
CURRICULUM VITAE

PERSONAL INFORMATION

Full name: **PATRICIA VERONICA AGOSTINO**

Nationality: Argentinian

Workplace: Chronobiology Lab. Science and Technology Department. National University of Quilmes. 352 Roque Saenz Peña, (B1876BXD) Bernal, Buenos Aires, Argentina.

Phone No: +5411 4365-7100, ext 5626. Fax No: +5411 4365-7132

E-mail: pagostino@unq.edu.ar

EDUCATION

2002-2007 **Ph.D.** in Medical Sciences, Faculty of Medicine, University of Buenos Aires. Thesis advisor: Dr. Diego Golombek. Qualification: Outstanding.

1996-2001 **B.Sc.** and **M.Sc.** in Biotechnology, National University of Quilmes, Buenos Aires, Argentina.

WORKING EXPERIENCE

2015-until now Associate Professor, National Research Council at Chronobiology Lab., National University of Quilmes. Project: "Temporal processing in the brain: link with the circadian system".

2010-2014 Assistant Professor, National Research Council at Chronobiology Lab., National University of Quilmes.

2008 Visiting post-doc, Psychology and Neuroscience Department, Duke University, North Carolina, USA. Supervisor, Warren Meck, Ph.D. From January to April, 2008.

2007-2009 Post-doctoral position at Chronobiology Lab., National University of Quilmes. Advisor, Diego Golombek. Project: "Circadian modulation of interval timing in rodents".

2003-2006 Visiting graduate student, Psychology Department, University of Toronto, Canada. Supervisor, Martin Ralph, Ph.D. From May to September, 2003 and from December, 2005 to March, 2006.

2002-2007 Graduate student, Chronobiology Lab., National University of Quilmes. Advisor, Diego Golombek, Ph.D. Project: "Mechanisms of transduction signals in the mammalian circadian system".

1998-2001 Research Assistant Chronobiology Lab., National University of Quilmes. Advisor, Diego Golombek, Ph.D. Project: "Characterization of proteases in the hamster suprachiasmatic nucleus".

TEACHING EXPERIENCE

Associate Professor

2015- until now Molecular Genetics, National University of Quilmes.

Instructor Professor**2007- 2015**

Molecular Genetics, National University of Quilmes.

Teaching assistant**2001-2002**

Molecular Genetics, National University of Quilmes.

Invited lectures:

2010 Circadian rhythms: general aspects and human applications. First Colombian Symposium of Circadian Rhythms: Neurobiological and Clinical Aspects. September 17, 2010. Bogotá, Colombia.

2009 Neurochemistry of the circadian clock. Pre-congress course, X Latin American Symposium of Chronobiology. October 21, 2009. Natal-RN, Brasil.

PUBLICATIONS

- Chapters in books.

- Paladino N., Leone M.J., Casiraghi L.P., Agostino P.V., Golombek D.A. and Chiesa J.J. *Interactions between the circadian and the immune system: a framework for the comprehension of disease.* In: **Biological Clocks: Effects on Behavior, Health and Outlook.** Nova Science Publishers, 2010. ISBN: 978-1-60741-251-9. Págs: 121-138.
- Golombek, D.A.; Agostino, P.V. Cyclic nucleotides in the central nervous system. In: Bradshaw, R.; Dennis, E. **The Handbook of Cell Signaling.** Elsevier, 2009. ISBN: 0123741459. Págs: 1573-1580.
- Agostino, P.V.; Golombek, D.A. *Cronofarmacología.* In: **Cronobiología Humana.** Golombek, D.A. (ed). Universidad Nacional de Quilmes (2002).

- Scientific publications.

