

Asst. Prof. AYŞE AK

Personal Information

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Education Information

Doctorate, Anadolu University, Institute Of Science, Turkey 2007 - 2011

Postgraduate, Eskisehir Osmangazi University, Institute Of Health Sciences, Turkey 2003 - 2006

Undergraduate, Eskisehir Osmangazi University, Faculty Of Science And Letters, Department Of Biology, Turkey 1998 - 2002

Dissertations

Doctorate, Buğday çeşitlerinde ağır metal stresinin hücre bölünmesi ve antioksidan enzim seviyeleri üzerine ekotoksikolojik etkileri, Anadolu University, Institute Of Science, 2011

Postgraduate, MCF-7 ve NIH-3T3 hücrelerinde quercetin (3,3',4',5,7 pentohidroksiflavon)'in telomeraz enzim aktivitesi yönünden etkilerinin tamoksifen ile kontrollü olarak değerlendirilmesi, Eskisehir Osmangazi University, Institute Of Health Sciences, 2006

Research Areas

Health Sciences, Natural Sciences

Academic Titles / Tasks

Assistant Professor, Kocaeli University, Kocaeli Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler Ve Teknikler, 2019 - Continues

Assistant Professor, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Biyomedikal Mühendisliği Bölümü, 2012 - 2019

Assistant Professor, Koc University, Faculty Of Science, Department Of Chemistry, 2018 - 2018

Assistant Professor, Bogazici University, Institute Of Biomedical Engineering, 2013 - 2016

Academic and Administrative Experience

Director of Vocational School, Kocaeli University, Kocaeli Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler ve Teknikler, 2021 - Continues

Head of Department, Kocaeli University, Kocaeli Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler ve Teknikler, 2019 - Continues

Assistant Director of Vocational School, Kocaeli University, Kocaeli Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler ve Teknikler, 2019 - 2021

Vice Dean, Erzincan Binali Yildirim University, 2018 - 2019

Head of Department, Erzincan Binali Yildirim University, 2013 - 2016

Head of Department, Erzincan Binali Yildirim University, 2012 - 2015

Courses

TIBBİ TERMİNOLOJİ, Associate Degree
MEDICAL IMAGING TECHNIQUES APPLICATIONS-I, Associate Degree
Fizyoloji, Associate Degree
SAĞLIK HİZMETLERİNDE KALİTE, Associate Degree
Physiology, Associate Degree
EKOLOJİ VE SAĞLIK, Associate Degree
GENETIC AWARENESS, Associate Degree
HUMAN PHYSIOLOGY, Postgraduate

Advising Theses

Ak A., Altuntaş H., Endoparazitoit *Pimpla turionellae* L. (Hymenoptera: Ichneumonidae) venomunun böcek ve memeli hücrelerinde toksikolojik etkilerinin araştırılması, Postgraduate, S.ÇİM(Student), 2018
Ak Can A., Garipcan B., Amino acid conjugated alginate-graphene oxide scaffolds, Postgraduate, E.ŞAHİN(Student), 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Phytochemical profile, antimicrobial, and anti-quorum sensing properties of fruit stalks of *Prunus avium* L.**
Onem E., Sarisu H. C. , Ozaydin A. G. , Muhammed M. T. , AK A.
LETTERS IN APPLIED MICROBIOLOGY, 2021 (Journal Indexed in SCI)
- II. **In Vitro and in Silico Assessment of the Potential of Niaouli Essential Oil as a Quorum Sensing Inhibitor of Biofilm Formation and its Effects on Fibroblast Cell Viability**
ÖNEM E., Soyocak A., MUHAMMED M. T. , AK A.
BRAZILIAN ARCHIVES OF BIOLOGY AND TECHNOLOGY, vol.64, 2021 (Journal Indexed in SCI)
- III. **Protein adsorption, cell viability and corrosion properties of Ti6Al4V alloy treated by plasma oxidation and anodic oxidation**
Bayrak Ö., Ghahramanzadeh Asl H., Ak A.
INTERNATIONAL JOURNAL OF MINERALS METALLURGY AND MATERIALS, vol.27, no.9, pp.1269-1280, 2020 (Journal Indexed in SCI)
- IV. **Photobiomodulation effects on osteogenic differentiation of adipose-derived stem cells**
Bolukbasi Ates G., Ak A., Garipcan B., Gulsoy M.
CYTOTECHNOLOGY, vol.72, no.2, pp.247-258, 2020 (Journal Indexed in SCI)
- V. **Comparison of SBF and DMEM in terms of electrochemical properties of common metallic biomaterials**
Bayrak Ö., Ghahramanzadeh Asl H., Ak A.
Materials and Corrosion, vol.71, no.2, pp.209-221, 2020 (Journal Indexed in SCI)
- VI. **Design, synthesis, and antitumor evaluation of novel methylene moiety-tethered tetrahydroquinoline derivatives**
Hanashalshahaby E. H. A. , Ünaleroğlu C., Ak A., Özgün A., Garipcan B.
Turkish Journal of Chemistry, vol.43, no.6, pp.1552-1569, 2019 (Journal Indexed in SCI)
- VII. **Indocyanine green-mediated photobiomodulation on human osteoblast cells**
Ates G. B. , Ak A., Garipcan B., Gulsoy M.
LASERS IN MEDICAL SCIENCE, vol.33, no.7, pp.1591-1599, 2018 (Journal Indexed in SCI)

