

# ÖMER FARUK KALKAN

## ASST. PROF.

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAR-2157-2020

ScopusID: 55971751500

Yoksis Researcher ID: 206468



### Education

Undergraduate 2018 - 2022	Karadeniz Technical University, Edebiyat Fakültesi, Batı Dilleri ve Edebiyatı, Turkey
Doctorate 2014 - 2017	Karadeniz Technical University, Tıp Fakültesi, Temel Tıp, Turkey
Doctorate 2012 - 2014	Ruprecht-Karls-Universitaet Heidelberg, DZNE(German Center for Neurodegenerative Diseases), Clinic Neurobiology, Germany
Doctorate 2011 - 2012	Karadeniz Technical University, Tıp Fakültesi, Temel Tıp, Turkey
Postgraduate 2009 - 2011	Karadeniz Technical University, -, Fizyoloji, Turkey
Undergraduate 2004 - 2009	Firat University, Turkey

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Education Management and Planning, Eğitim Formasyonu (Müfredat geliştirme, Öğrenme, Eğitim, Ölçme ve Değerlendirme Yöntemleri), KTÜ Tıp Fakültesi, 2019

Health&Medicine, Konfokal mikroskop kullanım sertifikası, KTÜ Tıp Fakültesi, 2019

Health&Medicine, Tübitak Proje Hazırlama Kursu, Necmettin Erbakan Üniversitesi, 2017

Health&Medicine, Tübitak Proje Hazırlık Kursu, Karadeniz Teknik Üniversitesi, 2014

Health&Medicine, Felasa B Education for Experts for Laboratory animal science, University of Heidelberg, 2013

Health&Medicine, Nöroglia, Yeditepe Üniversitesi, 2011

Health&Medicine, Deney Hayvanları Kullanım Sertifikası, Karadeniz Teknik Üniversitesi, 2011

## Dissertations

Doctorate, Diyabetik Nöropati ve Egzersiz: Diyabetik Nöropatik Ağrıya İrisinin Etkileri Üzerine Deneysel İnceleme, Karadeniz Technical University, Tıp Fakültesi, Temel Tıp Bilimleri, 2017

## Academic Titles / Tasks

Assistant Professor  
2018 - Continues

Karadeniz Technical University, Tıp Fakültesi, Temel Tıp

Assistant Professor  
2017 - 2018

Karadeniz Technical University, Tıp Fakültesi, Temel Tıp

Research Assistant PhD  
2012 - 2017

Karadeniz Technical University, Tıp Fakültesi, Temel Tıp

## Supported Projects

1. KALKAN Ö. F., ÖZTÜRK F., Project Supported by Higher Education Institutions, İNTRASEREBROVENTRİKÜLER NESFATİN1 ENJEKSİYONUN ERKEK SIÇANLARDA GHRELİN VE LEPTİN DÜZEYLERİNE ETKİSİ, 2022 - 2023
2. Kalkan Ö. F., Ayar A., Yıldırım M., Mentеше A., TÜBİTAK Project, Epilepside Ağrı Duyarlılığının Genetik Absans Epilepsili Siçanlar Kullanılarak in-vivo ve in-vitro İncelenmesi, 2015 - 2018
3. AYAR A., KALKAN Ö. F., Project Supported by Higher Education Institutions, Diyabetik Nöropati ve Egzersiz Diyabetik Nöropatik Ağrıya İrisinin Etkileri Üzerine Deneysel İnceleme, 2016 - 2017
4. AYAR A., KALKAN Ö. F., TÜBİTAK Project, Nosiseptif periferel nöron hücre kültürü modelinde enkefalin yıkımlayıcı enzim inhibitorlerinin hücre içi kalsiyum sinyalleşmesine etkileri, 2010 - 2012