- Agostino, P. V., and Cheng, R-K (2016). Contributions of Dopaminergic Signaling to Timing Accuracy and Precision. *Curr Opin Behav Sci.* 8, 153-160.
- Bussi, I. L., Levín, G., Golombek, D. A., and Agostino, P. V. (2015). Melatonin modulates interval timing in rats: effect of pinealectomy. *Int J Comp Psychol*, vol 28.
- Camargo-Sánchez A., Niño C.L., Sánchez L., Echeverri S., Gutiérrez D.P., Duque A.F., Pianetta, O., Jaramillo-Gomez J.A., Pilonieta M.A., Cataño N., Arboleda H., Agostino P.V., Álvarez-Baron C.P., and Vargas R. (2015). Circadian Nursing Care for the Hospitalized Patient: a proposal for a middle-range theory. *Nursing Inquiry* 9: 1-9.
- Högl B., Agostino P.V., Peralta M.C., Gershanik O., and Golombek D.A. (2014). Alterations in time estimation in multiple system atrophy. *Basal ganglia* 4: 95-99.
- Bussi I.L., Levín G., Golombek D.A., and Agostino P.V. (2014). Involvement of dopamine signaling in the circadian modulation of interval timing. *European Journal of Neuroscience* (in press).
- Golombek D.A., Bussi I.L., and Agostino P.V. (2014). Minutes, days and years: molecular interactions among different scales of biological timing. *Philos Trans R Soc Lond B* 369(1637):20120465.

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- Agostino P.V., Cheng R.K., Williams C.L., West A.E. and Meck W.H. (2013). Acquisition of Response Thresholds for Timed Performance is Regulated by a Calcium-Responsive Transcription Factor, CaRF. *Genes, Brain & Behavior* 12: 633–644.
 - Golombek D.A., Casiraghi L.P., Agostino P.V., Paladino N., Duhart J., Plano S.A. and Chiesa J.J. (2013). The times they are a-changing: effect of circadian desynchronization on physiology and disease. *J. Physiol. Paris* doi: 10.1016/j.jphysparis.2013.03.007.
 - Plano S.A., Agostino P.V., de la Iglesia H.O., and Golombek D.A. (2012). cGMP-phosphodiesterase inhibition enhances photic responses and synchronization of the biological circadian clock in rodents. *PLoS One* 7(5):e37121.
 - Agostino P.V., Golombek D.A. and Meck W.H. (2011) Unwinding the molecular basis of interval and circadian timing. *Front. Integr. Neurosci.* 5: 64. doi: 10.3389/fnint.2011.00064.
 - Agostino P.V., do Nascimento M., Bussi I.L., Eguía M.C. and Golombek D.A. (2011). Circadian modulation of interval timing in mice. *Brain Research* 1370:154-63.
 - Agostino P.V., Harrington M.E., Ralph M.R. and Golombek D.A. (2009). Casein kinase-1-epsilon (ck1ε) and circadian photic entrainment in hamsters. *Chronobiol. Int.* 26 (1): 126-133.
 - Agostino P.V., Plano S.A. and Golombek D.A. (2008). Circadian and pharmacological regulation of CK1ε in the hamster SCN. *Journal of Genetics* 87 (5): 467-471.
 - Agostino P.V., Peryer G. and Meck W.H. (2008). How music fills our emotions and helps us keep time. *Behav. Brain Sci.* 31 (5): 575-576.
 - Plano S.A., Agostino P.V. and Golombek D.A. (2007). Nitric oxide in the biological clock: NO news is good news. *FEBS letters* 581: 5500-5504.
 - Agostino P.V., Plano S.A. and Golombek D.A. (2007). Sildenafil accelerates reentrainment of circadian rhythms after advancing light schedules. *Proc Natl Acad Sci USA* 104 (23): 9834-9839.
 - Cheng H.Y., Obrietan K., Cain S.W., Lee B., Agostino P.V., Joza N., Harrington M.E., Ralph M.R. and Penninger J.M. (2004). Dexras 1 potentiates photic and suppresses non-photic responses of the circadian clock. *Neuron* 43 (5): 715-728.
 - Golombek D.A., Agostino P.V., Plano S.A. and Ferreyra G.A. (2004). Signaling in the mammalian circadian clock: the NO/cGMP pathway. *Neurochemistry International* 45: 929-936.
 - Agostino P.V., Ferreyra G.A., Murad A.D., Watanabe Y. and Golombek D.A. (2003). Diurnal, circadian and photic regulation of calcium-calmodulin dependent kinase II and neuronal nitric oxide synthase in the hamster suprachiasmatic nuclei. *Neurochemistry International* 44: 617-625.
 - Rubio M.F., Agostino P.V., Ferreyra G.A. and Golombek D.A. (2003). Circadian heme oxygenase activity in the hamster suprachiasmatic nuclei. *Neuroscience Letters* 353: 9-12.
 - Golombek D.A., Ferreyra G.A., Agostino P.V., Murad A.D., Rubio M.F., Pizzio G.A., Katz M.E., Marpegan L. and Bekinschtein T.A. (2003). *From light to genes: Moving the hands of the circadian clock.* *Front Biosci* 8: 285-293.

