



DİLARA

NEMUTLU SAMUR

ARAŞTIRMA GÖREVLİSİ
DOĞUM TARİHİ : 26/03/1991

İLETİŞİM

Adres

Alanya Alaaddin Keykubat Üniversitesi
Tıp Fakültesi Tıbbi Farmakoloji Anabilim Dalı

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EĞİTİM

PhD (Tıbbi Farmakoloji AD)

Akdeniz Üniversitesi ♦ 2016 - Halen

MSc (Tıbbi Farmakoloji AD)

Anadolu Üniversitesi ♦ 2014-2016

BSc (Eczacılık)

Anadolu Üniversitesi ♦ 2009-2014

YABANCI DİL

İNGİLİZCE-YDS: 96 (2014)

ÖDÜL & BURSLAR

Erasmus Training Scholarship, University of Valencia, Spain

Faculty of Pharmacy,
Department of Pharmaceutical
Technology, Trainee
June-September 2013

Erasmus Scholarship, University of Helsinki, Finland

Faculty of Pharmacy,
Undergraduate Exchange Student
September 2011-January 2012



HAKEMLİ DERGİLERDE YAYIMLANMIŞ YAYINLAR (SCI, SCI-E)

> Ozbey G., **Nemutlu-Samur D.**, Parlak H., Yildirim S., Aslan M., Tanriover G., Agar A. (2020). Metformin Protects Rotenone-Induced Dopaminergic Neurodegeneration by Reducing Lipid Peroxidation. *Pharmacological Reports*, doi: 10.1007/s43440-020-00095-1.

> Bektas N., **Nemutlu D.**, Cam M., Okcay Y., Eken H., Arslan R. (2020). The Nicotinic Modulation of Pain. *Pakistan Journal of Pharmaceutical Sciences*, 33 (1), 229-239.

> **Samur DN.**, Arslan R., Aydın S., Bektas N. (2018) Valnoctamide: The Effect on Relieving of Neuropathic Pain and Possible Mechanisms. *European Journal of Pharmacology*, 15 (827), 208-214.

> Arslan R., Aydın S., **Nemutlu Samur D.**, Bektaş, N. (2018). The Possible Mechanisms of Protocatechuic Acid-Induced Central Analgesia. *Saudi Pharmaceutical Journal*, 26 (4), 541-545.

> Bektaş N., **Nemutlu, D.**, Arslan R. (2015). The Imidazoline Receptors and Ligands in Pain Modulation. *Indian Journal of Pharmacology*, 47 (5), 472-478.



HAKEMLİ DERGİLERDE YAYIMLANMIŞ YAYINLAR (DİĞER)

> **Nemutlu-Samur D.**, Ozbey G. (2020) Mikroglial Toll-benzeri Reseptörlerin Alzheimer ve Parkinson Hastalıklarındaki Rolü. *Akdeniz Medical Journal* (ACCEPTED, no: ATD2671).

> Guler Y., Ovey I.S., **Nemutlu-Samur D.**, Karabulut B. (2020). Low level laser application reduces the effect of 5 fluorouracil/leucovorin combination on human breast cancer cells. *Annals of Medical Research*, 27 (5), 1315-21.

> **Nemutlu-Samur D.**, Ozbey G. (2018) Neuroinflammation modifying approaches in Parkinson's disease. *Journal of Neurobehavioral Sciences*, 5 (1), 43-55.

> Bektaş N., **Nemutlu, D.**, Ulugbay G., Arslan R. (2015). The Role of Muscarinic Receptors in Pain Modulation. *World Journal of Pharmaceutical and Medical Research*, 1 (1), 40-49.



SÖZLÜ SUNUMLAR VE POSTER BİLDİRİLERİ

> **Nemutlu Samur D.**, Akçay G., Özkan A., Derin N., Ağar A., Özbey G. The Effects of Vortioxetine on Motor and Cognitive Dysfunction in Rotenone-Induced Rat Model of Parkinson's Disease. Federation of European Neuroscience Societies (FENS) 2020 Virtual Forum, 11-15 July 2020.

> **Nemutlu Samur D.**, Özbey G., New Treatment Approaches for the Prevention of Neurodegeneration in Parkinson Disease. 2nd International Health Science and Life Congress (IHSLC 2019), Burdur-Turkey. 24-27 April 2019. (Sözlü sunum).

> Özbey G., **Nemutlu Samur D.**, Parlak H., Yildirim S., Tanrıöver G., Ağar A. Metformin Reduces Rotenone-Induced Degeneration in Dopaminergic Neurons. 16. National Neuroscience Congress, Istanbul-Turkey, 20-23 May 2018.

