestieri C**, Romani GL, Gallucci M, Caulo M. MRI anatomical variants of mammillary bodies. *Brain Struct Funct*. 2015 Jan;220(1):85-90.
17. Capotosto P, Tosoni A, Spadone S, **Sestieri C**, Perrucci MG, Romani GL, Della Penna S, Corbetta M. Anatomical segregation of visual selection mechanisms in human parietal cortex. *J Neurosci*, 2013, 33(14):6225-9.
18. **Sestieri C**, Capotosto P, Tosoni A, Romani GL, Corbetta M. Interference with episodic memory retrieval following transcranial stimulation of the inferior but not the superior parietal lobule. *Neuropsychologia*, 2013, 51(5):900-6.
19. de Pasquale F, Sabatini U, Della Penna S, **Sestieri C**, Caravasso CF, Formisano R, Pèran P. The connectivity of functional cores reveals different degrees of segregation and integration in the brain at rest. *Neuroimage*, 2013, 69:51-61.
20. Briganti C, **Sestieri C**, Mattei PA, Esposito R, Galzio RJ, Tartaro A, Romani GL, Caulo M. Reorganization of functional connectivity of the language network in patients with brain gliomas. *AJNR Am J Neuroradiol*. 2012 Nov;33(10):1983-90.
21. Caulo M, Esposito R, Mantini D, Briganti C, **Sestieri C**, Mattei PA, Colosimo C, Romani GL, Tartaro A. Comparison of hypothesis- and a novel hybrid data/hypothesis-driven methods of fMRI analysis in patients with brain gliomas. *AJNR Am J Neuroradiol*. 2011 Jun-Jul;32(6):1056-64.
22. **Sestieri C**, Corbetta M, Romani GL, Shulman GL. Episodic memory retrieval, parietal cortex, and the Default Mode Network: functional and topographic analyses. *J Neurosci*, 2011, 31(12):4407-20.
23. Pravatà E, **Sestieri C**, Mantini D, Briganti C, Colicchio G, Marra C, Colosimo C, Tartaro A, Romani GL, Caulo M. Functional Connectivity MR Imaging of the Language Network in Patients with Drug-Resistant Epilepsy. *AJNR Am J Neuroradiol*. 2011 32(3):532-40.
24. **Sestieri C**, Shulman GL, Corbetta M. Attention to memory and the environment: functional specialization and dynamic competition in human posterior parietal cortex. *J Neurosci*, 2010, 30(25):8445-8456. [IF: 7.27](#)
25. Londei A, D'Ausilio A, Basso D, **Sestieri C**, Del Gratta C, Romani GL, Olivetti Belardinelli M. Sensory-motor brain network connectivity for speech comprehension. *Hum Brain Mapp*. 2010 Apr;31(4):567-80. [IF:5.11](#)
26. Olivetti Belardinelli M, Palmiero M, **Sestieri C**, Nardo D, Di Matteo R, Londei A, D'Ausilio A, Ferretti A, Del Gratta C, Romani GL. An fMRI investigation on image generation in different sensory modalities: the influence of vividness. *Acta Psychologica (Amst)* 2009, 132(2):190-200. [IF: 2.19](#)
27. **Sestieri C**, Pizzella V, Cianflone F, Romani GL, Corbetta M. Sequential activation of human oculomotor centers during planning of visually-guided eye movements: a combined fMRI-MEG study. *Front Hum Neurosci*. 2008 Mar 28;1: 1-8. [IF: 1.55](#)
28. **Sestieri C**, Sylvester CM, Jack AI, d'Avossa G, Shulman GL, Corbetta M. Independence of anticipatory signals for spatial attention from number of nontarget stimuli in the visual field. *J Neurophysiol* 2008, 100(2): 829-838. [IF: 3.65](#)
29. Londei A, D'Ausilio A, Basso D, **Sestieri C**, Del Gratta C, Romani GL, Olivetti Belardinelli M. Brain network for passive word listening as evaluated with ICA and Granger causality. *Brain Res Bull*. 2007, 72(4-6):284-292. [IF: 1.94](#)
30. **Sestieri C**, Di Matteo R, Ferretti A, Del Gratta C, Caulo M, Tartaro A, Olivetti Belardinelli M, Romani GL. "What" versus "Where" in the audiovisual domain: An fMRI study. *Neuroimage* 2006, 33(2):672-80. [IF: 5.56](#)
31. Avons SE, **Sestieri C**. Dynamic visual noise: No interference with short-term memory or the construction of visual images. *European Journal of Cognitive Psychology* 2005, 17:405-424. [IF: 1.62](#)
32. Olivetti Belardinelli M, **Sestieri C**, Di Matteo R, Delogu, F, Del Gratta C, Ferretti A, Caulo M, Tartaro A, Romani GL. Audio-visual crossmodal interactions in environmental perception: an fMRI investigation. *Cognitive Processing* 2004, 5(3):167-174.