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- Agostino P.V., Grilli M.L. and Golombek D.A. (2002). Characterization of proteases in the hamster suprachiasmatic nuclei. *Biological Rhythm Research* 33 (4): 383-390.

HONORS AND AWARDS

2016 HD Lorena Foundation's Prize, granted for the project: "Temporal processing in Huntington's disease". Buenos Aires, May 7, 2016.

2014 Travel Award, granted by the International Brain Research Organization (IBRO/LARC), to attend a meeting in Colombia.

2012 Bernardo A. Houssay's Prize in Pharmacology, granted by CEDIQUIFA (Centre for the study of chemical and pharmaceutical industry). Buenos Aires, November 13th, 2012.

Travel Award, granted by the International Brain Research Organization (IBRO), to attend the Society for Neuroscience (SfN) meeting. October 13 to 17, 2012, New Orleans, USA.

Travel award, granted by the James S. McDonnell Foundation, to attend the *Second Latin American School for Education, Cognitive and Neural Sciences*. March 5 to 16, 2012, Calafate, Argentina.

2011 Travel Award, granted by the International Brain Research Organization (IBRO/LARC), to attend a meeting in Mexico.

2010 Travel Award, granted by the International Brain Research Organization (IBRO/LARC), to attend a meeting in Brazil.

2008 Travel Award, granted by the International Brain Research Organization (IBRO/LARC), to attend a meeting in Brazil.

2008 Travel Award, granted by the National University of Quilmes, for a short stay at Duke University (USA).

2007 Travel Award, granted by the International Brain Research Organization (IBRO/LARC), to attend a meeting in Cuba.

2007-2009 Post-doctoral fellowship granted by the National Research Council (CONICET). Project: "Brain mechanisms of time estimation: link with the circadian system".

2002-2007 Fellowship granted by the National Research Council (CONICET). Project: "Molecular mechanisms of mammalian circadian entrainment".

2002 Bernardo A. Houssay's Prize, Argentinean Society of Biology, Buenos Aires. Work title: "*The garden of bifurcating clocks. Signaling mechanisms involved in the mammalian biological clock*". Authors: Gabriela A. Ferreyra, Patricia V. Agostino and Diego A. Golombek.

RESEARCH SUPPORT

2015-2018 Investigator. Research grant from National University of Quilmes (UNQ).

2014-2017 Investigator. Research grant from National Agency for Scientific and Technique Promotion (ANPCyT). PICT 2013-0710 (Start-Up).

2011-2014 Principal Investigator. Research grant from National Agency for Scientific and Technique Promotion (ANPCyT). PICT 2010-0253.

2011- 2014 Principal Investigator. Research grant from National Research Council (CONICET). PIP 2011 N°0124.

2007- 2009 Principal Investigator. Young Investigators grant from National Agency for Scientific and Technique Promotion (ANPCyT). 2006-00190.

REVIEWING

2016-now Physiology & Behavior (n=1).

2015-now International Journal of Comparative Psychology (n=1).

