Dr Matteo MARTI

CURRICULUM VITAE,
ATTIVITA' SCIENTIFICA E DIDATTICA
ed
ELENCO DELLE PUBBLICAZIONI

Ottobre 2011

Educazione e formazione professionale

- 16 Luglio 1996. Consegue la Laurea in Chimica e Tecnologia Farmaceutiche presso l'Istituto di Farmacologia dell'Università di Ferrara (Dir. Prof. Lorenzo Beani) con la votazione di 109/110. Titolo della Tesi: "*Modulazione colinergica del rilascio di glutamato da fettine di striato di ratto*" (Tutore: Prof. Clementina Bianchi).
- 1 Settembre 1996. Frequenta l'Istituto di Farmacologia in qualità di allievo interno.
- 1 Gennaio 1997. Inizia il Dottorato di Ricerca quadriennale in "Farmacologia Cellulare e Molecolare" presso l'Istituto di Farmacologia (Tutore: Prof. Lorenzo Beani).
- 1 Gennaio 1999 / 1 Gennaio 2000. Vince una borsa di studio per giovani ricercatori (MURST). Titolo della ricerca "Somatostatin and NPY implications in the Temporal Lobe Epilepsy".
- 1 Aprile 2000 / 1 Ottobre 2000. Trascorre un periodo di studio e ricerca presso i laboratori di elettrofisiologia del Prof. Paolo Calabresi (Dipartimento di Neuroscienze, Clinica di Neurologia, dell'Università di Roma "Tor Vergata").
- 25 Febbraio 2001. Consegue il Dottorato di Ricerca in Farmacologia Cellulare e Molecolare discutendo la tesi: "*Alterazioni della trasmissione glutamatergica striatale in un modello di Morbo di Parkinson. Studi in vitro ed in vivo"* (Tutore: Prof. Lorenzo Beani).
- 1 Gennaio 2001 / 1 Gennaio 2002. Vince una borsa di studio BIOMED presso il Dipartimento di Neuroscienze, Clinica di Neurologia, dell'Università di Roma "Tor Vergata" (Tutore: Prof. Paolo Calabresi). Titolo della ricerca: "Signalling pathways involved in neurodegeneration in the striatum".
- 1 Luglio 2002-2006. Presta servizio in qualità di Assegnista di Ricerca presso il Dipartimento di Medicina Clinica e Sperimentale (Sezione di Farmacologia e Centro di Neuroscienze dell'Università di Ferrara; Tutori: Prof. Clementina Bianchi e Prof. Michele Morari). Titolo della ricerca: "Studio delle alterazioni della trasmissione glutammatergica striatale in modelli sperimentali di disordini del movimento: Morbo di Parkinson e di Corea di Huntington".
- Agosto 2007 – agosto 2008. Presta servizio in qualità di Ricercatore a tempo determinato presso il Dipartimento di Medicina Clinica e Sperimentale (Sezione di Farmacologia e Centro di Neuroscienze dell'Università di Ferrara)

- Dal 2008 al 2010 presta servizio come borsista presso il Dipartimento di Medicina Clinica e Sperimentale (Sezione di Farmacologia e Centro di Neuroscienze dell'Università di Ferrara)
- Dal dicembre 2010 al 2013 è ricercatore a tempo determinato dell'IRCSS, Fondazione Santa Lucia di Roma. Per motivi didattici, sperimentali e scientifici presta servizio presso il Dipartimento di Medicina Clinica e Sperimentale, Sezione di Farmacologia e Centro di Neuroscienze dell'Università di Ferrara.

Attività didattica

-Il Dott. Marti ha svolto negli anni accademici 2005-2007 attività didattica presso la sezione di Farmacologia del Dipartimento di Medicina Clinica e Sperimentale dell'Università di Ferrara in qualità di Professore a contratto per l'insegnamento di "***Tossicologia generale"*** nel corso di Laurea in CTF e di Farmacia.

-Dal 2009 svolge come Professore titolare il corso di "***Tossicologia***" per il Corso di Laurea in CTF (Facoltà di Farmacia).

-Nell'anno accademico 2011-2012 è titolare del corso di ***"Farmacia ospedaliera"*** per il Corso di Laurea in Farmacia (Facoltà di Farmacia).

-Presta assistenza, in qualità di primo o secondo relatore, alla elaborazione di Tesi di Laurea sperimentali (vedi elenco) e compilative per studenti di Farmacia e CTF.

Elenco di Tesi di Laurea a cui ha contribuito il Dott. Marti:

1) TITOLO DELLA TESI: Effetti in vivo di J-113397, antagonista non peptidico dei recettori NOP.
RELATORE: Prof M Morari, SECONDO RELATORE: Dr **M Marti**
LAUREANDO: COGNOME: NAVARRO NOME: Silvia

2) TITOLO DELLA TESI: Effetti antiparkinsoniani degli antagonisti dei recettori NOP.
RELATORE: Prof M Morari, SECONDO RELATORE: Dr **M Marti**
LAUREANDO: COGNOME: CARPI NOME: Gilberto

3) TITOLO DELLA TESI: Modulazione nocicettinergica dell'attività motoria: studi sui topi knockout per il recettore NOP.
RELATORE: Prof M Morari, SECONDO RELATORE: Dr **M Marti**
LAUREANDO: COGNOME: FANTIN NOME: Martina

