

ANTONIO NAPOLITANO

SITUAZIONE ATTUALE E ESPERIENZE LAVORATIVE

Da giugno 2016 ricercatore permanente in tecniche avanzate di risonanza magnetica presso l'Ospedale Bambino Gesù

Da maggio 2013 ricercatore in visita dell'ospedale pediatrico Bambino Gesù al Max Plack Institute di Tubinga per l'implementazione del gradiente di lettura modulato a 9.4T finanziato da DAAD

Da aprile 2011 a maggio 2016 Ricercatore in tecniche avanzate di risonanza magnetica presso l'Ospedale Bambino Gesù e ricercatore associato presso l'Università di Nottingham.

Da ottobre 2009 a marzo 2011, sono stato ricercatore postdoc presso la Divisione di Radiologia Accademica, Università di Nottingham, finanziato da una sovvenzione del programma CRUK / EPSRC / MRC / NIHR Cancer Imaging Program e coinvolto in uno studio multicentrico sui tumori cerebrali dei bambini.

EDUCATION

14 novembre 2011: Fisico Medico presso l'Università degli Studi di Roma "Sacro Cuore" con votazione finale di 50/50.

Da ottobre 2006 a ottobre 2009: Dottorato di ricerca in Risonanza Magnetica presso l'Università di Nottingham, Divisione di Radiologia Accademica

Tesi di dottorato con titolo "Profilazione di neurotrasmettitori con spettroscopia di risonanza magnetica ad alto e altissimo campo: ottimizzazione per studi clinici e traslazionali nella schizofrenia".

La borsa di dottorato è stata concessa da Marie Curie Action nell'ambito del 6PQ europeo.

In qualità di studente di dottorato, ho anche fatto parte del gruppo CMIAG (Collaborative Medical Imaging Analysis on Grid) e i miei interessi principali sono focalizzati sulla spettroscopia in vivo ad alto campo; metodi di quantificazione e tecniche di adattamento di spettri bidimensionali sono alcune aree di interesse. Gli scanner Philips sono principalmente utilizzati.

Studi universitari: Università "La Sapienza" - Roma - Italia

Titolo di studio: Laurea in Fisica, 27 aprile 2006

Titolo della tesi di laurea: "Spettroscopia NMR" in vivo "per lo studio di alterazioni metaboliche nella malattia di Alzheimer: una nuova possibile strategia. "

Corsi

November 22-24, 2018

Esperto responsabile della sicurezza RM

Rome

June 28-30, 2012

Parallel Imaging: Basic and Advanced Transmission and Reception Concepts

Würzburg/DE

28-30 March 2012

"IDEA Siemens Upgrade Virtual Course (VD11d)"

Online course

10-15 October 2011

"Idea Siemens pulse programming course(VB17)"

Campus Berlin Buch, Berlin, Germany

15-17 October 2009

ESMRMB lectures

"Current concepts in perfusion and DCE MRI"

University Hospital Freiburg, Germany

7-11 April 2008

"Philips Pulse Programming Course"

Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

6-13 May 2007

"Brain function investigation by magnetic resonance, electrophysiology and pharmaceutical probes, in combination"

"Ettore Majorana foundation and centre for scientific culture", Erice, Italy

21-28 May 2006

"4th course: Magnetic resonance combined with electrophysiology with molecular pharmaceutical action for the study of brain function"

"Ettore Majorana foundation and centre for scientific culture", Erice, Italy

23-29 May 2005

"International school on magnetic resonance and brain function, 3rd course:

Brain function research by magnetic resonance, electrophysiology and molecular probes"
"Ettore Majorana foundation and centre for scientific culture", Erice, Italy

ARTICOLI E CONFERENZE

MONOGRAFIE

Chapter titled "Neurometabolic profiling of ketamine" within the book: "The Neuropathology Of Drug Addictions And Substance Misuse" Victor R. Preedy (ed.) Elsevier

ARTICOLI

Cassano, B., E. Genovese, et al. (2019). Preliminary dosimetric study with 177-Lutetium Peptide Receptor Radionuclide Therapy for Pediatric Patients with neuroendocrine tumors. EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING, SPRINGER 233 SPRING ST, NEW YORK, NY 10013 USA.

Cassano, B., C. Polito, et al. (2019). Dosimetric analysis and clinical outcome for patient with High-Risk Neuroblastoma administered with high-activity therapy of 131I-mIBG. EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING, SPRINGER 233 SPRING ST, NEW YORK, NY 10013 USA.

