

Dott. Antonino Naro, nato a S. Agata Militello (ME) il 15/06/80, residente a Messina in via Gazzi, 24. Tel. 3208627206, email: g.naro11@alice.it

Titolo di Studio: Laurea in Medicina e Chirurgia, Specializzazione in Neurofisiopatologia, Dottore di ricerca in Neuroscienze (“Ricerca Clinica e Translazionale in Neuroscienze ed Oncologia” XXV ciclo)

Tipo di attività svolta presso l'IRCCS: dirigente medico neurologo.

Ambito di Ricerca: Neuroscienze cliniche, Neurofisiopatologia Clinica e Sperimentale, con particolare riferimento a neuroplasticità, Sclerosi Multipla, Disordini del Movimento, Malattie Neurodegenerative. Studio elettrofisiologico (Stimolazione Magnetica Transcranica e tecniche correlate, elettroencefalografia ad alta risoluzione) dei disordini del movimento. Studio cinematico (sistemi guanto-sensori, tavole grafiche digitalizzate e tecniche affini) dei disordini del movimento. Neuroriabilitazione robotizzata. **Linea di ricerca di appartenenza:** linea di ricerca 1 - Neuroriabilitazione, neurofisiologia clinica e strumentale, responsabile: Prof. Placido Bramanti. **Gruppo di ricerca:** Neuroriabilitazione robotica, strumentale e cognitivo-comportamentale. **Postazione di lavoro:** Neuroriabilitazione robotica (3° piano -blocco), ambulatori di neurofisiologia clinica (1° piano -blocco)

Sintesi Curriculum Vitae

Esperienze lavorative: **gennaio 2016-presente:** dirigente medico Neurologo presso IRCCS Centro Neurolesi Binino Pulejo – Messina. **Agosto 2013-dicembre 2015:** Borsista di ricerca presso IRCCS Centro Neurolesi Binino Pulejo – Messina. **2010-2012:** Dottorato in Neuroscienze (Ricerca clinica e traslazionale in Neuroscienze ed Oncologia XXV ciclo, SSD MED/26) presso U.O.C. Neurologia e Malattie Neuromuscolari del Policlinico Universitario G. Martino di Messina. **2008-2009:** Assistente Ricercatore presso il Dipartimento di Fisiologia e farmacologia della CUNY Sophie Medical School for Biomedical Education, New York. **2006-2009:** specializzazione in Neurofisiopatologia presso U.O.C. Neurologia e Malattie Neuromuscolari del Policlinico Universitario G. Martino di Messina. **2005-2006:** interno in Medicina Interna presso U.O.C. di Medicina Interna del Policlinico Universitario G. Martino di Messina.

Pubblicazioni:

1. **Naro A**, Leo A, Cannavò A, Buda A, Bramanti P, Calabrò RS. Do unresponsive wakefulness syndrome patients feel pain? Role of laser-evoked potential-induced gamma-band oscillations in detecting cortical pain processing. *Neuroscience*. 2016 Jan 12;317:141-148. doi: 10.1016/j.neuroscience.2016.01.009. [Epub ahead of print] PubMed PMID: 26791527.
2. Calabrò RS, Cacciola A, Bertè F, Manuli A, Leo A, Bramanti A, **Naro A**, Milardi D, Bramanti P. Robotic gait rehabilitation and substitution devices in neurological disorders: where are we now? *Neurol Sci*. 2016 Jan 18. [Epub ahead of print] PubMed PMID: 26781943.
3. Russo M, **Naro A**, Leo A, Sessa E, D'Aleo G, Bramanti P, Calabrò RS. Evaluating Sativex® in Neuropathic Pain Management: A Clinical and Neurophysiological Assessment in Multiple Sclerosis. *Pain Med*. 2016 Jan 13. pii: pnv080. [Epub ahead of print] PubMed PMID: 26764336.
4. **Naro A**, Russo M, Leo A, Cannavò A, Manuli A, Bramanti A, Bramanti P, Calabrò RS. Cortical connectivity modulation induced by cerebellar oscillatory transcranial direct current stimulation in patients with chronic disorders of consciousness: A marker of covert cognition?

