

SIMGE AYKAN, PhD

Ankara University School of Medicine, Department of Physiology, Ankara, Turkey
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EDUCATION

- 2018 **Ph.D. in Physiology**, Ankara University Medical School, Ankara, Turkey
Thesis: Investigation of Humor Perception and EEG Connectivity in Healthy Individuals with Autistic Traits
Advisor: Prof. Dr. Erhan Nalçacı
- 2016 **Ph.D. in Neuroscience**, Ankara University, Ankara, Turkey
Thesis: Investigation of Visual and Auditory Potentials of Healthy People with Autistic Traits by Electroencephalography and Determination of Relationship with Single Nucleotide Polymorphisms
Advisor: Prof. Dr. Canan Kalaycıođlu
- 2007 **M.Sc. in Neuroscience**, Dokuz Eylül University, İzmir, Turkey
Thesis: Development of a new biomarker in Alzheimer's Disease: Interleukin-18
Advisor: Prof. Dr. Görsev G. Yener
- 2005 **B.Sc. in Biology**, Hacettepe University, Ankara, Turkey

ACADEMIC POSITIONS & RESEARCH EXPERIENCE

- 2016-present **Research Assistant**, Department of Physiology, Ankara University Medical School, Ankara, Turkey
- 2012-2016 **Research Assistant**, Department of Interdisciplinary Neuroscience, Ankara University, Ankara, Turkey
- 2012 **Project Support Specialist**, Developmental Dyslexia: Defining the Relations Between Linguistics and EEG Data. PI: Prof. Dr. Canan Kalaycıođlu. Ankara University, Ankara, Turkey (10 months)
- 2008-2009 **Research Fellow**, Towards clinical and technological application of gene expression engineering by exon skipping: Restoring MAPT Splicing in FTDP-17. PI: Prof. Dr. Peter Heutink. Vrije University, Amsterdam, Netherlands (8 months)
- 2007-2008 **Research Fellow**, Unraveling Schizophrenia: From a rat model to the human disorder. PI: Prof. Dr. Gerard Martens. Radboud University, Nijmegen, Netherlands (7 months)
- 2005-2007 **Research Assistant**, Department of Neuroscience, Dokuz Eylül University, Izmir, Turkey
- 2006 **Research Fellow**, The Functional Role of $\alpha 7$ nicotinic receptors in cells of the macrophage lineage. PI: Jurgen Zielasek. Heinrich-Heine University, Dusseldorf, Germany (3 months)
- 2004 **Internship**, Gunel Lab., Department of Neurosurgery, Yale University, New Haven, CT, USA (2 months)

HONORS & AWARDS

- 2011 **Tohum Autism Foundation Attendance Grant for Scientific Events**
Autism Spectrum Disorders Workshop, New York, USA
- 2007 **Poster Presentation Award, 3rd poster**
43rd National Congress of Psychiatry, Turkey
Relationship between BDNF Serum Levels and Cognitive Symptoms of Schizophrenia
- 2007 **Poster Presentation Award, 3rd poster**
II. National Psychopharmacology Congress, Turkey
Effect of Clozapine on Proliferation of SHSY-5Y Neuroblastoma Cell Line
- 2006 **Project Support Award**
Brain Research Society (Turkey) (BArD), Turkey
Effect of EPO on Nrf-2 Translocation in SHSY-5Y Cell Line
- 2006 **EMBO Short Term Travel Fellowship**
European Molecular Biology Organization, EU
Dept. of Psychiatry and Psychotherapy, Neurobiochemistry Laboratory, Heinrich-Heine University, Duesseldorf, Germany

GRANTS

- 2013 **BAP Research Grant**, Investigation of Visual and Auditory Potentials of Healthy People with Autistic Traits by Electroencephalography and Determination of Relationship with Single Nucleotide Polymorphisms (Thesis Project). Ankara University Coordination of Scientific Research Projects, Turkey. Budget: 27668.00 TL
- 2006 **BArD Research Support**, Effect of EPO on Nrf-2 Translocation in SHSY-5Y Cell Line. Brain Research Society (Turkey) (BArD), Turkey. Budget: 6500.00 TL

TEACHING EXPERIENCE

- 2018 Spring **BME242 Human Anatomy and Physiology (2 lectures)**
(Week 9: Neurons and Neuronal Signalling
Week 10: Synaptic Integration and Electroencephalography)
Ankara University, Department of Biomedical Engineering
- 2017-present **PSI123 Physiology**
Ankara University Department of Psychology
- 2016-present **Physiology Laboratory**
Ankara University School of Medicine

INVITED TALKS

- 2018 "Humor Perception" Turkish Psychology Students Academy ' 2018, 05 July 2018, Sivas Turkey
- 2018 "*Neural Mechanisms of Humor Perception*" Çankaya University 2nd Cognitive Psychology Day, 01 May 2018, Ankara, Turkey
- 2016 "*Santiago Ramon y Cajal*" 16th National Neuroscience Congress, May 2016, Ankara, Turkey

PUBLICATIONS

Refereed Journal Articles

Aykan S, Kalaycioglu C, Tuncali T, Nalcaci E. (under review) Mid-Range Theta Coherence as an Intermediate Phenotype between Theory of Mind Ability and Chloride Transporter Channels.

