

Dr. Claudia Perez Cruz

PROFESIONAL EXPERIENCE

SNI Category II

- Since October 2012 **Principal Investigator 3B**
Neuroplasticity and Neurodegeneration Lab
Department of Pharmacology, CINVESTAV, Mexico, City.
- April - October 2011 **Project Manager**
Antwerp, University, Belgium.
- Feb 2008 - Dec 2010 **Post-doc Associated Researcher**
Abbott Laboratories GmbH & Co. KG, Neuroscience Discovery
Group, Ludwigshafen, Germany.
- Oct - Dec 2007 **Short Researcher Fellowship (DAAD-CONACYT)**
Collaborative group between Max-Planck Institute of Experimental
Medicine, Göttingen (Dr. Frank Kirchoff) and Abbott Laboratories
GmbH & Co., Ludwigshafen (Prof. Dr. Ulrich Ebert), Germany.
- Abril - Oct 2007 **Post-doc Associated Researcher**
German Primate Center (DPZ), Clinical Neurobiology Laboratories (Dr.
Eberhard Fuchs), Göttingen, Germany.

EDUCATION

2004 - 2007	Ph.D in Systems Neuroscience - Göttingen University, Germany.
2001 - 2003	M.Sc. Pharmacology - University of Toronto, Canada.
1996 - 2001	Bachelor in Biological Sciences - UNAM, México.

PRIZES, GRANTS AND SCHOLARSHIPS

- Funding SEP-Cinvestav, 2019-2020.
- First Place National Prize of Science and Technology of Food, 2017.
- Honourable Mention National Prize of Science and Technology of Food, 2016.
- Funding for Research in Health. Consejo de Investigación sobre la Salud y Cerveza, 2016.
- Fundación Miguel Aleman. Scientific Award, 2015.
- Abbott Laboratories Silver Award, 2011.
- IBRO-CEERC Summer School - Hungary, First Prize Poster Presentation, July 2005.
- Short researcher fellowship, DAAD - CONACyT, Max Planck Institute, Germany 2007.
- Scholarship CONACYT, Ph.D. studies. February 2004 - April 2007.
- Scholarship CONACYT, M. Sc. studies. Sept 2001 - November 2003.
- University of Toronto, Outstanding academic Award, December 2002.
- University of Toronto, Third Prize Poster Presentation, August 2002.
- Scholarship CONACYT, Bachelor thesis. January 2001 - July 2001

MENTORING THESIS DISERTATION

Master in Science: 10 graduated, 1 in process; Ph.D: 1 graduated, 3 in process

PUBLICATIONS

- 1) Rodriguez-Callejas JD, Cuervo-Zanatta, D., Rosas-Arellano, A., Fonta, C., Fuchs, E., and **Perez-Cruz, C.** (2019). Loss of ferritin-positive microglia relates to increased iron, RNA oxidation and dystrophic microglia in the brains of aged male marmosets. *American Journal of Primatology* 2019;e22956. DOI: 10.1002/ajp.22956
- 2) Lopez, P., Sanchez, M., **Perez-Cruz, C.**, Velazquez-Villegas, L., Syeda T., Aguilar-Lopez, M., Rocha-Viggiano, A., Silva-Lucero, M., Torre-Villalvazo, I., Noriega, L., Torres, N., Tovar, A. (2018) Genistein modifies gut microbiota, improving glucose metabolism, metabolic endotoxaemia and cognitive function in mice fed a high-fat diet. *Molecular Nutrition and Food Research* (*in press*).
- 3) Brenda Perez-Grijalva, Monica Herrera-Sotero, Rosalva Mora-Escobedo, Julio C. Zebadúa-García, Eryck Silva-Hernandez, Rosa Oliart-Ros, **Claudia Perez-Cruz**, Rosa Guzman-Geronimo (2017). Effect of microwaves and

ultrasound on bioactive compounds and microbiological quality of blackberry juice. *LWT - Food Science and Technology* 87 (2018) 47e53.

