Lect. FATMA ECE ALTINIŞIK KAYA

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Biography

In 2014, I started my master's education in the Department of Bioengineering at Marmara University. In February 2016, I started to work as a teaching assistant in Marmara University Bioengineering Department. In 2017, I completed my master's degree with the thesis titled "Understanding alkaliphilic adaptation of *Bacillus marmarensis* sp. nov. using omic tools". In 2018, I started my PhD studies at Marmara University, Department of Bioengineering. In April 2024, I successfully passed my thesis defense and was awarded the title of PhD. Since then, I have been active in the field of education through the teaching of various courses and I continue my academic studies in the same department.

Education Information

Doctorate, Marmara University, Institute For Graduate Studies İn Pure And Applied Sciences, Department Of Bioengineering (Eng), Turkey 2018 - 2024
Doctorate, Eberhard Karls Universitaet Tübingen, Faculty of Science , Computational Systems Biology, Germany 2022 - 2023
Postgraduate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Biyomühendislik (Yl) (Tezli), Turkey 2014 - 2017
Undergraduate, Marmara University, Faculty of Engineering, Bioengineering, Turkey 2010 - 2014

Foreign Languages

English, C1 Advanced

Dissertations

Postgraduate, Understanding alkaliphilic adaptation of B. marmarensis sp. nov. using proteomic tools, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Bioengineering (Eng), 2017

Research Areas

Research Areas

Engineering and Technology

Academic Titles / Tasks

Lecturer PhD, Marmara University, Faculty Of Engineering, Bioengineering, 2016 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Can Genome Sequencing Coupled to Flux Balance Analyses Offer Precision Guidance for Industrial Strain Development? The Lessons from Carbon Trafficking in Corynebacterium glutamicum ATCC 21573**
Kurpejović E., Wibberg D., Bastem G. M., Burgardt A., Busche T., Kaya F. E., Dräger A., Wendisch V. F., Akbulut B. S.
Omics : a journal of integrative biology, vol.27, no.9, pp.434-443, 2023 (SCI-Expanded)

II. **Can DapC be the missing aminotransferease in the arogenate route of L-tyrosine biosynthesis in Corynebacterium glutamicum?**
ALTINIŞIK KAYA F. E., Kurpejovic E., Burgardt A., Wendisch V. F., SARIYAR AKBULUT B.
FEBS OPEN BIO, vol.12, pp.180-181, 2022 (SCI-Expanded)

III. **Identification of novel inhibitors of the ABC transporter BmrA**
Serçinoğlu O., Senturk D., Altinisik K., Avci F., Frlan R., Tomašič T., Ozbek P., Orelle C., Jault J., Sariyar A.
BIOORGANIC CHEMISTRY, vol.105, 2020 (SCI-Expanded)

IV. **What Are the Multi-Omics Mechanisms for Adaptation by Microorganisms to High Alkalinity? A Transcriptomic and Proteomic Study of a Bacillus Strain with Industrial Potential**
ALTINIŞIK KAYA F. E., Avci F. G., SAYAR N. A., KAZAN D., SAYAR A. A., SARIYAR AKBULUT B.
OMICS-A JOURNAL OF INTEGRATIVE BIOLOGY, vol.22, no.11, pp.717-732, 2018 (SCI-Expanded)

V. **Targeting a hidden site on class A beta-lactamases**
Avci F. G., ALTINIŞIK KAYA F. E., Karacan I., Karagoz D. S., Ersahin S., Eren A., SAYAR N. A., Ulu D. V., ÖZKIRIMLI ÖLMEZ E., SARIYAR AKBULUT B.
JOURNAL OF MOLECULAR GRAPHICS & MODELLING, vol.84, pp.125-133, 2018 (SCI-Expanded)

VI. **Transcriptomic analysis displays the effect of (-)-roemerine on the motility and nutrient uptake in Escherichia coli**
Ayyildiz D., ARĞA K. Y., Avci F. G., ALTINIŞIK KAYA F. E., Gurer C., Toplan G. G., KAZAN D., Wozny K., Bruegger B., MERTOĞLU B., et al.
CURRENT GENETICS, vol.63, no.4, pp.709-722, 2017 (SCI-Expanded)

VII. **An evolutionarily conserved allosteric site modulates beta-lactamase activity**
Avci F. G., ALTINIŞIK KAYA F. E., Vardar Ulu D., ÖZKIRIMLI ÖLMEZ E., SARIYAR AKBULUT B.
JOURNAL OF ENZYME INHIBITION AND MEDICINAL CHEMISTRY, vol.31, pp.33-40, 2016 (SCI-Expanded)

Articles Published in Other Journals

I. **Evaluation of silibinin as an efflux pump inhibitor in Bacillus subtilis**
Kaya F. E., Atas B., Avci F. G.
International Journal of Secondary Metabolite, vol.8, no.2, pp.104-112, 2021 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

I. **New inhibitors of the BmrA pump identified through virtual screening**
Senturk D., SERÇİNOĞLU O., ALTINIŞIK KAYA F. E., Frlan R., Tomasic T., AVCI F. G., ÖZBEK SARICA P., Orelle C., Jault J. M., SARIYAR AKBULUT B.

MuTaLig COST ACTION CA15135 4th WG meeting, 05 March 2020

II. **Understanding the metabolic reprogramming behind alkaliphilic adaptation in Bacillus marmarensis through a multi-omics data integration strategy**
Altınışık F. E., Arğa K. Y., Kazan D., Sarıyar Akbulut B.
44th FEBS Congress: From molecules to living systems, Krakow, Poland, 6 - 11 July 2019

III. **Understanding alkaliphilic adaptation ofB marmarensis sp nov**
ALTINIŞIK F. E., AVCI F. G., DENİZCİ A. A., KAZAN D., SARIYAR AKBULUT B.
FEBS 2016, 3 - 08 September 2016, vol.283, pp.127-427

IV. **Investigation of proteome profile ofalkaliphilic B marmarensis sp nov underdifferent pH conditions**
ALTINIŞIK F. E., AVCI F. G., DENİZCİ A. A., KAZAN D., SARIYAR AKBULUT B.
FEBS BIOINTERACTOMICS, 17 - 20 May 2016

V. **Mutations of a conserved tryptophan residue of the TEM-1 beta-lactamase**
ALTINIŞIK KAYA F. E., Avci F. G., SARIYAR AKBULUT B., ÖZKIRIMLI ÖLMEZ E., Ulu D. V., Karacan I., Senturk D.
29th Annual Symposium of the Protein-Society, Barcelona, Spain, 22 - 25 July 2015, vol.24, pp.175

Mobility Activity

Research Scholarship Program, Guest Researcher, Eberhard Karls Universitaet Tübingen, Germany, 2022 - 2023

Metrics

Publication: 13
Citation (WoS): 30
Citation (Scopus): 46
H-Index (WoS): 4
H-Index (Scopus): 4