

Personal Information

Name

Bolognin Silvia

Work experience

2016-

CTO and co-founder of the spin-off company Braingineering Technologies Sarl, University of Luxembourg, LCSB.

2014/ 2017

Assistant Researcher at University of Luxembourg, LCSB.

2011/ 2014

Assistant Researcher at University of Verona Department of Physiology.

2010/ 2011

Post-doc fellowship at Institute for Basic Research in Developmental Disabilities, Staten Island, New York.

Education and training

2007/ 2009

Ph.D. in **Tissue and Grafting Engineering** at the University of Padua.

2001/ 2006

Graduate in Pharmaceutical Chemistry and Technology University of Padua, School of Pharmaceutical Sciences.

Publications:

1. Bolognin S, Fossepre M, Qing X, Jarazo J, Scancar J, Lucumi E, Salamanca L, Fleming R, Antony P, Schwamborn J (2018, in revision) 3D microfluidics for high content drug screening in Parkinson's Disease.
2. Saraceno C, Catania M, Paterlini A, Fostinelli S, Ciani M, Zanardini R, Binetti G, Di Fede G, Caroppo P, Benussi L, Ghidoni R, Bolognin S* (2018) Altered expression of circulating Cdc42 in frontotemporal lobar degeneration. *J Alzheimers Dis*, 61:1477-1483.
3. Monzel A, Smits L, Hemmer K, Hachi S, Moreno E, Wuellen T, Jarazo J, Walter J, Werthschulte I, Boussaad I, Berger E, Fleming R, Bolognin S, Schwamborn JC (2017) A novel approach to derive human midbrain-specific organoids from neuroepithelial stem cells. *Stem Cell Rep*, 8:1144-1154.
4. Palm T, Bolognin S#, Meiser J, Nickles S, Trager C, Meilenbrock RL, Brockhaus J, Schreitmuller M, Missler M, Schwamborn JC (2015) Rapid and robust generation of long-term self-renewing human neural stem cells with the ability to generate mature astroglia. *Sci Rep*, 5:16321.
5. Khatoon S, Chalbot S, Bolognin S, Puolivali J, Iqbal K (2015) Elevated tau level in aged rat cerebrospinal fluid reduced by treatment with a neurotrophic compound. *J Alzheimers Dis*, 47:557-564.
6. Iqbal K, Kazim SF, Bolognin S, Blanchard J (2014) Shifting balance from neurodegeneration to regeneration of the brain: a novel therapeutic approach to Alzheimer's Disease and related neurodegenerative conditions. *Neural Regen Res*, 35:1518-1519.
7. Bolognin S, Buffelli M, Puolivali J, Iqbal K (2014) Rescue of cognitive-aging by administration of a neurogenic and/or neurotrophic compound. *Neurobiol Aging*, 35:2134-2146.
8. Bolognin S*, Cozzi B, Zambenedetti P, Zatta P (2014) Metallothioneins and the central nervous system: from a deregulation in neurodegenerative diseases to the development of new therapeutic approaches. *J Alzheimers Dis*, 41:29-42.
9. Bolognin S*, Lorenzetto E, Diana G, Buffelli M (2014) The potential role of Rho GTPases in Alzheimer's Disease pathogenesis. *Mol Neurobiol*, 5:406-422.
10. Iqbal K, Bolognin S, Wang X, Basurto-Islas G, Blanchard J, Tung YC (2013) Animal models of the sporadic form of Alzheimer's Disease: focus on the disease and not just the lesions. *J Alzheimers Dis*, 37:469-474.
11. Bolognin S*, Zatta P, Lorenzetto E, Valenti MT, Buffelli M (2013) β -amyloid-aluminum complex alters cytoskeletal stability and increases ROS production in cortical neurons. *Neurochem Int*, 62:566-574.
12. Valenti MT, Bolognin S, Zanatta C, Donatelli L, Innamorati G, Pampanin M, Zanusso G, Zatta P, Carbonare LD (2013) Increased glutaminylation of

expression in peripheral blood of Alzheimer's Disease patients. *J Alzheimers Dis*, 34:263-271.