> Övey İ.S., **Nemutlu Samur D.**, Maytalman E., Çelik Ö. Inhibitory Effects of Melatonin on TRPM2 Channel Activity Induced by Bevacizumab in Human Breast Cancer Cell Line. 1st International Health Science and Life Congress (IHSLC 2018), Burdur-Turkey, 02-05 May 2018.



SÖZLÜ SUNUMLAR VE POSTER BİLDİRİLERİ

- > Bektas N., Arslan R., **Nemutlu D.**, Aydin S. The Role of Opioidergic Mechanisms on the Anti Allodynic and Antihyperalgesic Effect of Valnoctamide in Rats, 7th European Congress of Pharmacology (EPHAR2016), Istanbul-Turkey, 26-30 June 2016.
- > Arslan R., Bektas N., **Nemutlu D.**, Possible Involvement of Kv7 Potassium Channels in Central Antinociception Induced by Dipyrone and Ketoprofen. International Multidisciplinary Symposium on Drug Research & Developments, Eskisehir-Turkey, 15 -17 October 2015.
- > Bektas N., Arslan R., **Nemutlu D.** p-Coumaric Acid Induces Antinociception in Mice, 11th International Symposium on Pharmaceutical Sciences (ISOPS-11), Ankara-Turkey, 09-12 June 2015.
- > Arslan R., Bektas N., **Nemutlu D.** Ferulic acid possesses central analgesic activity in mice, 9th IBRO World Congress of Neuroscience (IBRO-2015), Rio de Janeiro-Brazil, 07-11 July 2015.
- > Bektas N., Arslan R., **Nemutlu D.** Protocatechuic acid is analgesic at central and peripheral levels in mice, 9th IBRO World Congress of Neuroscience (IBRO-2015), Rio de Janeiro-Brazil, 07-11 July 2015.
- > **Nemutlu D.**, Bektas N., Arslan R. Central antinociception induced by luteolin, 9th IBRO World Congress of Neuroscience (IBRO-2015), Rio de Janeiro-Brazil, 07-11 July 2015.



BİLİMSEL ARAŞTIRMA PROJELERİ

- > **TÜBİTAK Hızlı Destek Programı (1002), Proje Numarası: 219S253 (Proje Yürütücüsü)**
Rotenon ile İndüklenen Parkinson Hastalığı Sıçan Modelinde Vortioksetinin Prokognitif Özelliklerinin incelenmesi: Toll-Benzeri Reseptör-2 Sinyal Yolağının Rolü (2019-Halen)
- > **Alanya Alaaddin Keykubat Üniversitesi Bilimsel Araştırma Projesi (BAP); Proje Kodu: BAP-2019-3295970 (Araştırmacı)**
Epidermoid Larinks Karsinom Hücre Hattı (HEP2) Üzerine Timokinon ve Propranolol Kombinasyonunun Etkisi (2019- Halen)
- > **Akdeniz Üniversitesi Bilimsel Araştırma Projesi (BAP); Proje Kodu: TDK-2019-4412 (Araştırmacı)**
Rotenon ile Oluşturulmuş Parkinson Hastalığı Modelinde Vortioksetinin Nörodejenerasyon ve Bilişsel Disfonksiyon Üzerine Etkilerinin İn Vivo Olarak İncelenmesi (2019- Halen)
- > **Akdeniz Üniversitesi Bilimsel Araştırma Projesi (BAP); Proje Kodu: TSA-2017-2392 (Araştırmacı)**
Rotenonla İndüklenen Deneysel Parkinson Hastalığı Modelinde Metforminin Olası Etkileri ve Etki mekanizmaları (2017- 2018)
- > **Anadolu Üniversitesi Bilimsel Araştırma Projesi (BAP); Proje Kodu: AUBAP-1404S129 (Araştırmacı)**
Ferulik asitin analjezik ve anksiyolitik etkinliklerinin araştırılması (2014-2015)
- > **Anadolu Üniversitesi Bilimsel Araştırma Projesi (BAP); Proje Kodu: AUBAP-1409S395 (Araştırmacı)**
Valnoktamid Nöropatik Ağrının Hafifletilmesi Üzerine Etkinliği ve Olası Mekanizmaları (Yüksek Lisans Tezi) (2013-2016)
- > **University of Helsinki, Faculty of Pharmacy, Department of Pharmaceutical Bioscience (Gözlemci Öğrenci)**
In Vitro Characterization of DNA (Eylül 2011-Ocak 2012)



