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International Researcher IDs

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Education Information

Doctorate, Dokuz Eylul University, Department Of Hemodialysis, Turkey 2016 - 2022

Postgraduate, Aksaray University, Faculty Of Science And Letters, Department Of Biotechnology And Molecular Biology, Turkey 2014 - 2016

Undergraduate, Sivas Cumhuriyet University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, Turkey 2010 - 2014

Foreign Languages

English, B2 Upper Intermediate

Research Areas

Molecular Biology and Genetics, Molecular Biology of Cancer, Natural Sciences

Academic Titles / Tasks

Assistant Professor, Sivas Cumhuriyet University, Fen Fakültesi, Biyokimya Bölümü, 2023 - Continues

Research Assistant, Sivas Cumhuriyet University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, 2017 - 2023

Research Assistant, Dokuz Eylul University, İzmir Uluslararası Biyotıp Ve Genom Enstitüsü, Moleküler Biyoloji ve Genetik, 2020 - 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Wild-type IDH1 Knockout Leads to G0/G1 Arrest, Impairs Cancer Cell Proliferation, Altering Glycolysis, and the TCA Cycle in Colon Cancer**
Atalay E., ŞENTÜRK Ş., AYAR KAYALI H.
Biochemical Genetics, vol.61, no.4, pp.1470-1486, 2023 (SCI-Expanded)
- II. **The elevated D-2-hydroxyglutarate level found as a characteristic metabolic change of colon cancer in both in vitro and in vivo models**
Atalay E., Kayali H. A.
BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol.627, pp.191-199, 2022 (SCI-Expanded)
- III. **Synthesis and characterization of thiosemicarbazone-functionalized organoruthenium (II)-arene**

complexes: Investigation of antitumor characteristics in colorectal cancer cell lines

Subasi E., Atalay E., Erdogan D., Sen B., Pakyapan B., Kayali H. A.

MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.106, 2020 (SCI-Expanded)

- IV. **Isolation and identification of chitin from heavy mineralized skeleton of *Suberea clavata* (Verongida: Demospongiae: Porifera) marine demosponge**
Ehrlich H., Bazhenov V. V., Debitus C., de Voogd N., Galli R., Tsurkan M. V., Wysokowski M., Meissner H., Bulut E., Kaya M., et al.
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.104, pp.1706-1712, 2017 (SCI-Expanded)
- V. **In situ chitin isolation from body parts of a centipede and lysozyme adsorption studies**
Bulut E., Sargin I., Arslan O., Odabasi M., Akyuz B., Kaya M.
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.70, pp.552-563, 2017 (SCI-Expanded)
- VI. **Chitosan nanofiber production from *Drosophila* by electrospinning**
Kaya M., Akyuz B., Bulut E., Sargin I., Eroglu F., Tan G.
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.92, pp.49-55, 2016 (SCI-Expanded)
- VII. **Three-dimensional chitin rings from body segments of a pet diplopod species: Characterization and protein interaction studies**
Kaya M., Mulercikas P., Sargin I., Kazlauskaite S., Baublys V., Akyuz B., Bulut E., Tubelyte V.
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.68, pp.716-722, 2016 (SCI-Expanded)
- VIII. **GENDER INFLUENCES DIFFERENTIATION OF CHITIN AMONG BODY PARTS**
Kaya M., Bulut E., Mujtaba M., Sivickis K., Sargin I., Akyuz B., Erdogan S.
ARCHIVES OF INSECT BIOCHEMISTRY AND PHYSIOLOGY, vol.93, no.2, pp.96-109, 2016 (SCI-Expanded)
- IX. **DNA interaction, antitumor and antimicrobial activities of three-dimensional chitosan ring produced from the body segments of a diplopod**
Kaya M., Akyuz B., Bulut E., Sargin I., Tan G., Erdonmez D., Maheta M., Satkauskas S., Mickevicius S.
CARBOHYDRATE POLYMERS, vol.146, pp.80-89, 2016 (SCI-Expanded)
- X. **Novel three-dimensional cellulose produced from trunk of *Astragalus gummifer* (Fabaceae) tested for protein adsorption performance**
Kaya M., Odabasi M., Mujtaba M., Sen M., Bulut E., Akyuz B.
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.62, pp.144-151, 2016 (SCI-Expanded)
- XI. **Fluctuation in physicochemical properties of chitins extracted from different body parts of honeybee**
Kaya M., Mujtaba M., Bulut E., Akyuz B., Zelencova L., Sofi K.
CARBOHYDRATE POLYMERS, vol.132, pp.9-16, 2015 (SCI-Expanded)
- XII. **First chitin extraction from *Plumatella repens* (Bryozoa) with comparison to chitins of insect and fungal origin**
Kaya M., Baublys V., Satkauskiene I., Akyuz B., Bulut E., Tubelyte V.
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.79, pp.126-132, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. **Gene expression changes of isocitrate dehydrogenase 1 and isocitrate dehydrogenase 2 affect carcinogenesis and survival probability**
BULUT ATALAY E.
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, vol.14, no.1, pp.370-378, 2024 (Peer-Reviewed Journal)
- II. **Investigation of Energy Metabolism in The Different Tissues of Colon Cancer Xenograft Models Based on The TCA and Cori Cycles and Glycolysis**