4) TITOLO DELLA TESI: Ruolo della nocicettina endogena nella modulazione del parkinsonismo nel topo
RELATORE: Prof M Morari, SECONDO RELATORE: Dr **M Marti**

LAUREANDO: COGNOME: ZAGOROS NOME: Panagiotis

5) TITOLO DELLA TESI: Effetto antiacinetico degli antagonisti dei recettori NOP in un modello di parkinsonismo
RELATORE: Dott **M Marti** , SECONDO RELATORE: Prof M Morari
LAUREANDO: COGNOME: VERZOLA NOME: Cristiano

6) TITOLO DELLA TESI: L'antagonista nocicettinergico J-113397 riduce l'acinesia in un modello di Morbo di Parkinson: il topo trattato con reserpina
RELATORE: Dott **M Marti** , SECONDO RELATORE: Prof M Morari
LAUREANDO: COGNOME: LORENZINI NOME: Marialuisa

7) TITOLO DELLA TESI: Plasticità della trasmissione nocicettinergica nigrale in un modello di parkinsonismo
RELATORE: Dott **M Marti**, SECONDO RELATORE: Prof M Morari
LAUREANDO: COGNOME: NOTARANGELO NOME: Nicola

8) TITOLO DELLA TESI: L'antagonista nocicettinergico J-113397 potenzia gli effetti antiparkinsoniani della levodopa
RELATORE: Dott **M Marti**, SECONDO RELATORE: Prof M Morari
LAUREANDO: COGNOME: VIARO NOME: Riccardo

9) TITOLO DELLA TESI: Variazione dei livelli di nocicettina endogena in un modello di parkinsonismo
RELATORE: Prof M Morari, SECONDO RELATORE: Dott **M Marti**
LAUREANDO: COGNOME: PSALLIDA NOME: Paraskevi

10) TITOLO DELLA TESI: Substrati neurobiologici alla base dell'interazione tra L-DOPA e J-113397 in un modello di parkinsonismo
RELATORE: Dr **M Marti**, SECONDO RELATORE: Prof M Morari
LAUREANDO: COGNOME: RAIMONDI NOME: Marta

11) TITOLO DELLA TESI: L'antagonista nocicettinergico J-113397 riduce l'acinesia in un modello di Morbo di Parkinson: il topo trattato con MPTP
RELATORE: Prof Michele Morari, SECONDO RELATORE: Dr **M Marti**
LAUREANDO: COGNOME: CARRETTA NOME: Stefania

12) TITOLO DELLA TESI: Delta agonisti: una terapia per il Morbo di Parkinson
RELATORE: Prof Michele Morari, SECONDO RELATORE: Dr **M Marti**
LAUREANDO: COGNOME: NARDI NOME: Marco

13) TITOLO DELLA TESI: Effetti antiparkinsoniani del nuovo antagonista nocicettinergico Trap-101
RELATORE: Dr **M Marti**, SECONDO RELATORE: Prof Michele Morari
LAUREANDO: COGNOME: COTUGNO NOME: Marianna

14) TITOLO DELLA TESI: Profilo antiparkinsoniano dell'antagonista del recettore NOP SB-612111
RELATORE: Dr **M Marti**,

LAUREANDO: COGNOME: COMETA NOME: Luisa

15) TITOLO DELLA TESI: Valutazione dell'effetto antidiscinetico del nuovo agonista parziale del recettore NOP UFP-113
RELATORE: Dr **M Marti**,
LAUREANDO: COGNOME: Ikij NOME: Karima

16) TITOLO DELLA TESI: Effetto acuto e cronico del nuovo agonista parziale del recettore NOP, SR16529, nel ratto emiparkinsoniano
RELATORE: Dr **M Marti**,
LAUREANDO: COGNOME: Menguzzato NOME: Paola

17) TITOLO DELLA TESI: Effetto antidiscinetico del nuovo agonista parziale del recettore NOP della nocicettina, SR16529
RELATORE: Dr **M Marti**,
LAUREANDO: COGNOME: Marmocchi NOME: Alice

Finanziamenti personali

Nel 2010, il Dott. Marti (come coordinatore di Unità di Ricerca) riceve un finanziamento triennale (2010-2013) bandito dal Ministero della Salute per giovani ricercatori. Titolo del progetto: "NMDA receptor modulation in early Parkinsonism and in L-Dopa-induced dyskinesia: a new therapeutic strategy" (Responsabile del progetto Dott. Barbara Picconi, IRCSS Fondazione Santa Lucia, Roma).

Affiliazioni

Società Italiana di Farmacologia (SIF)
Società Italiana di Neuroscienze (SINS)
Federation of European Neuroscience Societies (FENS)
Society for Neuroscience (SfN)

Brevetti

1) Antagonisti dei recettori NOP e loro usi terapeutici"; n° MI2003A001349, depositato il 1 luglio 2003. Inventori M Morari, **M Marti**; assignee UFPeptides

1-A) Estensione Internazionale PCT/EP/2004/006826 depositata il 24 Giugno 2004 (NOP receptor antagonists and therapeutic uses thereof).
Inventori M Morari, **M Marti**; assignee UFPeptides
2) Agonisti dei recettori NOP per il trattamento delle discinesie da levodopa; n° FE2006A000036 depositata il 23 novembre 2006. Inventori M Morari, **M Marti**; assignee UFPeptides
2-A) Estensione Internazionale n. PCT/IB2007/003597 depositata il 23 Novembre 2007 (NOP receptor antagonists for the treatment of L-DOPA induced dyskinesias). Inventori M Morari, **M Marti**; assignee Università di Ferrara.

