

**CURRICULUM VITAE**

Name	<b>Marta Maltese</b>
Place of birth	Augusta (SR), Italy
Date of birth	21 April 1987
Position title	<b>PhD student in Neuroscience</b>
Mailing address	University of Rome "Tor Vergata" Department of Systems Medicine Via Montpellier 1, 00133 Roma (Italy)
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**EDUCATION/TRAINING**

Date	November 2012 - ongoing
Degree	PhD in Neuroscience
Institution and Location	University of Rome "Tor Vergata", Department of Systems Medicine, Via Montpellier 1, 00133 Roma (Italy); IRCCS Fondazione Santa Lucia, Neurophysiology and Plasticity Laboratory, Via Ardeatina 306, 00179 Roma (Italy)
Field of Study	Neuroscience
Date	2010 – 2012
Degree	Master's degree in Human Biology and Evolution
Score	110/ 110 cum laude
Thesis	"Neurophysiological alterations in animal model of DYT1 generalized dystonia" (Advisor: Prof. A. Pisani)
Institution and Location	University of Rome "Tor Vergata", Faculty of Mathematical, Physical and Natural Sciences; Via della Ricerca Scientifica, 1 - 00133 Roma (Italy)
Field of Study	Human Biology
Date	2006 –2010
Degree	Bachelor's degree in Human Biology
Score	110/110 cum laude
Institution and Location	University of Rome "Tor Vergata", Faculty of Mathematical, Physical and Natural Sciences; Via della Ricerca Scientifica, 1 - 00133 Roma (Italy)
Field of Study	Human Biology
Date	2001 - 2006
Degree	Science High School
Score	100/100
Institution and Location	Liceo Scientifico Statale "Bruno Touschek" Viale Kennedy – Grottaferrata (Roma, Italy)

## RESEARCH AND PROFESSIONAL EXPERIENCE

Date	July 5 <sup>th</sup> – July 9 <sup>th</sup> 2014
Experience	Poster presentation at the 9 <sup>th</sup> FENS Forum of Neuroscience
Location	Mico Congress Centre, Milan, Italy
Date	November 7 <sup>th</sup> 2013 – December 19 <sup>th</sup> 2013
Experience	Short Term Scientific Mission, supported by COST (COST Action BM1101)
Title	“Technical approaches to the analysis of striatal dopamine signaling in rodent models of dystonia.”
Location	VIB Center for the Biology of Disease, Department of Molecular and Developmental Genetics, KU Leuven (Belgium) Advisor: Professor Rose Goodchild
Date	October 3 <sup>th</sup> – October 5 <sup>th</sup> 2013
Experience	Poster presentation at the XV National Congress of the Italian Society of Neuroscience (SINS)
Location	Angelicum Congress Centre, Largo Angelicum 1, Rome (Italy)
Date	May 31 <sup>th</sup> – June 1 <sup>st</sup> 2013
Experience	Participation at the 4 <sup>th</sup> Biennial Workshop on Dystonia “Circuits and Pathways in Dystonia and Parkinsonism”
Location	Villa Mondragone, Monteporzio Catone, Roma (Italy)
Date	November 2012 - ongoing
Experience	PhD in Neuroscience
Location	University of Rome “Tor Vergata”, Department of Systems Medicine, Via Montpellier 1, 00133 Roma (Italy); IRCCS Fondazione Santa Lucia, Neurophysiology and Plasticity Laboratory, Via Ardeatina 306, 00179 Roma (Italy)
Date	March 2011 – October 2012
Experience	University Internship Program
Field	Neuroscience
Location	University of Rome “Tor Vergata”, Department of Systems Medicine, Via Montpellier 1, 00133 Roma (Italy)

## SELECTED REFERENCES

1. **Maltese M.**, Martella G., Madeo G., Fagiolo I., Tassone A., Ponterio G., Sciamanna G., Burbaud P., Conn P.J., Bonsi P., Pisani A. Anticholinergic drugs rescue synaptic plasticity in DYT1 dystonia: Role of M1 muscarinic receptors. *Mov Disord.* 2014.
2. Sciamanna G., Ponterio G., Tassone A., **Maltese M.**, Madeo G., Martella G., Poli S., Schirinzi T., Bonsi P., Pisani A. Negative allosteric modulation of mGlu5 receptor rescues striatal D2 dopamine receptor dysfunction in rodent models of DYT1 dystonia. *Neuropharmacology.* 2014.

3. Martella G., **Maltese M.**, Nisticò R., Schirinzi T., Madeo G., Sciamanna G., Ponterio G., Tassone A., Mandolesi G., Vanni V., Pignatelli M., Bonsi P., Pisani A. Regional specificity of synaptic plasticity deficits in a knock-in mouse model of DYT1 dystonia. *Neurobiol Dis.* 2014 Feb; 65C: 124-132. (Coauthor)
4. Ponterio G., Schirinzi T., Alemseged F., **Maltese M.**, Pisani A. How relevant is the cholinergic system in DYT1 dystonia? *Basal Ganglia* 2012 Apr.

