

## **GENNADIY FONAR, MSc**

Date and place of birth: 27.07.1985, Ukraine

Marital status: Married, three children

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### **EDUCATION:**

#### **Post-doctorate 2018-present**

Post-doctoral fellow. The Hebrew University of Jerusalem, Department of medical Neurobiology, Jerusalem, Israel. Laboratory of Prof. Hagai Bergman.

#### **Ph.D. December 2014 – 10.2018**

Medical sciences. Bar-Ilan University Faculty of Medicine, Safed, Israel. Laboratory of Dr. Avraham Samson. Thesis subject: "Development of therapeutic agents which enhance memory and learning in Alzheimer's Disease mice"

#### **MSc October 2011- April 2014**

Life sciences, Bar-Ilan University Faculty of Medicine, Safed, Israel. Laboratory of Dr. Avraham Samson. Thesis subject: " NMR Structure Determination of Amyloid  $\beta$  and its complex with a Nicotinic Acetylcholine Receptor Determinant"

#### **BSc November 2007 – 2011**

Biology, Technion - Israel Institute of Technology.

### **IDF SERVICE**

#### **2003-2006**

Combat soldier in artillery unit

**EMPLOYMENT**

- 2011** Research assistant at laboratory of Efrat Monsonego Ornan, Ph.D, Institute of Biochemistry and Nutrition Faculty of Agricultural, Food and Environmental Sciences, The Hebrew University. Nutritional and environmental aspects of bone development
- 2010** Member of the work group “Global change Ecology” under the leadership of Dr. Matthias Drosler, Chair of Vegetation Ecology, Technische Universität München.
- 2010** Laboratory assistant at the laboratory of Prof. Daniel Kornitzer Bruce Rappaport Faculty of Medicine. Microbiology, yeast genetics.
- 2008-2009** Research assistant at laboratory of Prof. Tomas Shultheis Bruce Rappaport Faculty of Medicine. Developmental biology, chick embryos development.

**MENTORING ACTIVITIES:**

September 2017- present. Supervising High School Final Biology project. (Gallium - Enrichment and excellence in science and technology project)

**TEACHING EXPERIENCE:**

April 2016- September 2017. Teaching assistant. Pathology and Pharmacology courses.

October 2014- February 2015. Teaching assistant. Introduction to bioinformatics course.

**EXPERIMENTAL SKILLS:**

**Microbiology:** PCR, immunohistochemical staining, cell culture, media preparation, culturing techniques, cells differentiation techniques, protein gel analysis.

**Microscopy:** Fluorescent microscopy, light microscopy, confocal microscopy.

**Surgical procedures:** Stereotactic animal brain surgery; intracerebral microinjections; brain slice preparation; inserting osmotic minipumps and cannulas; perfusion; tissue extraction;

**Behavioral paradigms:** Learning and Memory-Fear Conditioning; Morris water maze; Y maze; novel object recognition; analysis software: EthoVision XT 11.5

**PRESENTATIONS AT PROFESSIONAL CONFERENCES:**

The 11<sup>th</sup> FENS Forum of Neuroscience, 7-11 July, 2018, Berlin, Germany. (Poster presentation)

The 13th International Conference on Alzheimer's and Parkinson's Diseases and Related Neurological Disorders, March 29-April 2, Vienna, Austria. (Short talk and poster presentation)

8th Congress of the Federation of the Israel Societies for Experimental Biology – FISEB / ILANIT 2017. February 20- 23, 2017, at the Dan, Herods, Royal Beach and Isrotel Club Sport Hotels in Eilat. (Oral presentation)

18th International Neuroscience Winter Conference. April 2nd - 6th 2016, Sölden Austria. (Poster presentation)

The 3rd Translational Research Meeting. March 3<sup>rd</sup>, 2014, Faculty of Medicine in the Galilee, Bar Ilan University, Israel. (Oral presentation)

7th Congress of the Federation of the Israel Societies for Experimental Biology – FISEB / ILANIT 2014. February 10- 13, 2014, at the Dan, Herods, Royal Beach and Isrotel Club Sport Hotels in Eilat. (Poster presentation)

The 2nd Translational Research Meeting. February 18<sup>th</sup>, 2013, Faculty of Medicine in the Galilee, Bar Ilan University, Israel. (Poster presentation)

The 11th International Conference on Alzheimer's and Parkinson's Disease March 05-10, 2013, Florence, Italy. (Poster presentation)

## **LIST OF PUBLICATIONS:**

Biosci Rep. 2014 Nov 24;34(6):e00155. doi: 10.1042/BSR20140094.

NMR structure of the water soluble Aβ17-34 peptide.

Fonar G, Samson AO.

Proteins. 2014 Apr;82(4):579-86. doi: 10.1002/prot.24426. Epub 2013 Oct 17.

Elastic network normal mode dynamics reveal the GPCR activation mechanism.

Kolan D, Fonar G, Samson AO.

Bioinformatics. 2015 Jan 15;31(2):292-4. doi: 10.1093/bioinformatics/btu617. Epub 2014 Sep 23.

PHI-DAC: protein homology database through dihedral angle conservation.

Maatuk N, Glantz-Gashai Y, Rotman M, Baydany M, Fonar G, Shehvitz A, Shemer K, Peleg A, Reuveni E, Samson AO.

Translational Neuroscience. 9 • 2018 • 43-53. DOI: 10.1515/tnsci-2018-0009

Intracerebroventricular administration of L-arginine improves spatial memory acquisition in triple transgenic mice via reduction of oxidative stress and apoptosis.

Fonar, G, Polis, B, Meirson, T, Maltsev, Samson, A.O

Advances in Alzheimer's Disease, 2018, Vol.7 No.4. DOI: 10.4236/aad.2018.74011  
Subcutaneous Sustained-release of Poly-arginine Ameliorates Cognitive Impairment in a Transgenic Mouse Model of Alzheimer's Disease.  
Gennadiy Fonar, Baruh Polis, Tomer Meirson, Alexander Maltsev, Abraham O. Samson

**To be submitted:**

Modified Snake  $\alpha$ -Cobratoxin Relieves Memory Deficit of Alzheimer's Mice and competes with Amyloid  $\beta$  binding for Nicotinic Acetylcholine Receptors.

Gennadiy Fonar, Dev Sharan Sams, Tomer Meirson, Assaf Malka, Natalia Bal, Alexander Maltsev, Pavel Balaban, Evan Elliott, Avraham O. Samson.

**BOOKS AND CHAPTERS:**

Guide to Medicines in Israel. Golan Peleg Samson – GPS Edition. Bar Ilan University Press, 2017.

**AWARDS:**

Best oral presentation award. The 3rd Translational Research Meeting. March 3rd , 2014, Faculty of Medicine in the Galilee, Bar Ilan University, Israel.

Award of distinction for PhD students. Epstein-Australia Foundation, 2016.

Best blitz presentation award. The 25th Tel Aviv University Alzheimer Disease meeting. June 27-28, Porter School of Environmental Studies on the Tel Aviv University campus.

**LANGUAGES:**

Russian (native), Hebrew (fluent), English (fluent).