

## Asst. Prof. Buket BAKAN

### Personal Information

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### International Researcher IDs

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### Education Information

Post Doctorate, Institute for Medical Research and Occupational Health, Analytical Toxicology and Mineral Metabolism Unit, Croatia 2022 - Continues

Doctorate, Ege University, Fen Bilimleri Enstitüsü, Turkey 2013 - 2019

### Certificates, Courses and Trainings

Quality Management, GLP Course, VISION, 2022

Other, EuroNano Forum, Portugal.EU, 2021

Vocational Training, Contemporary Refinement Research, its Application in Practice, and Future Directions, Johns Hopkins Center for Alternatives to Animal Testing (CAAT), 2021

Vocational Training, Nanosafety/Econanotoxicity and Regulatory Aspects of Nanoproducts, The Energy and Resources Institute, 2021

Vocational Course, Chemical Security Fundamentals Training/ Kimyasal Güvenliğinin Temelleri Eğitimi, Lawrence Livermore Ulusal Laboratuvarları (LLNL)-Türk Toksikoloji Derneği, 2020

Vocational Training, Good Laboratory Practice (GLP)-İyi Laboratuvar Uygulamaları Eğitimi (ILU), Türk Akreditasyon Kurumu (TÜRKAK), 2020

Vocational Course, 22. Ege Onkoloji Günleri, Onkolojide Yeni Tedavi Arayışları Sempozyumu, Onkoloji Kursu, Ege Üniversitesi, 2020

Vocational Training, Laboratory Animal Science Certificate/ FELASA B, KU Leuven University, 2018

Vocational Course, Protein Kromatografisi ve Yeni Nesil Polimerik Sistemler, Hacettepe Üniversitesi, 2016

Quality Management, TS EN ISO: IEC 17025-2012 Deney/Kalibrasyon Laboratuvarları için Genel Şartlar Eğitimi, Türkak, 2016

Vocational Course, "In vivo Imaging" Uygulamalı Kanser Görüntüleme Kursu, Ege Üniversitesi, 2015

Vocational Course, Deney Hayvanları Kullanım Sertifikası, Yeditepe Üniversitesi, 2015

Vocational Course, İleri Yaşam Bilimleri Kursu, Bursa Uludağ Üniversitesi, 2014

### Research Areas

Life Sciences, Biotechnology, Biomaterial, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Ataturk University, Fen Fakültesi, Moleküler Biyoloji ve Genetik, 2020 - Continues  
Researcher, Katholieke Universiteit Leuven, 2018 - 2019

## Academic and Administrative Experience

Birim Stratejik Plan Komisyonu Üyesi, Ataturk University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, 2021 - Continues  
Bölüm Tanıtım ve Mezunlarla İlişkiler Komisyonu Üyesi, Ataturk University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, 2021 - Continues  
Bölüm Stratejik Plan Komisyonu Üyesi, Ataturk University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, 2021 - Continues  
Bölüm Kalite Komisyonu Üyesi, Ataturk University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, 2021 - Continues  
Anabilim Dalı Akademik Kurul Üyesi, Ataturk University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, 2021 - 2022  
Deputy Head of Department, Ataturk University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, 2021 - 2022

## Jury Memberships

Post Graduate, Post Graduate, Erzurum Teknik Üniversitesi, December, 2021

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

- I. **Science-based evidence on pathways and effects of human exposure to micro- and nanoplastics**  
Bakan B.  
ARHİV ZA HIGIJENU RADA I TOKSIKOLOGIJI, vol.75, pp.1-14, 2024 (SCI-Expanded)
- II. **Receptor mediated targeting of EGF-conjugated alginate-PAMAM nanoparticles to lung adenocarcinoma: 2D/3D in vitro and in vivo evaluation.**  
Ilhan-Ayisigi E., Saglam-Metiner P., Sancı E., Bakan B., Yıldırım Y., Buhur A., Yavasoglu A., Yavasoglu N. U. K., Yesil-Celiktas O.  
International journal of biological macromolecules, vol.261, no.Pt 1, pp.129758, 2024 (SCI-Expanded)
- III. **Impact of a Polymer-Based Nanoparticle with Formoterol Drug as Nanocarrier System In Vitro and in an Experimental Asthmatic Model**  
Bakan B.  
TOXICS, vol.11, no.974, pp.1-15, 2023 (SCI-Expanded)
- IV. **L-glutamic acid-g-poly hydroxyethyl methacrylate nanoparticles: acute and sub-acute toxicity and biodistribution potential in mice**  
BAKAN B., OLTULU F., YILDIRIM Y., YAVAŞOĞLU A., AKGÖL S., KARABAY YAVAŞOĞLU N. Ü.  
ARHİV ZA HIGIJENU RADA I TOKSIKOLOGIJI-ARCHIVES OF INDUSTRIAL HYGIENE AND TOXICOLOGY, vol.74, no.3, pp.207-217, 2023 (SCI-Expanded)
- V. **Preparation of a Tc-99m-labeled graft polymer and its in vitro and in vivo evaluation**  
Avcibasi U., Turkyasar T., Karadag A., Bakan B., Yavasoglu N. U. K., Kusat K., AKGÖL S., GÜLCEMAL D., Tekin V., BİBER MÜFTÜLER F. Z., et al.  
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.329, pp.511-525, 2021 (SCI-Expanded)
- VI. **Acute and chronic exposure to air pollution in relation with incidence, prevalence, severity and mortality of COVID-19: a rapid systematic review.**  
Katoto P. D. M. C., Brand A. S., Bakan B., Obadia P. M., Kuhangana C., Kayembe-Kitenge T., Kitenge J. P., Nkulu C. B. L., Vanoorbeek J., Nawrot T. S., et al.  
Environmental health : a global access science source, vol.20, pp.41, 2021 (SCI-Expanded)
- VII. **Synthesis, characterization and toxicity assessment of a new polymeric nanoparticle, L-glutamic acid-g-p(HEMA)**  
Bakan B., GÜLCEMAL S., AKGÖL S., Hoet P. H. M., Yavasoglu N. U. K.