- VIII. **Dose-dependent photochemical/photothermal toxicity of indocyanine green-based therapy on three different cancer cell lines**
Ruhi M. K. , Ak A., Gülsoy M.
Photodiagnosis and Photodynamic Therapy, vol.21, pp.334-343, 2018 (Journal Indexed in SCI)
- IX. **DIFFERENT EFFECTS OF HEAVY METALS ON PHYSIOLOGICAL AND BIOCHEMICAL PARAMETERS IN WHEAT VARIETIES**
Ak A, Yucel E.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.27, no.2, pp.1086-1094, 2018 (Journal Indexed in SCI)
- X. **Methylene blue mediated photobiomodulation on human osteoblast cells**
Ates G. B. , Ak A., Garipcan B., Gulsoy M.
LASERS IN MEDICAL SCIENCE, vol.32, no.8, pp.1847-1855, 2017 (Journal Indexed in SCI)
- XI. **Design, synthesis and cytotoxic evaluation of beta-aryl-alpha-dimethoxyphosphoryl-gamma-lactams**
Cinar S., ÜNALEROĞLU C., Ak A., Garipcan B.
MEDICINAL CHEMISTRY RESEARCH, vol.26, no.5, pp.1022-1028, 2017 (Journal Indexed in SCI)
- XII. **Investigation of photobiomodulation potentiality by 635 and 809 nm lasers on human osteoblasts**
Ates G. B. , Ak A., Gulsoy M.
LASERS IN MEDICAL SCIENCE, vol.32, no.3, pp.591-599, 2017 (Journal Indexed in SCI)
- XIII. **Cytotoxic effects of different ICG concentrations and laser parameters on neuroblastoma**
Ak A., Kaya Ö., Cosan D., Gülsoy M.
Acta Physica Polonica A, vol.128, no.2, pp.381-383, 2015 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Endoparazitoid Pimpla turionellae L. (Hymenoptera: Ichneumonidae) venomunun glioblastoma hücreleri üzerindeki sitotoksitesisi**
Çim S., Altuntaş H., Ak A.
Eskişehir Teknik Üniversitesi Bilim ve Teknoloji Dergisi - C Yaşam Bilimleri Ve Biyoteknoloji, vol.9, no.2, pp.219-225, 2020 (Other Refereed National Journals)
- II. **Farklı Hücre Dizilerinde 808 nm Laser Uygulaması ve DNA Sentezi**
Ak A.
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.12, no.3, pp.1301-1306, 2019 (Other Refereed National Journals)
- III. **One health approach to decreasing biodiversity and the problem of emerging zoonotic diseases**
Taştan R., Ak A.
Biological Diversity and Conservation, vol.12, no.3, pp.95-102, 2019 (Journal Indexed in ESCI)
- IV. **One-Step Injectable and Bioreducible Poly(β -Amino Ester) Hydrogels as Controlled Drug Delivery Platforms**
Bingöl H. B. , Altuncu M. S. , Duman F. D. , Ak A., Gülyüz Ü., Yağcı Acar H., Okay O., Avcı Semiz D.
ACS APPLIED POLYMER MATERIALS, vol.1, no.7, pp.1724-1734, 2019 (Journal Indexed in ESCI)
- V. **PC-3 Prostat Kanseri Hücreleri Üzerinde İndosyanin Yeşili Kullanarak Yapılan Fotodinamik Terapinin AO/PI Boyama Testi Sonuçları**
Ruhi M. K. , Ak A., Gülsoy M.
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.0, no.0, pp.10, 2017 (Refereed Journals of Other Institutions)
- VI. **Photodynamic Therapy as a New Treatment Approach in Cancer**
Ak A.
International of Oncology and Cancer Therapy, vol.1, 2016 (Refereed Journals of Other Institutions)
- VII. **Laser Light Induced Cytotoxicity on Normal and Cancer Cell Lines**
Ak A., Bölükbaşı Ateş G., Gülsoy M., Kaya Ö., Solmaz H.
International Journal of Oncology and Cancer Therapy, vol.1, 2016 (Refereed Journals of Other Institutions)

