



CURRICULUM VITAE

Name and Surname: İsmail Tuncer DEĞİM
 Date of Birth: 1963
 Academic Title: Professor Dr.
 Work Address:
 Email: tdegim@biruni.edu.tr
 Area of Expertise: Biopharmaceutical and Pharmacokinetics
 Cosmetology
 Pharmaceutical Technology

Degree	Department/Program	University	Year
Doctorate			1996
Master's Degree	ECZACILIK TEKNOLOJİSİ BÖLÜMÜ	Gazi University	1988
Bachelor's Degree	ECZACILIK PR.	Ankara University	1985

Master's Thesis Title (abstract attached) and Thesis Supervisor(s):

Sıfır derece kinetikle salan yarı küresel sürekli etkili ilaç şekilleri tasarımları üzerine çalışmalar

Doctoral Thesis/Proficiency Study/Medical Specialization Thesis Title (abstract attached) and Supervisor(s):

Physicochemical determinants of skin penetration

Position Title	Workplace	Year
Professor Dr.	Biruni University	2016-Continues
Professor Dr.	Gazi University	2009-2016
Associate Professor	Gazi University	2004-2009
Assistant Professor	Gazi University	1998-2004
Research Assistant	Gazi University	1986-1998

Supervised Master's Theses:

1. PAT (Process Analytical Technolgy) uygulamaları (2015)
2. Kuantum noktacıklarının ilaç taşıyıcı sistem olarak kullanılması üzerine çalışmalar (2014)
3. Deriden geçişin tahmin edilmesinde kullanılabilecek karbon nanotüp yapılı membran sistemi geliştirme üzerine çalışmalar (2012)
4. Antitrombotik Bir Etkin Madde İçeren Tablet Formülasyonun Geliştirilmesi Üzerine Çalışmalar (2007)
5. İyontoforez yönteminin uygulanması üzerine çalışmalar (2003)
6. Yeni bir bukkal ilaç taşıyıcı sistem formülasyonu üzerine çalışmalar (2001)

Supervised Doctoral Theses/Proficiency Studies in Arts:

1. In vitro memeli makrofajları üzerindeki karbon kuantum noktalarının immünomodülatör aktivitelerinin incelenmesi (2022)
 2. Alzheimer hastalığında etkili nazal yoldan uygulanabilen hedeflendirilmiş insülin kuantum noktası kompleksinin geliştirilmesi (2021)
 3. Antikanser ilaç taşıyan boron nitrit nanotüp ve aljinat boncukların geliştirilmesi (2017)
 4. Kanser tedavisinde etkili nanopartikül ve kuantum noktacıklarının geliştirilmesi (2016)
 5. Dexketoprofenin oral kontrollü salım formülasyonlarının geliştirilmesi (2015)
 6. Nanotüp içeren ilaç taşıyıcı sistemler üzerine çalışmalar (2011)
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Roles in Projects:

Bor Katkılı Kompozit Karbon Kuantum Noktalarının ve Bor Katkılı Karbon Kuantum Noktalarının Hazırlanması, Biyodağılımının İncelenmesi ve Farmakokinetic Değerlendirmesi (2022 - Continues)

Aşılarda Kullanılmak Üzere Kuantum Nokta İçeren Steril Enjeksiyonlu İlaç Formülasyonlarının Hazırlanması (2022 - 2024)

Diyabet Tedavisinde Oral Yoldan Uygulanabilen İnsülin-Karbon Quantum Formülasyonun Geliştirilmesi (2018 - 2021)

Administrative Duties:

Dean - Biruni University (2020 - Continues)

BAP Coordinator - Biruni University (2019 - Continues)

Head of Department - Biruni University (2016 - Continues)

Vice Dean - Biruni University (2016 - 2020)

Dean - Gazi University (2012 - 2016)

Vice Dean - Gazi University (2010 - 2012)

Awards:

TUBITAK MRC Research Award for Outstanding Contributions to Science and Engineering of Two Dimensional Materials (2016)

