

PERSONAL
INFORMATION

Giovanna Paolone

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POSITION

Assistant Professor

WORK EXPERIENCE

December 2019
to present

Assistant Professor (Senior)
Department of Diagnostic and Public Health,
University of Verona, Verona, Italy

June 2018
to November 2019

Assistant Professor (Junior)
Department of Diagnostic and Public Health,
University of Verona, Verona, Italy

September 2017 –
May 2018

Research Scientist (Dr. Mario Buffelli)
Department of Neurosciences, Biomedicine and Movement Sciences,
Section of Physiology and Psychology,
University of Verona, Verona, Italy

November 2015 –
August 2017

Research scientist (Dr. Michele Simonato)
Department of Medical Sciences, Section of Pharmacology
University of Ferrara, Ferrara, Italy

April –
October 2015

Marie Curie Industry-Academia Partnerships and Pathways (FP7 MC-IAPP)
NsGene, Providence, RI, USA

October 2013 –
March 2015

Research scientist (Dr. Michele Morari)
Department of Medical Sciences, Section of Pharmacology
University of Ferrara, Ferrara, Italy

May –
September 2013

Researcher
Institute of Genetics and Biophysics "A. Buzzati Traverso" National Research
Council, Naples (Italy)

December 2010 –
April 2013

Assistant Research Scientist (Dr. Martin Sarter)
University of Michigan, Ann Arbor, United States.

May 2008 –
November 2010

Post Doctoral Fellow (Dr. Martin Sarter and Dr. Theresa Lee)
University of Michigan, Ann Arbor (United States)

January 2006 –
April 2008

Post Doctoral Fellow (Dr. Jane Stewart)
Center for Studies in Behavioral Neurobiology, Concordia University, Montreal
(Canada)

February 2003 –
May 2003

Research Associated (Dr. Jane Stewart)
Center for Studies in Behavioral Neurobiology, Concordia University, Montreal
(Canada)

EDUCATION AND TRAINING

November 2001 –
December 2005

PhD in Pharmacology
Sapienza, University of Rome, Rome (Italy)

October 1997 – July 2001

Honors in Laurea (a 5-years university degree) Experimental
Psychology
Sapienza, University of Rome, Rome (Italy)

PERSONAL SKILLS

EDITORIAL
BOARD(Journal)

Brain Sciences

AD HOC EDITORIAL
CONSULTING (Journal)

Molecular Neurobiology
Neurobiology of Disease
Psychopharmacology
Cytotherapy
Experimental Neurology
Journal of Pineal Research

REVIEWER FOR GRANT
AGENCIES

The EU Framework for Research and Innovation
Synergy Program – European Research Council

QUALIFICATION

National scientific qualification to serve as an associate professor of
Pharmacology in the Italian universities (*Abilitazione Scientifica Nazionale*,
2021, settore **concorsuale 05/G1; SSD: Bio14; seconda fascia**)
<https://asn18.cineca.it/pubblico/miur/esito/05%252FG1/2/6>

National scientific qualification to serve as an associate professor in the
Italian universities in the area of Biopsychology, Psychometrics and General

Psychology (*Abilitazione Scientifica Nazionale*, 2012, settore *concorsuale11/E1*; *SSD: M-PSI 01, 02, 03; seconda fascia*)
<http://abilitazione.miur.it/public/pubblicarisultati.php>