De Palma, L., G. C. Pavia, et al. (2019). Electrical Features And Seizure Outcomes In Patients With Focal Cortical Dysplasia: A SEEG Study. Epilepsia, WILEY 111 RIVER ST, HOBOKEN 07030-5774, NJ USA.

De Palma, L., C. Pepi, et al. (2020). "Early Onset Epilepsy Caused by Low-Grade Epilepsy-Associated Tumors and Focal Meningeal Involvement." Brain Sciences 10(10): 752.

Eley, K. A., M. C. Rossi-Espagnet, et al. (2021). "Multiparametric Imaging for Presurgical Planning of

Craniopagus Twins: The Experience of Two Tertiary Pediatric Hospitals with Six Sets of Twins." *Radiology* 298(1): 18-27.

Lenge, M., C. Marini, et al. (2020). "Quantitative MRI-based analysis identifies developmental limbic abnormalities in *pcdh19* encephalopathy." *Cerebral Cortex* 30(11): 6039-6050.

Longo, D., F. Bottino, et al. (2020). "DTI parameters in neonates with hypoxic-ischemic encephalopathy after total body hypothermia." *The Journal of Maternal-Fetal & Neonatal Medicine*: 1-8.

Luca, P., G. Alessia, et al. (2020). "Spinal cord involvement in Kearns-Sayre syndrome: a neuroimaging study." *Neuroradiology* 62(10): 1315-1321.

Pasquini, L., A. Guarnera, et al. (2020). "Reply to: "Is the spinal cord truly affected in half of the patients with Kearns-Sayre syndrome?" and "Spinal cord and heart involvement in Kearns Sayre Syndrome: which link?"." *Neuroradiology*: 1-2.

Rossi-Espagnet, M. C., M. L. Dentici, et al. (2020). "Microcephalic osteodysplastic primordial dwarfism type II and pachygyria: Morphometric analysis in a 2-year-old girl." *American Journal of Medical Genetics Part A* 182(10): 2372-2376.

Trivisano, M., M. Rivera, et al. (2020). "Developmental and epileptic encephalopathy due to SZT2 genomic variants: Emerging features of a syndromic condition." *Epilepsy & Behavior* 108: 107097.

Voicu, I. P., A. Napolitano, et al. (2020). "IMG-16. WHOLE TUMOR DIFFUSION KURTOSIS IMAGING ANALYSIS FOR DISCRIMINATING PEDIATRIC POSTERIOR FOSSA TUMORS: ACCURACY AND REPEATABILITY." *Neuro-oncology* 22(Supplement_3): iii358-iii358.

Voicu, I. P., A. Napolitano, et al. (2020). "IMG-14. DEVELOPING A PREDICTIVE GRADING MODEL FOR CHILDREN WITH GLIOMAS BASED ON DIFFUSION KURTOSIS IMAGING METRICS: ACCURACY AND

CLINICAL CORRELATIONS WITH SURVIVAL." *Neuro-oncology* 22(Suppl 3): iii357.

Rossi-Espagnet MC, Pro S, Martinelli D, Diodato D, Napolitano A, Longo D.

Reply to: Viability of diffusion tensor imaging for assessing retrochiasmatic involvement in Kearns-Sayre syndrome remains elusive. *Neuroradiology*. 2020 Feb;62(2):133-134. doi: 10.1007/s00234-019-02344-4. Epub 2019 Dec 14. PubMed PMID: 31838563.

Rossi-Espagnet MC, Lucignani M, Pasquini L, Napolitano A, Pro S, Romano A, Diodato D, Martinelli D, Longo D. Visual pathways evaluation in Kearns Sayre syndrome: a diffusion tensor imaging study. *Neuroradiology*. 2020 Feb;62(2):241-249. doi: 10.1007/s00234-019-02302-0. Epub 2019 Nov 4. PubMed PMID: 31680196.

