

## **Maayan Merhav, PhD**

Research Interests: Learning and Memory, Cognitive Aging, Spatial Cognition.

### Employments:

- A post-doctoral fellow at the Aging & Cognition Research Group, the German Center for Neurodegenerative Diseases (DZNE) (2014-present).
- A research assistant at the Multiple Sclerosis & Brain Research Center, the laboratory of Prof. Miller at the faculty of medicine, the Technion, Haifa, Israel. (2007-2009).
- A collaboration project, at the laboratory of Prof. Eric Klann at the Baylor College of Medicine, Houston, Texas (Summer 2005).
- A research assistant at the Center for Research of Brain and Behavior, University of Haifa (2003-2004)
- A research assistant at the Dept. of Neurobiology, the Life Science Institute at the Hebrew University of Jerusalem (2003).
- Product developer at 'Carmel Medical Acoustic Devices' (1999).
- Army service (obligatory): Teaching immigrants the Hebrew language (1996-1998).

Volunteering @ Nitsan, Haifa: Guiding music lessons to mentally challenged adults (2007-2009)

### Education:

- A PhD at the Neurobiology and Ethology Dept., University of Haifa; Thesis supervisors: Dr. Asaf Gilboa (University of Toronto) and Prof Avi Karni; Title of thesis: Learning through Fast Mapping in Adults; Behavioral and Neuro-Anatomical Properties (2009-2013).
- MSc at the Neurobiology and Ethology Dept., University of Haifa, *Summa cum laude*; Thesis supervisor: Prof. Kobi Rosenblum; Title of thesis: Functional interactions between two unimodal Inputs and Regulation on Translation Initiation in Taste-Memory Consolidation (2004-2006).
- BSc in Life Sciences (Biology), the Hebrew University of Jerusalem (2000-2003).

### Experience:

Administration and design of studies in human, animals and cell cultures: Behavioral and cognitive methodologies, neuro-imaging (fMRI), functional connectivity (PLS); Statistical analyses, scientific writing, students' mentoring and guiding. In addition, experience in Protein, DNA and RNA analyses, histology and micro injections.

Extensive knowledge in learning and memory processes, at behavioral, anatomical and cellular (neural) levels.

Computing: Microsoft office, SPSS, e-prime, MatLab, linux, SPM, AFNI and PLS.

Languages: Hebrew: native language; English: fluent.

### Prizes and Awards:

- A prize for excellence from the Wolf foundation, 2011.
- The rector prize for the best thesis of the year, 2007.
- The department's award/prize of excellence, 2006.

### Publications:

1. **Merhav M.**, Karni A. and Gilboa A. In press. *NeuroImage* (2015). Not all declarative memories are created equal: Fast Mapping as a direct route to cortical declarative representations.
2. **Merhav M.**, Karni A. and Gilboa A. (2014) *Hippocampus*. Neocortical catastrophic interference in healthy and amnesic adults: A paradoxical matter of time
3. Mandel I, Paperna T., Volkowich A., **Merhav M.**, Glass-Marmor L. and Miller A. (2012) *Cell Bioch*. The ubiquitin–proteasome pathway regulates claudin 5 degradation.
4. **Merhav M.**, Rosenblum K. (2008) *Learn Mem*. Facilitation of taste memory acquisition by experiencing previous novel taste is protein-synthesis dependent.
5. Antion MD, **Merhav M.**, Hoeffler CA, Reis G, Kozma SC, Thomas G, Schuman EM, Rosenblum K, Klann E. (2008) *Learn Mem*. Removal of S6K1 and S6K2 leads to divergent alterations in learning, memory, and synaptic plasticity.
6. **Merhav M.**, Kuulmann-Vander S, Elkobi A, Jacobson-Pick S, Karni A, Rosenblum K. (2006) *Learn Mem*. Behavioral interference and C/EBP $\beta$  expression in the insular-cortex reveal a prolonged time period for taste memory consolidation.
7. Yefet K, **Merhav M.**, Kuulmann-Vander S, Elkobi A, Belevovsky K, Jacobson-Pick S, Meiri N, Rosenblum K. (2006) *Eur J Neurosci*. Different signal transduction cascades are activated simultaneously in the rat insular cortex and hippocampus following novel taste learning.
8. Banko JL, **Merhav M.**, Stern E, Sonenberg N, Rosenblum K, Klann E. (2006) *Neurobiol Learn Mem*. Behavioral alterations in mice lacking the translation repressor 4E-BP2.
9. Akirav I, Khatsrinov V, Vouimba RM, **Merhav M.**, Ferreira G, Rosenblum K, Maroun M. (2006) *Learn Mem*. Extinction of conditioned taste aversion depends on functional protein synthesis but not on NMDA receptor activation in the ventromedial prefrontal cortex.

### Selected Posters:

1. Neural substrates of rapid neocortical semantic learning  
The annual Neuropsychology conference, 2013, Haifa, Israel
2. New semantic learning through Fast Mapping is susceptible to catastrophic interference  
The ISFN annual meetings, 2011, Eilat, Israel.
3. Testing the "tagging hypothesis" in taste learning:  
The SFN annual meeting, 2006, Atlanta, Georgia, USA.
4. Alterations in synaptic plasticity and impaired learning and memory in p70S6K knock-out mice  
The SFN annual meeting, 2006, Atlanta, Georgia
5. What does it take to make a stable taste memory  
The SFN annual meeting, 2005, Washington DC. USA.