- CHEMICO-BIOLOGICAL INTERACTIONS, vol.315, 2020 (SCI-Expanded)
- VIII. **Synthesis, characterization, toxicity and in vivo imaging of lysine graft polymeric nanoparticles**  
Bakan B., Kayhan C. T., Karayildirim C. K., DAĞDEVİREN M., GÜLCEMAL S., YILDIRIM Y., AKGÖL S., Yavasoglu N. U. K.  
JOURNAL OF POLYMER RESEARCH, vol.26, no.10, 2019 (SCI-Expanded)
- IX. **Deciphering the biochemical similarities and differences among mouse embryonic stem cells, somatic and cancer cells using ATR-FTIR spectroscopy**  
Guler G., Acikgoz E., Yavasoglu N. U. K., Bakan B., Goormaghtigh E., AKTUĞ H.  
ANALYST, vol.143, no.7, pp.1624-1634, 2018 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Cytotoxicity and genotoxicity evaluations of oleic acid and conjugated linoleic acid**  
Kizilsahin S., KÖKSAL KARAYILDIRIM Ç., BAKAN B., NALBANTSOY A., KARABAY YAVAŞOĞLU N. Ü.  
ISTANBUL JOURNAL OF PHARMACY, vol.52, no.1, pp.14-19, 2022 (ESCI)
- II. **Graphosoma (Graphosomella) inexpectatum, a new record for the fauna of Turkey (Hemiptera, Pentatomidae, Podopinae).**  
Bakan N. B., Koçak M. K.  
Cesa News, vol.85, pp.1-7, 2013 (Peer-Reviewed Journal)
- III. **Cerocoma festiva in Van Province of East Turkey (Meloidae, Coleoptera).**  
Bakan N. B., Koçak M. K., Koçak A. Ö.  
Cesa News, vol.83, pp.4-7, 2012 (Peer-Reviewed Journal)
- IV. **Oxycarenus pallens (H.-S.) in Van Province (East Turkey) (Hemiptera, Lygaeidae)**  
Bakan B., Koçak M. K.  
Cesa News, vol.85, pp.1-5, 2011 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Toxicity of Nanomaterials**  
Bakan N. B., Karabay Yavaşoğlu N. Ü.  
in: NANOMATERIALS: FUNDAMENTALS AND APPLICATIONS, Sinan AKGÖL, Editor, Palme Yayın Dağıtım, Ankara, pp.151-181, 2018
- II. **Environmental and Health Effects of Nanomaterials.**  
Bakan N. B., Karabay Yavaşoğlu N. Ü.  
in: Nanomaterials: Fundamentals and Applications, Sinan Akgöl, Editor, Palme Yayın Dağıtım, Ankara, pp.163-181, 2018

## Refereed Congress / Symposium Publications in Proceedings

- I. **IN VIVO EFFICACY TESTING OF NANODRUGS FOR PARKINSON'S DISEASE TREATMENT**  
Bakan B.  
INTERNATIONAL CONFERENCE RECENT ACHIEVEMENTS IN NANOTECHNOLOGY 10TH ANNIVERSARY OF BIONANOTECHNO CENTER UNIVERSITY OF BIAŁYSTOK, Białystok, Poland, 28 - 31 May 2023, pp.46
- II. **Preparation And In Vitro Evaluation Of L-Lysine Grafted PHEMA Membranes For Potential Use As Drug Delivery Systems**  
Bakan B., Aksu D., Kuşat K., Akgöl S., Karabay Yavaşoğlu N. Ü.  
KOMPEGE, Antalya, Turkey, 4 - 06 November 2021, pp.1-2
- III. **Dual Drug Loaded Solid Lipid Nanoparticles for Glioblastoma Therapy via Intranasal Route: Toxicological and Pharmacokinetic Studies**

