

## **Tal Gonen, PhD**

Neurosurgical department and Functional Brain Center, Tel Aviv Medical Center

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### **Education**

**2008 - 2015** PhD in Behavioral & Cognitive Neuroscience

Tel Aviv University, Faculty of Social Studies, School of Psychological Sciences.

Behavioral Cognitive Neuroscience direct PhD program.

Dissertation: Neural deconstruction of motivation into its elementary processes and depiction of their relation to personality.

Instructors: Prof. Talma Hendler, Prof. Giora Keinan

**2008 - 2009** M.A. in Psychobiology / magna cum laude

Tel Aviv University, Faculty of Social Studies, School of Psychological Sciences.

Thesis: From Animal Model to Human Brain Networking: Dynamic Causal Modeling of Motivational System.

Instructor: Prof. Talma Hendler

**2000 - 2004** B.A. in Behavioral sciences // magna cum laude

The Academic College of Tel Aviv-Jaffa, School of Behavioral Science.

### **Professional experience**

2016 - Present **Head of neurosurgical translational lab**, Dept. of Neurosurgery and Center for Brain Functions, Tel Aviv Medical Center

2009 - Present **Functional monitoring during awake craniotomies**

Department of Neurosurgery, Tel-Aviv Sourasky Medical Center.

2011 - 2012 **Teaching Assistant**

Assisted prof. Talma Hendler and prof. Nizan Ben Shaul in constructing and teaching the course: “The Brain as Mediating Cinematic Interactive Experiences - From Research to Therapy” (an empirical seminar for grad-students).

Sagol School for Neuroscience & Yolanda and David Faculty of Arts, Tel Aviv University

2009-2013 **Student Mentor**

Mentoring graduate and undergraduate students in lab projects conducted at the Functional Brain Center, Tel Aviv Medical Center

2008 - 2009 **Research Assistant**

Functional Brain Imaging Unit, Wohl Institute for Advanced Imaging, Tel-Aviv Sourasky Medical Center.

2007 - 2008 **Lab Rotations**

Dr. Dominique Lami, School of Psychological Sciences, Faculty of Social Studies, Tel Aviv University

Dr. Yaniv Assaf, Department of Neurobiology, Faculty of Life Science, Tel Aviv University.

### **Awards**

October 2016 **Society of Biological Psychiatry’s 2017 Travel Fellowship Awards**  
Society of Biological Psychiatry

May 2013 **Excellence scholarship for academic achievements**

Tel Aviv University, Faculty of Social Studies.

April 2013 **Excellence scholarship for academic achievements**

Tel Aviv University, School of Psychological Sciences.

August 2012 **Best paper published in 2012**

Tel Aviv University, School of Psychological Sciences.

July 2012 **Dean Excellence scholarship for academic achievements**

Tel Aviv University, Faculty of Social Studies.

January 2012 **Excellence scholarship for academic achievements**

Tel Aviv University, School of Psychological Sciences.

June 2002

**Excellence scholarship - 2nd year of BA**

The Academic College of Tel Aviv-Jaffa, School of Behavioral Science.

October 2000

**Excellence scholarship - entrance grades for BA**

The Academic College of Tel Aviv-Jaffa, School of Behavioral Science.

### **Research Support**

Feb 2016

**BRAIN division research grant**, Tel Aviv Medical Center:

“Differential modulation of creative thinking by large-scale cortical networks; mapping originality in awake LGG patients”

Oct. 2007-2012

**Adams Super Center for Brain Studies**, Tel-Aviv University:

fMRI research fellowships (granted annually, accepted 6 years in a row).

### **Selected peer-reviewed publications**

1. **Tal Gonen**, Tomer Gazit, Akiva Korn, Adi Kirshner, Daniella Peri, Talma Hendler, Zvi Ram. Intra-operative mapping of neural networks - the road for preservation of high-cognitive functions. (Under Review).
2. **Tal Gonen**, Rachel Grossman, Gal Sela, Raneen Yanakeei, Zvi Ram. Decline in Language Function Prior to Undergoing Awake Craniotomy: A prospective Clinical Study. *World Neurosurgery*, 2016 • doi: 10.1016/j.wneu.2016.12.081.
3. **Tal Gonen**, Eyal Soreq, Eran Eldar, Eti Ben Simon, Gal Raz, Talma Hendler. Human mesostriatal response tracks motivational tendencies under naturalistic goal-conflict. *Social Cognitive and Affective Neuroscience*, 2016 • doi: 10.1093/scan/nsw014.
4. **Tal Gonen**, Haggay Sharon, Godfrey Pearlson, Talma Hendler. Moods as Ups and Downs of the Motivation Pendulum: revisiting reinforcement sensitivity theory (RST) in bipolar disorder. *Frontiers in Behavioral Neuroscience*, 2014 • 3;8:378. doi: 10.3389/fnbeh.2014.00378.

