

## Assoc. Prof. SERCAN KARAV

### Personal Information

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### Education Information

Post Doctorate, University of California, Davis, Food Science And Technology , United States Of America 2015 - 2016

Doctorate, University of California, Davis, Food Science And Technology, United States Of America 2010 - 2015

Postgraduate, Ankara University, Food Engineering, Turkey 2007 - 2009

Undergraduate, Ankara University, Food Engineering, Turkey 2003 - 2007

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Selective Prebiotic Activity of N-glycans Released From Milk Glycoproteins by Novel Endo- $\beta$ -N-acetylglucosaminidase, University of California, Davis, Food Science And Technology, Molecular Biology-Microbiology, 2014

Postgraduate, Farklı türden meyve sularının doğal sorbitol içeriği, Ankara University, Food Engineering, Food Chemistry, 2009

### Research Areas

Life Sciences, Molecular Biology and Genetics, Microbial Genetics, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Canakkale Onsekiz Mart University, Fen Edebiyat Fakültesi, Moleküler Biyoloji Ve Genetik, 2020 - Continues

Other, University of California, Davis, Food Science And Technology, Molecular Biology, 2015 - 2016

### Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

#### I. 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 (Journal Indexed in SCI)

#### II. Biofortified Whey/Deglycosylated Whey and Chickpea Protein Matrices: Functional Enrichment by Black Mulberry Polyphenols

Ozleyen A, Cinar Z. O. , KARAV S., Bayraktar A., Arslan A., Kayili H. M. , SALİH B., TÜMER T.

PLANT FOODS FOR HUMAN NUTRITION, 2021 (Journal Indexed in SCI)

- III. **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, no.173, 2021 (Journal Indexed in SCI)
- IV. **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 (Journal Indexed in SCI)
- V. **Potential Applications of Endo-beta-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 (Journal Indexed in SCI)
- VI. **N-glycans from human milk glycoproteins are selectively released by an infant gut symbiont in vivo**  
KARAV S., Casaburi G., Arslan A., KAPLAN M., Sucu B., Frese S.  
JOURNAL OF FUNCTIONAL FOODS, vol.61, 2019 (Journal Indexed in SCI)
- VII. **Reduced colonic mucin degradation in breastfed infants colonized by *Bifidobacterium longum* subsp. *infantis* EVC001.**  
Karav S., Casaburi G., FRESE S.  
FEBS open bio, vol.8, pp.1649-1657, 2018 (Journal Indexed in SCI)
- VIII. **Thoroughbred mare's milk exhibits a unique and diverse free oligosaccharide profile**  
KARAV S., Salcedo J., Frese S. A. , Barile D.  
FEBS OPEN BIO, vol.8, no.8, pp.1219-1229, 2018 (Journal Indexed in SCI)
- IX. **Immobilization of an Endo-beta-N-acetylglucosaminidase for the Release of Bioactive N-glycans**  
Cohen J. L. , KARAV S., Barile D., Bell J. M. L. N. d. M.  
CATALYSTS, vol.8, no.7, 2018 (Journal Indexed in SCI)
- X. **Selective deglycosylation of lactoferrin to understand glycans' contribution to antimicrobial activity of lactoferrin.**  
Karav S.  
Cellular and molecular biology (Noisy-le-Grand, France), vol.64, pp.52-57, 2018 (Journal Indexed in SCI)
- XI. **Studying Lactoferrin N-Glycosylation**  
KARAV S., German J. B. , Rouquie C., Le Parc A., Barile D.  
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.18, no.4, 2017 (Journal Indexed in SCI)
- XII. **Characterization of recombinant human lactoferrin N-glycans expressed in the milk of transgenic cows.**  
PARC A., Karav S., ROUQUIÉ C., MAGA E., BUNYATRATCHATA A., BARILE D.  
PloS one, vol.12, 2017 (Journal Indexed in SCI)
- XIII. **Recent advances in immobilization strategies for glycosidases.**  
Karav S., COHEN J., BARILE D., de M.  
Biotechnology progress, vol.33, pp.104-112, 2017 (Journal Indexed in SCI)
- XIV. **Oligosaccharides Released from Milk Glycoproteins Are Selective Growth Substrates for Infant-Associated Bifidobacteria.**  
Karav S., Le P., Leite N., FRESE S., KIRMIZ N., BLOCK D., BARILE D., MILLS D.  
Applied and environmental microbiology, vol.82, pp.3622-3630, 2016 (Journal Indexed in SCI)
- XV. **Characterizing the release of bioactive N-glycans from dairy products by a novel endo-β-N-acetylglucosaminidase.**  
Karav S., BELL J., Le P., LIU Y., MILLS D., BLOCK D., BARILE D.  
Biotechnology progress, vol.31, pp.1331-9, 2015 (Journal Indexed in SCI)
- XVI. **A novel endo-β-N-acetylglucosaminidase releases specific N-glycans depending on different reaction conditions.**  
Parc A., Karav S., De M., FRESE S., LIU Y., MILLS D., BLOCK D., BARILE D.

