

Res. Asst. HATİCE DUMAN

Personal Information

Email: hatice.duman@comu.edu.tr

Web: <https://avesis.comu.edu.tr/hatice.duman>

Education Information

Undergraduate, Canakkale Onsekiz Mart University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, Turkey 2015 - 2020

Dissertations

Postgraduate, Recombinant production and characterization of a novel N-glycosidase (EndoBI-2) from *Bifidobacterium longum* subsp. *infantis* 157F, Canakkale Onsekiz Mart University, Lisansüstü Eğitim Enstitüsü, Fen Bilimleri Enstitüsü, 2022

Academic Titles / Tasks

Research Assistant, Canakkale Onsekiz Mart University, Fen Fakültesi, Moleküler Biyoloji Ve Genetik, 2024 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Antimicrobial Properties of Colostrum and Milk**
Eker F., Akdaşçı E., Duman H., Yalçıntaş Y. M., Canbolat A. A., Kalkan A. E., KARAV S., Şamec D.
Antibiotics, vol.13, no.3, 2024 (SCI-Expanded)
- II. **Distinguishing Turkish pine honey from multi-floral honey through MALDI-MS-based N-glycomics and machine learning**
Masri S., Aksoy S., DUMAN H., KARAV S., Kayili H. M., SALİH B.
Journal of Food Measurement and Characterization, 2024 (SCI-Expanded)
- III. **Lactoferrin: neuroprotection against Parkinson's disease and secondary molecule for potential treatment.**
Eker F., Bolat E., Pekdemir B., Duman H., Karav S.
Frontiers in aging neuroscience, vol.15, pp.1204149, 2023 (SCI-Expanded)
- IV. **A toolbox of machine learning software to support microbiome analysis**
Marcos-Zambrano L. J., López-Molina V. M., GÜNGÖR B., Frohme M., Karaduzovic-Hadziabdic K., Klammersteiner T., İbrahimi E., Lahti L., Loncar-Turukalo T., Dharmo X., et al.
Frontiers in Microbiology, vol.14, 2023 (SCI-Expanded)
- V. **Release of bifidogenic N-glycans from native bovine colostrum proteins by an endo- β -N-acetylglucosaminidase**
Bunyatratchata A., Parc A. L., de Moura Bell J. M. L. N., Cohen J. L., Duman H., Arslan A., KAPLAN M., Barile D., KARAV S.
Enzyme and Microbial Technology, vol.162, 2023 (SCI-Expanded)
- VI. **Role of milk glycome in prevention, treatment, and recovery of COVID-19**
KAPLAN M., ŞAHUTOĞLU A. S., Saritas S., Duman H., Arslan A., Pekdemir B., KARAV S.

FRONTIERS IN NUTRITION, vol.9, 2022 (SCI-Expanded)

VII. **Immobilization of a Bifidobacterial Endo- α -N-Acetylglucosaminidase to Generate Bioactive Compounds for Food Industry**

Pekdemir B., Duman H., Arslan A., KAPLAN M., Karyelioglu M., ozer T., Kayili H. M., SALİH B., Henrick B. M., Duar R. M., et al.

FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY, vol.10, 2022 (SCI-Expanded)

VIII. **Benefits of A2 Milk for Sports Nutrition, Health and Performance**

KAPLAN M., BAYDEMİR B., GÜNAR B. B., Arslan A., Duman H., KARAV S.

FRONTIERS IN NUTRITION, vol.9, 2022 (SCI-Expanded)

IX. **Production of Bovine Colostrum for Human Consumption to Improve Health**

KAPLAN M., Arslan A., Duman H., Karyelioglu M., BAYDEMİR B., Guenar B. B., Alkan M., Bayraktar A., Tosun H. I., Ertuerk M., et al.

FRONTIERS IN PHARMACOLOGY, vol.12, 2022 (SCI-Expanded)

X. **Determining Total Protein and Bioactive Protein Concentrations in Bovine Colostrum**

Arslan A., Duman H., Kaplan M., Uzkuç H., Bayraktar A., Ertürk M., Alkan M., Frese S. A., Duar R. M., Henrick B. M., et al.

Journal of Visualized Experiments, vol.2021, no.178, 2021 (SCI-Expanded)

XI. **Recombinant Production of Bifidobacterial Endoglycosidases for N-glycan Release**

Sucu B., Bayraktar A., Duman H., Arslan A., KAPLAN M., Karyelioglu M., Ntelitze E., Tastekin T., Yetkin S., Erturk M., et al.