- VIII. **Indocyanine green mediated photodynamic therapy on glioblastoma cells in vitro**
Ak A., Kaya Ö., Turgut Coşan D., Gülsoy M.
International journal of Applied Mathematics, Electronics and Computers, vol.3, no.2, pp.133-135, 2015 (Refereed Journals of Other Institutions)
- IX. **Effects of alkaline salts and acid concentrations in *Tragopogon latifolius***
Yücel E., Ak A., Çoban Z.
Yüzüncü yıl üniversitesi tarım bilimleri dergisi, vol.23, no.3, pp.193-198, 2013 (Refereed Journals of Other Institutions)
- X. **Relationship between Seed Germination and Catalase Enzyme Activity of *Abies taxa* from Turkey**
Ak A., Yücel E., Ayan S.
KASTAMONU UNIVERSITY JOURNAL OF FORESTRY FACULTY, vol.12, no.2, pp.185-188, 2012 (Refereed Journals of Other Institutions)
- XI. **Determining the usage ways and nutrient contents of some wild plants around Kisecik Town Karaman Turkey**
Yücel E., Tapırdamaz A., Yücel Şengün İ., Yılmaz G., Ak A.
Biological Diversity and Conservation, vol.4, no.3, pp.71-82, 2011 (Refereed Journals of Other Institutions)
- XII. **Ecotoxicological effects of heavy metal stress on antioxidant enzyme levels of *Triticum aestivum cv Alpu***
Ak A., Yücel E.
Biological Diversity and Conservation, vol.4, no.3, pp.19-24, 2011 (Refereed Journals of Other Institutions)
- XIII. **Alfa Sinüklein ve Parkinson**
Başaran A., Bayram B., Ak A.
Sendrom, vol.21, no.3, pp.55-63, 2009 (Other Refereed National Journals)

Books & Book Chapters

- I. **Silk as Natural Biopolymer for Tissue Engineering**
Ak A., Bölükbaşı Ateş G.
in: Advanced Surfaces For Stem Cell Research, Ashutosh Tiwari, Bora Garipcan, Lokman Uzun, Editor, John Wiley & Sons, West Sussex, UK , Vermont, pp.381-396, 2016

Refereed Congress / Symposium Publications in Proceedings

- I. **Cytotoxicity of Niaouli Essential Oil On Fibroblast Cells and Inhibition Effect On Virulence Factors of Pa01**
Soyocak A., Önem E., Ak A.
[http://www.utsakcongress.com/Upload/editor/files/utsak20ÖZET20kitabı\(4\).pdf](http://www.utsakcongress.com/Upload/editor/files/utsak20ÖZET20kitabı(4).pdf), Çorum, Turkey, 22 - 23 August 2020, pp.275-276
- II. **Antimicrobial Resistance Problem at the Human Animal Environment Interface and One Health Approach**
Taştan R., Karadenizli A., Ak A.
International Marmara Sciences Congress (IMASCON 2019 Autumn), Kocaeli, Turkey, 1 - 03 November 2019, vol.1263
- III. **In vitro Sensitivity of Three Different Cancer Cell Lines to Indocyanine Green-Based Photodynamic Therapy**
Ruhi M. K. , Ak A., Gülsoy M.
16 th World Congress IPA, Porto, Portugal, 8 - 13 June 2017
- IV. **First Evidence Supporting “Genometastasis Hypothesis” in Co-culture Systems.**
Dal A., Turgut Coşan D., Ak A., Mutlu F.

