

## **Ass. Prof. Priv. Doz. Dr. Msc. Ornella Valenti**

### **Contact Information**

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### **Research Interest**

GABAergic orchestration of neuron dynamics and their role in cognitive processing; adenosinergic system and circuitry of the motivation and decision-making behavior; neuropharmacology of cognitive and motivational disorders; animal model of stress and psychosis

### **Academic education**

- 06.2015            *Venia Docendi* (Habilitation) in Neuroscience, Medical University Vienna, Austria  
03.2003            PhD in Preclinical and Clinical Pharmacology, University of Catania, Italy. Research project conducted in the Lab of Prof. Conn, USA  
09.1999            Master in Chemistry and Pharmaceutical Technologies, University of Catania, Italy

### **Appointments**

- 06.2016-            Assistant Professor; Medical University Vienna (MUW), Vienna, Austria  
06.2015-05-2016    University Assistant; Prof.Böhm Lab. MUW  
03.2015-05.2015    Fellowship/ Technology transfer; Dr.Haubensak Lab, IMP, Vienna, Austria  
01.2010-12.2014    Senior Postdoctoral Fellowship; Prof.Klausberger, MUW, Austria  
06.2004-12.2009    Postdoctoral fellowship; Prof. Grace, University of Pittsburgh, USA  
08.2001-05.2004    Fellowship; Merck Research Laboratories, West Point, USA  
06.2000 – 08.2001    PhD Student as special standing; Prof. Conn, Emory University, Atlanta, USA  
11.1999 – 05.2000    PhD Student; Prof.Sortino, University of Catania, Italy  
10.1998 – 10.1999    Master Student; Prof.Nicoletti, University of Catania, Italy

### **Awards**

- 2007    Collegium Internationale Neuro-psycho-pharmacologicum (CINP) Rafaelsen Young Investigator Award  
2005    International Congress on Schizophrenia Research Young Investigator Award  
2004    WIN-Eli Lilly and WIN-Pfizer Postdoc Travel Awards  
2002    Merck Excellence Award

### **Invited talks**

- 2012            Medical Society Symposium, Vienna, Austria  
                  ‘Mirror neurons, biomarkers of sociability?’  
  
2008            International Congress on Schizophrenia Research, San Diego, USA  
                  ‘Effects of sertindole on dopamine neuron population activity’

### **Project grants**

- 7.2007-7.2009    National Alliance on Research in Schizophrenia and Depression (NARSAD) Young Investigator Award (70 k)

## Teaching

2016-2014 Seminars; Block 4 and Block 18, Bachelor degree in Medicine, MUW  
2014 Lab Practical; Master and CCHD PhD students, MUW and University Vienna  
2012-2014 Lectures; Basics of Neuroscience, Master and PhD program, MUW  
2011-2014 Seminars and Journal clubs; Master and PhD students, MUW and University Vienna

## Professional service

2014- Manuscript reviewer for the following journals (ad hoc)  
Neurotoxicity Research, Neuropharmacology, IJNP  
2011-2012 Grant reviewer; Italian Ministry of Health Grants Review (MOH)

## International collaborations

*P. Jeffrey Conn*; Vanderbilt Center for Neuroscience Drug Discovery, Nashville, Tennessee, USA  
*Anthony A. Grace*; Dept. Neuroscience, Psychiatric and Psychology, University of Pittsburgh, Pittsburgh, USA  
*Catherine Belzung*; University of Francois-Rabelais, Tours, France  
*Gabriella Gobbi*; Neurobiological Psychiatry Unit, McGill University, Montreal, Canada  
*Jim Cook*; University of Wisconsin, Milwaukee  
*Agata Copani*, University of Catania, Catania, Italy

**Publications** (\*, equivalent contribution; total citations: 1128; H-index: 13)

### ***Publications of the last 5 years (2011-2016)***

**Behavior-dependent activity patterns of GABAergic long-range projecting neurons in the rat hippocampus.** Linda Katona, Ben Micklem, Zsolt Borhegyi, Daniel A. Swiejkowski, Ornella Valenti, Tim J. Viney, Dimitrios Kotzadimitriou, Thomas Klausberger and Peter Somogyi. *Hippocampus*. 2017 Apr;27(4):359-377.