KONGRE, SEMPOZYUM, SEMİNER VE KONFERANSLAR

- > **Federation of Neuroscience Societies (FENS) Virtual Forum 2020** (11-15 July 2020)
- > **2nd International Health Science and Life Congress (IHSLC 2019)** (24-27 April 2019, Burdur-Turkey)
- > **17. Ulusal Sinirbilim Kongresi** (4-7 Nisan 2019, Trabzon-Türkiye)
- > **Disiplinler Arası Beyin Araştırmaları Derneği 2. Nörobilim Kongresi** (Üsküdar Üniversitesi, 15-16 Aralık 2018, İstanbul-Türkiye)



KONGRE, SEMPOZYUM, SEMİNER VE KONFERANSLAR

- > **Akdeniz Üniversitesi Tıp Fakültesi Sağlık ve Tıp Alanında Bilimsel Araştırmalar Sempozyumu**(28 Nisan 2018, Antalya-Türkiye)
- > **Türk Farmakoloji Derneği Kuşaklararası Bilimsel Etkileşme Seminerleri** (7-9 Mart 2018, Ilgaz-Türkiye)
- > **9th International Brain Research Organisation (IBRO) World Congress of Neuroscience** (07-11 July 2015, Rio de Janeiro-Brazil)
- > **11th International Symposium on Pharmaceutical Sciences (ISOPS-11)** (09-12 June 2015, Ankara-Turkey)



OKULLAR VE KURSLAR

- > **Baltic Summer School on Behavioral Characterization of Rodent Models of Major Brain Disorders** (25-30 August 2019, Tartu-Estonia)
- > **"Beyin Görüntüleme Yöntemlerinin Geleceği" Kursu** (Disiplinler Arası Beyin Araştırmaları Derneği 2. Nörobilim Kongresi, Üsküdar Üniversitesi, 15-16 Aralık 2018, İstanbul-Türkiye)
- > **"Sanat, Oyun, Duygu ve Drama" Kursu** (Disiplinler Arası Beyin Araştırmaları Derneği 2. Nörobilim Kongresi, Üsküdar Üniversitesi, 15-16 Aralık 2018, İstanbul-Türkiye)
- > **İnönü Üniversitesi Tıbbi Çizim Kursu** (7-9 Eylül 2018, Malatya-Türkiye)
- > **TÜBİTAK Tıp Fakültesi Lisansüstü Öğrencilerine Yönelik Laboratuvar Hayvanlarında İleri Düzey Deneysel Araştırmalar Kursu** (Konya Necmettin Erbakan Üniversitesi, 30 Ağustos-2 Eylül 2018, Konya-Türkiye)
- > **Uluslararası Katılımlı Sinirbilim Mezuniyet Sonrası Çalıştayı** (25-29 Haziran 2018, Ankara-Türkiye)
- > **Klinik Araştırmalarda Etik Yaklaşım Kursu ve Biyoistatistik Uygulamaları** (2 Aralık 2017, Alanya-Türkiye)
- > **"İnsan ve Sıçan Beyninin Karşılaştırmalı Nöroanatomi" Kursu** (17. Ulusal Sinirbilim Kongresi, 4-7 Nisan 2019, Trabzon-Türkiye)



SERTİFİKALAR

- > **Keep Lab Safety Keep You Healthy** (Erasmus+ KA2 - Cooperation for Innovation and The Exchange of Good Practices, Akdeniz University, 12 April 2019, Antalya-Turkey)
- > **Klinik Toksikoloji Sertifikası** (Osmangazi Üniversitesi, 19-21 Nisan 2017, Eskişehir-Türkiye)
- > **Araştırmacılar için Deney Hayvanları Kullanım Sertifikası** (Eskişehir Osmangazi Üniversitesi Tıbbi ve Cerrahi Deney Hayvanları Uygulama ve Araştırma Merkezi, 23 Mart-3 Nisan 2015, Eskişehir-Türkiye)
- > **Başlangıç Seviyesi (A1) Fransızca Dil Sertifikası** (Milli Eğitim Bakanlığı, 2014, Eskişehir-Türkiye)
- > **İşaret Dili Sertifikası** (Milli Eğitim Bakanlığı, 2013, Eskişehir-Türkiye)
- > **Predictive and Personalized Medicine/Healthcare in Daily Modern Medicine (P4) Certificate** (Anadolu University and McGill University, 13-16 September 2012, Eskişehir-Turkey)



BİLİMSEL VEYA PROFESYONEL KURULUŞLARA ÜYELİKLER

- > **Federation of European Neuroscience Societies (FENS)** (2019-Halen)
- > **Türkiye Beyin Araştırmaları ve Sinirbilimleri Derneği (TÜBAS)** (2019-Halen)
- > **Türk Farmakoloji Derneği** (2017-Halen)