Aykan S, Vatansever G, Doğanay Erdoğan B, Kalaycıoğlu C. (under review) The Development of Sensory Sensitivity Scales (SeSS): Reliability and Validity. *Research in Developmental Disabilities*

Aykan S, Nalçacı E. (2018) Assessing Theory of Mind by Humor: The Humor Comprehension and Appreciation Test (ToM-HCAT). *Front. Psychol.* 9:1470. doi: 10.3389/fpsyg.2018.01470

Aykan S, Kalaycıoğlu C. (2017) Continuity Among Autistic Traits In Healthy People and Autism. *Journal of Ankara University Faculty of Medicine* 70 (1). DOI: 10.1501/Tıpfak_000000965 Turkish

Rasoulzadeh V, Erkus EC, Yogurt A., Ulusoy I, **Aykan Zergeroğlu S**. (2016) A comparative stationarity analysis of EEG signals. *Annals of Operations Research*. doi:10.1007/s10479-016-2187-3

Aykan Zergeroğlu S, Nalçacı E. (2015) Santiago Ramon y Cajal and Neuron Doctrine. *Turkish Journal of Neurology* 21:81-4. DOI:10.4274/tnd.83436

Kumral A, Yesilirmak DC, **Aykan S**, Genc S, Tugyan K, Cilaker S, Akhisaroglu M, Aksu I, Sutcuoglu S, Yilmaz O, Duman N, Ozkan H. (2010) Protective Effects of Methylxanthines on Hypoxia-Induced Apoptotic Neurodegeneration and Long-Term Cognitive Functions in the Developing Rat Brain. *Neonatology*. Feb 12;98(2):128-136.

Kumral A, Baskin H, Yesilirmak DC, Ergur BU, **Aykan S**, Genc S, Genc K, Yilmaz O, Tugyan K, Giray O, Duman N, Ozkan H. (2007) Erythropoietin attenuates lipopolysaccharide-induced white matter injury in the neonatal rat brain. *Neonatology*. Jul 11;92(4):269-278

Yesilirmak DC, Kumral A, Baskin H, Ergur BU, **Aykan S**, Genc S, Genc K, Yilmaz O, Tugyan K, Giray O, Duman N, Ozkan H. (2007) Activated protein C reduces endotoxin-induced white matter injury in the developing rat brain. *Brain Res*. Aug 20;1164:14-23

Book Chapters

Aykan S, Nalçacı E. (2017) A major contribution to modern neuroscience from late Spanish enlightenment: Santiago Ramon y Cajal and Neurone Doctrine. *Tarihselci Yöntem ve Bilim Tarihi*. Ed. Erhan Nalçacı. 1st edition. p.111-126. Turkish

CONFERENCE PRESENTATIONS & ABSTRACTS

Aykan S, Nalçacı E, Kalaycıođlu C. Short-range delta coherence is related to theory of mind ability. [Kısa mesafeli bağlantılarda delta koherans düzeyi zihinselleştirme yeteneđi ile ilişkilidir.] 20th National Psychology Congress, November 2018, Ankara, Turkey

Aykan S, Nalçacı E. Humor Comprehension and Appreciation Test (HCAT): Development, reliability and validity. Oral presentation. 30th International Society for Humor Studies Conference, June 2018, Tallinn, Estonia

Aykan S, Vatansever G, Dođanay-Erdogan B, Kalaycıođlu C. Validity and Reliability of Sensory Sensitivity Scale. [Duyusal hassasiyet ölçeđi geçerlik güvenirlilik çalışması.] Poster presentation. 16th National Neuroscience Congress, May 2018, Turkey

Zergerođlu S.A., Tuncalı T., Özgüven H.D., Kalaycıođlu C.: Polymorphism of a potassium/chloride transporter gene SLC12A5 is associated with autistic-like traits in healthy individuals. Poster presentation. European Human Genetics Conference. 21-24 May 2016 Barcelona, Spain.

Aykan-Zergeroglu S., Gurses E., Tuncalı T., Tokgoz Yılmaz S., Devrimci Ozguven H., Kalaycioglu C. Resting-State EEG Alpha Power in Healthy Individuals with Autistic Traits. Oral presentation. 2015 Acta Physiologica, 215(S704): 22. 41st National Physiology Congress, September 2015, Çanakkale, Turkey

Aykan Zergeroglu S., Gurses E., Tuncalı T., Tokgoz Yılmaz S., Devrimci Ozguven H., Kalaycioglu C.: EEG Alpha Power Changes During Sensory Processing in Individuals with Autistic Traits. Oral presentation. Cortical Interneurons in Health and Disease. 22-25 June 2015 Mallorca, Spain.