Elenco dei lavori in extenso pubblicati su riviste internazionali

1. Morari M, Sbrenna S, **Marti M**, Caliari F, Bianchi C and Beani L (1998) NMDA and non-NMDA ionotropic glutamate receptors modulate striatal acetylcholine release via pre- and postsynaptic mechanisms. *J. Neurochem*. 71, 2006-2017.
2. Morari M, **Marti M**, Sbrenna S, Fuxe K, Bianchi C and Beani L (1998) Reciprocal dopamine-glutamate modulation of release in the basal ganglia. *Neurochem. Int*. 33, 383-397.
3. Morari M, Sbrenna S, **Marti M**, O'Connor WT, Bianchi C, Fuxe K and Beani L (1998) Evidence for a striatal NMDA receptor modulation of the nigral glutamate release. A dual probe microdyalisis study in the awake freely moving rat. *Eur. J. Neurosci.* 10*,* 1716-1722.
4. **Marti M**, Sbrenna S, Fuxe K, Bianchi C, Beani L and Morari M (1999) In vitro evidence for increased facilitation of striatal acetylcholine release via pre- and postsynaptic NMDA receptors in hemiparkinsonian rats. *J Neurochem*. 72, 875-878.
5. Sbrenna S, **Marti M**, Morari M, Calò G, Guerrini R, Beani L and Bianchi C (1999) L-glutamate and gamma-aminobutyric acid efflux from rat cerebrocortical synaptosomes: modulation by kappa- and mu- but not delta- and opioid receptor like-1 receptors. *J. Pharmacol. Exp. Ther.* 291,1365-1371.
6. **Marti M**, Bregola G, Morari M, Gemignani A and Simonato M (2000) Somatostatin

release in the hippocampus in the kindling model of epilespy: a microdialysis study. *J. Neurochem*. 74, 2497-2503.

7. **Marti M**, Sbrenna S, Fuxe K, Bianchi C, Beani L and Morari M (2000) Increased responsitivity of glutamate release from the substantia nigra pars reticulata to striatal NMDA receptor blockade in a model of Parkinson's disease. *Eur. J. Neurosci.* 12, 1848-1850.
8. Sbrenna S, **Marti M**, Morari M, Calò G, Guerrini R, Beani L and Bianchi C (2000) Modulation of 5-hydroxytryptamine efflux from rat cortical synaptosomes by opioids and nociceptin. *Br J. Pharmacol*. 130, 425-433.
9. **Marti M**, Bregola G, Binaschi A, Gemignani A and Simonato M (2000) Kindling seizure-evoked somatostatin release in the hippocampus: inhibition by MK-801. *Neuroreport* **11**, 3209-3212.
10. **Marti M**, Paganini F, Stocchi S, Bianchi C, Beani L and Morari M (2001) Presynaptic group I and II metabotropic glutamate receptors oppositely modulate striatal acetylcholine release. *Eur. J. Neurosci.* 14*,* 1181-1184.
11. **Marti M**, Guerrini R, Beani L, Bianchi C and Morari M (2002) Nociceptin/orphanin FQ receptors modulate glutamate extracellular levels in the substantia nigra pars reticulata. A microdialysis study in the awake freely moving rat. *Neuroscience* 112*,* 153-160
12. Calò G, Rizzi A, Rizzi D, Bigoni R, Guerrini R, Marzola G, **Marti M**, McDonald J, Morari M, Lambert DG, Salvatori S and Regoli D (2002) [Nphe^{1}, Arg^{14}, Lys ^{15}]nociceptin-NH_2, a novel potent and selective antagonist of the nociceptin/orphanin FQ receptor. *Br. J. Pharmacol*. 136, 303-311.
13. Pisani A, Bonsi P, Catania MV, Giuffrida R, Morari M, **Marti M**, Centonze D, Bernardi G, Kingston AE and Calabresi P (2002) Metabotropic glutamate 2, mGlu2 receptors modulate synaptic inputs and calcium signals in striatal cholinergic interneurones, *J. Neurosci.* 22, 6176-6185.
14. Siniscalchi A, Rodi D, Morari M, **Marti M**, Cavallini S, Marino S, Beani L and Bianchi C (2002) Direct and in direct inhibition by nociceptin/orphanin FQ on noradrenaline release from rodent cerebral cortex in vitro. *Br. J. Pharmacol*. 136, 1178-1184.
15. **Marti M**, Mela F, Bianchi C, Beani L and Morari M (2002) Striatal dopamine-NMDA receptor interactions in the modulation of glutamate release in the substantia nigra pars reticulata in vivo. Opposite role for D_1 and D_2 receptors. *J. Neurochem*. 83, 635-644
16. **Marti M**, Stocchi S, Paganini F, Mela F, De Risi C, Calò G, Guerrini R, Barnes TA,

Lambert DG, Beani L, Bianchi C and Morari M (2003) Pharmacological profiles of presynaptic nociceptin/orphanin FQ receptors modulating 5-hydroxytryptamine and noradrenaline release in the rat neocortex. *Br. J. Pharmacol.* 38, 91-98.

