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LIST OF PEER-REVIEWED PUBLICATIONS

(in reverse chronological order)

Farajnia S, Meijer JH, Michel S (2015) Age-related changes of large conductance calcium activated potassium Channels in mammalian circadian clock neurons. *Neurobiology of aging*, doi: 10.1016/j.neurobiolaging.2014.12.040.

Farajnia S, van Westering TL, Meijer JH, Michel S (2014) Seasonal induction of GABAergic excitation in the central mammalian clock. *Proc Natl Acad Sci U S A* 111: 9627-9632.

Farajnia S, Deboer T, Rohling JH, Meijer JH, Michel S (2014) Aging of the suprachiasmatic clock. *Neuroscientist* 20: 44-55.

Farajnia S, Michel S, Deboer T, Vanderleest HT, Houben T, Rohling JH, Ramkisoensing A, Yasenkov R, Meijer JH (2012) Evidence for neuronal desynchrony in the aged suprachiasmatic nucleus clock. *J Neurosci* 32: 5891-5899.

Farajnia S, Janahmadi M, Vatanparast J, Abbasipour H, Kamalinejad M (2011) The electrophysiological consequences of *Artemisia dracunculus* L. (Tarragon) extract on pentylenetetrazol-induced epileptiform activity in snail neurons. *Cell journal (Yakhteh)* 12(4): 495-502.

Janahmadi M, Farajnia S, Ghasemi Z, Rastqar A (2011) Medicinal Herbs and Epilepsy: A Two Edged Sword. *Chapetr 18 of: Underlying Mechanisms of Epilepsy. In Tech*, 317-332.

Janahmadi M, Farajnia S, Vatanparast J, Kamalinejad M (2008) The fruit essential oil of *Pimpinella anisum* L. (Umbelliferae) induces neuronal hyperexcitability in snail partly through attenuation of after hyperpolarization. *Journal of Ethnopharmacology* 120 (3): 360-365.



CURRICULUM VITAE

Sahar Farajnia was born on 16th February 1979 in Tehran the capital city of Iran. In 1998 she finished her high school study as a distinguished student. In the same year she prepared herself for the Iranian university entrance exam, Concours, and passed it successfully. In 1999 she entered Shahid Beheshti University of Medical Sciences and in 2003 she achieved her bachelor degree in nursing. She considered changing her field of profession from clinical to basic sciences and therefore took the University entrance exam, Concours, once again to be able to follow a master program in medical fundamental sciences. In 2004 she was accepted by honor, again in Shahid Beheshti University of Medical Sciences to do her master in human physiology. During her studies she became very interested in the electrophysiological properties of neurons such as the membrane ion channels' function, neuronal plasticity and neuronal synaptic properties. During the final year of her master degree in 2006, under supervision of Prof. Dr. M. Janahmadi, she performed electrophysiological studies. She worked on the antiepileptic and neuroprotective effects of herbal extracts and essential oils, using intracellular recording method. Once she completed her degree in 2007, she focused her professional career on neuroscience and worked as a researcher in Neuroscience Research Center of Iran under supervision of her ex-supervisor. The results of her work during this period was published as two research papers in English, one in Persian and a book chapter entitled: "Medicinal Herbs and Epilepsy: A Two Edged Sword".

In 2009 she came to the Netherlands to pursue her profession in neuroscience. She immediately started a research project in Leiden University medical center, molecular cell biology department, laboratory for neurophysiology under supervision of Prof. Dr. J.H. Meijer and Dr. S. Michel. She worked on the cellular mechanisms of aging in the biological clock for two years. In February 2011 she was awarded a PhD position in the same lab and continued working on aging. As a parallel project of her PhD, she also worked on the cellular mechanisms underlying seasonal adaptation in the central biological clock. The results of these studies are reported in the present thesis.

Since February 2015 she works as a postdoctoral researcher in the retinal signal processing lab, Prof. Dr. M. Kamerman's group, in Netherlands Institute for Neuroscience (NIN), Amsterdam.