Marie Sklodowska Curie Ambassador

RESEARCH SUPPORT

- 2022 Co-Responsabile Scientifico (Co-PI), **The Michael J. Fox Foundation for Parkinson's Research** - Accelerating Early Proof-of-Concept Testing of Promising PD Therapies
Title: PDRepair, a novel combined neurorestorative and precision therapy for GBA Parkinson's disease
- 2020 Principal Investigator, **Bando di Ateneo per la Ricerca di Base**;
Title: From the gut to the brain and back: novel therapeutic approaches for the treatment of Parkinson disease as network dysfunction.
- 2020 Principal Investigator, **Sinfonia Biotherapeutics**, AB, Huddinge, Sweden;
Title: neuroprotective effects of progranulin, prosaposin, GDNF and combinations thereof in a rat 6-OHDA model of Parkinson's disease.
- 2019 Principal Investigator, **Sinfonia Biotherapeutics**, AB, Huddinge, Sweden;
Title: Long-term progranulin secretion from devices implanted into rat Striatum.
- 2019 Principal Investigator, University of Verona, **FURDIPDSP_ASS_FARMA**;
Title: Effetti della terapia basata su cellule umane incapsulate e ingegnerizzate per il rilascio di GDNF su modelli animali di malattia di Parkinson.
- 2019 Principal Investigator, Progetto finanziato da **Brain Research Foundation Verona**;
Title: Trattamento della malattia di Parkinson in un modello di ratto che esprime α -sinucleina umana con cellule umane incapsulate e ingegnerizzate per il rilascio di GDNF.
- 2019 Co- Principal Investigator, **Zardi-Gori Foundation**;
Titolo: A novel therapeutic approach for dopamine agonists medication-induced Impulse Control Disorders.

AWARDS

- Citizen of Excellence of the city of Verona for scientific achievements conferred by the Mayor - Verona, Italy, January 9th, 2020
- Brain Research Foundation Verona – Post-Doctoral Fellowship 2019
- International Association of Advanced Material Scientist Medal for outstanding research in the field of New Age

Technology and Innovations. Stockholm, October 10th, 2018

- Pharmacology Society Meeting (Barcelona, Spain, 2005; Tübingen, Germany, 2007)
- Travel Bursary to attend the Biennial European Behavioral
- Italian Society of Pharmacology (SIF): Fellowship to support foreign research activity (2006 and 2003)
- Paid part-time positions based on excellence at “Sapienza” University of Rome (Teaching and Library assistant 2001; 2000)

TEACHING EXPERIENCE

- Pharmacology and cardiology applied to physical activity – Sport and Exercise Science – University of Verona (coordinator, 96 hrs).
- Sports and drugs – Master’s degree in preventive and adapted exercise science – University of Verona; (coordinator, 24 hrs).
- Pharmacological Sciences – Biomedical Laboratory Techniques – University of Verona; (20 hrs).

AFFILIATION SCIENTIFIC SOCIETIES

Society for Neuroscience
Società Italiana di Farmacologia
Società Italiana di Neuroscienze
European Behavioral Pharmacology Society
FIE - Federazione Italiana Epilessia
The International College of Neuropsychopharmacology

MAIN NATIONAL AND INTERNATIONAL SCIENTIFIC COLLABORATION

Gloriana Therapeutics, Inc., Warren, RI, USA – Brain Repair Device –
Sinfonia Biotherapeutics, Inc., Huddinge, Sweden - Precision therapies for genetically-defined dementia & related neurodegenerative diseases
Department of Pharmacology, **University of Ferrara**, FE, Italy
Department of Neurosciences, Biomedicine and Movement Sciences
University of Verona, VR, Italy

BOOK CHAPTER

1- Falcicchia C, **Paolone G**, Simonato M
Cell Therapy for Epilepsy in *Cell Therapy: Current Status and Future Directions* (DF Emerich., & G. Orive Eds.), Springer International Publishing, New York, NY, USA 2017.
ISSN 2197-7852

2 - **Paolone G**
From the Gut to the Brain and Back: Therapeutic Approaches for the Treatment of Network Dysfunction in Parkinson’s Disease
in *Prime Archives in Neuroscience* (J F Maya-Vetencourt), Vide Leaf, Hyderabad, India 2021
ISBN: 978-93-90014-30-9