- Clin Neurophysiol. 2015 Dec 18. pii: S1388-2457(15)01563-1. doi: 10.1016/j.clinph.2015.12.010. [Epub ahead of print] PubMed PMID: 26754875.
5. **Naro A**, Calabrò RS. Commentary: Cortical responses to salient nociceptive and not nociceptive stimuli in vegetative and minimal conscious state. *Front Hum Neurosci*. 2015 Dec 8;9:657. doi: 10.3389/fnhum.2015.00657. eCollection 2015. PubMed PMID: 26696867; PubMed Central PMCID: PMC4672151.
 6. **Naro A**, Russo M, Leo A, Rifici C, Pollicino P, Bramanti P, Calabrò RS. Cortical Responsiveness to Nociceptive Stimuli in Patients with Chronic Disorders of Consciousness: Do C-Fiber Laser Evoked Potentials Have a Role? *PLoS One*. 2015 Dec 16;10(12):e0144713. doi: 10.1371/journal.pone.0144713. eCollection 2015. PubMed PMID: 26674634; PubMed Central PMCID: PMC4684218.
 7. Aricò I, **Naro A**, Pisani LR, Leo A, Muscarà N, De Salvo S, Silvestri R, Bramanti P, Calabrò RS. Could combined sleep and pain evaluation be useful in the diagnosis of disorders of consciousness (DOC)? Preliminary findings. *Brain Inj*. 2015 Nov 30:1-5. [Epub ahead of print] PubMed PMID: 26618404.
 8. Leo A, De Luca R, Russo M, **Naro A**, Bramanti P, Calabrò RS. Role of tDCS in potentiating poststroke computerized cognitive rehabilitation: Lessons learned from a case study. *Appl Neuropsychol Adult*. 2015 Oct 27:1-5. [Epub ahead of print] PubMed PMID: 26506950.
 9. Pisani LR, **Naro A**, Leo A, Aricò I, Pisani F, Silvestri R, Bramanti P, Calabrò RS. Repetitive transcranial magnetic stimulation induced slow wave activity modification: A possible role in disorder of consciousness differential diagnosis? *Conscious Cogn*. 2015 Dec 15;38:1-8. doi: 10.1016/j.concog.2015.09.012. Epub 2015 Oct 21. PubMed PMID: 26496476.
 10. **Naro A**, Leo A, Cannavò A, Buda A, Bruno R, Salviera C, Bramanti P, Calabrò RS. Audiomotor Integration in Minimally Conscious State: Proof of Concept! *Neural Plast*. 2015;2015:391349. doi: 10.1155/2015/391349. Epub 2015 Sep 3. PubMed PMID: 26425370; PubMed Central PMCID: PMC4573993.
 11. Calabrò RS, **Naro A**, Russo M, Leo A, Balletta T, Saccà I, De Luca R, Bramanti P. Do post-stroke patients benefit from robotic verticalization? A pilot-study focusing on a novel neurophysiological approach. *Restor Neurol Neurosci*. 2015;33(5):671-81. doi: 10.3233/RNN-140475. PubMed PMID: 26410207.
 12. **Naro A**, Leo A, Filoni S, Bramanti P, Calabrò RS. Visuo-motor integration in unresponsive wakefulness syndrome: A piece of the puzzle towards consciousness detection? *Restor Neurol Neurosci*. 2015;33(4):447-60. doi: 10.3233/RNN-150525. PubMed PMID: 26409404.
 13. De Luca R, Russo M, Leonardi S, Spadaro L, Cicero C, **Naro A**, Bramanti P, Calabrò RS. Advances in the Treatment of MELAS Syndrome: Could Cognitive Rehabilitation Have a Role? *Appl Neuropsychol Adult*. 2016 Jan-Feb;23(1):61-4. doi: 10.1080/23279095.2014.960522. Epub 2015 Sep 21. PubMed PMID: 26391741.
 14. De Salvo S, **Naro A**, Bonanno L, Russo M, Muscarà N, Bramanti P, Marino S. Assessment of nociceptive system in vegetative and minimally conscious state by using laser evoked potentials. *Brain Inj*. 2015 Nov;29(12):1467-74. doi: 10.3109/02699052.2015.1071430. Epub 2015 Sep 11. PubMed PMID: 26362906.
 15. **Naro A**, Pisani LR, Leo A, Molonia F, Bramanti P, Calabrò RS. Treatment of refractory generalized status epilepticus in a patient with unresponsive wakefulness syndrome: Is neuromodulation the future? *Epilepsy Behav*. 2015 Sep;50:96-7. doi: 10.1016/j.yebeh.2015.06.038. Epub 2015 Jul 25. PubMed PMID: 26209943.
 16. **Naro A**, Leo A, Bramanti P, Calabrò RS. Moving Toward Conscious Pain Processing Detection in Chronic Disorders of Consciousness: Anterior Cingulate Cortex Neuromodulation. *J Pain*. 2015 Oct;16(10):1022-31. doi: 10.1016/j.jpain.2015.06.014. Epub 2015 Jul 21. PubMed PMID: 26208761.
 17. Calabrò RS, De Cola MC, Leo A, Reitano S, Balletta T, Trombetta G, **Naro A**, Russo M, Bertè F, De Luca R, Bramanti P. Robotic neurorehabilitation in patients with chronic stroke:

- psychological well-being beyond motor improvement. *Int J Rehabil Res.* 2015 Sep;38(3):219-25. doi: 10.1097/MRR.000000000000114. PubMed PMID: 25816006.
18. Russo M, Crupi D, **Naro A**, Avanzino L, Buccafusca M, Dattola V, Terranova C, Sottile F, Rizzo V, Ghilardi MF, Girlanda P, Bove M, Quartarone A. Fatigue in patients with multiple sclerosis: from movement preparation to motor execution. *J Neurol Sci.* 2015 Apr 15;351(1-2):52-7. doi: 10.1016/j.jns.2015.02.031. Epub 2015 Feb 23. PubMed PMID: 25748966.
 19. Russo M, Calabrò RS, **Naro A**, Sessa E, Rifici C, D'Aleo G, Leo A, De Luca R, Quartarone A, Bramanti P. Sativex in the management of multiple sclerosis-related spasticity: role of the corticospinal modulation. *Neural Plast.* 2015;2015:656582. doi: 10.1155/2015/656582. Epub 2015 Jan 29. PubMed PMID: 25699191; PubMed Central PMCID: PMC4325203.
 20. **Naro A**, Calabrò RS, Russo M, Leo A, Pollicino P, Quartarone A, Bramanti P. Can transcranial direct current stimulation be useful in differentiating unresponsive wakefulness syndrome from minimally conscious state patients? *Restor Neurol Neurosci.* 2015;33(2):159-76. doi: 10.3233/RNN-140448. PubMed PMID: 25588461.
 21. **Naro A**, Russo M, Leo A, Bramanti P, Quartarone A, Calabrò RS. A Single Session of Repetitive Transcranial Magnetic Stimulation Over the Dorsolateral Prefrontal Cortex in Patients With Unresponsive Wakefulness Syndrome: Preliminary Results. *Neurorehabil Neural Repair.* 2015 Aug;29(7):603-13. doi: 10.1177/1545968314562114. Epub 2014 Dec 24. PubMed PMID: 25539781.
 22. **Naro A**, Bramanti P, Calabrò RS. Successful use of tetrabenazine in a patient with intractable hiccups after stroke. *Pharmacotherapy.* 2014 Dec;34(12):e345-8. doi: 10.1002/phar.1523. Epub 2014 Dec 4. PubMed PMID: 25471210.
 23. Calabrò RS, De Luca R, Balletta T, Russo M, **Naro A**, Bramanti P. Seizure-induced by phosphodiesterase-5 inhibitors for recreational use: an emerging problem among young people! *Subst Use Misuse.* 2015 Jan;50(1):137-8. doi: 10.3109/10826084.2014.957774. Epub 2014 Sep 29. PubMed PMID: 25265421.
 24. **Naro A**, Leo A, Russo M, Quartarone A, Bramanti P, Calabrò RS. Shaping thalamo-cortical plasticity: a marker of cortical pain integration in patients with post-anoxic unresponsive wakefulness syndrome? *Brain Stimul.* 2015 Jan-Feb;8(1):97-104. doi: 10.1016/j.brs.2014.09.001. Epub 2014 Sep 8. PubMed PMID: 25260422.
 25. **Naro A**, Russo M, AbdelKader M, Manganotti P, Genovesi V, Marino M, Rizzo V, Calabrò RS, Girlanda P, Quartarone A. A local signature of LTP-like plasticity induced by repetitive paired associative stimulation. *Brain Topogr.* 2015 Mar;28(2):238-49. doi: 10.1007/s10548-014-0396-0. Epub 2014 Sep 14. PubMed PMID: 25218644.
 26. Russo M, **Naro A**, Dattola V, Gallizzi R, Calabrò RS, Buccafusca M. Familiar Mediterranean fever and multiple sclerosis: an unreported association in the Italian population? *Neurol Sci.* 2015 May;36(5):811-2. doi: 10.1007/s10072-014-1919-x. Epub 2014 Aug 13. PubMed PMID: 25116260.
 27. Russo M, **Naro A**, Mastroeni C, Morgante F, Terranova C, Muscatello MR, Zoccali R, Calabrò RS, Quartarone A. Obsessive-compulsive disorder: a "sensory-motor" problem? *Int J Psychophysiol.* 2014 May;92(2):74-8. doi: 10.1016/j.ijpsycho.2014.02.007. Epub 2014 Mar 11. PubMed PMID: 24631627.
 28. Crupi D, Cruciata G, Moisello C, Green PA, **Naro A**, Ricciardi L, Perfetti B, Bove M, Avanzino L, Di Rocco A, Quartarone A, Ghilardi MF. Protracted exercise without overt neuromuscular fatigue influences cortical excitability. *J Mot Behav.* 2013;45(2):127-38. doi: 10.1080/00222895.2012.760514. Epub 2013 Mar 14. PubMed PMID: 23488595.
 29. Rizzo V, Bove M, **Naro A**, Tacchino A, Mastroeni C, Avanzino L, Crupi D, Morgante F, Siebner HR, Quartarone A. Associative cortico-cortical plasticity may affect ipsilateral finger opposition movements. *Behav Brain Res.* 2011 Jan 1;216(1):433-9. doi: 10.1016/j.bbr.2010.08.037. Epub 2010 Sep 9. PubMed PMID: 20816702.

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