Giulia Lucignani, Maria Camilla Rossi Espagnet, Antonio Napolitano, Lorenzo Figà Talamanca, Francesca Ippolita Calò Carducci, Cinzia Auriti, Daniela Longo

A new MRI severity score to predict long-term adverse neurologic outcomes in children with congenital Cytomegalovirus infection *The Journal of Maternal-Fetal & Neonatal Medicine*, 1-18

Antonio Napolitano, Martina Andellini, Vittorio Cannatà, Marianna Castrataro, Giovanni Pezzulo, Maria Cristina Caselli, Pasquale Rinaldi, Laura Barca

Analysis of Group ICA functional connectivity of task-driven fMRI: application to language processes in adults with auditory deprivation

OSF Preprints

LF Talamanca, L Pasquini, A Napolitano, D Longo

MRI in medium-chain acyl-coenzyme a dehydrogenase deficiency: neuroimaging during the first month *Journal of Pediatric Endocrinology and Metabolism* 30 (8), 905-908

Pasquini L, Napolitano A, Visconti E, Longo D, Romano A, Tomà P, Espagnet MCR.

Gadolinium-Based Contrast Agent-Related Toxicities. *CNS Drugs*. 2018 Mar;32(3):229-240. IF=3.5

Pasquini L, Rossi Espagnet MC, Napolitano A, Longo D, Bertaina A, Visconti E, Tomà P. Dentate nucleus T1 hyperintensity: is it always gadolinium all that glitters? *Radiol Med.* 2018 Jan 27. IF=1.795

Andellini M, Cannatà V, Gazzellini S, Bernardi B, Napolitano A. Test-retest reliability of graph metrics of resting state MRI functional brain networks: a review. *Journal of neuroscience methods.* 2015;253:183-92. IF=2.554

Dashdorj N, Corrie K, Napolitano A, Petersen E, Mahajan RP, Auer DP. Effects of Subanesthetic Dose of Nitrous Oxide on Cerebral Blood Flow and Metabolism A Multimodal Magnetic Resonance Imaging Study in Healthy Volunteers. *Anesthesiology.* 2013;118(3):577–86–86. IF=5.879

Espagnet MCR, Bernardi B, Pasquini L, Figà-Talamanca L, Tomà P, Napolitano A. Signal intensity at unenhanced T1-weighted magnetic resonance in the globus pallidus and dentate nucleus after serial administrations of a macrocyclic gadolinium-based contrast agent in children. *Pediatric Radiology.* 2017:1-8. IF=1,57

Espagnet MCR, Pasquini L, Napolitano A, Cacchione A, Mastronuzzi A, Caruso R, et al. Magnetic resonance imaging patterns of treatment-related toxicity in the pediatric brain: an update and review of the literature. *Pediatric radiology.* 2016:1-16. IF=1,57

Gazzellini S, Dettori M, Amadori F, Paoli B, Napolitano A, Mancini F, et al. Association between Attention and Heart Rate Fluctuations in Pathological Worriers. *Frontiers in human neuroscience.* 2016;10. IF=3,626

Gazzellini S, Lispi ML, Castelli E, Trombetti A, Carniel S, Vasco G, et al. The impact of vision on the dynamic characteristics of the gait: strategies in children with blindness. *Experimental brain research.* 2016;234(9):2619-27. IF=2,036

Gazzellini S, Napolitano A, Bauleo G, Bisozzi E, Lispi ML, Ardu E, et al. Time–frequency analyses of reaction times and theta/beta EEG ratio in pediatric patients with traumatic brain injury: A preliminary study. *Developmental neurorehabilitation.* 2016:1-15. IF=2,05

Genovese E, Napolitano A, Donatiello S, Orlandi C, Toma P, Campanella F, et al. Safety for MRI patients with implanted medical devices. *Physica Medica: European Journal of Medical Physics*. 2016;32:127-8. IF=2,403

Genovese E, Napolitano A, Donatiello S, Orlandi C, Toma P, Cannata V. MRI ferromagnetic detector system for patients' and operators' safety: Experience in opbg. *Physica Medica: European Journal of Medical Physics*. 2016;32:128. IF=2,403

Lin Y, Stephenson MC, Xin L, Napolitano A, Morris PG. Investigating the metabolic changes due to visual stimulation using functional proton magnetic resonance spectroscopy at 7 T. *Journal of cerebral blood flow & metabolism*. 2012;32(8):1484-95. IF= 5,407

Manita M, Napolitano A, Jaspán T, Grundy R, Auer D. Mr Perfusion And Spectroscopy To Study Biological Heterogeneity In Pilocytic Astrocytoma In Children. *Neuro-oncology*. 2010;12(6):ii94. IF= 6,776

Martinelli D, Bernardi B, Napolitano A, Colafati GS, Dionisi-Vici C. Teaching NeuroImages: Galactitol peak and fatal cerebral edema in classic galactosemia Too much sugar in the brain. *Neurology*. 2016;86(3):e32-e3. IF= 8,185