13. Mustafa Nevzat Eczacılık Ödülü "Nanotüp İçeren İlaç Taşıyıcı Sistemler Üzerine Çalışmalar" Dr. Ecz. Sibel İlbasımsız Tamer – Prof.Dr. Tuncer Değim. (2012)

Novartis publication award (Third prize, "T. DEĞİM, J. HADGRAFT, S. ILBASMIS, Y. OZKAN, "Prediction of skin penetration using artificial neural network (ANN) modelling", J. Pharm. Sci., 92: 656-664 (2003)"). (2005)

PUBLICATIONS

A. Articles published in international peer-reviewed journals:

- A1. "Oral Active Carbon Quantum Dots for Diabetes", Pharmaceuticals, 2024.
- A2. "A new approach for the treatment of Alzheimer's disease: insulin-quantum dots", Journal of Microencapsulation, 2024.
- A3. "Ferulic acid-loaded aspasomes: A new approach to enhance the skin permeation, anti-aging and antioxidant effects", Journal of Drug Delivery Science and Technology, 2023.
- A4. "The combined use of carbon nanotubes with synthetic ceramics enhances posterolateral fusion: an experimental study in a rat spinal fusion model", Spine Deformity, 2023.
- A5. "Immunomodulatory activities of novel carbon quantum dots on in vitro activated mammalian macrophages", Journal of Materials Research, 2023.
- A6. "Development of composite carbon quantum dots-insulin formulation for oral administration", Journal of Drug Delivery Science and Technology, 2022.
- A7. "Nanodesigning of multifunctional quantum dots and nanoparticles for the treatment of fibrosarcoma", Journal of Microencapsulation, 2022.
- A8. "Formation of quantum water in nanoparticulate systems", Journal of Drug Delivery Science and Technology, 2021.
- A9. "Development of controlled release dexketoprofen tablets and prediction of drug release using artificial neural network (Ann) modelling", Brazilian Journal of Pharmaceutical Sciences, 2020.