## Published journal articles indexed by SCI, SSCI, and AHCI

1. **Central administration of p234, kisspeptin antagonist, but not kisspeptin-10, reduces the power of epileptiform activity and slow EEG waves in male rats.**  
Kalkan Ö. F., Şahin Z., Aktaş O., Yıldırım A., Aydın Abidin S., Özyaşar A. F., Uzun İ., Abidin İ.  
Neurological research, pp.1-8, 2025 (SCI-Expanded)
2. **Investigation of effect peripheral kisspeptin treatment on hypothalamo-pituitary-gonadal axis and hypothalamo-pituitary-adrenal axis in male rats**  
Sahin Z., Aktas O., Kalkan Ö. F., Cuce G., Alver A., Sahin E., Erdem S., Saglam N., Solak Gormus Z. I., Kutlu S.  
BIOLOGIA FUTURA, vol.75, no.4, pp.477-486, 2024 (SCI-Expanded)
3. **Alarin potentiates ongoing epileptiform activity in rat brain slices: an *in vitro* electrophysiological study**  
KALKAN Ö. F., ÖZTÜRK H., ŞAHİN Z., BAŞOĞLU H., Abidin S., ABİDİN İ.  
ACTA NEUROBIOLOGIAE EXPERIMENTALIS, vol.84, no.1, pp.35-42, 2024 (SCI-Expanded)
4. **Intracerebroventricular injection of kisspeptin in male rats activates hypothalamo-pituitary-gonadal axis, but not hypothalamo-pituitary-adrenal axis**  
Sahin Z., Aktas O., Kalkan Ö. F., Cuce G., Alver A., Sahin E., Erdem S., Saglam N., Gormus Z. I. S., Kutlu S.  
JOURNAL OF RECEPTORS AND SIGNAL TRANSDUCTION, vol.44, no.1, pp.19-26, 2024 (SCI-Expanded)
5. **Peripheral nesfatin-1 reduces basal brain activity but has limited effect on epilepsy-like conditions**  
Faruk Kalkan Ö. F., Aktaş O., Şahin Z., Aydın Abidin S., Yıldırım A., Faruk Özyaşar A., Uzun İ., Abidin İ.

GENERAL PHYSIOLOGY AND BIOPHYSICS, vol.2024, no.5, pp.457-467, 2024 (SCI-Expanded)