ARTICLES IN REFEREED
JOURNALS

1. Paolone G, Burdino R, Badiani A. (2003) Dissociation in the modulatory effects of environmental novelty on the locomotor, analgesic, and eating response to acute and repeated morphine in the rat. *Psychopharmacology* 166:146-155.
2. Antonilli L, Suriano C, Paolone G, Badiani A, Nencini P. (2003) Repeated exposures to heroin and/or cadmium alter the rate of formation of morphine glucuronides in the rat. *J Pharmacol Exp Ther* 307: 651-660.
3. Paolone G, Paolopoli M, Marrone MC, Nencini P, Badiani A. (2004) Environmental modulation of the interoceptive effects of amphetamine in the rat. *Behav Brain Res* 152:149-155.
4. Scaccianoce S, Del Bianco P, Paolone G, Caprioli D, Modafferi AM, Nencini P, Badiani A. (2006) Social isolation selectively reduces hippocampal brain-derived neurotrophic factor without altering plasma corticosterone. *Behav Brain Res* 168:323-5.
5. Botreau F, Paolone G, Stewart J. (2006) d-Cycloserine facilitates extinction of a cocaine-induced conditioned place preference. *Behav Brain Res* 172:173-8.
6. Caprioli D, Paolone G, Celentano M, Testa A, Nencini P, Badiani A. (2007) Environmental modulation of cocaine self-administration in the rat. *Psychopharmacology* 192:397-406.
7. Paolone G, Conversi D, Caprioli D, Del Bianco PD, Nencini P, Cabib S, Badiani A. (2007) Modulatory effect of environmental context and drug history on heroin-induced psychomotor activity and fos protein expression in the rat brain. *Neuropsychopharmacology* 32:2611-23.
8. Caprioli D, Celentano M, Paolone G, Badiani A. (2007) Modeling the role of environment in addiction. *Prog Neuropsychopharmacol Biol Psychiatry* 31:1639-53.
9. Caprioli D, Celentano M, Paolone G, Lucantonio F, Bari A, Nencini P, Badiani A. (2008) Opposite environmental regulation of heroin and amphetamine self-administration in the rat. *Psychopharmacology* 198:395-404.
10. Paolone G, Botreau F, Stewart J. (2009) The facilitative effects of D-Cycloserine on extinction of a cocaine-induced conditioned place preference can be long lasting and resistant to reinstatement. *Psychopharmacology* 202:403-409.
11. Sarter M & Paolone G. (2011) Deficits in attentional control:

cholinergic mechanisms and circuits-based treatment approaches. *Behavioral Neurosci.* Dec; 125(6):825-35.

12. Paolone G, Lee TM, Sarter M. (2012) Time to pay attention: attentional performance time-stamped prefrontal cholinergic activation, diurnality and performance. *J. Neurosci.* Aug 2012, 32(35): 12115-12128.
13. Paolone G, Angelakos CC, Meyer PJ, Robinson TE, Sarter M. Cholinergic control over attention in rats prone to attribute incentive salience to reward cues. *J. Neurosci.* May 2013, 33(19): 8321-8335.
14. Paolone G*, Mallory C, Koshy Cherian A, Sarter M. Monitoring cholinergic activity during attentional performance in mice heterozygous for the choline transporter: a model of cholinergic capacity limits. *Neuropharmacology*, Aug 2013, 16; 75C:274-285.
15. Kucinski A, Paolone G, Bradshaw M, Albin RL, Sarter M. Modeling fall propensity in Parkinson's disease: deficits in the attentional control of complex movements in rats with cortical-cholinergic and striatal-dopaminergic deafferentation. *J. Neurosci.* October 2013, 33(42): 16522-39.
16. Grupe M, Paolone G, Jensen AA, Sandager-Nielsen K, Sarter M, Grunnet M. Selective potentiation of ($\alpha 4$)₃($\beta 2$)₂ nicotinic acetylcholine receptors augments amplitudes of prefrontal nicotine-evoked glutamatergic transients in rats. *Biochem Pharmacol* 2013 Nov; 86(10): 1487-96.
17. Cristino L*, Luongo L*, Squillace M*, Paolone G, Piccinin S, Zianni E, Imperatore R, Iannotta M, Longo F, Errico F, Vescovi AL, Morari M, Maione S, Gardoni F, Nisticò R[@], Usiello A[@]. d-Aspartate oxidase, influences glutamatergic system homeostasis in mammalian brain. *Neurobiol Aging* 2015 Feb; (15): 1-13.
18. Paolone G, Brugnoli A, Arcuri A, Mercatelli D and Morari M. Eltoprazine prevents ledodopa-induced dyskinesias by reducing striatal glutamate and direct pathway activity. *Mov Disord.* Nov 2015, 30 (13): 1728-38.
19. Sacchi S*, De Novellis V*, Paolone G*, Nuzzo T, Iannotta M, Belardo C, Squillace M, Bolognesi P, Rosini E, Motta Z, Frassinetti M, Bertolino A, Pollegioni L, Morari M, Maione A, Errico F, Usiello A. Olanzapine but not clozapine increases glutamate release in the pre-frontal cortex of freely moving mice by inhibiting D-aspartate oxidase activity. *Scientific Report*; Apr 2017 10;7:46288.
20. Paolone G, Falcicchia C, Verlengia G, Barbieri M, Binaschi A,