- A10. "Anti-aging formulation of rosmarinic acid-loaded ethosomes and liposomes", Journal of Microencapsulation, 2019.
- A11. "Antinociceptive effect of liposomal bupivacaine formulations after intratheadministration in rats", Turkish Journal of Medical Sciences, 2019.
- A12. "Development of Orally Applicable, Combinatorial Drug–Loaded Nanoparticles for the Treatment of Fibrosarcoma", Journal of Pharmaceutical Sciences, 2018.
- A13. "Carbon nanotube membranes to predict skin permeability of compounds", Pharmaceutical Development and Technology, 2017.
- A14. "Development of Interleukin-2 Loaded Chitosan-Based Nanogels Using Artificial Neural Networks and Investigating the Effects on Wound Healing in Rats", AAPS PharmSciTech, 2017.
- A15. "Multiwalled carbon nanotube-chitosan scaffold: Cytotoxic, apoptotic and necrotic effects on chondrocyte cell lines", Current Pharmaceutical Biotechnology, 2017.
- A16. "Assessment of the potential drug-drug interaction between carvedilol and clopidogrel mediated through intestinal P-glycoprotein", Pharmazie, 2016.
- A17. "Stimuli-responsive lipid nanotubes in gel formulations for the delivery of doxorubicin", Colloids and Surfaces B: Biointerfaces, 2016.
- A18. "Release pattern of liposomal bupivacaine in artificial cerebrospinal fluid Yapay Beyin Omurilik Sivisinda Lipozomal Bupivakainin Salinim Profili", Turk Anesteziyoloji ve Reanimasyon Dergisi, 2016.
- A19. "Determination of the impurities in drug products containing montelukast and in silico/in vitro genotoxicological assessments of sulfoxide impurity", Toxicology Letters, 2015.
- A20. "Complement activation by PEG-functionalized multi-walled carbon nanotubes is independent of PEG molecular mass and surface density", Nanomedicine: Nanotechnology, Biology, and Medicine, 2013.
- A21. "A feasible way to use carbon nanotubes to deliver drug molecules: Transdermal application", Expert Opinion on Drug Delivery, 2012.
- A22. "Development of sustained release formulation of an antithrombotic drug and application of fuzzy logic", Pharmaceutical Development and Technology, 2012.
- A23. "Carbon nanotubes for transdermal drug delivery", Journal of Microencapsulation, 2010.
- A24. "Development of controlled release sildenafil formulations for vaginal administration", Drug Delivery, 2008.
- A25. "Evaluation of neuroprotective and anti-fatigue effects of sildenafil", Life Sciences, 2007.
- A26. "Determination of the sildenafil effect on alopecia areata in childhood: An open-pilot comparison study", Journal of Dermatological Treatment, 2006.
- A27. "New tools and approaches for predicting skin permeability", Drug Discovery Today, 2006.
- A28. "A sustained release dosage form of acyclovir for buccal application: An experimental study in dogs", Journal of Drug Targeting, 2006.
- A29. "Oral montelukast treatment of preschool-aged children with acute asthma", Annals of Allergy, Asthma and Immunology, 2006.
- A30. "Rectal and vaginal administration of insulin-chitosan formulations: An experimental study in rabbits", Journal of Drug Targeting, 2005.
- A31. "Charcoal haemoperfusion in a child with amitriptyline poisoning", Nephrology Dialysis Transplantation, 2004.
- A32. "Reverse iontophoresis: A non-invasive technique for measuring blood urea level", Pediatric Nephrology, 2003.
- A33. "Prediction of skin penetration using artificial neural network (ANN) modeling", Journal of Pharmaceutical Sciences, 2003.
- A34. "The use of the corpus cavernosum for the administration of phenobarbital: An experimental study in dogs", International Journal of Pharmaceutics, 2002.
- A35. "pH-Metric logK calculations of famotidine, naproxen, nizatidine, ranitidine and salicylic acid", Farmaco, 2001.
- A36. "Epidermal permeability-penetrant structure relationships: 4, QSAR of permeant diffusion across human stratum corneum in terms of molecular weight, H-bonding and electronic charge", International Journal of Pharmaceutics, 2000.
- A37. "The effects of Azone and capsaicin on the permeation of naproxen through human skin", International Journal of Pharmaceutics, 1999.
- A38. "In vitro percutaneous absorption of fusidic acid and betamethasone 17-valerate across canine skin", Journal of Small Animal Practice, 1999.
- A39. "Skin permeability data: Anomalous results", International Journal of Pharmaceutics, 1998.
- A40. "Effect of ion complexants on the iontophoresis of salbutamol", International Journal of Pharmaceutics, 1998.
- A41. "Enamel fluoride levels after orthodontic band cementation with glass ionomer cement", European Journal of Orthodontics, 1996.

D. Articles published in national peer-reviewed journals:

- D1. "Development and Characterization of Nano-Sized Emulsion Systems Incorporated Polyphenolic Compound for Application through the Skin Deriden Uygulama İçin Polifenolik Bileşik İçeren Nano Boyutlu Emülsiyon Sistemlerinin Geliştirilmesi ve Karakterizasyonu", Fabad Journal of Pharmaceutical Sciences, 2022.
- D2. "Prediction of treatment cost by artificial neural network of patients with COVID-19 in intensive care unit Yoğun bakım ünitesindeki COVID-19 hastalarının yapay sinir ağ ile tedavi maliyetinin tahmini", Turk Hijyen ve Deneysel Biyoloji Dergisi, 2022.
- D3. "Cheap, suitable, predictable and manageable nanoparticles for drug delivery: Quantum dots", Current Drug Delivery, 2013.
- D4. "Carbon nanotubes to deliver drug molecules", Journal of Biomedical Nanotechnology, 2010.
- D5. "Controlled delivery of peptides and proteins", Current Pharmaceutical Design, 2007.
- D6. "Transdermal administration of bromocriptine", Biological and Pharmaceutical Bulletin, 2003.
- D7. "Intracavernous application of diazepam: An alternative route of the seizure treatment - An experimental study in rabbits", Pediatrics International, 2002.