

Curriculum Vitae

Sinan Canan PhD, Proffesor of Medical Phsyiology

Personal Info

Name/Surname: Sinan Canan

Date of birth: 25.03.1972

Work address: *Uskudar University Faculty of Social and Humanity Sciences, Dep. of Psychology, Altunizade, Istanbul.*

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Marital status: Married with three children

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Education

University: 1989-1995 Hacettepe University, Faculty of Literature and Sciences, Biology Department

MSc: 1995-1998 Ondokuz Mayıs University, Institute of Health Sciences (in Medical School, Histology and Embryology Dep.)

Master's thesis: Estimation of changes in total neuron number of hippocampus of the domestic chick (*Gallus domesticus*) after transient forebrain ischemia by using optical fractionator method. *Supervisor: Assoc. Prof. Süleyman Kaplan*

PhD: 1998-2004 Ondokuz Mayıs University, Institute of Health Sciences (in Medical School, Physiology Dep.)

PhD thesis: Role of nitric oxide and calcium channel blockers in experimental epilepsy. *Supervisor: Prof. Dr. Cafer Marangoz*

Language: Turkish (native), English (advanced)

Job history:

Position	Institution	years
Research Assistant	Medical School, Ondokuz Mayıs University	1996-2004
Lecturer	Başkent University Med. School, Physiology Dep.	2004-2008
Assist. Prof.	Başkent University Med. School, Physiology Dep.	2008-2009
Assoc. Prof.	Turgut Özal University Med. School, Physiology Dep.	2010-2011
Assoc. Prof.	Yıldırım Beyazıt University Med. School, Physiology Dep.	2011-2016
Prof.	Uskudar University Faculty of Social and Humanity Sciences, Dep. of Psychology	2016-

Selected International Publications

1. Şahin, B., Aslan, H., Ünal, B., **Canan, S.**, Bilgiç, S., Kaplan, S., Tümkaya, L., (2001) Brain volumes of the lamb, rat and bird do not show hemispheric asymmetry: a stereological study. *Image Analysis and Stereology*. **20**: 9-13.
2. Kaplan, S., **Canan, S.**, Aslan, H., Ünal, B., Şahin, B. (2001) A simple technique to measure the movements of the microscope stage along the x and y axes for stereological methods. *Journal of Microscopy*. **203(3)**: 321-325.
3. **Canan, S.**, Pakkenberg, B., Kaplan, S., Aslan H. (2002) A stereological investigation on the effects of forebrain ischemia on hippocampal neuron number in chick. *Neuroscience Research Communications*, **30(1)**: 27-33.
4. Şahin, B., Aslan, H., **Canan, S.**, Kaplan, S., Unal, B., Odacı E. (2002) A stereological estimation of total neuron number and volume of the hippocampus at one and seven day-old chicks. *Neuroscience Research Communications*, **31(1)**: 29-38.
5. Savaş, H.A., Ünal, B., Erbağcı, H., İnalöz, S., Herken, H., Canan, S., Gümüşburun, E., Zoroğlu, S.S. (2002) Hippocampal volume in schizophrenia and its relationship with risperidone treatment: A stereological study. *Neuropsychobiology*. **46(2)**: 61-66.
6. Ünal, B., Bradley, P.M., Şahin, B., **Canan, S.**, Aslan, H., Kaplan, S. (2002) Estimation of Numerical Density and Mean Synaptic Height in Chick Hippocampus 24 and 48 Hours After Passive Avoidance Training. *Developmental Brain Research*, **136**: 135-144.
7. Kaplan, S., Rağbetli, M.Ç., **Canan, S.**, Sahin, B., Marangoz, C. (2003) Numerical density of pyramidal neurons in the hippocampus of 4 and 20 week old male and female rats. *Neuroscience Research Communications*, **32(1)**: 37-48.
8. Taşçı, N., Ankaralı, S., Demir, Ş., **Canan, S.**, Marangoz, C. (2003) L-Arginine potentiates monosynaptic and polysynaptic spinal reflexes. *Neuroscience Research Communications*, **32(3)**: 161-173.
9. Keskin, M., Akbaş, H., Uysal, O.A., **Canan, S.**, Ayyıldız, E., Ağar, E., Kaplan, S. (2004) Enhancement of nerve regeneration and orientation across a gap by using the nerve graft within vein conduit graft: A functional, stereological, and electro-physiological study. *Plastic and Reconstructive Surgery* **113**: 1372-1379.
10. Bostancı, Ö., Bağırıcı, F., Canan, S. (2006) A calcium channel blocker flunarizine attenuates the neurotoxic effects of iron. *Cell Biol Toxicol*. **22**: 119–125.
11. Acar M, Karacalar A, Ayyildiz M, Unal B, **Canan S**, Agar E, Kaplan S. (2008) The effect of autogenous vein grafts on nerve repair with size discrepancy in rats: An electrophysiological and stereological analysis. *Brain Research* **10**;1198:171-81.
12. **Canan S**, Bozkurt HH, Acar M, Vlamings R, Aktas A, Sahin B, Temel Y, Kaplan S. (2008) An efficient stereological sampling approach for quantitative assessment of nerve regeneration. *Neuropathology and Applied Neurobiology*. **34(6)**:638-49.
13. **Canan S**, Aktaş A, Ulkay MB, Colakoglu S, Ragbetli MC, Ayyildiz M, Geuna S, Kaplan S. (2008) Prenatal exposure to a non-steroidal anti-inflammatory drug or saline solution impairs sciatic nerve morphology: a stereological and histological study. *Int J Dev Neurosci*. **26(7)**:733-8.
14. **Canan S**, Ankarali S, Marangoz C. (2008) Detailed spectral profile analysis of penicillin-induced epileptiform activity in anesthetized rats. *Epilepsy Res*. **82(1)**:7-14.
15. Gocmen-Mas N, Pelin C, **Canan S**, Yazici AC, Zagyapan R, Senan S, Karabekir HS, Sahin B. (2009) Stereological evaluation of volumetric asymmetry in healthy human cerebellum. *Surg Radiol Anat*. **31**:177-81.
16. Kürkçüoğlu, A., Pelin, C., **Canan, S.**, Zağyapan, R., Şahinoğlu, Z., Özsoy, Ö.P. (2011) A