- Paliotto F, Paradiso B, Soukupova M, Zucchini S, Simonato M. A refined technique for microinjections in the rodent brain. *J Vis Exp*. Jan 2018 24;131.
21. Falcicchia C, Paolone G, Emerich DF, Lovisari F, Bell W, Fradet T, Wahlberg LU, Simonato M. Seizure-Suppressant and Neuroprotective Effects of Encapsulated BDNF-Producing Cells in a Rat Model of Temporal Lobe Epilepsy. *Mol Ther Methods Clin Dev*. 2018 Mar 9;9:211-224.
 22. Paolone G, Falcicchia C, Lovisari F, Kokaia M, Bell W, Fradet T, Wahlberg LU, Emerich DF, Simonato M. Long-term, targeted delivery of GDNF from encapsulated cells is neuroprotective and reduces seizures in the pilocarpine model of epilepsy. *J. Neurosci*. 2019 39(11):2144-2156.
 23. Emerich DF, Kordower JH, Chu Y, Thanos C, Bintz B, Paolone G, and Wahlberg LU. Widespread striatal delivery of gdnf from encapsulated cells prevents the anatomical and functional consequences of excitotoxicity. *Neural Plast*. 11;2019:6286197.
 24. Piva A, Gerace E, Di Chio M, Padovani L, Paolone G, Pellegrini-Giampietro DE, Chiamulera C. Reconsolidation of sucrose instrumental memory in rats: the role of retrieval context. *Brain Res*. 1714:193-201.
 25. Pedrazzoli M, Losurdo M, Paolone G, Avesani A, Coco S, Buffelli M (2018). Glucocorticoid receptors modulate dendritic spine plasticity and microglia activity in an animal model of Alzheimer's Disease. *Neurobiology of Disease*. Aug 5;132:104568.
 26. Orive G, Echave MC, Dolatshahi-Pirouz A, **Paolone G**, Emerich DF. (2019) Advances in Cell-laden Hydrogels for Delivering Therapeutics. *Expert Opin Biol Ther*. Aug 26:1-4.
 27. Piva A, Caffino L, Padovani L, Pintori N, Mottarlini F, Sferrazza G, **Paolone G**, Fumagalli F, Chiamulera C. (2020) The metaplastic effects of ketamine on renewal and reconsolidation of sucrose contextual memory in rats. *Behav Brain Res* 2020 Feb 379:112347.
 28. **Paolone G**, Wahlberg LU, Policastro G, and Emerich DF. (2020) Encapsulated cell therapy for the treatment of epilepsy. *Current Neurobiology*. 11(1):04-07.
 29. Wahlberg LU, Emerich DF, Kordower JH, Bell W, Fradet T, **Paolone G**. (2020) Long-term, stable, targeted biodelivery and efficacy of GDNF from encapsulated cells in the rat and Goettingen miniature pig

brain.