17. **Marti M**, Paganini F, Stocchi S, Mela F, Beani L, Bianchi C and Morari M (2003) Plasticity of glutamatergic control of striatal acetylcholine release in experimental parkinsonism: opposite changes at group II metabotropic and NMDA receptors *J. Neurochem.* 84, 792-802.
18. Calabresi P, **Marti M**, Picconi B, Saulle E, Centonze D, Pisani F and Bernardi G (2003) Complementary mechanisms for the neuroprotective effects of lamotrigine and remacemide in striatal neurons. *Exp Neurol* 182, 461-469.
19. **Marti M**, Mela F, Ulazzi L, Hanau S, Stocchi S, Paganini F, Beani L, Bianchi C and Morari M (2003) Differential responsiveness of rat striatal nerve endings to the mitochondrial toxin 3-nitropropionic acid: implications for Huntington's disease. *Eur. J. Neurosci.* 18, 759-767.
20. Saulle E, Gubellini P, Picconi B, Centonze D, Tropepi D, Pisani A, Morari M, **Marti M**, Rossi L, Papa M, Bernardi G and Calabresi P (2004) Neuronal vulnerability following inhibition of mitochondrial complex II: a possible ionic mechanism for Huntington's disease. *Molecular and Cellular Neuroscience* 25, 9-20.
21. Mela F, **Marti M**, Ulazzi L, Vaccari E, Zucchini S, Trapella C, Salvadori S, Beani L, Bianchi C and Morari M (2004) Pharmacological profile of nociceptin/orphanin FQ receptors regulating 5-hydroxytryptamine release in the mouse neocortex. *Eur. J Neurosci.* 19, 1317-1324.
22. **Marti M**, Mela F, Veronesi C, Guerrini R, Salvadori S, Federici M, Mercuri NB, Rizzi A, Franchi G, Beani L, Bianchi C and Morari M (2004) Blockade of nociceptin/orphanin FQ receptor signaling in rat substantia nigra pars reticulata stimulates nigrostriatal dopaminergic transmission and motor behavior. *J. Neurosci*. 24, 6659-6666.
23. **Marti M**, Mela F, Guerrini R, Calò G, Bianchi C and Morari M (2004) Blockade of nociceptin/orphanin FQ transmission in rat substantia nigra reverses haloperidol-induced akinesia and normalizes nigral glutamate release. *J. Neurochem*. 91, 1501-1504.
24. **Marti M**, Manzalini M, Fantin M, Bianchi C, Della Corte L and Morari M (2005) Striatal glutamate release evoked *in vivo* by NMDA is dependent upon ongoing neuronal activity in the substantia nigra and endogenous striatal substance P and dopamine. *J. Neurochem*. 93, 95-105.

25. Cavallini S, **Marti M**, Marino S, Selvatici R, Beani L, Bianchi C and Siniscalchi A (2005) Effects of chemical ischemia in cerebral cortex slices. Focus on nitric oxide. *Neurochem. Int*. 47, 482-490.

26. **Marti M**, Mela F, Fantin M, Zucchini S, Brown JM Witta J, Di Benedetto M, Buzas B, Reinscheid RK, Salvadori S, Guerrini R, Romualdi P, Candeletti S, Simonato M, Cox BM and Morari M (2005) Blockade of nociceptin/orphanin FQ transmission attenuates symptoms and neurodegeneration associated with Parkinson's disease. *J. Neurosci.* **95,** 9591-9601**.**

27. Mela F, **Marti M**, Fiorentini C, Missale C and Morari M (2006) Group-II metabotropic glutamate receptors negatively modulate NMDA transmission at striatal cholinergic terminals: role of P/Q-type high voltage activated Ca^{++} channels and endogenous dopamine. *Mol. Cell. Neurosci* 31, 284-292.

28. Mela F, **Marti M**, Dekundy A, Danysz W, Morari M and Cenci MA (2007) Antagonism of metabotropic glutamate receptor type 5 attenuates L-DOPA-induced dyskinesia and its molecular and neurochemical correlates in a rat model of Parkinson´s disease. *J Neurochem* 101, 483-497.

29. **Marti M**, Trapella C, ViaroR and Morari M (2007) The nociceptin/orphanin FQ receptor antagonist J-113397 and L-DOPA additively attenuate experimental parkinsonism through overinhibition of the nigrothalamic pathway *J Neurosci* 27, 1297-1307.

30. Fantin M, **Marti M**, Auberson YP and Morari M (2007) NR2A and NR2B subunit containing NMDA receptors differentially regulate striatal output pathways. *J. Neurochem* 103, 2200-2211.

31. Esposito E, Fantin M, **Marti M**, Drechsler M, Paccamiccio L, Mariani P, Sivieri E, Menegatti E, Morari M and Cortesi R (2007) Solid lipid nanoparticles as delivery systems for bromocriptine. *Pharm Res* 30, 430-438.

32. Viaro R, Sanchez-Pernaute R, **Marti M**, Trapella C, Isacson O. and Morari M (2008) Nociceptin/orphanin FQ receptor blockade attenuates MPTP-induced parkinsonism. *Neurobiol Dis* 30, 340-348.

33. Mabrouk OS, Volta M, **Marti M** and Morari M (2008) Stimulation of delta opioid receptors located in substantia nigra reticulata but not globus pallidus or striatum restores motor activity in 6-hydroxydopamine lesioned rats. New insights into the role of delta receptors in parkinsonism. *J Neurochem* 107, 1647-1659.