YÜRÜTÜLEN İDARİ GÖREVLER

- > Alanya Alaaddin Keykubat Üniversitesi Klinik Araştırmalar Etik Kurulu Sekreteryası (2018-Halen)
- > Alanya Alaaddin Keykubat Üniversitesi Tıp Fakültesi Müfredat ve Ölçme Değerlendirme Kurulu Sekreteryası (2018-Halen)
- > tip.alanya.edu.tr Web Sitesi Yönetim Paneli Sorumlusu (2018-Halen)



ULUSLARARASI HAKEMLİ DERGİLERDEKİ ATIFLAR

Eser Adı: Metformin Protects Rotenone-Induced Dopaminergic Neurodegeneration by Reducing Lipid Peroxidation

- > Sportelli, C., Urso, D., Jenner, P., & Chaudhuri, K. R. (2020). Metformin as a Potential Neuroprotective Agent in Prodromal Parkinson's Disease-Viewpoint. *Frontiers in neurology*, 11, 556. <https://doi.org/10.3389/fneur.2020.00556>

Eser Adı: The Role of Muscarinic Receptors in Pain Modulation

- > Oliveira, P. A., Capim, S. L., Gonçalves, G. M., Laureano-Melo, R., Côrtes, W., Vasconcellos, M., & Marinho, B. G. (2020). Pharmacological evaluation underlying the antinociceptive activity of two new hybrids NSAIDs tetrahydropyran derivatives. *Fundamental & clinical pharmacology*, 34(3), 321–335.
- > Ikumawoyi, V.O., Onyemaechi, C.K., Orolugbagbe, H.O., Olufunsho, Av., Agbaje, E.O. (2020). Methanol extract of *Napoleona vogelii* demonstrates anti-nociceptive and anti-inflammatory activities through dopaminergic mechanism and inhibition of inflammatory mediators in rodents. *Comparative Clinical Pathology*, 29, 599–607.
- > Zakaria, Z. A., Abdul Rahim, M. H., Roosli, R., Mohd Sani, M. H., Marmaya, N. H., Omar, M. H., Teh, L. K., & Salleh, M. Z. (2019). Antinociceptive Activity of Petroleum Ether Fraction of *Clinacanthus nutans* Leaves Methanolic Extract: Roles of Nonopioid Pain Modulatory Systems and Potassium Channels. *BioMed research international*, 2019, 6593125.
- > Zakaria, Z. A., Abdul Rahim, M. H., Roosli, R., Mohd Sani, M. H., Omar, M. H., Mohd Tohid, S. F., Othman, F., Ching, S. M., & Abdul Kadir, A. (2018). Antinociceptive Activity of Methanolic Extract of *Clinacanthus nutans* Leaves: Possible Mechanisms of Action Involved. *Pain research & management*, 9536406.

Eser Adı: Valnoctamide: The effect on relieving of neuropathic pain and possible mechanisms

- > Alexandr S. Malygin, Demidova Ma, Skachilova Sya, & Shilova Ev (2020). SYNTHESIS OF A NOVEL AMIDE DERIVATIVE OF VALPROIC ACID AND 1,3,4-THIADIAZOLE WITH ANTIEPILEPTIC ACTIVITY. *Bulletin of Russian State Medical University*, (1), 75-80.
- > Bodnar R. J. (2020). Endogenous Opiates and Behavior: 2018. *Peptides*, 132, 170348. Advance online publication.
- > Praena, B., Bello-Morales, R., de Castro, F., & López-Guerrero, J. A. (2019). Amidic derivatives of valproic acid, valpromide and valnoctamide, inhibit HSV-1 infection in oligodendrocytes. *Antiviral research*, 168, 91–99.
- > Liu, C. H., Lan, C. T., Chen, L. Y., Liao, W. C., Ko, M. H., & Tseng, T. J. (2019). Phosphorylation of extracellular signal-regulated kinase 1/2 in subepidermal nerve fibers mediates hyperalgesia following diabetic peripheral neuropathy. *Neurotoxicology*, 71, 60–74.
- > Abram, M., Jakubiec, M., & Kamiński, K. (2019). Chirality as an Important Factor for the Development of New Antiepileptic Drugs. *ChemMedChem*, 14(20), 1744–1761.
- > Jeong, Y., Wagner, M. A., Ploutz-Snyder, R. J., & Holden, J. E. (2019). Pain condition and sex differences in the descending noradrenergic system following lateral hypothalamic stimulation. *IBRO reports*, 8, 11–17.
- > Praena, B., Bello-Morales, R., de Castro, F., & López-Guerrero, J. A. (2019). Amidic derivatives of valproic acid, valpromide and valnoctamide, inhibit HSV-1 infection in oligodendrocytes. *Antiviral research*, 168, 91–99.