Current Research in Pharmacology and Drug Discovery. 1:19-29.

30. Izeia L, Eufrazio-da-Silva T, Dolatshahi-Pirouz A, Ostrovidov S, **Paolone G**, Peppas N, De Vos P, Emerich DF, Orive G. (2020) Cell-laden alginate hydrogels: the progress of living medicines for drug delivery
Expert Opinion in Drug Del. Aug 17(8):1113-1118.
 31. **Paolone G**. (2020) From the gut to the brain and back: novel therapeutic approaches for the treatment of Parkinson Disease as network dysfunction.
Front Neurol. Oct 7;11:557928
 32. Lovisari F,* Roncon P,* Soukoupova M, **Paolone G**, Labasque M, Ingusci S, Falcicchia C, Johnson M, Rossetti T, Petretto E, Leclercq K, Kaminski RM, Moyon B, Webster Z, Michele Simonato M** and Zucchini S**. (2020) Implication of Sestrin3 in epilepsy and its comorbidities.
Brain Communications. Oct 9; 3(1):fcaa130
 33. Policastro G, Brunelli M, Tinazzi M, Chiamulera C, Emerich DF, and **Paolone G**. (2020) Cytokines-, neurotrophins- and motor rehabilitation-induced plasticity in Parkinson's disease.
Neural Plast. 2020 Nov 26;2020:8814028.
 34. Amalric M, Pattij T, Sotiropoulos I, Silva JM, Sousa N, Ztaou S, Chiamulera C, Wahlberg LU, Emerich DF and **Paolone G**. (2021) Where dopaminergic and cholinergic systems interact: a gateway for tuning neurological and psychiatric disorders.
Frontiers in Behavioral Neuroscience. Jul 22; 15:661973
 35. Chiamulera C, Benvegnù G, Piva A, **Paolone G**. Ecocebo: How the interaction between environment and drug effects may improve pharmacotherapy outcomes.
Neurosci Biobehav Rev. 2024 Jun;161:105648. doi: 10.1016/j.neubiorev.2024.105648.
 36. Lunghi C, Valetto MR, Caracciolo AB, Bramke I, Caroli S, Bottoni P, Castiglioni S, Crisafulli S, Cuzzolin L, Deambrosis P, Giunchi V, Grisotto J, Marcomini A, Moretti U, Murgia V, Pandit J, Polesello S, Poluzzi E, Romizi R, Scarpa N, Scroccaro G, Sorrentino R, Sundström A, Wilkinson J, **Paolone G**. Call to action: Pharmaceutical residues in the environment: threats to ecosystems and human health.
Drug Saf. 2024 Dec 10. doi: 10.1007/s40264-024-01497-3.
- Salzano S, Bertasini C, Lundkvist J, Wahlberg LU, Chiamulera C, Vattemi G, Gardoni F, **Paolone G**. Frontotemporal dementia as a consequence of *GRN* mutations (Review – under review)

Bertasini C*, Rossini M*, Grisotto J, Wahlberg LU, Lundkvist J, **Paolone G**, Encapsulated cell biodelivery of progranulin (Research article – under review)

Grisotto J, Tavakolian Haghighi S, Poor Sasan A, Pedron S, Brunelli M, Moretti U, **Paolone G**. Neurotoxic effects of rotenone and deltamethrin chronic exposure on adult zebrafish (Research article – In prep)

Grisotto J, Grisotto J, Tavakolian Haghighi S, Poor Sasan A, Pedron S, Brunelli M, Moretti U, **Paolone G**. Neurotoxic Effects of Environmental Diazepam: Insights from Zebrafish Exposure Studies (Research article – In prep)

INVITED TALK

Paolone G, Howe WM, Gopalakrishnan M, Decker MW, Sarter M. (2010) Regulation and function of the tonic component of cortical acetylcholine release. In Y. Michotte, Westerink, B., & S. Sarre (Eds.), *Monitoring Molecules in Neuroscience*. Printer TBD, Brussels.