JOVE-JOURNAL OF VISUALIZED EXPERIMENTS, vol.2021, no.173, 2021 (SCI-Expanded)

XII. **Bovine Colostrum and Its Potential for Human Health and Nutrition**

Arslan A., KAPLAN M., Duman H., Bayraktar A., Erturk M., Henrick B. M., Frese S. A., KARAV S.

FRONTIERS IN NUTRITION, vol.8, 2021 (SCI-Expanded)

XIII. **Potential Applications of Endo- β -N-Acetylglucosaminidases From Bifidobacterium longum Subspecies infantis in Designing Value-Added, Next-Generation Infant Formulas**

Duman H., KAPLAN M., Arslan A., ŞAHUTOĞLU A. S., Kayili H. M., Frese S. A., KARAV S.

FRONTIERS IN NUTRITION, vol.8, 2021 (SCI-Expanded)

XIV. **Structural insights of two novel N-acetyl-glucosaminidase enzymes through in silico methods**

ŞAHUTOĞLU A. S., Duman H., Frese S. A., KARAV S.

TURKISH JOURNAL OF CHEMISTRY, vol.44, no.6, pp.1703-1715, 2020 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

I. **Recombinant Production and Characterization of a Novel N-glycosidases (EndoBI-2) from Bifidobacterium longum subsp. infantis 157F**

Duman H., Karav S.

5th International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem), 2022, 23 November 2022, pp.293

II. **Selective Deglycosylation of Therapeutic Proteins via Novel Bifidobacterial Glycosidases**

Sucu B., Bayraktar A., Kaplan M., Arslan A., Duman H., Karyelioglu M., Ntelitze E., Yetkin S., Karav S.

3rd International Eurasian Conference on Biological and Chemical Sciences, İstanbul, Turkey, 19 - 20 March 2020

III. **Comparison of two Novel Endo- β -N-aceylglucosaminidase Enzymes of Bifidobacterium longum subsp. infantis**

Duman H., Karav S., Şahutoğlu A. S.

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

IV. **Use of Human Associated Novel Enzymes to Understand How Lactoferrin Shapes Our Gut Microbiome**

Karav S., Sucu B., Bayraktar A., Pekdemir B., Duman H., Arslan A., Kaplan M.

3rd International Human Microbiome Congress, İstanbul, Turkey, 7 - 09 November 2019

Supported Projects

- Karav S., TUBITAK Project, Farklı Alternatif Protein Kaynaklarından Biyoaktif Glikan Üretimi, 2023 - 2024
- Karav S., TUBITAK Project, Farklı Tekniklerle Aktivitesi Manipüle Edilmiş Yeni Bacteroides ve Bifidobakteri Glikosidazları Yardımıyla Glikanların Glikoproteinlerin Biyolojik Özelliklerine Olan Katkılarının Belirlenmesi, 2019 - 2023
- Karav S., Duman H., TUBITAK Project, A1 Ve A2 Sığır Kolostrum Örneklerinin İn-Vitro Sindirimlerinin Gerçekleştirilmesi Ve Karşılaştırılması, 2021 - 2022
- Karav S., Duman H., TUBITAK Project, Farklı Pastörizasyon Uygulamalarının (Uht, Llt, Htst) A2 Süt Glikan, Laktoferrin Ve Igg Miktarına Etkisinin Araştırılması, 2021 - 2022
- Karav S., Duman H., TUBITAK Project, A1 Ve A2 Sütleri β -Kazein Proteinlerinin Sindirimi Sonucu Elde Edilen Peptitlerin Antimikrobiyal Özelliklerinin Araştırılması, 2021 - 2022
- Karav S., TUBITAK Project, Yeni Endo- β -N-Asetilglukozaminidaz Enzimi Kullanarak Üretilen İlk Seçici Prebiyotik Kaynağı; Glikanlar, 2017 - 2020

Metrics

- Publication: 18
- Citation (WoS): 110
- Citation (Scopus): 114
- H-Index (WoS): 5
- H-Index (Scopus): 5

Scholarships

- 2211/E The Scientific and Technological Research Council of Turkey, TUBITAK, 2023 - Continues
- Visiting Resarcher, Other International Organizations, 2023 - 2023
- 2210 - Yurt İçi Yüksek Lisans Burs Programı, TUBITAK, 2021 - 2022