## Publications - AVITAL ADLER

Research papers

1. **Different correlation patterns of cholinergic and GABAergic interneurons with striatal projection neurons.**

Avital Adler, Shiran Katabi, Inna Finkes, Yifat Prut and Hagai Bergman. Front Syst Neuroscience, 2013 Sep 3;7:47

1. **Encoding by synchronization in the primate striatum.**

Avital Adler, Inna Finkes, Shiran Katabi, Yifat Prut and Hagai Bergman. J Neuroscience, 2013 Mar 13;33(11):4854-66

1. **Temporal convergence of dynamic cell assemblies in the striato-pallidal network.**

Avital Adler, Shiran Katabi, Inna Finkes, Zvi Israel, Yifat Prut and Hagai Bergman. J Neuroscience, 2012 Feb 15;32(7):2473-84

1. **Singing-related neural activity distinguishes two putative pallidal cell types in the songbird basal ganglia: comparison to the primate internal and external pallidal segments.**

Jesse Goldberg, Avital Adler, Hagai Bergman, and Michale Fee. J Neuroscience, 2010 May 19;30(20):7088-98

1. **Neurons in both pallidal segments change their firing properties similarly prior to closure of the eyes.**

Avital Adler, Mati Joshua, Michal Rivlin-Etzion, Rea Mitelman , Odeya Marmor , Yifat Prut and Hagai Bergman. J Neurophysiol, 2010 Jan; 103(1): 346-59

1. **Novelty Encoding by the Output Neurons of the Basal Ganglia.**Mati Joshua, Avital Adler and Hagai Bergman. Frontiers in Systems Neuroscience. 2010 Jan 8;3:20
2. **Synchronization of midbrain dopaminergic neurons is enhanced by rewarding events.**

Mati Joshua, Avital Adler, Yifat Prut, Eilon Vaadia, Jeffery R. Wickens and Hagai Bergman.

Neuron, 2009 June 11; 62(5): 695–704,

1. **A noninvasive, fast and inexpensive tool for the detection of eye open/closed state in primates.** Rea Mitelam, Mati Joshua, Avital Adler, and Hagai Bergman. J Neurosci Methods. 2009 Apr 15;178(2):350-6.
2. [**Encoding of probabilistic rewarding and aversive events by pallidal and nigral neurons.**](http://www.ncbi.nlm.nih.gov/pubmed/19052110?ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DefaultReportPanel.Pubmed_RVDocSum)Mati Joshua, Avital Adler, Boris Rosin, Eilon Vaadia and Hagai Bergman. J Neurophysiol. 2009 Feb;101(2):758-72
3. **Midbrain Dopaminergic Neurons and Striatal Cholinergic Interneurons Encode the Difference between Reward and Aversive Events at Different Epochs of Probabilistic Classical Conditioning Trials**.  
   Mati Joshua, Avital Adler, Rea Mitelman, Eilon Vaadia and Hagai Bergman. Journal of Neuroscience. 2008 28(45): 11673-11684.

Review Papers

**The dynamics of dopamine in control of motor behavior.**Mati Joshua, Avital Adler, and Hagai Bergman. Curr Opin Neurobiol. 2009 Dec; 19(6):615-20

Book Chapters

1. **The Basal Ganglia**

Suzanne N. Haber, Avital Adler and Hagai Bergman. The Human Nervous System. Editors: Paxinos, G. and Mai, J. Academic Press, pp 678-738, 2011

1. **Asymmetric Encoding of Positive and Negative Expectations by Low-Frequency Discharge Basal Ganglia Neurons**.   
   Mati Joshua, Avital Adler and Hagai Bergman. The Basal Ganglia IX, Advances in behavioral biology, Vol 58, editors: Groenewegen, H.J.; Voorn, P.; Berendse, H.W.; Mulder, A.B.; Cools, A.R. Springer New York, Chapter 5, pp 63-72, 2009
2. **High frequency stimulation of the globus pallidus external segment biases behavior toward reward.**Avital Adler, Mati Joshua, Inna Finkesand Hagai Bergman. The Basal Ganglia IX, Advances in behavioral biology, Vol 58, editors: Groenewegen, H.J.; Voorn, P.; Berendse, H.W.; Mulder, A.B.; Cools, A.R. Springer New York, Chapter 7, pp 85-96, 2009
3. **Basal ganglia: Acetylcholine interactions & Behavior**.   
   Avital Adler, Mati Joshua, Joshua A. Goldberg, Genela Morris, and Hagai Bergman. The New Encyclopedia of Neuroscience, edited by Larry Squire, Tom Albright, Floyd Bloom, Fred Gage and Nick Spitzer, Elsevier Ltd. UK, 2007