Soreq, Hermona

BIOGRAPHICAL SKETCH

Prof. Hermona Soreq, PhD
The Hebrew University of Jerusalem
The Edmond and Lily Safra Center for Brain Sciences; E-mail: soreq@cc.huji.ac.il

Research Expertise

The research focus is on the mechanisms underlying **Acetylcholine malfunctioning** in muscle, nerves and blood cells, which entails neuromuscular, neurodegenerative, and inflammatory diseases. **Pre-mRNA processing** and micro-RNA regulators involvement are approached by advanced transcripts profiling in human cells and tissues and cell and mouse model validations.**"Molecular signatures"** are being developed by transcriptome analyses of paired leukocyte samples from Parkinson's disease patients (before and after deep brain stimulation) and brain from Alzheimer's disease patients and matched controls, and C**holinergic signaling impairments** are manipulated by Oligonucleotide-mediated therapeutics (currently in Phase 2 clinical trials).

Education / Training

Institution and Location	Major	Degree, Year
Rockefeller University, USA	Molecular Cell Biology	Fogarty Fellow, 1979
The Weizmann Institute of Science, Rehovot	Biochemistry	PhD, 1976
Tel Aviv University, Tel Aviv	Biochemistry	MSc, 1979
The Hebrew University, Jerusalem	Biochemistry & Microbiology	BSc, 1967

Appointments / Positions Held

Year	Position	Institution
2011-2014	Member, Executive Committee	The Hebrew University, Israel
2002-2008		
2010-present	Founding Member, Edmond & Lily Safra Center for Brain Sciences	The Hebrew University, Israel
2005 - 2008	Elected Dean, Faculty of Mathematics & Natural Sciences	The Hebrew University, Israel
2002 - 2005	Vice Dean for Research & Development, The Faculty of Mathematics Natural Sciences	The Hebrew University, Israel
2000 -2005	Head, The Eric Roland Center for Neurodegenerative Diseases	The Hebrew University, Israel
1995 - 1999	Head, the Alexander Silberman Institute of Life Sciences	The Hebrew University, Israel
1992 -1995	Head, Department of Biological Chemistry,	The Hebrew University, Israel

Honors / Awards

2009 The Lise Meitner Alexander von Humboldt Foundation Award, Germany
Miller Fellowship, University of California, Berkeley
2008 Kay Prize for Innovative research, The Hebrew University
2007 Honorary Doctorate of the Medical Faculty, Friedrich-Alexander-University Erlangen-Nűremberg
Honorary Doctorate in Neuroscience, Beer-Sheva University of the Negev
2006 Teva's Founders Award in Molecular Medicine
2005 Landau Prize for Biomedical Research
2000 Research Prize by the Israeli Minister of Health
1996 Doctor of Philosophy *honoris causa* in Chemistry, University of Stockholm, Sweden.1995 Visiting Professor, College de France, Paris.

10 Most Relevant Publications for Prof. Hermona Soreq

1. Berson, A., Barbash, S.,Shaltiel, G., Goll, Y., Hanin,G., Greenberg, D.s., Ketzef, M., becker, A.J., Friedman, a. and **Soreq, H.** (2012) Cholinergic-associated loss of hnRNP-A/B in Alzheimer's disease impairs cortical splicing and cognitive function in mice. EMBO Mol Med. 2012 May 25. Doi: 10.1002/emmm.2011100995.[Epub ahead of print]

2. **Soreq, H.** and Wolf, Y. (2011) NeurimmiRs: Micro-RNAs in the neuroimmune interface. Trends in Molecular Medicine 17, 548-55. (Review).

3. Shaked, I., Meerson, A., Wolf, Y., Avni, R., Greenberg, D. S., Gilboa-Geffen, A. and **Soreq, H.** (2009). MicroRNA-132 Potentiates Cholinergic Anti-Inflammatory Signaling by Targeting Acetylcholinesterase Immunity, **31**; 965-973 cover.

4. Meshorer, E. and **Soreq, H.** (2006) Virtues and woes of AChE alternative splicing in stress-related neuropathologies. Trends in Neurosci., **29**, 216-224.

5. Sklan, E.H, Lowenthal, A., Korner, M., Ritov, Y., Rankinen, T., Bouchard, C., Leon, A.S., Rao, D.C., Wilmore, J.H., Skinner, J.S. and **Soreq, H.** (2004). Acetylcholinesterase/paraoxonase genotype and expression predict anxiety scores in Health, Risk Factors, Exercise Training, and Genetics study. PNAS, **101,** 5512-5517.

6. Meshorer, E., Erb, C. Gazit, R., Pavlovsky, L., Kaufer, D., Glick, D., Friedman, A., Ben-Arie, N. and **Soreq, H.** (2002). Alternative splicing and neuritic mRNA translocation under long-term neuronal hypersensitivity. Science, **295**, 508-512.

7. **Soreq, H.** and Seidman, S. (2001). Acetylcholinesterase – new roles for an old actor. Nature Neuroscience Reviews **2**, 294-302.

8. Kaufer, D., Friedman, A., Seidman, S. and **Soreq, H.** (1998). Acute stress facilitates long-lasting changes in cholinergic gene expression. Nature **393**, 373-377. Accompanied by: News & Views: The stress of Gulf War Syndrome. Sapolsky, R.M. Nature, **393**:308-309.

9. Friedman, A., Kaufer-Nachum, D., Shemer, J., Hendler, I., **Soreq, H.** and Tur-Kaspa, I. (1996). Pyridostigmine brain penetration under stress enhances neuronal excitability and induces early immediate transcriptional response. Nature Medicine **2**:1382-1385. Accompanied by: News&Views: The Gulf War, Stress and a leaky blood-brain barrier. Israel Hanin. Nature Medicine. **2**:1307-1308.

10. Loewenstein-Lichtenstein, Y., Schwarz, M., Glick, D., Norgaard-Pederson, B., Zakut, H. and **Soreq, H.** (1995) Genetic predisposition to adverse consequences of anti-cholinesterases in "atypical" BCHE carriers. Nature Medicine, **1**, 1082-1085.