6. **Does irisin has neuroprotective effect against diabetes induced neuropathy in male rats?**  
Kalkan Ö. F., Aktaş O., Sürmeneli Y., Alver A., Özcan M., Şahin Z.  
ARCHIVES OF PHYSIOLOGY AND BIOCHEMISTRY, vol.129, no.2, pp.439-448, 2023 (SCI-Expanded)
7. **Chronic immobilization stress induces anxiety-related behaviors and affects brain essential minerals in male rats**  
Sahin Z., Ozkurkculer A., Kalkan Ö. F., Ozkaya A., Koc A., Koca R., Solak H., Gormus Z., Kutlu S.  
INTERNATIONAL JOURNAL FOR VITAMIN AND NUTRITION RESEARCH, vol.92, no.5-6, pp.349-356, 2022 (SCI-Expanded)
8. **Phoenixin-14 reduces the frequency of interictal-like events in mice brain slices**  
KALKAN Ö. F., ŞAHİN Z., ÖZTÜRK H., KESER H., ABİDİN S., ABİDİN İ.  
EXPERIMENTAL BRAIN RESEARCH, vol.239, no.9, pp.2841-2849, 2021 (SCI-Expanded)
9. **Investigation of Effects of Two Chronic Stress Protocols on Depression-Like Behaviors and Brain Mineral Levels in Female Rats: an Evaluation of 7-Day Immobilization Stress.**  
Sahin Z., Ozkurkculer A., Kalkan Ö. F., Ozkaya A., Koc A., Koca R. Ö., Solak H., Görmüş Z. I. S., Kutlu S.  
Biological trace element research, vol.199, pp.660-667, 2021 (SCI-Expanded)
10. **Eight-Weeks of Treadmill Exercise Ameliorates Bladder Contractile Dysfunction in Diabetic Rats**  
AYAR A., Guler V. K., Yucel B. P., KALKAN Ö. F.  
ACTA PHYSIOLOGICA, vol.225, pp.66, 2018 (SCI-Expanded)
11. **Ivabradine inhibits carbachol-induced contractions of isolated rat urinary bladder**  
Aydin H. R., Turgut H., Kurt A., Sahan R., KALKAN Ö. F., Eren H., AYAR A.  
ADVANCES IN CLINICAL AND EXPERIMENTAL MEDICINE, vol.27, no.7, pp.893-897, 2018 (SCI-Expanded)
12. **Characterization of Intracellular Calcium Responses to Membrane Depolarization in Sensory Neurons from Absence Epileptic WAG/Rij Rats**  
AYAR A., KALKAN Ö. F.  
ACTA PHYSIOLOGICA, vol.221, pp.76, 2017 (SCI-Expanded)
13. **Exercise restores diabetes-mediated contractile dysfunction of isolated rat seminal vesicle**  
SURMENELI Y. E., KURT A., KALKAN Ö. F., YUCEL B. P., KELES V., AYAR A.  
ACTA PHYSIOLOGICA, vol.221, pp.62, 2017 (SCI-Expanded)
14. **Eight-weeks of treadmill exercise ameliorates neuropathic pain in diabetic rats**  
Kalkan Ö. F., Sürmeneli Y. E., Aktaş O., Yücel B. P., Ayar A.  
ACTA PHYSIOLOGICA, vol.221, pp.194-196, 2017 (SCI-Expanded)
15. **Effects of apelin-13 in mice model of experimental pain and peripheral nociceptive signaling in rat sensory neurons**  
CANPOLAT S., ÖZCAN M., Saral S., KALKAN Ö. F., AYAR A.  
JOURNAL OF RECEPTORS AND SIGNAL TRANSDUCTION, vol.36, no.3, pp.243-247, 2016 (SCI-Expanded)
16. **Spinorphin inhibits membrane depolarization- and capsaicin-induced intracellular calcium signals in rat primary nociceptive dorsal root ganglion neurons in culture**  
AYAR A., ÖZCAN M., Kuzgun K. T., KALKAN Ö. F.  
JOURNAL OF RECEPTORS AND SIGNAL TRANSDUCTION, vol.35, no.6, pp.550-558, 2015 (SCI-Expanded)
17. **Analgesic effects of mad honey (grayanotoxin) in mice models of acute pain and painful diabetic neuropathy**  
GÜNDÜZ A., Eraydin I., Turkmen S., KALKAN Ö. F., TÜREDİ S., Eryigit U., AYAR A.  
HUMAN & EXPERIMENTAL TOXICOLOGY, vol.33, no.2, pp.130-135, 2014 (SCI-Expanded)

## Articles Published in Other Journals

1. **Pomegranate juice treatment reverses carbon tetrachloride (CCl<sub>4</sub>)-induced increased acetylcholinesterase activity and cell death via suppression of oxidative stress in rats.**  
Kalkan Ö. F., Türk A., Çitil C., Uçkun M., Özkaya A., Yoloğlu E., Özay Y., Çağrı Bülbül Ş., Şahin Z., Kirbaş A.

Roczniki Panstwowego Zakladu Higieny, vol.75, no.3, pp.293-302, 2024 (Scopus)