Sarter M, Parikh V, Howe MW, Gritton H, Paolone G, Lee TM. (2010) Multiple time scales and variable spaces: synaptic neurotransmission *in vivo*. In Y. Michotte, Westerink, B., & S. Sarre (Eds.), *Monitoring Molecules in Neuroscience*. Printer TBD, Brussels.

Sarter M, Paolone G, Mabrouk OS, Kennedy RT. (2012) Sampling from injured tissue as a blessing in disguise: tonic changes in cholinergic neurotransmission using microdialysis. *International Society for Monitoring Molecules in Neuroscience*. London, UK.

Falcicchia C, Paolone G, Simonato M. (2017) Cell Therapy for Epilepsy in *Cell Therapy: Current Status and Future Directions*. Springer (Pages 85-97).

Environmental modulation of psychomotor, subjective, and reinforcing effects of addictive drugs. - Douglas Hospital Research Center, Neuroscience Division, **McGill University**; Montreal, Dec. 2006

Conditioning and self-administration of psychostimulants and opiate drugs. Evidences on Neurodegeneration, Plasticity and Repair. - **Neurofortis, Lund University**; Lund, Sept. 2007

Conditioning, self administration and extinction of psychostimulants and opiate drugs. - Department of Psychology, **University of Michigan**; Ann Arbor, MI, Oct. 2007

Prior daily practice on a sustained attention task synchronizes the increase of prefrontal ACh release and desynchronizes peripheral oscillators. Department of Psychology, **Michigan State University**, Lansing, MI,

August. 2010.

Staying cognitively engaged during the wrong time of the day: cognitive cholinergic induction of diurnality and reorganization of multiple circadian rhythms. - Department of Psychology, **University of Michigan**; Ann Arbor, MI, April 2012

Prefrontal cholinergic neurotransmission under attentional and pharmacological manipulation in CHT +/+ and CHT +/-.
CHT summit - Department of Psychology, **University of Michigan**; Ann Arbor, MI, May 2012

Highly demanding cognitive task and optical stimulation of cholinergic system: old and new approaches to explore mechanisms of attention in rats and mice. - Institute of Genetics and Biophysics “A. Buzzati-Traverso” **CNR**; **Naples**, Italy, March 2013.

Taxing the prefrontal cholinergic neurotransmission: an animal model of poor top-down cognitive control of attention and reorganization of multiple circadian rhythms. Department of Psychology, **University of Trieste**, Italy, June 2014.

Long-term delivery of GDNF by encapsulated cells for the treatment of epilepsy. **Marie Skłodowska Curie Action final presentation** in “Epilepsy research in the EU: state of the art and opportunities for the future” – FP7 MC-IAPP – Ferrara, October 28, 2015.

Reward, Cognition and GDNF: where we are and where we would like to go. **Italian Institute of Neuroscience**, Section of Verona.– Open neuroscience forum. Verona, Italy, November 17, 2017.

Reward, Cognition, and Encapsulated cell Therapy with GDNF: “state of the art” and future directions. Department of Diagnostic and Public Health, **University of Verona**, Italy. May 24th, 2018

Encapsulated cell therapy for epilepsy: long-term, stable, and efficacious targeting of the hippocampus with GDNF – **International Association of Advanced Materials Conference**. Stockholm, Sweden. October 9-12, 2018.

“Encapsulated cell therapy: long-term, stable, and efficacious targeting of subcortical regions with GDNF as a new strategy for neurological disorders” **Innsbruck Medical School, Department of Pharmacology. Innsbruck, Austria.** March 5th, 2019.

“GDNF: the old and the newest as promising approach for the treatment of epilepsy” – **Temporal Lobe Epilepsy: a window on the brain** – **NeuroMed Pozzilli (IS)**, Italy. May 16-17th 2019.

