

## BIOGRAPHICAL SKETCH

Name: <b>Di Filippo Massimiliano, MD, PhD</b>	Position/Title: <b>Assistant Professor in Neurology</b>
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### Education

Institution and Location	Degree	Year Conferred	Field of Study
<b>University of Perugia, Perugia, Italy</b>	<b>MD</b>	2004	Medicine and Surgery
<b>University of Perugia, Perugia, Italy</b>	<b>Post-graduate degree in Neurology</b>	2009	Neurology; multiple sclerosis; synaptic plasticity and neuroprotection  Dissertation on: "Synaptic and neuronal involvement during the course of multiple sclerosis: experimental electrophysiology and MRI data"
<b>UCL, Institute of Neurology, Department of Neuroinflammation, London, UK</b>	<b>Visiting Research Fellow</b>	2007-2008	Multiple Sclerosis; neuroimaging, MRI
<b>University of Perugia, Perugia, Italy</b>	<b>Neuroscience PhD</b>	2012	Multiple Sclerosis; experimental electrophysiology; synaptic plasticity and neuroprotection  Dissertation on: "Study of hippocampal synaptic plasticity in an experimental model of multiple sclerosis"

## Research and Professional Experience

[List in chronological order, previous employment, experience and honors]

**2004-2009: Neurology Residency Program** at the University of Perugia (Italy).

**Since 2006:** member of the **Italian Neurological Society (SIN)**.

**2007-2008:** Attendance at the Outpatient Multiple Sclerosis Clinic of the **National Hospital for Neurology and Neurosurgery**, Queen Square, London, United Kingdom.

**April- May 2008:** Attendance at the **Institute of Cell and Molecular Science, Queen Mary University of London**, London, United Kingdom.

**2011 – Today (2017): Assistant Professor in Neurology** at the University of Perugia, Italy.

**From May 2013: Professional assignment for the “Management of patients with demyelinating diseases”** at the S.M. Misericordia Hospital, Perugia, Italy.

**February 2014:** National scientific qualification as **Associate Professor in Neurology**.

**From 2012 to 2014:** in the Editorial Board of the journal **ISRN Neuroscience**. **Since 2014** in the Editorial Board of the journal **Behavioural Neurology**.

**Serves/served as reviewer of international peer-reviewed Neuroscience and Neurology journals** and served as **external reviewer** for the evaluation of research projects for the University of Milan (2011) and for the Italian Multiple Sclerosis Foundation (2014, 2015, and 2016).

**Invited lecturer at national and international congresses and symposia.**

**From 2013/2014:** in the **Teaching Board of the PhD of Clinical and Molecular Medicine**, University of Perugia, Italy.

**From 2014/2015 to now. Teaching of “Neurology”, “Neurosurgery” and “Neuroradiology” in the course of Neurology, Degree Course of Medicine and Surgery**, University of Perugia, Italy.

**Principal Investigator in Research Projects** on multiple sclerosis supported by the **Italian Ministry of Health** and **by the Italian Multiple Sclerosis Foundation**.

**2017: Special Mention from the University of Perugia at the “Best Publication Prize, Year 2016”**, for the article “Direct and indirect pathways of basal ganglia: a critical reappraisal” published in **Nature Neuroscience** 2014, 17(8):1022-30.

## Publications

DO NOT exceed one page for each individual.