Eser Adı: The possible mechanisms of protocatechuic acid-induced central analgesia

- Zakaria, Z.A., Roosli, R.A.J., Marmaya, N.H., Omar, M.H., Basir, R., Somchit, M.N. (2020). Methanol Extract of *Dicranopteris linearis* Leaves Attenuate Pain via the Modulation of Opioid/NO-Mediated Pathway. *Biomolecules*, 10, 280.
- Zhang, J., Wang, D., Zhang, X., Yang, J., Chai, X., & Wang, Y. (2020). Application of "spider-web" mode in discovery and identification of Q-markers from Xuefu Zhuyu capsule. *Phytomedicine*, 77, 153273. Advance online publication.
- Bodnar R. J. (2020). Endogenous Opiates and Behavior: 2018. *Peptides*, 132, 170348. Advance online publication.
- Zhang, M., Cheng, J., Zhang, Y., Kong, H., Wang, S., Luo, J., Qu, H., & Zhao, Y. (2020). Green synthesis of *Zingiberis rhizoma*-based carbon dots attenuates chemical and thermal stimulus pain in mice. *Nanomedicine (London, England)*, 15(9), 851–869.
- Damle, M. C., Tembhurne, S. V., & Todkar, S. R. (2019). Evaluation of Hepatoprotective Activity of Hydroalcoholic Extract of Onion Peels Containing Protocatechuic Acid. *Journal of Drug Delivery and Therapeutics*, 9(4), 82-88.
- Dikmen, D.Y., Okcay, Y., Arslan, R. et al. (2019). Cannabinoid system involves in the analgesic effect of protocatechuic acid. *DARU Journal of Pharmaceutical Sciences*, 27, 605–612.
- Rana, D., Alayed, R.S. (2018). Green Business: Sustainability within Saudi Vision 2030. *International Journal of Advance Study and Research Work*, 1 (9), 4-19.
- Yadav, P.K., Srivastava, V., Srivastava, A., Roy, S., Mishra, N., Deep, P., Verma, S. (2018). Systematic Review on Antidepressant Models. *International Journal of Pharmaceutical Sciences Review and Research*, 52 (2), 47-54.

Eser Adı: The imidazoline receptors and ligands in pain modulation

- Ghonghadze, M., Pachkoria, K., Okujava, M., Antelava, N., & Gongadze, N. (2020). ENDOCANNABINOID RECEPTORS MEDIATED CENTRAL AND PERIPHERAL EFFECTS (REVIEW). *Georgian medical news*, (298), 137-143.
- Vellani, V., Sabatini, C., Milia, C., Caselli, G., Lanza, M., Letari, O., Rovati, L. C., & Giacomoni, C. (2020). CR4056, a powerful analgesic imidazoline-2 receptor ligand, inhibits the inflammation-induced PKC ϵ phosphorylation and membrane translocation in sensory neurons. *British journal of pharmacology*, 177(1), 48-64.
- Micheli, L., Di Cesare Mannelli, L., Del Bello, F. et al. The Use of the Selective Imidazoline I1 Receptor Agonist Carbophenylene as a Strategy for Neuropathic Pain Relief: Preclinical Evaluation in a Mouse Model of Oxaliplatin-Induced Neurotoxicity. (2020). *Neurotherapeutics*, Online version, <https://doi.org/10.1007/s13311-020-00873-y>.
- Cobos-Puc, L., & Aguayo-Morales, H. (2019). Cardiovascular Effects Mediated by Imidazoline Drugs: An Update. *Cardiovascular & hematological disorders drug targets*, 19(2), 95-108.
- Ona, G., Troncoso, S. (2019). Long-lasting analgesic effect of the psychedelic drug changa : A case report. *Journal of Psychedelic Studies*, 3, (1), 7-13.
- Keller, B., & García-Sevilla, J. A. (2017). Effects of I2-imidazoline receptor (IR) alkylating BU99006 in the mouse brain: Upregulation of nischarin/I1-IR and μ -opioid receptor proteins and modulation of associated signalling pathways. *Neurochemistry international*, 108, 169-176.
- Franciszek Sączewski, Anita Kornicka & Łukasz Balewski (2016) Imidazoline scaffold in medicinal chemistry: a patent review (2012-2015), *Expert Opinion on Therapeutic Patents*, 26:9, 1031-1048.