comparison of facial soft tissue thickness in Anatolian pre-pubertal and post-pubertal subjects in relation to different facial patterns. *Anatomy (International Journal of Experimental and Clinical Anatomy)*. 5: pp.7-17.

17. Erbagci, H., Kizilkan, N. Ozbag, D., Erkilic, S. Kervancioglu, P., **Canan, S.** Gumusburun, E. (2012) Postnatal growth in the rat pineal gland: A stereological study. *Anatomia Histologia Embryologia (Baskıda)*
18. Kaplan, S., **Canan, S.** Unbiased Stereological Techniques (2012, Editorial) *Neuroquantology*, Vol 10, No 1, pp: 9-10.
19. Altunkaynak, B.Z., Önger, M.E., Altunkaynak, M.E., Ayrancı, E., **Canan, S.** (2012) A Brief Introduction to Stereology and Sampling Strategies: Basic Concepts of Stereology. *Neuroquantology*, Vol 10, No 1, pp: 31-43.
20. Kaplan, S., Odacı, E., **Canan, S.**, Onger, M.E., Aslan, H., Ünal, B. (2012) The Disector Counting Technique. *Neuroquantology*, Vol 10, No 1, pp: 44-53.
21. Kaplan, S., **Canan, S.**, Altunkaynak, M.E., Odacı, E., Aslan, H., Unal, B. (2012) An Unbiased Way to Estimate Total Quantities: The Fractionator Technique. *Neuroquantology*, Vol 10, No 1, pp 54-65.
22. Elibol-Can B1, Dursun I, Telkes I, Kilic E, Canan S, Jakubowska-Dogru E. (2014) Examination of age-dependent effects of fetal ethanol exposure on behavior, hippocampal cell counts, and doublecortin immunoreactivity in rats. *Dev Neurobiol.* 74(5):498-513. doi: 10.1002/dneu.22143.

Scientific interests

- Stereology, morphometry, neurostereology and stereology education
- Behavioral neuroscience
- Experimental epilepsy models
- Chaotic dynamics in biology
- Fractal geometry
- Electrophysiology, EEG, signal analysis techniques
- Sensory physiology
- Public neuroscience education

Personal interests

- Digital photography
- Digital art, fractal geometry
- Digital image processing
- Philosophy of science
- Internet publishing
- Popular science writing
- Music arrangement, home recording

Teaching experiences

Medical Physiology lectures
Introduction to physiology
Nervous system physiology
Sensory physiology
Muscle physiology

Urinary system physiology
Respiratory system physiology
Circulatory system physiology
Chaos and fractals in biological systems (post-graduate)
Fundamentals of Biological Psychology
Stereological techniques for life sciences.

*All lectures are given in English language.

Other activities

Dr. Sinan Canan is the founder of **[n]Beyin (n-Brain)** organization, a neuroscience conference series aiming the general audience in Turkey (www.nbeyin.com). He also gives public lectures on “chaos theory”, “fractal geometry”, “forms of the nature”, “secret networks of the brain” and “all is in my brain (for kids and high school students)”. He also participates TV programs on different TV channels as a specialist guest on brain, science philosophy and behavioral neuroscience. A selected list of public appearances (with youtube videos) can be found at: http://www.sinancanan.net/?page_id=69 (In Turkish language)

One of my English talks entitled “**Fractals, Self Similarity and Stereology: Understanding the whole by analyzing its parts.**” which has been presented in 1st Asian-African Stereology Congress in 2012 can be found in youtube: <https://www.youtube.com/watch?v=eSVS2G3nqI0>