2013-now Philosophical Transactions of the Royal Society B (n=1).

2012-now Timing & Time Perception (*Consulting Editor*; n=1)

2008-now Brain Research (n=3).

RESEARCH SUPERVISION

Supervisor of 2 research assistants, director of 4 “licenciatura” (equivalent to M.Sc.) theses, and 1 Ph.D. thesis.

Past graduate students:

Ivana L. Bussi (March 2016, Qualification: Outstanding).

Current graduate students:

Julieta Acosta.

SCIENTIFIC AFFILIATIONS

Society for Neuroscience (SfN).

Argentinean Society for Neuroscience (SAN).

PRESENTATIONS AT CONFERENCES AND MEETINGS

(Last 6 years, more than 50 presentations in total).

“*Deficits in temporal processing in a mouse model of autism*”. J. Acosta, M. Campolongo, C. Höcht, L. Marpegan, A. Depino, D.A. Golombek, and P.V. Agostino, 15th Meeting of Society for Research on Biological Rhythms. May 21st to 25th, 2016. Palm Harbor, Florida, USA.

“*Temporal Perception and UHDRS Correlation in Huntington Disease*”. P.V. Agostino, E. Gatto, M. Cesarini, A. Sanguinetti, and D.A. Golombek. 68th American Academy of Neurology Annual Meeting. April 15th to 21st, 2016. Vancouver, Canada.

“*Melatonin modulates interval timing in rats: effect of pinealectomy*” I.L. Bussi, G. Levin, D.A. Golombek, and P.V. Agostino. XIII Latin American Symposium of Chronobiology. November 3 to 8, 2015. San Paulo, Brasil.

“*Actigraphic assessment of sleep-wake cycle during over-wintering at Belgrano II Argentine Antarctic station*” A. Folgueira, J.M. Cuiuli, V. Crippa, A. Patagua, P.V. Agostino, S. Plano, A.

Zimmerman, M. Barbarito, F. Tuerlinckx, O. Van den Bergh, A. Aubert, N. Goswami, E. Mulder, M. Nicholas, G. Simonelli, S. Lockley, D.A. Golombek, and D.E. Vigo.
XIII Latin American Symposium of Chronobiology. November 3 to 8, 2015. San Paulo, Brasil.

"Melatonin modulates interval timing in rats: effect of pinealectomy" I.L. Bussi, G. Levin, D.A. Golombek y P.V. Agostino.
XXX Annual Congress of the Argentinean Society for Neurosciences. September 29 to October 1st, 2015. Mar del Plata, Buenos Aires, Argentina.

"Temporal Processing in Huntington's Disease". P.V. Agostino, E. Gatto, M. Cesarini, A. Sanguinetti, J.L. Etcheverry y D.A. Golombek.

"Deficits in temporal processing in an animal model of autism" J. Acosta, A. Depino, D.A. Golombek y P.V. Agostino.

XXX Annual Congress of the Argentinean Society for Neurosciences. September 29 to October 1st, 2015. Mar del Plata, Buenos Aires, Argentina.

"Time Perception in Huntington Disease". E. Gatto, P.V. Agostino, M. Cesarini, A. Sanguinetti, J.L. Etcheverry and D.A. Golombek.

19th International Congress of Parkinson's Disease and Movement Disorders. June 14 to 18, 2015. San Diego, California, USA.

"Time Processing in Huntington's Disease". P.V. Agostino, E. Gatto, M. Cesarini, A. Sanguinetti, J.L. Etcheverry and D.A. Golombek.

67th American Academy of Neurology Annual Meeting. April 18 to 25, 2015. Washington DC, USA.

"Dopamine signaling: the missing link between circadian and interval timing". I.L. Bussi, G. Levin, D.A. Golombek and P.V. Agostino.

XXIX Annual Meeting of the Argentine Society for Neuroscience. September 29 to October 3, 2014. Huerta Grande, Córdoba, Argentina.