34. **Marti M**, Trapella C. and Morari M (2008) The novel nociceptin/orphanin FQ receptor antagonist Trap-101 alleviates experimental parkinsonism through inhibition of the nigro-thalamic pathway. Positive interaction with L-DOPA. *J Neurochem* 107, 1683-1696.
35. **Marti M**, Viaro R, Guerrini R, Franchi G and Morari M (2009) Nociceptin/orphanin FQ modulates motor behavior and primary motor cortex output through receptors located in substantia nigra reticulata. *Neuropsychopharmacology* 34:341-355. Epub 2008 Apr 16.
36. Mabrouk OS, **Marti M**, Salvadori S and Morari M (2009) The novel delta opioid receptor agonist UFP-512 dually modulates motor activity in hemiparkinsonian rats via control of the nigro-thalamic pathway. *Neuroscience* 164: 360-369.
37. Mabrouk OS, **Marti M** and Morari M (2010) Endogenous nociceptin/orphanin FQ contributes to haloperidol-induced changes of nigral amino acid transmission and parkinsonism: a combined microdialysis and behavioral study in naïve and nociceptin/orphanin FQ receptor knockout mice. *Neuroscience* 166: 40-48.
38. Viaro R, **Marti M** and Morari M (2010) Dual motor response to L-dopa and nociceptin/orphanin FQ receptor antagonists in 1-methyl-4-phenyl-1,2,5,6-tetrahydropyridine (MPTP) treated mice: paradoxical inhibition is relieved by D_2/D_3 receptor blockade. *Exp Neurol* 223: 473-484.
39. Volta M, **Marti M**, McDonald J, Molinari S, Camarda V, Pelà M, Trapella C and Morari M (2010) Pharmacological profile and antiparkinsonian properties of the novel nociceptin/orphanin FQ receptor antagonist 1-[1-Cyclooctylmethyl-5-(1-hydroxy-1-methyl-ethyl)-1,2,3,6-tetrahydro-pyridin-4-yl]-3-ethyl-1,3-dihydro-benzoimidazol-2-one (GF-4). *Peptides* 31, 1194-1204.
40. **Marti M**, Sarubbo S, Latini F, Cavallo M, Eleopra R, Biguzzi S, Lettieri C, Conti C, Simonato M, Zucchini S, Quatrale R, Sensi M, Candeletti S, Romualdi P and Morari M (2010) Brain interstitial nociceptin/orphanin FQ levels are elevated in Parkinson's disease. *Mov Disord* 25, 1723-1732.
41. Volta M, Mabrouk OS, Bido S, **Marti M** and Morari M (2010) Further evidence for an involvement of nociceptin/orphanin FQ in the pathophysiology of Parkinson's disease: a behavioral and neurochemical study in reserpinized mice. *J Neurochem* 115, 1543-1555.
42. Rizzi A, Molinari S, **Marti M**, Marzola G, Calo' G (2011) Nociceptin/orphanin FQ receptor knockout rats: in vitro and in vivo studies. *Neuropharmacology* 60: 572-9.
43. Volta M, Viaro R, Trapella C, **Marti M**, Morari M (2011) Dopamine-nociceptin/orphanin FQ interactions in the substantia nigra reticulata of

hemiparkinsonian rats: involvement of D2/D3 receptors and impact on nigro-thalamic neurons and motor activity. *Exp Neurol*. 228:126-137.

44. Bido S, **Marti M** and Morari M (2011) Amantadine attenuates levodopa-induced dyskinesias in mice and rats preventing accompanying rise in GABA nigral levels. *J Neurochem*. 118:1043-1055.
45. Mela F, **Marti M**, Bido S and M. Angela Cenci MA (2011) In vivo evidence for a differential contribution of striatal and nigral D1 and D2 receptors to L-DOPA induced dyskinesia and the accompanying surge of nigral amino acid levels *Neurobiol Dis* In press.

Sintesi dell'attività scientifica secondo parametri bibliometrici presenti in SCOPUS

Numero di pubblicazioni su riviste internazionali con peer-review	**38**
(primo/ultimo autore)	**18 (43,9 %)**
Citazioni	**776**
H totale	**18**

Capitoli su libro

Marti M, Manzalini M, Bianchi C, Heidbreder C, *Morari M, *Crespi F (2005) Nociceptin/orphanin FQ modulates neurotransmitter release in the substantia nigra: biochemical and behavioral outcome. In: Bolam, J.P., Ingham, C.A., Magill, P.J. (Ed), The Basal Ganglia VIII, Springer Science and Business Media, New York. pp 187-196.

*These two authors contributed equally to this work .

Mela F, **Marti M**, Bianchi C, Morari M (2005). Changes of glutamatergic control of striatal acetylcholine release in experimental parkinsonism. In: Bolam, J.P., Ingham, C.A., Magill, P.J. (Ed), The Basal Ganglia VIII, Springer Science and Business Media, New York. pp 109-

117.