Encapsulated cell therapy: targeting dopaminergic and cholinergic structural alterations with GDNF as a new strategy in the pathophysiology of neurodegenerative disorders. In “Where dopaminergic and cholinergic systems interact: a gateway for tuning neurological and psychiatric disorders” – Symposium organizer at the Biennial Meeting of the European Behavioural Pharmacology Society, August 28-31 2019 – Braga-Porto, Portugal

Delivery GDNF from encapsulated cells: the old and the newest as promising approach for the treatment of neurological and degenerative diseases – International Conference on Alzheimer’s and Dementia. Dubai, September 23-25, 2019

RESEARCH PRESENTATION

Paolone G, Badiani A (2001) Environmental novelty enhances the locomotor activating but not the analgesic effects of morphine. *Pharmacological Research*, 43 (suppl A):156

Paolone G, Burdino R, Badiani A (2001) Environmental novelty differentially modulates the locomotor activating versus the analgesic effects of acute and repeated morphine. *Society for Neuroscience*. Abstract 26

Paolone G, Palopoli M, Nencini P, Badiani A (2003) Environmental modulation of amphetamine discrimination in the rat. *Behavioural Pharmacology*, 14 (suppl 1): S58

Paolone G, Palopoli M, Nencini P, Badiani A (2003) Environmental novelty facilitates amphetamine discrimination in the rat. *Society for Neuroscience*. Abstract 643.15

Stewart J, Sorge RE, Leri F, Paolone G (2003) The opioid agonist-antagonist, buprenorphine, preferentially suppresses cocaine self-administration over heroin in rats trained to self-administer both drugs. *Society for Neuroscience*. Abstract 109.

Leri F, Tremblay A, Sorge RE, Paolone G, Goddard B, Stewart J (2003) Effects of methadone maintenance on cocaine-motivated behaviour. *Society for Neuroscience*. Abstract 109.16

Sorge RE, Jenkins PA, Paolone G, Stewart J (2003) Effects of amount of exposure to cocaine self-administration and time since termination of drug taking on relapse to drug seeking assessed in extinction and follow acute foot-shock stress. *Society for Neuroscience*. Abstract 421.

Antonilli L, Paolone G, Badiani A, Nencini P (2003) Repeated exposures to heroin and/or cadmium alter the rate of morphine glucuronides in the rat. *Society for Neuroscience*. Abstract 645.6

G. Paolone, D. Caprioli, M. Palopoli, P. Nencini and A. Badiani (2004)

Environmental modulation of the interoceptive effects of cocaine and morphine. EBPS, Rome, Sept 2-4. *Behavioural Pharmacology*, (volume 15, num 5&6).

Paolone G, Caprioli D, Celentano M, Badiani A (2006) Environmental modulation of cocaine self-administration. *Society for Neuroscience*. Abstract 590.2

Caprioli D, Celentano M, Paolone G, Testa A, Badiani A (2006) Environmental modulation of heroin self-administration. *Society for Neuroscience*. Abstract 590.3

Paolone G, Hood S, Stewart J (2007) Effect of inter-trial-interval and duration of exposure on the facilitation of extinction of a cocaine-induced conditioned place preference by d-cycloserine. *Society for Neuroscience*. Abstract 638.2.

Paolone G, Benatar A, Stewart J (2007) The facilitative effects of D-Cycloserine on extinction of a cocaine-induced Conditioned Place Preference can be long lasting and resistant to reinstatement: effects of extinction variables. *Canadian Association for Neuroscience*.

Paolone G, Benatar A, Stewart J (2007) The facilitative effects of D-Cycloserine on extinction of a cocaine-induced Conditioned Place Preference can be long lasting and resistant to reinstatement: effects of extinction variables. *Canadian College of Neuropsychopharmacology*.

Paolone G, Hood S, Stewart J (2007) The facilitative effects of D-Cycloserine on extinction of a cocaine-induced Conditioned Place Preference and Fos Protein Expression in the Pre-Frontal Cortex. *European Behavioral Pharmacology Society*.