### Selected publications:

1. Mancini, A Gaetani L, Di Gregorio M, Tozzi A, Ghiglieri V, Calabresi P, **Di Filippo M**. Hippocampal neuroplasticity and inflammation: relevance for multiple sclerosis **Multiple Sclerosis and Demyelinating Disorders**. 2017
2. Gaetani L, Mignarri A, Di Gregorio M, Sarchielli P, Malandrini A, Cardaioli E, Calabresi P, Dotti MT, **Di Filippo M**. Multiple sclerosis and chronic progressive external ophthalmoplegia associated with a large scale mitochondrial DNA single deletion. **J Neurol**. 2016;263(7):1449-51.
3. **Di Filippo M**, de Lure A, Giampà C, Chiasserini D, Tozzi A, Orvietani PL, Ghiglieri V, Tantucci M, Durante V, Quiroga-Varela A, Mancini A, Costa C, Sarchielli P, Fusco FR, Calabresi P. Persistent activation of microglia and NADPH drive hippocampal dysfunction in experimental multiple sclerosis. **Sci Rep**. 2016;6:20926.
4. Gaetani L, Menduno PS, Cometa F, Di Gregorio M, Sarchielli P, Cagini C, Calabresi P, **Di Filippo M**. Retinopathy during interferon- $\beta$  treatment for multiple sclerosis: case report and review of the literature. **J Neurol**. 2015 Aug 21.
5. **Di Filippo M**, Tozzi A, Arcangeli S, de Lure A, Durante V, Di Gregorio M, Gardoni F, Calabresi P. Interferon- $\beta$ 1a modulates glutamate neurotransmission in the CNS through CaMKII and GluN2A-containing NMDA receptors. **Neuropharmacology**. 2016 100:98-105.
6. **Di Filippo M**, de Lure A, Durante V, Gaetani L, Mancini A, Sarchielli P, Calabresi P. Synaptic plasticity and experimental autoimmune encephalomyelitis: implications for multiple sclerosis. **Brain Res**. 2014 Dec 12.
7. Calabresi P, Picconi B, Tozzi A, Ghiglieri V, **Di Filippo M**. Direct and indirect pathways of basal ganglia: a critical reappraisal. **Nat Neurosci**. 2014;17(8):1022-30
8. Meyer DA, Torres-Altore MI, Tan Z, Tozzi A, **Di Filippo M**, DiNapoli V, Plattner F, Kansy JW, Benkovic SA, Huber JD, Miller DB, Greengard P, Calabresi P, Rosen CL, Bibb JA. Ischemic stroke injury is mediated by aberrant cdk5. **J Neurosci**. 2014 Jun 11;34(24):8259-67.
9. **Di Filippo M**, Proietti S, Gaetani L, Gubbiotti M, Di Gregorio M, Eusebi P, Calabresi P, Sarchielli P, Giannantoni A. Lower urinary tract symptoms and urodynamic dysfunction in clinically isolated syndromes suggestive of multiple sclerosis. **Eur J Neurol**. 2014 Jan 28.
10. **Di Filippo M**, Tozzi A, Tantucci M, Arcangeli S, Chiasserini D, Ghiglieri V, de Lure A, Calabresi P. Interferon- $\beta$ 1a protects neurons against mitochondrial toxicity via modulation of STAT1 signaling: Electrophysiological evidence. **Neurobiol Dis**. 2014;62:387-93.
11. **Di Filippo M**, Chiasserini D, Gardoni F, Viviani B, Tozzi A, Giampà C, Costa C, Tantucci M, Zianni E, Boraso M, Siliquini S, de Lure A, Ghiglieri V, Colcelli E, Baker D, Sarchielli P, Fusco FR, Di Luca M, Calabresi P. Effects of central and peripheral inflammation on hippocampal synaptic plasticity. **Neurobiol Dis**. 2013 Apr;52:229-36.
12. **Di Filippo M**, Franciotta D, Massa R, Di Gregorio M, Zardini E, Gastaldi M, Terracciano C, Rastelli E, Gaetani L, Iannone A, Menduno P, Floridi P, Sarchielli P, Calabresi P. Recurrent hyperCKemia with normal muscle biopsy in a pediatric patient with neuromyelitis optica. **Neurology**. 2012 Sep 11;79(11):1182-4.
13. Calabresi P, **Di Filippo M**. Neuroscience: Brain's traffic lights. **Nature**. 2010 Jul 22;466(7305):449.
14. **Di Filippo M**, Chiasserini D, Tozzi A, Picconi B, Calabresi P. Mitochondria and the link between neuroinflammation and neurodegeneration. **J Alzheimers Dis**. 2010;20 Suppl 2:S369-79.
15. **Di Filippo M**, Anderson VM, Altmann DR, Swanton JK, Plant GT, Thompson AJ, Miller DH. Brain atrophy and lesion load measures over one year relate to clinical status after 6 years in patients with clinically isolated syndromes. **J Neurol Neurosurg Psychiatry**. 2010;81(2):204-8.
16. Chiasserini D, **Di Filippo M**, Candelieri A, Susta F, Orvietani PL, Calabresi P, Binaglia L, Sarchielli P. CSF proteome analysis in multiple sclerosis patients by two-dimensional electrophoresis. **Eur J Neurol**. 2008 Sep;15(9):998-1001.
17. **Di Filippo M**, Sarchielli P, Picconi B, Calabresi P. Neuroinflammation and synaptic plasticity: theoretical basis for a novel, immune-centred, therapeutic approach to neurological disorders. **Trends Pharmacol Sci**. 2008 Aug;29(8):402-12.
18. Calabresi P, Picconi B, Tozzi A, **Di Filippo M**. Dopamine-mediated regulation of corticostriatal synaptic plasticity. **Trends Neurosci**. 2007 May;30(5):211-9.
19. Calabresi P, Picconi B, Parnetti L, **Di Filippo M**. A convergent model for cognitive dysfunctions in Parkinson's disease: the critical dopamine-acetylcholine synaptic balance. **Lancet Neurol**. 2006 Nov;5(11):974-83.

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