"Circadian modulation of interval timing and motivation". P.V. Agostino, I.L. Bussi, G. Levin, and D.A. Golombek.

17th Meeting of the International Society for Comparative Psychology. September 10 to 12, 2014. Bogotá, Colombia.

"Circadian clocks & interval timing: as time goes by". I.L. Bussi, G. Levin, D.A. Golombek and P.V. Agostino.

XII Latin American Symposium of Chronobiology. October 28 to November 1, 2013. Tunuyán, Mendoza, Argentina.

"Turn it off, turn me on: decreased motivation and interval timing under constant light". I.L. Bussi, D.A. Golombek and P.V. Agostino.

XXVIII Annual Meeting of the Argentine Society for Neuroscience. October 1 to 4, 2013. Huerta Grande, Córdoba, Argentina.

"Modulation of interval timing by the circadian system: role of melatonin and dopaminergic function". P.V. Agostino, I.L. Bussi, G. Levin and D.A. Golombek.

The Society for Neuroscience 42nd Annual Meeting. Del 13 al 17 de octubre de 2012. New Orleans (USA).

"Time as a reward: role of dopamine and melatonin in the circadian modulation of interval timing" I.L. Bussi, D.A. Golombek, G. Levin and P.V. Agostino.

XXVII Annual Meeting of the Argentine Society for Neuroscience. October 3 to 5, 2012. Huerta Grande, Córdoba, Argentina.

"The times of our lives (and of our brains): from interval to circadian timing". D.A. Golombek, I.L. Bussi and P.V. Agostino.

First International Conference on Time Perspective. September 5 to 8, 2012. Coimbra, Portugal.

"Circadian modulation of interval timing: role of melatonin and dopaminergic function". P.V. Agostino, I.L. Bussi, G. Levin and D.A. Golombek.

13th Meeting of Society for Research on Biological Rhythms. May 19 to 23, 2012. Destin, Florida, USA.

"Circadian modulation of interval timing in mice". P.V. Agostino, I.L. Bussi and D.A. Golombek.

Symposium on the Neurophysiology of Interval Timing. January 19 to 21, 2012. Querétaro, México.

"Validation of a psychomotor test on a netbook platform". P.V. Agostino, I.L. Bussi, J. Diez, S. Perez Lloret, D.A. Golombek, D. Perez Chada, D. Cardinali and D. Vigo.

LVI Annual Meeting of the Argentine Society of Clinic Investigation. November 16 to 19, 2011. Mar del PLata, Argentina.

"Time waits for nobody: interaction between the circadian clock, dopamine and interval timing". I.L. Bussi, D.A. Golombek and P.V. Agostino.

XXVI Annual Meeting of the Argentine Society for Neuroscience. October 18 to 22, 2011. Huerta Grande, Córdoba, Argentina.

"NO-cGMP-PKG pathway in the SCN: the leftovers". S.A. Plano, J.J. Chiesa, F. Baidanoff, P.V. Agostino, H. de la Iglesia and D.A. Golombek.

XXVI Annual Meeting of the Argentine Society for Neuroscience. October 18 to 22, 2011. Huerta Grande, Córdoba, Argentina.

"The circadian system influences short-time perception". P.V. Agostino, I.L. Bussi, M. do Nascimento and D.A. Golombek.

XI Latin American Symposium of Chronobiology. May 4 to 5, 2011. Cholula, Puebla, México.

Third World Congress on Chronobiology. May 6 to 9, 2011. Puebla, México.

"cGMP modulation by PDE inhibition enhances photic response of the circadian system". D.A. Golombek, H. de la Iglesia, S.A. Plano and P.V. Agostino.

II Joint Meeting of the Argentine Society for Neuroscience. October 6 to 10, 2010. Huerta Grande, Córdoba, Argentina.

"A time for everything: from circadian to interval timing (Ecclesiastes 3: 1)". I.L. Bussi, M. do Nascimento, M.C. Eguía, D.A. Golombek and P.V. Agostino.