Mattei E, Censi F, Calcagnini G, Falsaperla R, Genovese E, Napolitano A, et al. Pacemaker and ICD oversensing induced by movements near the MRI scanner bore. *Medical physics*. 2016;43(12):6621-31. IF= 2,635

Mattei E, Censi F, Triventi M, Napolitano A, Genovese E, Cannatà V, et al. An optically coupled sensor for the measurement of currents induced by MRI gradient fields into endocardial leads. *Magnetic Resonance Materials in Physics, Biology and Medicine*. 2015;28(3):291-303. IF=2,869

Moavero R, Napolitano A, Cusmai R, Vigevano F, Figà-Talamanca L, Calbi G, et al. White matter disruption is associated with persistent seizures in tuberous sclerosis complex. *Epilepsy & Behavior*. 2016;60:63-7. IF= 2,257

Napolitano A, Kockenberger W, Auer DP. Reliable gamma aminobutyric acid measurement using optimized PRESS at 3 T. *Magnetic resonance in medicine*. 2013;69(6):1528-33. IF= 3,571

Napolitano A, Shah K, Schubert MI, Porkess V, Fone KC, Auer DP. In vivo neurometabolic profiling to characterize the effects of social isolation and ketamine-induced NMDA antagonism: a rodent study at 7.0 T. *Schizophrenia bulletin*. 2013;40(3):566-74. IF=8,45

Napolitano A, Ungania S, Cannata V. Fractal dimension estimation methods for biomedical images. *MATLAB-A Fundamental Tool for Scientific Computing and Engineering Applications-Volume 3*: Intech; 2012. IF=0

Pennarola F, Fanfoni M, Cannata V, Bernardi B, Napolitano A. Comparison of PCA vs KPCA for physiological noise removal in resting state FMRI. *Physica Medica: European Journal of Medical Physics*. 2016;32:131-2. IF=2,403

Placidi E, Marciani L, Hoad C, Napolitano A, Garsed K, Pritchard S, et al. The effects of loperamide, or loperamide plus simethicone, on the distribution of gut water as assessed by MRI in a mannitol model of secretory diarrhoea. *Alimentary pharmacology & therapeutics*. 2012. IF= 5,727

Quattrocchi CC, Zanni G, Napolitano A, Longo D, Cordelli DM, Barresi S, et al. Conventional magnetic resonance imaging and diffusion tensor imaging studies in children with novel GPR56 mutations: further delineation of a cobblestone-like phenotype. *neurogenetics*. 2013;14(1):77-83. IF= 2,884

Rossi Espagnet MC, Romano A, Mancuso V, Cicone F, Napolitano A, Scaringi C, et al. Multiparametric evaluation of low grade gliomas at follow-up: comparison between diffusion and perfusion MR with 18F-FDOPA PET. *The British journal of radiology*. 2016;89(1066):20160476. IF= 2,026

Stephenson MC, Gunner F, Napolitano A, Greenhaff PL, MacDonald IA, Saeed N, et al. Applications of multi-nuclear magnetic resonance spectroscopy at 7T. *World journal of radiology*. 2011;3(4):105. IF=0


Zaffina S, Camisa V, Lembo M, Vinci MR, Tucci MG, Borra M, et al. Accidental exposure to UV radiation produced by germicidal lamp: case report and risk assessment. *Photochemistry and photobiology*. 2012;88(4):1001-4. IF= 2,267

Rossi EMC, Tomà P, Napolitano A. Reply to Radbruch et al.: interpreting signal-intensity ratios without visible T1

hyperintensities in clinical gadolinium retention studies'.
Pediatric Radiology. 2017.

Espagnet MCR, Tomà P, Napolitano A. Reply to Lancelot et al.: 'Lack of evidence of a relationship between magnetic resonance signal intensity changes in the globus pallidus and dentate nucleus, and repeated administrations of gadoterate meglumine in children'. Pediatric Radiology. 2017:1-3.

Talamanca LF, Pasquini L, Napolitano A, Longo D. MRI in medium-chain acyl-coenzyme a dehydrogenase deficiency: neuroimaging during the first month. Journal of Pediatric Endocrinology and Metabolism. 2017;30(8):905-8.

A handwritten signature in black ink, appearing to read "Luca Napolitano". The signature is written in a cursive, flowing style.