Books & Book Chapters

I. The Role of Kinase Inhibitors in Cancer Therapies

Kurşunluoğlu Aydın G., Erdoğan D., Çağatay E., Bulut Atalay E., Güler S., Güngör Y., Ayar Kayalı H.

in: Protein Kinases: Promising Targets for Anticancer Drug Research, Singh Rajesh K., Editor, IntechOpen, London, pp.110-142, 2021

Refereed Congress / Symposium Publications in Proceedings

I. INVESTIGATION OF THE RELATIONSHIP BETWEEN ISOCITRATE DEHYDROGENASE-1 AND SOME ENZYMES INVOLVED IN VARIOUS SIGNAL TRANSMISSION PATHWAYS

BULUT ATALAY E., Topçu İ.

INTERNATIONAL CONGRESS ON ADVANCED RESEARCH AND APPLICATIONS, Turkey, 1 - 02 December 2023

II. EDITING THE GENETIC STRUCTURE OF FOOD USING CRISPR TECHNOLOGY

BULUT ATALAY E.

ICONFOOD'23 2nd International Congress on Food Researches, Turkey, 16 - 18 October 2023

III. Metabolite Determination in Cancer Cells

BULUT ATALAY E.

SIVAS II. International Conference on Scientific and Innovation Research, Turkey, 15 - 17 September 2023

IV. TARGETING THE REPROGRAMMED METABOLIC PATHWAYS IN CANCER

BULUT ATALAY E.

ULUSLARARASI DİSİPLİNLERARASI KADIN AKADEMİSYENLER KONGRESİ, Turkey, 13 January 2023

V. The enzymes role in the 2-Hydroxyglutarate production

BULUT ATALAY E.

4th International Conference on Applied Engineering and Natural Sciences, Konya, Turkey, 10 November 2022

VI. GENERATION OF R132H POINT MUTATION BY CRISPR/Cas9 METHOD IN COLON CANCER CELL LINE

BULUT ATALAY E., AYAR KAYALI H., ŞENTÜRK Ş.

3rd International Cancer and Ion Channels Congress (CANCERION-2021), İstanbul, Turkey, 16 - 18 September 2021, vol.46, pp.61-62

VII. Generation of cell models using CRISPR/Cas9-based gene therapy to study molecular functions of IDH in colorectal cancer

BULUT ATALAY E., AYAR KAYALI H., ŞENTÜRK Ş., çakıroğlu e.

BIO Turkey(2021) International Biotechnology Congress, İstanbul, Turkey, 9 - 11 September 2021, pp.101-104

VIII. Determination of Glucose, Pyruvate, α -Ketoglutarate, Citrate, Succinate, Fumarate, Malate, Oxaloacetate and 2HG Levels in vitro by Using High Performance Liquid Chromatography Method

BULUT ATALAY E., AYAR KAYALI H.

14th International Scientific Conference Vital Nature Sign 2020, Kaunas, Lithuania, 15 - 16 October 2020

IX. Investigation of antitumor activity of organoruthenium (II)-arene complexes coordinated with thiosemicarbazones synthesized in colorectal cancer cell lines

erdoğan d., BULUT ATALAY E., SUBAŞI E., AYAR KAYALI H.

7th International BAU Drug Design Congress, 19 - 21 December 2019

X. Development of a Colon PDX Model to Analyze the Effect of a Point Mutation in Metabolism

BULUT ATALAY E., ELLİDOKUZ E. B., Meuwissen R., AYAR KAYALI H.

2nd INTERNATIONAL CANCER AND ION CHANNELS CONGRESS, 22 - 24 September 2019

XI. Investigation of Metabolite Levels in TCA Cycle and Glycolysis in Colon Cancer Cell Lines

BULUT ATALAY E., AYAR KAYALI H.