## POSTER PRESENTATION AND ABSTRACTS

- **Maltese M.**, Madeo G., Martella G., Schirinzi T., Sciamanna G., Ponterio G., Tassone A., Bonsi P., Conn P.J., Pisani A. M1 muscarinic receptor subtype as a therapeutic target for the rescue of striatal synaptic plasticity alterations in basal ganglia disorders. *Society for Neuroscience 2014* (accepted).
- Madeo G., Martella G., **Maltese M.**, Schirinzi T., Sciamanna G., Ponterio G., Tassone A., Mandolesi G., Vanni V., Pignatelli M., Nisticò R., Bonsi P., Pisani A. Cross-species validation of electrophysiological abnormalities in distinct rodent models of DYT1 dystonia. *Society for Neuroscience 2014* (accepted).
- Martella G., Madeo G., **Maltese M.**, Vanni V., Ferraro E., Valente E.M., Schirinzi T., Bonanni L., Shen, Mandolesi G., Bonsi P., Pisani A. Exposure to low dose pesticides precipitates synaptic plasticity alterations in mice heterozygous for the Parkinson's gene PINK1. *Society for Neuroscience 2014* (accepted).
- **Maltese M.**, Martella G., Nisticò R., Schirinzi T., Madeo G., Sciamanna G., Ponterio G., Pignatelli M., Bonsi P., Pisani A. Regional specificity of synaptic plasticity deficits in a knock-in mouse model of DYT1 dystonia. *FENS 2014*.
- Alemseged F., Schirinzi T., Sciamanna G., **Maltese M.**, Madeo G., Pisani A. The novel negative allosteric modulator (NAM) of metabotropic glutamate (mGlu5) receptor, Dipraglurant, rescues electrophysiological alterations in DYT1 dystonia. *SIN 2013*.
- Madeo G., Schirinzi T., Alemseged F., **Maltese M.**, Martella G., Shen J., Valente E.M., Federici M., Mercuri N.B., Bonsi P., Pisani A. Heterozygous mutations in the PINK1 gene induce subtle alterations in dopamine-dependent striatal synaptic plasticity. *SIN 2013*.
- Bonsi P., Madeo G., Martella G., **Maltese M.**, Schirinzi T., Puglisi F., Federici M., Mercuri N.B., Pisani A. Corticostriatal synaptic plasticity in PINK1 heterozygous mice: effects of mitochondrial complex I inhibition. *SINS 2013*.
- **Maltese M.**, Sciamanna G., Ponterio G., Tassone A., Martella G., Bonsi P., Grundmann K., Standaert D.G., Pisani A. Cross-species validation of electrophysiological abnormalities in distinct rodent models of DYT1 dystonia. *SINS 2013*.
- Martella G., Madeo G., **Maltese M.**, Schirinzi T., Fezza F., Maccarrone M., Bonsi P., Pisani A. Cannabinoid CB1 receptor dysfunction alters synaptic activity and plasticity in PINK-1 deficient mice. *SINS 2013*.
- Madeo G., Alemseged F., **Maltese M.**, Schirinzi T., Martella G., Valente E.M., Puglisi F., Shen J., Pisani A. Corticostriatal synaptic plasticity in PINK1 heterozygous mice: effects of mitochondrial complex I inhibition. *MDS 2012*.
- Schirinzi T., Madeo G., Martella G., **Maltese M.**, Riess O., Grundmann K., Pisani A. Impaired synaptic plasticity and cholinergic dysfunction in the striatum of a novel rat model of DYT1 dystonia. *MDS 2012*.

**AWARDS**

07/2014	SINS Travel Grant.
11/2013	COST (European Cooperation in Science and Technology) Action BM1101 award for STSM (Short Term Scientific Mission).

**PROFESSIONAL MEMBERSHIP**

2014 – present	Federation of European Neuroscience Societies (FENS).
2013 – present	Italian Society of Neuroscience (SINS).

**RESEARCH INTERESTS**

Electrophysiology and pharmacology of basal ganglia in vitro from mouse brain slices.  
Pharmacological modulation of firing activity and intrinsic membrane properties of striatal cholinergic interneurons, striatal medium spiny neurons and dopaminergic neurons from substantia nigra.  
Short and long term synaptic plasticity of striatum in control condition and in animal models of basal ganglia disorders, such as dystonia, Parkinson's Disease and monogenic parkinsonisms.

**TECHNICAL SKILLS**

In vitro conventional sharp and whole cell patch-clamp techniques, performing electrophysiological recordings of striatal neurons from brain slice preparations in rodent models of movement disorders, such as Parkinson's disease, monogenic parkinsonism (PINK1, Parkin, DJ1, LRRK2) and primary dystonia (DYT1).  
Quantitative approaches and western blot analysis to determinate striatal levels of proteins and phospho-proteins involved in specific signaling pathways.  
Excellent knowledge in pClamp, MiniAnalysis, Corel Draw, Word, Excel and Power Point.