13. Bolognin S, Pasqualetto F, Mucignat-Carretta C, Scancar J, Milacic R, Zambenedetti P, Cozzi B, Zatta P (2012) Effects of a copper-deficient diet on the biochemistry, neural morphology and behavior of aged mice. *PLoS ONE*, 7(10):e47063.
14. Bolognin S, Blanchard J, Wang X, Basurto-Islas G, Tung YC, Kohlbrenner E, Grundke-Iqbal I, Iqbal K (2012) An experimental rat model of sporadic Alzheimer's disease and rescue of cognitive impairment with a neurotrophic peptide. *Acta Neuropathol*, 123:133-151.
15. Blanchard J, Bolognin S, Chohan MO, Rabe A, Iqbal K, Grundke-Iqbal I (2011) Rescue of synaptic failure and alleviation of learning and memory impairments in a trisomic mouse model of Down Syndrome. *J Neuropathol Exp Neurol*, 70:1070-1079.
16. Bolognin S, Messori L, Drago D, Gabbiani C, Cendron L, Zatta P (2011) Aluminum, Copper, Iron and Zinc differentially alter Amyloid- β 1-42 aggregation and toxicity. *Int J Biochem Cell Biol*, 43:877-885.
17. Suwalsky M, Zambrano P, Mennickent S, Villena F, Sotomayor CP, Aguilar LF, Bolognin S (2011) Effect of phenylpropanolamine (PPA) on in vitro human erythrocyte membranes and molecular models, *Biochem Biophys Res Commun*, 406:320-325.
18. Suwalsky M, Gonzales R, Villena F, Aguilar LF, Sotomayor CP, Bolognin S, Zatta P (2010) Human erythrocytes and neuroblastoma cells are affected in vitro by Au(III) ions. *Biochem Biophys Res Commun*, 397:226-231.
19. Cozzi B, Giacomello M, Zambenedetti P, Bolognin S, Rossipal E, Peruffo A, Zatta P (2010) Ontogenesis and migration of metallothionein I/II-containing glial cells in the human telencephalon during the second trimester. *Brain Res*, 1327:16-23.
20. Bolognin S, Messori L, Zatta P (2009) Metal ion physiopathology in neurodegenerative disorders. *Neuromolecular Med*, 11:223-238.
21. Zatta P, Drago D, Bolognin S, Sensi SL (2009) Chelation Therapy: a resurrected role in Alzheimer's disease? *Trends Pharmacol Sci*, 30:346-355.
22. Bolognin S, Drago D, Messori L, Zatta P (2009) Chelation Therapy for neurodegenerative diseases. *Med Res Rev*, 29:547-570.
23. Suwalsky M, Gonzales R, Villena F, Aguilar LF, Sotomayor CP, Bolognin S, Zatta P (2009) Structural effects of tetrachloroauric acid on cell membranes as molecular models. *Coordination Chem Rev*, 253:1599-1606.
24. Suwalsky M, Bolognin S, Zatta P (2009) Interaction between Alzheimer β -amyloid and β -amyloid-metal complexes with cell membranes. *J Alzheimers Dis*, 17:81-90.
25. Bolognin S, Zatta P, Drago D, Tognon G, Parnigotto PP, Ricchelli F (2008) Mutual stimulation of beta-amyloid fibrillogenesis by clioquinol and divalent metals. *Neuromolecular Med*, 10:322-332.
26. Drago D, Bolognin S, Zatta P (2008) Role of metal ions in the A β oligomerization in Alzheimer's disease and in other neurological disorders. *Curr Alzheimer Res*, 5:500-507.
27. Zatta P, Drago D, Zambenedetti P, Bolognin S, Nogara E, Peruffo A, Cozzi B (2008) Accumulation of copper and other metal ions, and metallothionein I/II expression in the bovine brain as a function of aging. *Journal of Chem Neuroanat*, 36:1-5.
28. Suwalsky M, Villana F, Sotomayor CP, Bolognin S, Zatta P (2008) Human cells and membrane molecular models are affected in vitro by chlorpromazine. *Biophysical Chemistry*, 135:7-13.
29. Drago D, Bettella M, Bolognin S, Cendron L, Scancar J, Milacic R, Ricchelli F, Casini A, Messori L, Tognon G, Zatta P (2007) Potential pathogenic role of beta-amyloid-aluminum complex in Alzheimer's disease. *Int J Biochem Cell Biol*, 40:731-746.
30. Ricchelli F, Fusi P, Tortora P, Valtorta M, Riva M, Tognon G, Chieragato K, Bolognin S, Zatta P (2007) Destabilization of non-pathological variants of ataxin-3 by metal ions results in aggregation/fibrillogenesis. *Int J Biochem Cell Biol*, 39:966-977.

Patents:

1. **Bognin S.**, Palm Thomas., Schwamborn J.C. Long term self-renewal of stem cells.
LUX15282LU, granted 2015.
2. Monzel A.S., **Bognin S.**, Schwamborn J.C. Generation of midbrain organoids.
LUX15542LU, granted 2017.