The European Human Genetics Conference, Vienna, Austria, 27 - 30 May 2017

- V. **PC-3 prostat kanser hücreleri üzerinde indosiyanin yeşili kullanarak yapılan fotodinamik terapinin AO/PI boyama testi sonuçları**
Ruhi M. K. , Ak A., Gülsoy M.
Biyomut 2016, İzmir, Turkey, 3 - 05 November 2016
- VI. **Photodynamic Therapy as a New Treatment Approach in Cancer**
Ak A.
4th International Conference on Oncology (ONCO 'xx16), Kerkira, Greece, 14 - 17 July 2016, vol.1
- VII. **Laser Light Induced Cytotoxicity on Normal and Cancer Cell Lines**
Ak A., Bölükbaşı Ateş G., Solmaz H., Kaya Ö., Gülsoy M.
4th International Conference on Oncology (ONCO 'xx16), Kerkira, Greece, 14 - 17 July 2016
- VIII. **Efficiency of photodynamic therapy using indocyanine green and infrared light on MCF-7 breast cancer cells in vitro**
Ruhi M. K. , Ak A., Gülsoy M.
Optical Methods for Tumor Treatment and Detection: Mechanisms and Techniques in Photodynamic Therapy XXV, California, United States Of America, 13 - 18 February 2016
- IX. **Effects of 635 and 1071 nm laser irradiation on normal fibroblast cell line and glioblastoma cells**
Ak A., Bölükbaşı Ateş G., Solmaz H., Kaya Ö., Gülsoy M.
AFMAT 2015, Antalya, Turkey, 26 - 28 October 2015
- X. **The Effect of Fmoc Amino acid Modification of Reduced Graphene Oxide Ti Surfaces on Osteoblast Functions**
Dönmez E., Nacar F., Ak A., Aslı E., Garıpcan B., Üstündağ Z.
Advanced Materials World Congress, Stockholm, Sweden, 23 - 26 August 2015
- XI. **Cytotoxic Effects of Different ICG Concentrations and Laser Parameters on Neuroblastoma**
Ak A., Kaya Ö., Turgut Coşan D., Gülsoy M.
International Conference on Computational and Experimental Science and Engineering (ICCESEN-2014), Antalya, Turkey, 25 - 29 October 2014
- XII. **Which Particle Sizes and Nutrient Media Should be Used to Identify The Presence of Microorganisms in the Operating Rooms**
Ülgen A. Y. , Yalvarmış S., Ak A.
1st Conference on Medical and Biological Engineering in Bosnia and Herzegovina, Sarajevo, Bosnia And Herzegovina, 13 - 15 March 2015
- XIII. **Controversial effects of low level laser irradiation on the proliferation of human osteoblast**
Gamze B. A. , Ak A., Garıpcan B., Yüksel Ş., Gülsoy M.
Spie, California, United States Of America, 7 - 08 February 2015
- XIV. **Temperature monitored low dose ICG-PDT treatment of neuroblastoma cell lines**
Kaya Ö., Ak A., Gülsoy M.
IEEE Conference Publication, İstanbul, Turkey, 16 - 17 October 2014
- XV. **Meme Kanseri Hücre Dizisi Üzerine Metilen Mavisi ile fotodinamik Terapi Uygulamasının Etkileri**
Bölükbaşı Ateş G., Ak A., Garıpcan B., Gülsoy M.
BİYOMUT 2014, İstanbul, Turkey, 16 - 17 October 2014
- XVI. **809 nm Laser Biyo-Uyarımı ile Fibroblast Hücre Canlılığının ve Proliferasyonunun İncelenmesi**
Solmaz H., Bölükbaşı Ateş G., Ak A., Gülsoy M., Ülgen A. Y.
BİYOMUT 2014, İstanbul, Turkey, 16 - 17 October 2014
- XVII. **Ameliyathanelerde Mikroorganizmalar Hangi Boyutlarda ve Hangi Besi Ortamlarında İzlenmeli?**
Yalvarmış S., Ak A., Ülgen A. Y.
BİYOMUT2014, İstanbul, Turkey, 16 - 17 October 2014
- XVIII. **Indocyanine green-mediated photodynamic therapy on glioblastoma cells in vitro**
Ak A., Kaya Ö., Turgut Coşan D., Gülsoy M.
International Conference on Advanced Technology and Sciences, Antalya, Turkey, 12 - 15 August 2014
- XIX. **Arpa Çeşitlerinde Ağır Metal Stresinin Antioksidan Enzim Seviyeleri Üzerine Ekotoksikolojik Etkileri**

Ak A., Yücel E.

22.Ulusal Biyoloji Kongresi, Eskişehir, Turkey, 23 - 27 June 2014

XX. Anti-proliferative effects of parasitoid venom on rat glioblastoma cells

Ak A., Altuntaş H., Turgut Coşan D., Ergin E.

EACR- Sponsored 2nd Anticancer Agents Congress and 5th Multidisciplinary Cancer Research Congress, Muğla, Turkey, 23 - 27 April 2014

XXI. Inhibition of Neuroblastoma Cell Proliferation with Wasp Venom: An In Vitro Study

Ak A., Altuntaş H., Turgut Coşan D.

EACR- Sponsored 2nd Anticancer Agents Congress and 5th Multidisciplinary Cancer Research Congress, Muğla, Turkey, 23 - 27 April 2014

Supported Projects

AK A., YAZIR Y., HALBUTOĞULLARI Z. S. , ÖNEM E., TAŞTAN R., SOYOCAK A., Project Supported by Higher Education Institutions, Yara Modeli Oluşturulan Normal ve Diyabetik Dermal Fibroblast Hücre Dizilerinde COG133 Peptidinin İnflamasyonda Etkili miRNA146a Ekspresyonu Üzerinden TRAF6, NF-KB, IL6 ve ApoE Ekspresyonuna Etkisi ve Antibakteriyel Aktivitesi, 2021 - Continues

Citations

Total Citations (WOS):53

h-index (WOS):5