II Joint Meeting of the Argentine Society for Neuroscience. October 6 to 10, 2010. Huerta Grande, Córdoba, Argentina.

"The circadian clock influences short-time perception in mice". P.V. Agostino, M. Do Nascimento, I.L. Bussi and D.A. Golombek.

12th Meeting of Society for Research on Biological Rhythms. May 22 to 26, 2010. Sandestin, Florida, USA.

VISIT TO SCIENTIFIC MEETINGS

53th Meeting of Nobel Laureates in Lindau - 18th Meeting of Laureates in "Physiology or Medicine". June 30 to July 4, 2003. Lindau, Germany.

International Symposium of **Neurochemistry**. August 26 to 31, 2001. Buenos Aires Sheraton Hotel, Buenos Aires, Argentina.

International Symposium of **Signal Transductions in Eucariots Cells**. December 4, 2000. Cristal Palace Hotel, Buenos Aires, Argentina.

TRAINING COURSES

- 2010** "Physics and Biology, heading towards quantitative Neuroscience". October 6 to 8, 2010. Huerta Grande, Córdoba, Argentina.
- 2009** "Cognitive Neurosciences and Experimental Psychology". Directed by Dr. Diego Fernández Duque. July 2 to 11, 2009. National University of Quilmes, Buenos Aires, Argentina.
- 2008** "Language, sound, time and memory. Between Physics and Experimental Psychology". Directed by Dr. Jacques Mehler and Dr. Marina Nespor. December 9 to 15, 2008. Exact and Natural Sciences School, University of Buenos Aires. Buenos Aires, Argentina
- 2007** "Experimental design for the evaluation of cognitive process". July 24 to 30, 2007. Faculty of Medicine, University of Buenos Aires, Argentina.
- 2006** "Statistics and data analysis in scientific research". October 16 to 27, 2006. National University of Quilmes, Buenos Aires, Argentina.
- 2006** International Workshop on Synaptic Plasticity and Neurotransmission. March 27 to April 7, 2006. Instituto Clemente Estable, Montevideo, Uruguay.
- 2005** "Clocks and Circadian Rhythms". October 25 to 26, 2005. Fundación Instituto Leloir, Buenos Aires, Argentina.
- 2005** "Genetics and Human Health" June 27 to July 28, 2005. National University of Quilmes, Buenos Aires, Argentina.
- 2004** IX Latin American School of Neuroscience IBRO. April 19 to May 7, 2004. Santiago and Valparaíso, Chile.
- 2002** "Molecular and Biochemistry Bases of Chronobiology". Los Cocos, Córdoba, Argentina. October 20 to 23, 2002.
- 2002** Mechanisms and Functions of Biological Clocks – Chronobiology Summer School. Max-Planck Research Centre for Ornithology, Andechs / Seewiesen, Germany. September 8 to 13, 2002.
- 2002** "Advances in Neuroscience 2002", organized by the International Brain Research Organization (IBRO). Vaquerías, Córdoba, Argentina. April 17 to 18, 2002.
- 2001** "Pharmacology". National University of Quilmes, Buenos Aires, Argentina. August to December, 2001.
- 2001** "Dynamic of Intracellular Calcium in Excitable Cells". Exact and Natural Sciences School, University of Buenos Aires. Buenos Aires, Argentina. November 19 to December 4, 2001.

SCIENCE POPULARIZATION

2015 Participation in the Brain Awareness Week. Buenos Aires, March 2015.

Coordination of the Second Journeys of Advanced Students from Science and Technology. National University of Quilmes, October 2015.

2013 Coordination of the First Journeys of Advanced Students from Science and Technology. National University of Quilmes, June 2013.
Cognitive Neuroscience and Education: Coincidences and Challenges. Journey about neuroscience communication and popularization, RAICES program. Buenos Aires, November 2013.

2007 Participation in The Basement of Perception. Buenos Aires, 2007.

Buenos Aires, July 2016