Book Chapters

1. Caulo M, Briganti C, **Sestieri C**. Cap. 1 Anatomia funzionale dell'encefalo. In: Colosimo C. *Neuroradiologia*. Milano: Edra, 2013

2. **Sestieri C**, Shulman GL, Corbetta M.. Orienting to the Environment: Separate Contributions of Dorsal and Ventral Frontoparietal Attention Networks. In: Neuroscience of Attention: Attentional Control and Selection. Oxford University Press, 2011.

CONFERENCES & INVITED TALKS

- 2019** **Invited Speaker.** Mediterranean Neuroscience Conference, Marrakesh, Morocco. Symposium on "Neurobiology of individual differences in human memory performance"
Title: *A model of parietal involvement in episodic memory retrieval*
- 2017** **Invited Speaker/Moderator.** IV Italian National Congress of Functional Neuroradiology, Parma, Italy. Title: *Evoked BOLD and resting state: Principles and differences*
- 2016** **Invited Speaker.** XIII Italian National Congress of Pediatric Radiology, Rome, Italy. Title: *Structural language lateralization with DTI: clinical perspective in pediatry*
- 2015** **Invited Speaker.** III Italian National Congress of Functional Neuroradiology Funzionale, Florence, Italy. Title: *Functional Connectivity: Principles and analysis methods*
- 2013** **Speaker/Symposium organizer.** Annual congress of the Italian Psychology Association (AIP), section of Experimental Psychology, Rome, Italy. Title: *Theoretical models and neural implementation of memory-based decision-making*
- 2012** **Speaker.** Annual congress of the Italian Psychology Association (AIP), section of Experimental Psychology, Chieti, Italy. Title: *Interference with episodic memory retrieval caused by TMS on the left angular gyrus*
- 2010** **Speaker,** Human Brain Mapping Conference, Barcelona, Spain. Title: *Episodic memory retrieval dissociates posterior from anterior nodes of the Default Mode Network*
- 2009** **Speaker,** Society for Neuroscience Annual Meeting, Chicago, IL, USA. Title: *Attention to Memory and the Environment: Functional Specialization and Dynamic Competition in Human Posterior Parietal Cortex*

SERVICE

Ad hoc reviewing

NeuroImage, Journal of Neuroscience, Cognitive Processing, Cortex, Cerebral Cortex, PLoS1, Neuropsychologia, Journal of Cognitive Neuroscience

Editorial Board

Reviewing Editor. Frontiers in human neuroscience (2013-present)

MEMBERSHIP OF SCIENTIFIC ORGANIZATIONS

- 2018-2019 *Federation of European Neuroscience Societies*
2007-2010 *Society for Neuroscience (SfN)*
2005-2010 *Organization for the Human Brain Mapping (OHBM)*

TEACHING

COURSES TAUGHT

- 2018-present** **Psychobiology I** (64 hours).
Degree in psychological sciences and techniques, University G. d'Annunzio of Chieti-Pescara, Italy
- 2015-present** **Developmental Cognitive Neuroscience** (64 hours).
Master Degree in Psychology, University G. d'Annunzio of Chieti-Pescara, Italy
- 2016-2019** **General Psychology** (20 hours)
Degree in Occupational Therapy
Degree in radiological techniques and radioterapy, University G. d'Annunzio of Chieti-Pescara, Italy
- 2010-2013** **Methods of neuro-psycho-physiological investigations** (48 hours).
Master Degree in Psychology
University G. d'Annunzio of Chieti-Pescara, Italy (2010-2013)

GUEST LECTURES

- 2013** **fMRI data analysis**
Summer Workshop of Introductory Course On Medical Imaging, IRCCS Fondazione S. Lucia, Rome, Italy

2012-2013 ***fMRI data analysis***
Theoretical/practical course in functional imaging in neuroradiology.
Italian society of Medical radiology (SIRM), Chieti, Italy

2012-2017 ***fMRI methodology***
School of the Italian Psychology Association (AIP) in Methodology of
Neuroscience and Imaging, Chieti, Italy

PHD PROGRAM

2015-present *fMRI Methodology*. PhD course in "Neuroscience and Imaging. University "G. d'Annunzio" of
Chieti-Pescara, Italy (2015-present)

MENTORING

Post-Doctoral trainees

Sara Spadone (2017-present)

PhD students

Claudia Piervincenzi (2013-2015)

Matteo Frisoni (2018-present)

Lorenzo Mattioni (2019-present)

Chieti, 29.10.2020

Signed