Abstracts e comunicazioni a congresso

1. Sbrenna S, Morari M, **Marti M**, Bianchi C and Beani L (1997) Presynaptic ionotropic glutamate receptors modulate acetylcholine release from rat striatal synaptosomes. Pharmacol. Res. 35, S18.
2. Morari M, Sbrenna S, **Marti M**, Bianchi C and Beani L (1997) Evidence for a striatal NMDA receptor modulation of the indirect striatonigral pathway. A dual probe microdyalisis study in the awake freely moving rat. Pharmacol. Res. 35, S19.
3. Sbrenna S, **Marti M**, Morari M, Bianchi C and Beani L (1998) In vitro NMDA-evoked acetylcholine release is enhanced in the neostriatum of 6-hydroxydopamine lesioned rats. Naunyn-Schmiedeberg Arch. Pharmacol. 358, R143.
4. **Marti M**, Sbrenna S, Guerrini R, Bianchi C, Beani L, and Morari M (1999) Nociceptin facilitates glutamate release in the substantia nigra. A microdialysis study in the awake rat. Reg Peptides 80, 124.
5. Morari M, **Marti M**, Sbrenna S, Bianchi C and Beani L (1999) Striatal tachykinin receptors regulate nigral glutamate release in vivo. A dual probe microdialysis study in the awake rat. Reg Peptides 80, 117.
6. Sbrenna S, **Marti M**, Morari M, Calò G, Guerrini R, Beani L and Bianchi C (1999) 5-hydroxytryptamine, L-GLU and GABA efflux from rat cerebrocortical synaptosomes: modulation by opioid receptor like 1 receptor. Reg Peptides 80, 127.
7. Sbrenna S, **Marti M**, Morari M, Beani L and Bianchi C (1999) 5-hydroxytryptamine, L-GLU and GABA efflux from rat cerebrocortical synaptosomes: ionic dependence and modulation by opioid receptors. Reg Peptides 80, 127.
8. **Marti M**, Sbrenna S, Fuxe K, Bianchi C, Beani L and Morari M (1999) In vivo changes of striatal NMDA receptor mediated regulation of striatal and nigral glutamate release during Parkinson's disease. Proceedings of the 8th International Conference on In Vivo Methods, Stony Brook (New York, USA) 19-23 giugno.
9. **Marti M**, Sbrenna S, Fuxe K, Bianchi C, Beani L and Morari M (1999) Involvement of dopaminergic and tachykinergic mechanisms in the striatal modulation of basal and NMDA-stimulated nigral glutamate release in vivo. Proceedings of the 8th International Conference on In Vivo Methods, Stony Brook (New York, USA) 19-23 giugno.
10. Simonato M, **Marti M**, Bregola G, Morari M, Gemignani A, Bonanno G (1999)

Somatostatin release in the hippocampus in the kindling model of epilepsy: a microdialysis study. Soc Neurosci Abst. 25, 1608.

11. **Marti M**, Bianchi C, Beani L and Morari M (2000) Changes of striatal NMDA receptor mediated control of nigral glutamate release. A dual probe microdialysis study in hemiparkinsonian rats. Funct. Neurol. 15, 123.
12. Morari M, **Marti M**, Bianchi C and Beani L (2001) Striatal dopamine-NMDA interactions in the modulation of glutamate release from the substantia nigra pars reticulata: a dual probe microdialysis study in awake freely moving rats. Soc. Neurosci. Abst. 26, 1933.
13. **Marti M**, Beani L, Bianchi C and Morari M (2001) Nociceptin/orphanin FQ modulate glutamate extracellular levels in the substantia nigra pars reticulata. A microdialysis study in the awake freely moving rat. Proceedings of the 9th International Conference on In Vivo Methods (Dublino19-23 giugno).
14. **Marti M**, Beani L, Bianchi C and Morari M (2001) Striatal NMDA-dopamine interactions in the modulation of glutamate release from the substantia nigra pars reticulata. A dual probe microdialysis study in awake freely moving rats. Proceedings of the 9th International Conference on In Vivo Methods (Dublino, 19-23 giugno).
15. Morari M, **Marti M**, Guerrini R, Beani L and Bianchi C (2001) Nociceptin/orphanin FQ receptors modulate glutamate extracellular levels in the substantia nigra in vivo. Pharmacol. Res. 43, S41.
16. Morari M. **Marti M.**, Beani L. and Bianchi C (2001) Changes of striatal glutamatergic transmission in an experimental model of Parkinson's disease. Pharmacol. Res. 43, S83.
17. Ulazzi L., Mela F., **Marti M**, Beani L, Bianchi C and Morari M (2003) Differential responsiveness of striatal nerve endings to the mitochondrial toxin 3-nitropropionic acid."Molecular mechanisms of neurodegeneration" from triplet repeat expansions to protein toxicity (Milano 2-4 maggio).
18. Mela F, Ulazzi L, **Marti M**, Beani L, Bianchi C and Morari M (2003) Opposite responsiveness of striatal gabaergic and cholinergic nerve endings to the mitochondrial toxin 3-nitropropionic acid: role of ATP-dependent K+ channels. "Molecular mechanisms of neurodegeneration" from triplet repeat expansions to protein toxicity, (Milano 2-4 maggio).
19. **Marti M**, Mela F, Ulazzi L, Vaccari E, Beani L, Bianchi C and Morari M (2003) Nigral NOP receptor stimulation inhibits dopamine release in the dorsolateral striatum and

motor behaviour in rats. 10th International Conference on In Vivo Methods (Stoccolma, 24-27 giugno).