- Ak G., Bakan N. B., Karabay Yavaşoğlu N. Ü., Şanlıer Ş.  
International Joint Science Congress of Materials and Polymers, Priştine, Kosovo, 12 - 14 September 2019, pp.1-2
- IV. **In vitro toxic effects of L-glutamic acid-g-p( HEMA) polymeric nanoparticle**  
Bakan N. B., Gülcemal S., Akgöl S., Hoet P., Karabay Yavaşoğlu N. Ü.  
54th Congress of the European-Societies-of-Toxicology (EUROTOX) , Brussels, Belgium, 2 - 05 September 2018, vol.295, pp.210-211
- V. **In Vivo Evaluation of Magnetic Targeted and Ultrasound Mediated Nanobubble System For Iv Injection and/or Inhaler Application For Use In Lung Cancer Treatment In Tumor Bearing Mice**  
Şanlıer Ş., Ak G., Bakan N. B., Karabay Yavaşoğlu N. Ü.  
The Second Japan-Turkey International Symposium on Pharmaceutical and Biomedical Sciences, Trabzon, Turkey, 11 - 12 September 2017, pp.1-2
- VI. **Determination of the Effect of Polymeric Nanoparticle in Biological Samples with ATR-FTIR Spectroscopy**  
Bakan N. B.  
, 3rd International Turkish Congress on Molecular Spectroscopy (TURCMOS2017), Muğla, Turkey, 26 - 27 August 2017, pp.140-141
- VII. **In vivo imaging and safety evaluation of Lys-graft-p (HEMA) nanoparticle as drug delivery system**  
Bakan B., Kayhan C. T., Ural F. Z., DAĞDEVİREN M., Karayıldırım C. K., YILDIRIM Y., AKGÖL S., Yavasoglu N. U. K.  
41st FEBS Congress on Molecular and Systems Biology for a Better Life, Kusadasi, Turkey, 3 - 08 September 2016, vol.283, pp.135

## Other Publications

- I. **ADDRESSING OVERLAPPING INFODEMICS: THE AIR POLLUTION-COVID-19 NEXUS**  
Katoto P. D., Brand A. S., Bakan B.  
Other, pp.1-2, 2021

## Patent

Bakan N. B., KERSETİN İLE BASKILANMIŞ POLİMER MALZEME, Patent, CHAPTER A Human Needs, The Invention  
Recourse Number: 201515952 , Standard Registration, 2018

## Memberships / Tasks in Scientific Organizations

Atatürk Üniversitesi, Uluslararasılaşma ve Dijitalleşme Birim Komisyonu, Member, 2021 - Continues, Turkey  
Klinik dışı Araştırmalar Değerlendirme Kurulu, Member of Science Committee, 2021 - Continues, Turkey  
Atatürk Üniversitesi, Akreditasyon Komisyonu, Member, 2021 - Continues, Turkey  
Türk Toksikoloji Derneği, Member, 2019 - Continues, Turkey

## Scientific Refereeing

Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Ataturk University, Turkey, June 2021

## Tasks In Event Organizations

Bakan B., World Congress on Applied Nanotechnology (WCAN 2021), Scientific Congress, Erzurum, Turkey, Kasım 2021  
Kalecik S., Sarıtaş S., Kılıç D., Ünver Y., Nişancı B., Toraman E., Ömeroğlu M. A., Orak T., Taş S., Levet A., et al., 1st

**International Symposium On Recent Advances In Fundamental And Applied Sciences (Isfas-2021), Scientific Congress, Erzurum, Turkey, Eylül 2021**

## **Metrics**

Publication: 23

Citation (WoS): 75

Citation (Scopus): 86

H-Index (WoS): 5

H-Index (Scopus): 5

## **Congress and Symposium Activities**

SINERGY AT THE CHEMISTRY-NANOTECHNOLOGY INTERFACE 2023, Attendee, Zagreb, Croatia, 2023

Nano2Clinic-Synergies for Clinical Translation of nanotechnology in Cancer Therapies, Audience, Zagreb, Croatia, 2023

World Congress on Applied Nanotechnology (W-CAN), Session Moderator, Erzurum, Turkey, 2021

V. International Ege Composite Materials Symposium (KOMPEGE 2021), Attendee, Antalya, Turkey, 2021

V. International Ege Composite Materials Symposium (KOMPEGE 2021), Audience, Antalya, Turkey, 2021

1st INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS-2021), Working Group, Erzurum, Turkey, 2021

1st INTERNATIONAL SYMPOSIUM ON RECENT ADVANCES IN FUNDAMENTAL AND APPLIED SCIENCES (ISFAS-2021), Session Moderator, Erzurum, Turkey, 2021

## **Representation and Promotion Activities**

Institutional Representation, <https://worflebhcdy.org/>, Australia, Gold-Coast, 2021 - 2021

## **Non Academic Experience**

Türk toksikoloji Derneği