2. **Santral Alarin Enjeksiyonunun Erkek Sıçanlarda Toplam Elektroensefalografi (EEG) VE EEG Bantlarına Etkisi: In vivo Elektrofizyolojik Çalışma**  
Kalkan Ö. F., Aktaş O., Şahin Z., Yıldırım A., Abidin S., Özyaşar A. F., Uzun İ., Abidin İ.  
Fırat Üniversitesi Sağlık Bilimleri Tıp Dergisi, vol.38, no.3, pp.241-246, 2024 (Peer-Reviewed Journal)
3. **Circadian Rhythm, Hypothalamo-Pituitary Adrenal Axis, and Immunity: Physiological and Pathological Examples**  
Şahin Z., Kalkan Ö. F., Aktas O., Kalkan A.  
Akdeniz Tıp Dergisi, vol.9, no.3, pp.331-341, 2023 (Peer-Reviewed Journal)
4. **Global climate change and accompanying covid-19 pandemic: A physiological perspective by avicenna from 1000 years ago to the present**  
Şahin Z., Kalkan Ö. F., Aktaş O., Kalkan A.  
Türk Bilimsel Derlemeler Dergisi, vol.2, no.2, pp.79-88, 2022 (Peer-Reviewed Journal)
5. **Gülmenin fizyolojisi: Beyin lezyonlarından gülme ile ilişkili yapıları anlama**  
Şahin Z., Kalkan Ö. F., Aktaş O.  
Sağlık ve Yaşam Bilimleri Dergisi, vol.4, no.2, pp.242-251, 2022 (Peer-Reviewed Journal)
6. **How does the circadian rhythm function in blind people who have no light perception?**  
Şahin Z., Kalkan Ö. F., Aktaş O.  
Hipokrat Tıp Dergisi, vol.2, no.2, pp.35-43, 2022 (Peer-Reviewed Journal)
7. **Gonadotropin levels reduced in seven days immobilization stress-induced depressive-like behavior in female rats.**  
Sahin Z., Ozkirkculer A., Kalkan Ö. F., Bulmus F. G., Bulmus O., Kutlu S.  
Journal of basic and clinical physiology and pharmacology, vol.33, no.2, pp.199-206, 2021 (Scopus)
8. **An example of a misnomer in medicine: Choice of the term basal ganglia for the basal nuclei**  
ŞAHİN Z., KALKAN Ö. F., KUTLU S.  
Annals of Medical Research, vol.27, no.5, pp.1523-1527, 2020 (Peer-Reviewed Journal)
9. **Comparison of the Effects of Immobilization Stress and Chronic Mild Stress Models on Depression-Related Behaviors in Female Rats: An Assessment of a 10-Day Stress Period**  
Şahin Z., Koca R. Ö., Solak H., Koç A., Kalkan Ö. F., Kutlu S.  
Fırat Üniversitesi Sağlık Bilimleri Tıp Dergisi, vol.33, no.3, pp.153, 2019 (Peer-Reviewed Journal)
10. **Neurotoxicity evaluation of three root canal sealers on cultured rat trigeminal ganglion neurons**  
ER K., AYAR A., Kalkan O., Canpolat S., TAŞDEMİR T., Ozan U.  
Journal of Clinical and Experimental Dentistry, vol.9, no.1, 2017 (Scopus)
11. **Diyabetik Ayağın Fizyopatolojisinde Diyabetik Ayak Enfeksiyonları**  
KALKAN Ö. F., KARAKEÇİLİ F., KALKAN A.  
Türkiye Klinikleri J Endocrin-Special Topics, vol.8, no.3, pp.18-24, 2015 (Peer-Reviewed Journal)

## Papers Published in Refereed Scientific Meetings

1. **Epilepsy and Neuropathic Pain: Investigation of Pain Sensitivity in Schiatic Nerve Chronic Constriction Injury-Induced Neuropathic Pain Model in Absence Epileptic WAG/Rij Rats**  
Malkoç A., Kalkan Ö. F., Yücel B. P., Saral E. N., ŞAHİN Z., AYAR A.  
Europhysiology2018, Londra, United Kingdom, 14 - 16 September 2018, pp.309
2. **Exercise restores diabetes-mediated contractiledysfunction of isolated rat seminal vesicle**  
Sürmeneli Y. E., KURT A., KALKAN Ö. F., Yücel B. P., Keleş V., AYAR A.  
FEPS 2017- Joint Meeting of the Federation of European Physiological Societies and the Austrian Physiological Society with Participation of the Czech, French, Italian, Slovak, Slovenian, Swiss and Turkish Physiological Societies, Vienna, Austria, Viyana, Australia, 13 - 15 September 2017, vol.221, pp.63
3. **Eight-weeks of treadmill exercise ameliorates neuropathic pain in diabetic rats**  
Kalkan Ö. F., Sürmeneli Y. E., Aktaş O., Yücel B. P., Ayar A.