20. **Marti M**, Mela F, Ulazzi L, Vaccari E, Guerrini R, Trapella C, Beani L, Bianchi C and Morari M (2003) The N/OFQ-NOP receptor system in the substantia nigra modulates striatal dopamine release and motor behaviour in rats. "Società Italiana di Farmacologia. Convegno monotematico su La Nocicettina/Orfanina FQ e il suo recettore: recenti acquisizioni fisiofarmacologiche e prospettive farmacoterapeutiche" (Camerino, 15 settembre).
21. **Marti M**, Mela F, De Risi C, Guerrini R, Beani L, Bianchi C and Morari M (2003) Different pharmacological properties of presynaptic nociceptin/orphanin fq receptors modulating 5-hydroxytryptamine and noradrenaline efflux in the rat neocortex. "Società Italiana di Farmacologia. Convegno monotematico su La Nocicettina/Orfanina FQ e il suo recettore: recenti acquisizioni fisiofarmacologiche e prospettive farmacoterapeutiche" (Camerino, 15 settembre).
22. Mela F, **Marti M**, Ulazzi L, Vaccari E, Zucchini S, Beani L, Bianchi C and Morari M (2003) Pharmacological characterization of presynaptic nociceptin/orphanin FQ receptors regulating serotonin release in the mouse neocortex. "Società Italiana di Farmacologia. Convegno monotematico su La Nocicettina/Orfanina FQ e il suo recettore: recenti acquisizioni fisiofarmacologiche e prospettive farmacoterapeutiche" (Camerino, 15 settembre).
23. Vaccari E, Mela F, Ulazzi L, **Marti M**, Beani L, Bianchi C and Morari M (2003) L-dopa induced dyskinesia is associated with enhanced responsiveness of striatal cholinergic interneurones to NMDA. "Congresso Nazionale della Società Italiana di Neuroscienze". (Pisa, 26-28 settembre).
24. **Marti M**, Mela F, Ulazzi L, Vaccari E, Beani L, Bianchi C and Morari M (2003) Nigral nociceptin/orphanin FQ administration inhibits dopamine release in the dorsolateral striatum and motor behaviour in rats. " Congresso Nazionale della Società Italiana di Neuroscienze (Pisa, 26-28 settembre).
25. Mela F, Ulazzi L, Vaccari E, **Marti M**, Zucchini S, Guerrini R, Trapella C, Beani L, Bianchi C and Morari M (2003) Pharmacological characterization of presynaptic nociceptin/orphanin FQ receptors modulating 5-hydroxytryptamine efflux from mouse cortical synaptosomes. "Congresso Nazionale della Società Italiana di Neuroscienze (Pisa, 26-28 settembre).

26. **Marti M**, Mela F, Fantin M, Guerrini R, Bianchi C and Morari M (2004) Nociceptin/orphanin FQ receptor antagonists riverse akinesia in rat parkinsonian models. XIV European Neuropeptides Club Meeting (Alicante, 9-12 maggio).
27. **Marti M**, Mela F, Bianchi C and Morari M (2004) NMDA stimulation of striatal glutamate release in vivo is dependent upon substantia nigra activity and endogenous striatal dopamine. "International Basal Ganglia Society 8th Triennial Meeting" (Crieff, UK, 5-9 settembre, P69).
28. **Marti M**, Manzalini M, Bianchi C, Heidbreder C, Morari M and Crespi F (2004) Nociceptin/orphanin FQ inhibits serotonin release in rat substantia nigra pars reticulate. "International Basal Ganglia Society 8th Triennial Meeting" (Crieff, UK, 5-9 settembre, P72).
29. Mela F, **Marti M**, Bianchi C and Morari M (2004) Dopamine denervation is not associated with changes of Group-I and III mGluR mediated control of striatal acetylcholine release. "International Basal Ganglia Society 8th Triennial Meeting" (Crieff, UK, 5-9 settembre, P83).
30. **Marti M**, Mela F, Fantin M, Fischetti C and Morari M (2005) Nociceptin/orphanin FQ receptor antagonists as a novel approach for therapy of Parkinson's disease. International Narcotics Research Conference (Annapolis, USA, 10-15 luglio, S56).
31. Morari M, **Marti M** and Mela F (2005) Negative interaction between Group-II and NMDA glutamate receptors at striatal cholinergic interneurones is disrupted by dopamine denervation: implications for Parkinson´s disease. "National Congress of the Italian Society for Neuroscience and joint Italian-Swedish Neuroscience Meeting". (Ischia 1-4 ottobre, p 666).
32. Mela F, Dekundy A, **Marti M**, Morari M. and Cenci MA (2005) Metabotropic Glutamate receptors and L-DOPA-induced dyskinesia. "National Congress of the Italian Society for Neuroscience and joint Italian-Swedish Neuroscience Meeting". (Ischia 1-4 ottobre , p 492).
33. Viaro R, **Marti M**, Morari M and Franchi G (2005) Effects of intracortical and intraventricular injections of N/OFQ on motor cortex excitability in adult rats. "National Congress of the Italian Society for Neuroscience and joint Italian-Swedish Neuroscience Meeting". (Ischia 1-4 ottobre, p 452).
34. **Marti M**, Mela F, Fantin M, Fischetti C and Morari M. (2005) Nociceptin/orphanin FQ receptor antagonists as a novel therapeutic approach to Parkinson's disease. "National

Congress of the Italian Society for Neuroscience and joint Italian-Swedish Neuroscience Meeting". (Ischia 1-4 ottobre, p 490).