2nd INTERNATIONAL CANCER AND ION CHANNELS CONGRESS, 22 - 24 September 2019

XII. Production of Three-Dimensional Chitin and It's Potential Application Areas

BULUT ATALAY E., KAYA M.

2nd International congress on the world of technology and advanced materials (WITAM), 28 September 2016 - 02 October 2017

XIII. Macroalgal Bloom Biomass for Congo Red Removal: Equilibrium, Kinetic, Thermodynamic and Competitor Ions Effects Studies

SARGIN İ., KAYA M., yılmaz b., BULUT ATALAY E., ARSLAN G.

ECOLOGY 2017 INTERNATIONAL SYMPOSIUM, 11 - 13 May 2017

XIV. Recycling and physicochemical characterization of pomegranate waste peels into a green material (cellulose)

mujtaba m., KAYA M., BULUT ATALAY E., akyüz b.

International conference on Natural Science and Engineering (ICNASE'16), 19 - 20 March 2016

Supported Projects

Bulut Atalay E., Topçu İ., TUBITAK Project, İzositrat Dehidrogenaz-1 Enzimi ile WNT ve MAPK Yolaklarında Rol Alan Bazı Enzimlerin İlişkisinin İncelenmesi, 2024 - 2025

Bulut Atalay E., Yıldız F., TUBITAK Project, İzositrat Dehidrogenaz-1 enzimi ile Fosfatidilinositol 3-kinaz ve Transform edici büyüme faktörü beta yolaklarında Rol Alan Bazı Enzimlerin İlişkisinin İncelenmesi, 2024 - 2025

Bulut Atalay E., TUBITAK Project, Yabancıl Tip İzositrat Dehidrogenaz 1 Enziminin D-2-Hidroksiglutarat Üretiminde Etkilediği Yolakların Proteomik Yöntemlerle İncelenmesi, 2024 - 2025

Bulut Atalay E., Akkaya B., Project Supported by Higher Education Institutions, Kitosan- Histidin-Bakır kompleksinin sentezi, karakterizasyonu ve glioma hücrelerinin proliferasyon ve migrasyonu üzerine etkilerinin araştırılması, 2023 - 2024

Bulut Atalay E., Project Supported by Higher Education Institutions, Epitelyal Mezenkimal Değişim Mekanizmasının İzositrat Dehidrogenaz Enzimi ile İlişkisinin Kolon Adenokarsinoma Hücre Modelleri Üzerinde İncelenmesi, 2023 - 2024

Bulut Atalay E., Ayar Kayalı H., TUBITAK Project, Investigation of Metabolite Levels in TCA Cycle and Glycolysis Path in Colon Cancer Cell Lines at Different Stages by HPLC Method, 2019 - 2020

Subaşı E., Ayar Kayalı H., TUBITAK Project, 'New Thiosemicarbazone Ligands and Ruthenium (II / III) Complexes: Synthesis, Characterization and Investigation of Anticancer Properties, 2017 - 2018

Kaya M., Project Supported by Higher Education Institutions, ÇIYANIN FARKLI VÜCUT KISIMLARINDAN ORJİNAL YAPI KORUNARAK BİYOTEKNOLOJİK UYGULAMALAR İÇİN İKİ VE ÜÇ BOYUTLU NANO KİTİN ÜRETİMİ, 2016 - 2016

Erdoğan S., Kaya M., TUBITAK Project, Conversion species of invasive grasshopper (*Dociostaurus maroccanus*) to chitin and chitosan that are techological product, 2014 - 2015

Metrics

Publication: 29

Citation (WoS): 234

Citation (Scopus): 272

H-Index (WoS): 9

H-Index (Scopus): 9

Scholarships

2211-A Genel Yurt İçi Doktora Burs Programı, TUBITAK, 2019 - 2022

Awards

Bulut Atalay E., Şentürk Ş., Ayar Kayalı H., certificate of best oral presentation, International Biotechnology Congress, September 2021

Bulut Atalay E., Şentürk Ş., Ayar Kayalı H., En İyi Sözlü Sunum Üçüncülük Ödülü, 3.Uluslararası Kanser Ve İyon Kanalları Kongresi, September 2021

Bulut Atalay E., Ellidokuz E. B., Meuwissen R. L. J., Ayar Kayalı H., Development of a Colon PDX Model to Analyze the Effect of a Point Mutation in Metabolism, 2Nd International Cancer And Ion Channels Congress, September 2019