FEPS 2017 ( joint meeting of the Federation of European Physiological Societies and the Austrian Physiological Society), Vienna, Austria, 12 - 15 September 2017, vol.221, no.713, pp.194-196

4. **Absans epileptik WAG/RİJ sıçanlardan izole edilen duyuşal sinir hücrelerinde membran depolarizasyonuna hücre içi kalsiyum cevaplarının belirlenmesi**  
AYAR A., KALKAN Ö. F.  
43. Ulusal Fizyoloji Kongresi, Denizli, Turkey, 7 - 10 September 2017, pp.86
5. **Characterization of Intracellular Calcium Responses to Membrane Depolarization in Sensory Neurons from Absence Epileptic WAG/Rij Rats**  
AYAR A., KALKAN Ö. F.  
Türk Fizyolojik Bilimler Derneđi (TFBD) 43. Ulusal Fizyoloji Kongresi, Denizli, Turkey, 7 - 10 September 2017, vol.221, pp.76
6. **INVESTIGATION OF SENSITIVITY OF OPIOID ANALGESIA IN ABSENCE EPILEPTIC WAG/RIJ RATS**  
AYAR A., KALKAN Ö. F., YÜCEL B. P.  
IUPS 2017, Rio De Janeiro, Brazil, 1 - 05 September 2017, pp.64
7. **Investigation of Possible Alpha Adrenergic Modification of Acute Pain Sensitivity in Absence Epileptic WAG/Rij Rats**  
AYAR A., KALKAN Ö. F., KURT A., GEDİKLİ Ö., VELİOĐLU S., YILDIRIM M.  
Physiology 2016, Dublin, Ireland, 29 - 31 July 2016, pp.37
8. **Neurotoxicity of various endodontic sealers on cultured rat TG neurons**  
Er K., AYAR A., KALKAN Ö. F., Canpolat S., TAŞDEMİR T., Ozan Ü.  
7th International Association for Dental Research/Pan European Regional Congress, Dubrovnik, Croatia, 10 - 13 September 2014, pp.1
9. **Physiological Performance Profiles Of Turkish Olympic Water Canoe Team**  
AYAN V., BEKTAŞ F., KALKAN O., CANPOLAT S., AYAR A.  
The Physiological Society, Edinburgh, United Kingdom, 10 - 14 October 2012, pp.170
10. **Physiological performance profiles of Turkish Olympic water canoe team**  
AYAN V., BEKTAŞ F., KALKAN Ö. F., CANPOLAT S., AYAR A.  
Physiology 2012, Edinburgh, United Kingdom, 2 - 05 July 2012, pp.27
11. **Enkephalinase inhibitors attenuates adenosine triphosphate-induced increase of intracellular calcium in cultured rat dorsal root ganglion neurons**  
AYAR A., ÖZCAN M., KALKAN Ö. F.  
Physiology 2012, Edinburgh, United Kingdom, 2 - 05 July 2012, pp.27
12. **Melatoninin kapsaisinle uyarılmış hücre içi kalsiyum sinyalleri üzerine etkisinin kültüre sıçan dorsal kök gangliyon sinir hücrelerinde incelenmesi**  
ÖZCAN M., KALKAN Ö. F., AYAR A.  
10. Ulusal Sinir Bilim Kongresi, İstanbul, Turkey, 9 - 12 April 2012, pp.106
13. **The Endogenous Salivary Peptide Opiorphin Inhibits Ca<sup>2+</sup> Signalling in Rat Primary Sensory Neurons**  
AYAR A., ÖZCAN M., KALKAN Ö. F.  
Physiology 2011, Oxford, United Kingdom, 11 - 14 July 2011, pp.23
14. **Melatonin Inhibits Membrane Depolarisation-Induced Calcium Signals in Cultured Rat Trigeminal Ganglion Neurons**  
KALKAN Ö. F., KAÇAR E., ÖZCAN M., AYAR A.  
Physiology 2011, Oxford, United Kingdom, 11 - 14 July 2011, pp.23
15. **Effects of levosimendan on diabetes-induced neuropathic pain in a mice model**  
KALKAN Ö. F., AYAR A.  
Turkish FEPS Physiology meeting 2011, İstanbul, Turkey, 3 - 07 July 2011, pp.46
16. **Apelin-13'ün periferel nosiseptif sinyalleşme üzerine etkilerinin izole sıçan duyuşal sinir hücrelerinde incelenmesi**  
ÖZCAN M., KALKAN Ö. F., KUTLU S., AYAR A.  
10. Ulusal Sinir Bilim Kongresi, İstanbul, Turkey, 9 - 12 April 2011, pp.102