5. **Tal Gonen**, Rachel Grossman, Razi Sitt , Erez Nossek, Daniel Hayat, Zvi Ram. Tumor location and IDH1 mutation may predict intraoperative seizures during awake craniotomy: Clinical article. *Journal of Neurosurgery*, 2014 • 121(5):1133-1138.
6. **Tal Gonen**, Roe Admon, Ilana Podlipsky, Itamar Kahn, Talma Hendler. From Animal Model to Human Brain Networking: Dynamic Causal Modeling of Motivational Systems. *Journal of Neuroscience*, 2012 • 32(21):7218–7224.
7. Talma Hendler, **Tal Gonen**, Eran V. Harel & Haggai Sharon. From Circuit Activity to Network Connectivity and Back: The Case of Obsessive-Compulsive Disorder. *Biological Psychiatry*, 2014 • 75(8):590-592.
8. Gal Raz, Alexandra Touroutoglou, Christine Mendenhall, Gadi Gilam, Tamar Lin **Tal Gonen**, Yael Jacob, Shir Atzil, Roe Admon, Maya Bleich-Cohen, Adi Maron-Katz, Talma Hendler, Lisa Feldman Barrett. Functional connectivity dynamics during film viewing reveal common networks for different emotional experiences. *Cognitive, Affective & Behavioral Neuroscience*, 2016 • doi:10.3758/s13415-016-0425-4.
9. Gal Raz, Lavi Shpigelman, Yael Jacob, **Tal Gonen**, Yoav Benjamini, & Talma Hendler. Psychophysiological whole-brain network clustering based on connectivity dynamics analysis in naturalistic conditions. *Human Brain Mapping*, 2016
10. Gal Raz, Yael Jacob, **Tal Gonen**, Yonatan Winetraub, Eyal Soreq, Tamar Flash, Talma Hendler. Cry for her or cry with her: Context-dependent dissociation of two modes of cinematic empathy reflected in network cohesion dynamics. *Social Cognitive and Affective Neuroscience*, 2014 • 9(1): 30-38.
11. Rachel Grossman, Erez Nossek, **Tal Gonen**, Razi Sitt, Daniel Hayat, Tal Shahar, Ori Barzilai, Gal Sela, Zvi Ram. Outcome of Elderly Patients after Awake Craniotomy. *Annals of Surgical Oncology*, 2013 • 20.5: 1722-1728.
12. Erez Nossek, Tal Shahar, Ori Barzilai, Yoni Rapoport, **Tal Gonen**, Gal Sela, Daniel Hayat, Idit Matot, Zvi Ram. Analysis of failed mapping and monitoring of patients during awake craniotomy. *Journal of Neurosurgery*, 2013 • 118(2):243-249.
13. Erez Nossek , Idit Matot, Tal Shahar , Ori Barzilai, Yoni Rapoport, **Tal Gonen**, Gal Sela, Rachel Grossman,, Akiva Korn, Daniel Hayat, Zvi Ram. Intraoperative

Seizures During Awake Craniotomy; Incidence and Consequences – Analysis of 477 Patients. *Neurosurgery*, 2013 • 73.1:135-140.

14. Yulia Lerner, Neomi Singer, **Tal Gonen**, Yonatan Weintraub, Oded Cohen, Nava Rubin, Leslie G. Ungerleider, Talma Hendler. Feeling without Seeing? Engagement of ventral, but not dorsal, amygdala during unaware exposure to emotional faces. *Journal of Cognitive Neuroscience*, 2012 • 24(3): 531-542.

15. Daniela Cohen, Anat Perry, Gadi Gilam., Naama Maysel, **Tal Gonen**, Talma Hendler, & Simon Shamay-Tsoory. The role of oxytocin in modulating interpersonal space: A pharmacological fMRI study. *Psychoneuroendocrinology*, 2017 • 76, 77-83.

### **Other Experiences and Professional Memberships**

2016 – present - Reviews for Academic Journals – NeuroImage, World Neurosurgery

2016 – member of the Society for Biological Psychiatry

2012 – present – member of the Society for Neuroscience