- 4) Sanchez-Tapia, M., Aguilar-López, M., **Perez-Cruz, C.**, Pichardo-Ontiveros, E., Wang, M., Donovan, S. Tovar, A., and N. Torres (2017). Nopal (*Opuntia ficus indica*) protects from metabolic endotoxemia by modifying gut microbiota in obese rats fed high fat/sucrose diet. *Scientific Reports*, 7. 4716.
- 5) Treviño, S., Vazquez-Roque, R., Lopez-Lopez, G., **Perez-Cruz, C.**, Moran-Raya, C., Handal-Silva, A.; Gonzalez-Vergara, E.; Flores, G.; Guevara, J.; Díaz, Diaz, A., (2017) Metabolic syndrome causes recognition impairments and reduced hippocampal neuronal plasticity in rats. *J. Chem. Neuroanatomy* Feb 17. doi: 10.1016/j.jchemneu.2017.02.007
- 6) Morin J.P., Rodriguez-Durán F., Guzman-Ramos, K., **Perez-Cruz, C.**, Ferreira, G., Diaz Cintra, S., and Pacheco-Lopez, G. (2017) Palatable hypercaloric foods impacts on neural plasticity. *Frontiers Behav. Neuroscience*. doi: 10.3389/fnbeh.2017.00019
- 7) Rodriguez-Callejas, J., Fuchs, E., **Perez-Cruz, C.** (2016) Evidence of tau hyperphosphorylation and dystrophic microglia in common marmoset. *Frontiers Aging Neuroscience*. doi: 10.3389/fnagi.2016.00315
- 8) Avila-Nava, A., Noriega, L., Tovar, A., Granados, O., **Perez-Cruz, C.**, Pedraza-Chaverri, J., Torres, N. (2016). Consumption of a pre-hispanic Mexican diet decreases metabolic and cognitive abnormalities and gut microbiota dysbiosis caused by a sucrose-enriched high fat diet in rats. *Mol. Nutr. Food Res.* 00, 1–13.
- 9) **Claudia Perez-Cruz** and Sofia Díaz-Miranda (2015) Editorial: Nutrition and Prevention of Alzheimer’s disease. *Frontiers in Aging Neuroscience*. *Front Aging Neurosci.* 2015; 7: 170. doi: 10.3389/fnagi. 10.3389 doi 10.1002/mnfr.201501023
- 10) Liliana Carmona-Aparicio, **Claudia Pérez-Cruz**, Cecilia Zavala-Tecuapetla, Leticia Granados-Rojas, Liliana Rivera-Espinosa, Hortencia Montesinos-Correa, Jacqueline Hernández-Damián, José Pedraza-Chaverri, Aristides III Sampieri, Elvia Coballase-Urrutia, and Noemí Cárdenas-Rodríguez (2015) Overview of Nrf2 as Therapeutic Target in Epilepsy. *Int. J. Mol. Sci.* 16, 18348-18367; doi:10.3390/ijms160818348
- 11) Noemí Cárdenas-Rodríguez, Elvia Coballase-Urrutia, **Claudia Pérez-Cruz**, Hortencia Montesinos-Correa, Liliana Rivera-Espinosa, Aristides Sampieri III, and Liliana Carmona-Aparicio (2014). Relevance of the Glutathione System in Temporal Lobe Epilepsy: Evidence in Human and Experimental Models. *Oxidative Medicine and Cellular Longevity* (Vol. 2014, Article ID 759293)
- 12) **Perez-Cruz C**, Nolte MW, van Gaalen MM, Rustay NR, Termont A, Tanghe A, Kirchoff F, Ebert U. (2011) Reduced spine density in specific regions of CA1 pyramidal neurons in two transgenic mouse models of Alzheimer’s Disease. *J of Neuroscience* 31(10):3926-34.
- 13) Heinz Hillen, Stefan Barghorn, Andreas Striebinger, Boris Labkovsky, Reinhold Müller, Volker Nimmrich, Marc W. Nolte, **Claudia Perez-Cruz**, Ingrid van der Auwera, Fred van Leuven, Marcel van Gaalen, Anton Y. Beshpalov, Hans Schoemaker, James P. Sullivan, Ulrich Ebert (2010). Generation and therapeutic efficacy of highly oligomer-specific A β antibodies. *Journal of Neurosciences* (31):10369-79
- 14) **Perez-Cruz, C.**, Simon, M., Flügge, G., Fuchs, E. Czeh, B., (2009). Diurnal rhythm and stress regulate dendritic architecture and spine density of pyramidal neurons in the rat infralimbic cortex. *Behavioral Brain Research*; 205(2):406-13
- 15) **Perez-Cruz, C.**, Simon, M., Czeh, B., Flügge, G., Fuchs, E. (2009). Hemispheric differences in basilar dendrites and spines of pyramidal neurons in the rat prelimbic cortex: activity- and stress-induced changes. *European Journal of Neurosciences*; 29 (4):738-47
- 16) Czeh, B., **Perez-Cruz, C.**, Fuchs, E. and G. Flügge (2008). Chronic stress-induced cellular changes in the medial prefrontal cortex and their potential clinical implications: Does hemisphere location matter? *Behavioral Brain Research*; 190(1):1-13
- 17) **Perez-Cruz, C.**, Muller-Keuker, J., Heilbronner, U., Fuchs, E., Flügge, G. (2007) Morphology of pyramidal cells in the left and the right prefrontal cortex and sub-area specific dendritic remodeling after chronic restraint stress. *Neural Plasticity* 2007:46276
- 18) **Perez-Cruz, C.**, Lonsdale, D., Burnham, W.M. (2007). Anticonvulsant actions of deoxycorticosterone in infant rats. *Brain Research* 1145: 81-89
- 19) **Perez-Cruz, C.**, Likodii, S., Burnham, W.M. (2006). Deoxycorticosterone’s anticonvulsant effects in infant rats are blocked by finasteride, but not by indomethacin. *Experimental Neurology* 200:283-289
- 20) **Perez-Cruz, C.**, Rocha, L. (2002). Kainic acid modifies mu receptor binding in young, adult and elderly rats. *Cellular and Molecular Neurobiology* 22: 745-749

BOOKS AND BOOK CHAPTERS

- **Claudia Perez-Cruz** and Sofia Díaz-Miranda, Eds. “Nutrition and Prevention Alzheimer’s disease” (2015). E-book Frontiers Media SA. ISBN: 978-2-88919-719-4
- Burnham, W.M., Lonsdale, D., Shahzamani A., **Perez-Cruz, C.**, Edwards, H.E. (2005) “Development of new anticonvulsants using the kindling model”. In: Corcoran. M.E., Moshe, S.L. (Eds.), *Kindling 6*, Plenum Press, New York. USA. pp. 325-332. ISBN: 0-387-24380-1

International congress presentations: 47