35. **Marti M**, Mela F, Raimondi M, Fantin M and Morari M (2006) Nociceptin/orphanin FQ receptor antagonists as a novel therapeutic approach to Parkinson's disease: interaction with levodopa. 11th International Conference on In Vivo Methods (Cagliari, 19-22 maggio) p 77.
36. Fantin M, Auberson Y, **Marti M** and Morari M. Differential regulation of striato-nigral and striato-pallidal pathways by striatal NR2A and NR2B subunit containing receptors. Proceeding of the 11th International Conference on In Vivo Methods (Cagliari, 19-22 maggio), p 345-347.
37. Mela F, Dekundy A, **Marti M**, Cenci A and Morari M (2006) L-DOPA-induced modulation of GABA and glutamate release in the substantia nigra pars reticolata and globus pallidus in a rat model of dyskinesia. Proceeding of the 11th International Conference on In Vivo Methods (Cagliari, 19-22 maggio), p 530-532.
38. **Marti M**, Mela F, M, Fantin M, Viaro R and Morari M (2006) Novel therapeutic strategies for treatment of motor abnormalities in Parkinson's disease: focus on opioid receptors Behav Pharmacol 17, p 536. (Cracovia 2-4 settembre 2006, Meeting of European Behavioural Pharmacological Society).
39. Viaro R, **Marti M**, Morari M and Franchi G (2006) Nociceptin/orphanin FQ receptors modulate locomotion and motor cortex excitability in adult rats. Acta Physiol 188 (Supp 652) pg 5.
40. Morari M, Viaro R, **Marti M**, Sanchez-Pernaute R, Isacson O (2007) Nociceptin/orphanin FQ receptor antagonists reverse parkinsonism in MPTP-treated mice and non-human primates. 11th International Congress of Parkinson's disease and Movement Disorders. Istanbul (Turkey) June 3-7.
41. Morari M, Calò G and **Marti M** (2007) Nociceptin/orphanin FQ receptor agonists attenuate L-DOPA-induced dyskinesia in a rat model of Parkinson's Disease. Soc Neurosci Abstract. San Diego (USA), 3-7 novembre 2007, vol. 892.15, p. 101-101
42. Mela F, **Marti M**, Cenci MA and Morari M (2007) Differential role of striatal and nigral D1 receptors in the expression of L-DOPA induced dyskinesia and its neurochemical correlates. Soc Neurosci Abstract. San Diego (USA), 3-7 novembre 2007, vol. 590.26.
43. Mabrouk, O.S., Volta M, Balboni G, **Marti M** and Morari M (2008) Delta opioid

receptor stimulation modifies pallidal GABAergic neurotransmission and improves motor performance in 6-hydroxydopamine hemilesioned rats. European Opioid Research Conference and European Neuropeptide Club Joint Meeting (Ferrara, 8-11 Aprile 2008).

44. **Marti M**, Cotugno M, Trapella C and Morari M (2008) The novel NOP receptor antagonist Trap-101 alleviates akinesia and potentiates the antiakinetic action of levodopa by inhibiting the nigro-thalamic GABAergic projection. European Opioid Research Conference and European Neuropeptide Club Joint Meeting (Ferrara, 8-11 Aprile 2008).
45. Morari M, Cotugno M, Trapella C and **Marti M** (2008) The novel NOP receptor antagonist Trap-101 alleviates parkinsonism through inhibition of the nigro-thalamic pathway. Soc Neurosci abst 641.25
46. Mabrouk OS, Volta M, **Marti M** and Morari M (2008) Delta opioid receptor stimulation enhances motor performance in experimental parkinsonism via a substantia nigra dependent mechanism: behavioral and neurochemical findings. Soc Neurosci abst 341.14.
47. Esposito E, Fantin M, **Marti M**, Dreschler M, Mariani P, Menegatti M, Morari M and Cortesi R (2009). Solid lipid nanoparticles as delivery systems for parkinson's therapy. In: "Multidisciplinar strategies to target the Central Nervous System". Modena, Novembre (5-7, 2009) CRS Italy local chapter, p. 21-22.
48. Bido S, Budri M, **Marti M** and Morari M (2010) Monitoring amino acid release in globus pallidus and substantia nigra reticulata following levodopa challenge in dyskinetic mice. FENS Forum, Amsterdam (The Netherlands) 3-7 July 2010; Poster Number 197.6.
49. Volta M, **Marti M**, Chipilska L, Trapella C, Morari M (2010) Dopamine D2 receptor blockade in substantia nigra pars reticulata modulates behavioral and neurochemical effects evoked by the nociceptin/orphanin FQ receptor antagonist Compound 24 in 6-hydroxydopamine hemilesioned rats. FENS Forum, Amsterdam (The Netherlands) 3-7 July 2010; Poster Number 197.49.
50. Volta M, Mabrouk OS, Bido S, **Marti M**, Morari M (2010) Short-term Nociceptin/orphanin FQ receptor blockade reverses motor impairment and elevation in nigral glutamate release induced by reserpine in mice. 13th International Conference On In Vivo Methods, Bruxelles (Belgium), 12-16 September 2010; Poster

Number P080.

51. **Marti M**, Sarubbo S, Zucchini S, Sensi M, Candeletti S, Eleopra R, and Morari M (2010) Brain interstitial nociceptin/orphanin FQ levels are elevated in Parkinson's disease. Soc Neurosci Abstract. San Diego (USA), 13-17 november, P 751.5/H27
52. Rizzi A, Molinari S, **Marti M**, Marzola G, Morari M and Calò G (2010) Behavioral phenotype of rats knockout for the nociceptin/orphanin FQ receptor gene. Soc Neurosci Abstract. San Diego (USA), 13-17 november 2010, P 166.2/AA9

Ferrara, 6 ottobre 2011 Dr Matteo Marti