1. Abnormally-enhanced emotional reactions among individuals at high risk of developing hypertension.
   Avigdor Wiener¹, Jan Mehnert², Zohar Biber³ and Hadas Okon-Singer³
   1. Psychology, University of Haifa
   2. Max Planck Institute for Human Cognitive and Brain Sciences
   2. The effect of emotion regulation on empathic accuracy.
   Navot Noar, Simone Shayon-Toory, Hadas Okon-Singer
   Psychology, University of Haifa
   3. Extracellular matrix involvement in the consolidation of fear memory during sleep: Implications for PTSD and phobia.
   Fahed Hamid, Hila Azulay Debbie and Arina Ralls
   Immunology, Rappaport Institute of Medical Research, The Technion
   4. The role of fibroblast growth factor 2 (FGF2) in alcohol addiction.
   Oren Even-Chen, Ohad Shaham and Segev Barak
   School of Psychological Sciences, Tel Aviv University
   Weinstein, A.M.¹, Greif, Z.², Jemini, Z.³, Friedman, N.¹, Minhas, E.¹, Weizman, A.³, Ebstein, R.¹, Chasin, R.¹, Boker, M.¹
   1. Nuclear Medicine, Hadassah Hebrew University Medical Center
   2. Lung Institute, Sourasky Medical Center
   3. Geha Hospital and Sackler Faculty of Medicine, Tel Aviv University
   6. Subjective and objective pain indicators among individuals with cerebral palsy and intellectual disability.
   Tali Benromano, Chaim G. Pick and Ruth Defrin
   Anatomy and Physical Therapy, Sackler Faculty of Medicine and School of Neuroscience, Tel Aviv University
   7. The effect of epilepsy on cerebral folate carriers.
   Aniv Mann¹, Emma Portnoy¹, Dana Estein¹, Miki Shmul³, Dorrit Inbar³
   1. Neurobiology, Life Sciences, Hebrew University
   2. School of Marine Sciences, Ruppin Academic Center
   8. Alzheimer’s disease-causing proline substitutions lead to presenilin 1 aggregation and malfunction.
   Shomrat T.¹, Shomran T.¹, Turchetti-Maia A.L.¹, Stern-Mentch N.L.¹, Hochner B.¹
   1. Neurobiology, Life Sciences, Hebrew University
   2. School of Marine Sciences, Ruppin Academic Center
   9. Unfilled hole in the V1 representation of a pure color surface.
   Shay Zweig¹, Robert M Shapley², Hamutal Slovin¹
   1. The Gonda Multidisciplinary Brain Research Center, Bar-Ilan University
   2. Center for Neural Science, New York University
   10. A novel voltage sensor in the orthosteric binding site of the m2-muscarinic receptor.
   Ofra Barchad-Avitruz,² Michael F Priest³, Noa Dekel¹, Yehudit Botschko¹, Francisco Bezannila², Hanna Parnes², Yair Ben-Chaim³
   1. Neurobiology, Institute of Life Sciences, Hebrew University
   2. Natural and Life Sciences, The Open University of Israel
   3. Biochemistry and Molecular Biology, University of Chicago
   Nava Levet Binnun, Jodie Feil-Naim, Dominick Fresche, Yoshi Arzouan
   Psychology, Interdisciplinary Center, Herzliya
   12. The effects of training protocol on the perceptual learning of time-compressed speech and its generalization.
   Yaffe Gabay, Avi Karni, Keren Banai
   Psychology, University of Haifa
   13. Limits on integration in children: the concatenation of trained subsequences of movements into composite sequences as a specific experience-triggered skill.
   Lilach Ashfameker and Avi Karni
   Psychology, University of Haifa
   14. Deciphering principles of biological learning systems through comparison between the octopus’s visual and chemo-tactile, analogous, learning systems.
   Shomrot T.¹, Turchetti-Maia A.L.¹, Ster-Mentch N.L.¹, Hochner B.¹
   1. Neurobiology, Life Sciences, Hebrew University
   2. School of Marine Sciences, Ruppin Academic Center
   15. Identifying the molecular target and mechanism of action of the Zeta Inhibitory Peptide (ZIP)
   Alexey Bingor and Rami Yaka
   Pharmacology, School of Pharmacy, Faculty of Medicine, Hebrew University
   Friedmann-Hagit¹, Frid Alex², Avitar Shiraz², Vladimirsky Dmitry³, Forkosh Oren³, Gordon Goren³, Schneidman Elad², Bar-Yosef Omer², Peleg Nimrod², Malab David²
   1. Nursing, Faculty of Health Sciences and Social Welfare, University of Haifa
   2. Signal and Image Processing Lab, Electrical Engineering Faculty, The Technion
   3. Neurobiology, Weizmann Institute of Science
   4. Neurology, Safra Children’s Hospital, Sheba Medical Center
   17. Development of Self-control from Early to Middle Childhood: Genetic and Environmental Contributions to Stability and Change.
   Roni Pener-Tessler, Ariel Knafo-Noam
   Psychology, Interdisciplinary Center, Herzliya
   18. Genes mutated in autism, schizophrenia and intellectual disability are functionally related.
   Shahar Shohat, Eyal Ben-David and Sagiv Shifman
   Genetics, Life Sciences, Hebrew University
   19. Mutation in chromatin related genes in ASD.
   Reut Suliman, Shahar shohat, Yonit Maroudas-Sacks, Eyal Ben-David, Sagiv Shifman
   Genetics, Life Sciences, Hebrew University
Harnessing hippocampal stem cells to improve mood and cognition

Although a role for adult neurogenesis in specific forms of learning and in mediating some of the effects of antidepressants has received considerable attention in recent years, much less is known about how alterations in this unique form of plasticity may contribute to neurologic or psychiatric disorders. One way to begin to address this question is to link the functions of adult-born hippocampal neurons with specific endophenotypes of these disorders. Recent studies have implicated adult born hippocampal neurons in pattern separation, a process by which similar experiences or events are transformed into discrete non-overlapping representations. Here, we propose that impaired pattern separation underlies the overgeneralization often seen in age-related memory impairments and in anxiety disorders and therefore, represents an endophenotype for these disorders. We will present evidence that strategies aimed at stimulating hippocampal neurogenesis result in improved pattern separation. The development of novel pro-neurogenic compounds may therefore have therapeutic potential for patients who display pattern separation deficits.