Biotechnology progress, vol.31, pp.1323-1330, 2015 (Journal Indexed in SCI)

XVII. **Kinetic characterization of a novel endo- $\beta$ -N-acetylglucosaminidase on concentrated bovine colostrum whey to release bioactive glycans.**

Karav S., PARC A., de M., ROUQUIÉ C., MILLS D., BARILE D., BLOCK D.

Enzyme and microbial technology, vol.77, pp.46-53, 2015 (Journal Indexed in SCI)

### Articles Published in Other Journals

I. **Understanding of the Contribution of Fetuin O-glycans for the Release of New Bioactive Compounds by a Novel Endo- $\beta$ -N-acetylglucosaminidase**

KARAV S.

KAHRAMANMARAS SUTCU IMAM UNIVERSITY JOURNAL OF NATURAL SCIENCES, vol.21, no.3, pp.286-291, 2018 (Refereed Journals of Other Institutions)

II. **Understanding of the Contribution of Fetuin O-glycans for the Release of New Bioactive Compounds by a Novel Endo-beta-N-acetylglucosaminidase**

Karav S.

KSU TARIM VE DOGA DERGISI-KSU JOURNAL OF AGRICULTURE AND NATURE, vol.21, no.3, pp.286-291, 2018 (Journal Indexed in ESCI)

### Books & Book Chapters

I. **Application of a Novel Endo- $\beta$ -N-Acetylglucosaminidase to Isolate an Entirely New Class of Bioactive Compounds: N-Glycans**

KARAV S.

in: Enzymes in Food Biotechnology Production, Applications, and Future Prospects, , Editor, Elsevier, pp.389-404, 2018

### Refereed Congress / Symposium Publications in Proceedings

I. **Comparison of two Novel Endo- $\beta$ -N-aceylglucosaminidase Enzymes of Bifidobacterium longum subsp. infantis**

DUMAN H., KARAV S., ŞAHUTOĞLU A. S.

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

II. **Immunoglobulin Glikanlarının, Farklı Füzyon Etiketlerle Aktivitesi Değiştirilmiş Glikosidazlarla Ayrımı**

KARAV S.

12. Ulusal Afinite Teknikleri Kongresi, Turkey, 5 - 07 September 2018

III. **N-glycan Release Manipulation of a novel endo- $\beta$ -Nacetylglucosaminidase by Using Genetically Attached Tags**

KARAV S.

6th International MOLECULAR BIOLOGY and BIOTECHNOLOGY CONGRESS, 22 - 25 December 2017

### Supported Projects

KARAV S., Karyelioğlu M., Project Supported by Higher Education Institutions, Pitaya N- Bağlı Glikanlarının Karakterizasyonu ve Potansiyel Prebiyotik Etkisinin in-vitro Koşullarda Belirlenmesi, 2021 - Continues

KARAV S., TUBITAK Project, Farklı Tekniklerle Aktivitesi Manipüle Edilmiş Yeni Bacteroides ve Bifidobakteri Glikosidazları Yardımıyla Glikanların Glikoproteinlerin Biyolojik Özelliklerine Olan Katkılarının Belirlenmesi, 2019 -

## Continues

KARAV S., TUBITAK Project, Yeni Endo- $\beta$ -N-Asetilglukozaminidaz Enzimi Kullanarak Üretilen İlk Seçici Prebiyotik Kaynağı; Glikanlar, 2017 - Continues

KARAV S., Karyelioğlu M., Sucu B., Project Supported by Higher Education Institutions, N-glikozidaz Enzimi ile Spirulina Proteinlerinden Glikanların Ayrımı, Saflaştırılması ve Kantifikasyonu, 2020 - 2021

KARAV S., Ntelitze E., Karyelioğlu M., Project Supported by Higher Education Institutions, Peptidil N-Glikosidaz F (PNGaz F) Enziminin Rekombinant Olarak Üretilmesi ve Karakterizasyonu, 2020 - 2021

TÜMER T., KARAV S., Kulabaş S., Project Supported by Higher Education Institutions, Antiinflamatuvar biyoaktif fenolik bileşiklerin doğal kaynaklardan absorpsiyonunda yenilikçi protein matriks teknolojilerinin geliştirilmesi ve karakterizasyonu, 2017 - 2019

## Citations

Total Citations (WOS):148

h-index (WOS):7