Paolone G, Ismail N, Pfaus J, Badiani A, Stewart J. (2008) An established preference for a conditioned stimulus associated with either sucrose or copulation in male rats subsequently shifts to a preference for a conditioned stimulus paired with cocaine self-administration. *Society for Neuroscience*. Abstract 687.

Paolone G, Ji J, Williams S, Howe WM, Ward J, Decker MW, Parikh V, Sarter M. (2009) Effects of the selective alpha 7 nAChR agonist ABT-107 on prefrontal glutamatergic and cholinergic activity and attentional performance. *Society for Neuroscience*. Abstract 227.

Lee TM, Paolone G, Gritton H, Yan J, Hoogerwerf W, Sarter M. (2010) Timed, sustained, attention-demanding performance reorganizes or dampens multiple circadian rhythms. *Society for Research in Biological Rhythms*.

Paolone G, Howe WM, Decker MW, Gopalarishnan, Sarter M. (2010) Multiple modes of cholinergic neurotransmission - Multiple functions. *Society*

for Neuroscience. Abstract 703.

Lee TM, Paolone G, Howe WM, Sarter M. (2010) Staying cognitively engaged during the wrong time of the day: cognitive-cholinergic induction and maintenance of diurnality in rats. *Society for Neuroscience*. Abstract 98.

Gritton H, Howe WM, Hetrick VL, Paolone G, Berke JD, Sarter M. (2010) Optogenetically-evoked cortical cholinergic transients in mice expressing channelrhodopsin-2 (ChR2) in cholinergic neurons. *Society for Neuroscience*. Abstract 304.

Yan J, Paolone G, Bostowick J, Hoogerwerf W, Sarter M, Lee TM. (2010) Daily performance of a sustained attention task during light phase desynchronizes circadian oscillators in nocturnal rats. *Society for Neuroscience*. Abstract 499.

Sarter M, Howe WM, Paolone G. (2011). Real-time biosensing of glutamatergic and cholinergic neurotransmission in vivo: implications for psychopharmacology. *Summer meeting of the British Association for Psychopharmacology*. J. of Psychopharmacology. Aug 2011, 25(8): A6-A6.

Angelakos CC, Paolone G, Meyer PJ, Robinson TE, Sarter M. (2011) Sign-versus goal trackers, top down control of attention, and underlying cholinergic mechanisms. *Society for Neuroscience*. Abstract 197.

Paolone G, Spuz CA, Brisco S, Bradshaw M, Albin RL, Sarter M. (2011) Deficits in attentional control of balance, mobility, and complex movements in a rat model of early state, multisystem Parkinson disease. *Society for Neuroscience*. Abstract 244.

Paolone G, Lamy D, Sarter M, Lee TM. (2011) Cognitive performance-associated increases in cholinergic neurotransmission also serve as a circadian signal to sustain performance-induced diurnal activity pattern. *Society for Neuroscience*. Abstract 610.

Paolone G, Angelakos CC, Meyer PJ, Robinson TE, Sarter M. (2011) Poor and Unstable Sustained Attentional Performance in Sign-Trackers: An Animal Model of Poor Top Down Cognitive Control of Attention. American College of Neuropsychopharmacology Annual Meeting, December 4-8, HI.

Sarter M, Howe MW, Paolone G. (2011) Real time biosensing of glutamatergic and cholinergic neurotransmission in vivo: implications for psychopharmacology. In: *Journal of Psychopharmacology*. Vol. 25.

Paolone G, Mabrouk OS, Kennedy RT, Sarter M. (2012) High temporal resolution microdialysis reveals cholinergic spikes preceding upshifts in attentional performance. *Society for Neuroscience 2012 - Abstract selected for nanosymposium*.

Mallory C, Paolone G, Cherian Koshy A, Blakely RD, Sarter M. (2012) Paying attention with a compromised cholinergic system: attenuated activation of cholinergic neurotransmission in attentional task-performing CHT+/- mice. *Society for Neuroscience 2012*

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