**Temporal organization of GABAergic interneurons in the intermediate CA1 hippocampus during network oscillations.** Thomas Forro\*, Ornella Valenti\*, Balint Lasztozci, Thomas Klausberger. *Cereb Cortex*. 2015 May;25(5):1228-40.

**Behavior-dependent specialization of identified hippocampal interneurons.** Damien Lapray, Balint Lasztozci, Michael Lagler, Tim Viney, Linda Katona, Ornella Valenti, Hartwich, Borhegyi, Somogyi, Klausberger. *Nat Neurosci*. 2012 Sep;15(9):1265-71.

**Different stressors produce excitation or inhibition of mesolimbic dopamine neuron activity: response alteration by stress pre-exposure.** Ornella Valenti, Kathryn Gill, Anthony A. Grace. *Eur J Neurosci*. 2012 Apr;35(8):1312-21.

**Antipsychotic drugs rapidly induce dopamine neuron depolarization block in a developmental rat model of schizophrenia.** Ornella Valenti, Pierangelo Cifelli, Kathryn Gill, Anthony A. Grace. *J Neurosci*. 2011 Aug 24;31(34):12330-8.

**Aversive stimuli alter ventral tegmental area dopamine neuron activity via a common action in the ventral hippocampus.** Ornella Valenti, Daniel J. Lodge, Anthony A. Grace. J Neurosci. 2011 Mar 16;31(11):4280-9.

**10 most relevant published manuscripts** (\*, equivalent contribution)

**Temporal organization of GABAergic interneurons in the intermediate CA1 hippocampus during network oscillations.** Thomas Forro\*, Ornella Valenti\*, BalintLasztoczi and Thomas Klausberger. Cer. Cortex 2015; 25:1228-40.

**Behavior-dependent specialization of identified hippocampal interneurons.** Damien Lapray, BalintLasztoczi, Lagler Michael, Tim Viney, Linda Katona, Ornella Valenti, KatjaHartwich, ZsoltBorhegyi, Peter Somogyi and Thomas Klausberger. Nat Neurosci. 2012; 15: 1265-71

**Different Stressors produce excitation or inhibition of mesolimbic dopamine neuron activity: Response alteration by stress pre-exposure.** Ornella Valenti, Kathryn M. Gill and Anthony A. Grace. Eur J Neurosci. 2012; 35(8):1312-21

**Antipsychotic drugs rapidly induce dopamine neuron depolarization block in a developmental rat model of schizophrenia.** Ornella Valenti, PierangeloCifelli, Kathryn M. Gill and Anthony A. Grace. J Neurosci. 2011; 31(34):12330-8

**Aversive stimuli alter ventral tegmental area dopamine neurons via a common action in the ventral hippocampus.** Ornella Valenti, Daniel J. Lodge and Anthony A. Grace. J Neurosci. 2011; 31(11):4280-9

**Antipsychotic drug-induced increases in ventral tegmental area dopamine neuron population activity via activation of the nucleus accumbens-ventral pallidal pathway.** Ornella Valenti and Anthony A. Grace. Int J Neuropsychopharmacol. 2010; 13(7):845-60

**Entorhinal cortex inhibits medial prefrontal cortex and modulates the activity states of electrophysiologically characterized pyramidal neurons in vivo.** Ornella Valenti and Anthony A. Grace. Cer. Cortex 2009; 19(3):658-74

**Group III metabotropic glutamate-receptor mediated modulation of excitatory transmission in rodent substantia nigra pars compacta dopamine neurons.** Ornella Valenti, Guido Mannaioni, Guy R. Seabrook, P. Jeffrey Conn and Michael J. Marino. J Pharmacol Exp Ther. 2005; 313(3): 1296-1304

**Allosteric modulation of the group III metabotropic glutamate receptor mGluR4: a novel approach to Parkinson's Disease treatment.** Michael J. Marino, David L. Williams, Jr., Julie A. O'Brien\*, Ornella Valenti\*, Terrence P. McDonald, Michelle K. Clements, Ruiping Wang, Anthony G. DiLella, Fred J. Hess, Gene G. Kinney and P. Jeffrey Conn. Proc Natl Acad Sci U S A. 2003; 100(23):13668-13673

**Metabotropic glutamate receptors 1 and 5 differentially regulate CA1 pyramidal cell function.** Guido Mannaioni, Michael J. Marino, Ornella Valenti, Stephen F. Traynelis and P. Jeffrey Conn. J Neurosci. 2001; 21(16): 5925-34