Aykan S., Bekar I.P., Oguzhan M., Alpas B., Ay S., Gurkan C.K., Buyukturkoglu K., Ergenc I., Kalaycioglu C.: Word and non-word reading processes in children with and without developmental dyslexia: an ERP study. Poster presentation. 9th FENS Forum of Neuroscience, 2014, Milan, Italy.

Aykan S., Bekar P., Ođuzhan M., Gürkan K., Büyüktürkođlu K., Kalaycıođlu C. Interhemispheric Transfer Time in Developmental Dyslexia: Preliminary Findings. Poster presentation. International Brain Dynamics Workshop, July 2012, Turkey

Akdede BB, Alptekin K, Oguz M, **Aykan S**, Ulas H. Neurotrophic Factors And Schizophrenia: Relation To Cognition. Poster presentation. Schizophrenia Bulletin Volume: 35 Pages: 301-301 Suppl.1. 12th International Congress on Schizophrenia Research, USA

Alptekin K, **Aykan S**, Akdede BBK, Ulas H, Aktaner A, Can C, Cengizcetin N, Mertol S, Oguz M, Taslica S. Expressions of mRNA for GDNF in Schizophrenia. Poster presentation. Schizophrenia Research, Volume 102, Issues 1-3, Supplement 2, June 2008, Pages 181-182 1st Schizophrenia International Research Society Conference, Italy.

Aykan S, Alptekin K, Akdede BBK, Ulas H, Aktener A, Can C, Cengizcetin N, Mertol M, Oguz M, Taslica S. Relationship Between BDNF Serum Levels and Cognitive Symptoms of Schizophrenia. Poster presentation. 43rd National Congress of Psychiatry, October 2007, Turkey

Aykan S, Aykan Y, Bayboga M, Alptekin K. Effect of Clozapine on Proliferation of SHSY-5Y Neuroblastoma Cell Line. Poster presentation. 2nd National Psychopharmacology Congress, June 2007, Turkey

Egrilmez M, Cavdar Z, **Aykan S**, Genc S, Genc K, Guner G. Activated Protein C Attenuates Lipopolysaccharide-Induced Activation Of Cell Death And Tumour Necrosis Factor-Alpha Production In Murine Microglial Cells. Poster presentation. J Thromb Haemost 2007; 5 Supplement 2: P-S-091 XX1st Congress of the International Society on Thrombosis and Haemostasis , Switzerland

Aykan S, Egrilmez MY, Genc S, Genc K, Güner G. Erythropoietin upregulates NF-E2 related Factor 2 expression in astrocyte cells. Poster presentation. FEBS Journal 2006; 273(1):237 31st FEBS Congress, June 2006, Turkey

Genc S, Kinik HE, Bozdag M, Kilic RK, **Aykan S**, Guner G, Genc K. Erythropoietin-conditioned-astrocyte-conditioned medium decreases ethanol neurotoxicity in vitro. Poster presentation. FEBS Journal 2006; 273(1):236-237 31st FEBS Congress, June 2006, Turkey 31st FEBS Congress, June 2006, Turkey

Aykan S, Egrilmez MY, Tarcan-Avci S, Genc S, Genc K. Erythropoietin upregulates NF-E2 related Factor 2 expression in human neuroblastoma cell line. Poster presentation. 5th National Neuroscience Congress, April 2006, Turkey

Aykan S, Egrilmez MY, Yaka E, Cavdar Z, Genc S, Yener GG, Genc K. Interleukin-18 as a Potential Diagnostic Marker for Alzheimer's Disease. Poster presentation. 5th National Neuroscience Congress, April 2006, Turkey

ATTENDED WORKSHOPS & COURSES

Cortical Interneurons in Health and Disease Workshop
European Molecular Biology Organization (EMBO), 22-25 June 2015, Mallorca, Spain

SPM Course
Ankara University Brain Research Center, 5-6 September 2013, Ankara, Turkey

International Summer School and Workshop on Brain Dynamics: Connectivity & Cognition
Institute of Theoretical and Applied Physics, 1-6 June 2013

International Summer School and Workshop on Brain Dynamics
Institute of Theoretical and Applied Physics, 23-28 June 2012, Marmaris, Turkey

Frontiers In Autism and Neurodevelopmental Disorders Symposium
Hacettepe University Faculty of Medicine, 9-10 March 2012, Ankara, Turkey

Autism Spectrum Disorders Workshop
Cold Spring Harbor Laboratory, 8-15 June 2011, New York, USA

Course on Laboratory Animal Science
Radboud University, 7-25 January 2008, Nijmegen, The Netherlands

Advanced Methods in Behavioral Neurology
Zonguldak Karaelmas University, 10 April 2006, Zonguldak, Turkey

Course on Experimental Animal in Biological Research
Pamukkale University, 6-7 April 2004, Denizli, Turkey

IBRO Course in Neuroscience

International Brain Research Organization, 10-18 September 2003, Izmir, Turkey

National Neurobiology Winter School

Ege University, 17-22 February 2003, Izmir, Turkey

PROFESSIONAL MEMBERSHIPS & SOCIETIES

2015-Present Turkish Society of Physiological Sciences

2006-Present Brain Research Society (Turkey) (BArD)