## Academic and Administrative Experience

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2025 - Continues	<b>Experimental Animals Ethics Committee Member</b>	Karadeniz Technical University, Tıp Fakültesi, Temel Tıp
2021 - Continues	<b>Deputy Director of the Center</b>	Karadeniz Technical University, Tıp Fakültesi
2021 - Continues	<b>Erasmus Program Institutional Coordinator</b>	Karadeniz Technical University, Tıp Fakültesi
2022 - 2025	<b>Measurement and Evaluation Board Chairman</b>	Karadeniz Technical University, Tıp Fakültesi
2019 - 2025	<b>Measurement and Evaluation Board Member</b>	Karadeniz Technical University, Tıp Fakültesi

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## Courses

### Doctorate

İleri Sinir Fizyolojisi - I, Doctorate, 2019 - 2020, 2018 - 2019

Boşaltım Fizyolojisi , Doctorate, 2019 - 2020

### Undergraduate

Merkezi Sinir Sistemi (Nörolojik Bilimler) , Undergraduate, 2021 - 2022, 2020 - 2021

Merkezi Sinir Sistemi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Renal Fizyoloji, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Periferik Sinir Sistemi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Fizyoloji, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Dolaşım Fizyolojisi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Renal Fizyoloji, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

## Memberships / Tasks in Scientific Organizations

Türk Fizyolojik Bilimler Derneği, Member, 2017 - Continues

## Peer Reviews in Scientific Publications

Süleyman Demirel Üniversitesi Sağlık Bilimleri Dergisi, National Scientific Refreed Journal, July 2024

BRAIN RESEARCH BULLETIN, Journal Indexed in SCI-E, June 2024

DRUG AND CHEMICAL TOXICOLOGY, SCI Journal, January 2022

Annals of Medical Research, National Scientific Refreed Journal, September 2021

HUMAN & EXPERIMENTAL TOXICOLOGY, Journal Indexed in SCI-E, April 2021

INTERNATIONAL JOURNAL OF NEUROSCIENCE, SCI Journal, November 2020

## Scientific Project Refereeing

Project Supported by Higher Education Institutions, BAP Research Project, September 2021

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, March 2021

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, March 2021

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, March 2021

## Metrics

Publication: 44

Citation (WoS): 46

Citation (Scopus): 51

H-Index (WoS): 4

H-Index (Scopus): 4

## Research Areas

Medicine, Health Sciences, Fundamental Medical Sciences, Human Physiology, Neurophysiology

## Non Academic Experience

Karadeniz Teknik Üniversitesi, Araştırma Görevlisi

Ruprecht-Karls-Universität Heidelberg, Misafir Araştırmacı