

## Ezgi ÖZCAN

University of Massachusetts  
424 Chenoweth Lab,  
102 Holdsworth Way, Amherst, MA 01003

eoSCAN@foodsci.umass.edu  
selalab.org

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### CURRENT POSITION

Graduate Research Assistant, Department of Food Science, University of Massachusetts Amherst, MA

### EDUCATION

Ph.D. Candidate, Food Science, Department of Food Science, University of Massachusetts Amherst, MA. 2014-now

Graduate Student, Certificate in Advanced Feminist Studies, Women, Gender & Sexuality Studies, University of Massachusetts Amherst, MA. 2017-now

M.S., Biotechnology, Yeditepe University, Istanbul, Turkey. 2014

B.S., Food Engineering, Middle East Technical University (METU), Ankara, Turkey. 2011

### EXPERIENCES

June 2013-Sept 2013-Visitor Student, Antioxidants Research Laboratory, USDA Jean Mayer Human Nutrition Research Center on Aging at Tufts University, Boston, MA

May 2012-May 2014- Research Assistant, PLPWETEA: Value Added Utilization of Black Tea By-Products using Pressurized Low Polarity Water Extraction for the Development of Bioactive Extracts, EU Marie Curie International Reintegration Grant, 2011-2015

Sept 2011-Jan 2014-Teaching Assistant, Food Engineering, Yeditepe University, Turkey

Feb 2011-May 2011-Undergraduate Research Assistant, Growth of yeast in waste beer, Laboratory of Biotechnology, METU, Turkey

June 2010-Sept 2010 -Research Intern, Microbiological Analysis of Goat Milk Samples Collected from the Netherlands, Laboratory of Food Microbiology, Wageningen University and Research Center, the Netherlands

Sept 2009-Feb 2011-Undergraduate Research Assistant, Analysis of potential probiotics in digestive track of *Oncorhynchus mykiss* to improve fish nutrition and health, Laboratory of Biotechnology, METU, Turkey

Aug 2009-Sept 2009-Summer Intern, Kavaklıdere Winery, Turkey

### PUBLICATIONS & PRESENTATIONS

#### Publications

**E. Özcan** and D. A. Sela. Inefficient metabolism of the human milk oligosaccharides lacto-N-tetraose and lacto-N-neotetraose shifts *Bifidobacterium longum* subsp. *infantis* physiology. 2018. *Frontiers in Nutrition*, 5:46. doi.org/10.3389/fnut.2018.00046

**E. Özcan**, R. Levantovsky, and D. A. Sela. In vitro models of host-microbial interactions within the gastrointestinal tract. In *Functional Foods and Beverages: In vitro Assessment of Nutritional, Sensory, and Safety Properties*, N. Bordenave and M. G. Ferruzzi Eds, John Wiley & Sons, Oxford, UK, 2018.

**E. Özcan**, J. Sun, D. C. Rowley, D. A. Sela. *Bifidobacterium longum* utilizes cranberry cell wall xyloglucans in a strain-dependent manner to induce formate secretion. 2017. Applied and Environmental Microbiology, 83:e01097-17. doi:10.1128/AEM.01097-17 (Spotlight in the Issue, Issue Cover)

**E. Özcan** and F. Y. Ekinci. Mechanism underlying the effects of lactic acid bacteria (LAB) on Phenolic Compounds. 2016. International Journal of Food and Biosystems Engineering, 1(1), 7-15.  
Ö. Güçlü-Üstündağ, S. Erşan, **E. Özcan**, G. Özan, N. Kayra, F. Y. Ekinci. Black tea processing waste as a source of antioxidant and antimicrobial phenolic compounds. 2016. European Food Research and Technology, 1-10, doi: 10.1007/s00217-016-2653-9

F.Y Ekinci, G.M Baser, **E. Özcan**, Ö. Güçlü-Üstündağ, M. Korachi, A. Sofu, C-Y O Chen, J.B Blumberg. Characterization of Chemical, Biological and Antiproliferative Properties of Fermented Black Carrot Juice, Shalgam. 2016. European Food Research and Technology, 1-14, doi: 10.1007/s00217-016-2639-7

F. Turrone, **E. Özcan**, C. Milani, L. Mancabelli, A. Viappiani, D. van Sinderen, D. Sela, M. Ventura. Glycan cross-feeding activities between bifidobacteria under in vitro conditions. 2015. Frontiers in Microbiology, 6: 1030. doi: 10.3389/fmicb.2015.01030

#### **Master's Thesis**

**E. Özcan**. Metabolism of Turkish Black Tea Phenolics by Human Gut Microbiota, 2014. Yeditepe University

#### **Selected International Conference Presentations & Proceedings**

**E. Özcan**, M. Hilliard, D. A. Sela. Human milk oligosaccharide isomers differentially influence bifidobacterial physiology within a modeled infant gut microbiome. 2018 International Society for Research in Human Milk and Lactation (ISRHML). October 7-11, 2018, Kanagawa, Japan.

**E. Özcan**, D. A. Sela. *Bifidobacterium longum* subsp. *infantis* utilizes the F6PPK pathway to catabolize human milk oligosaccharides and their derivatives. FASEB 2017 SRC on Origins and Benefits of Biologically Active Components in Human Milk. July 16-21, 2017, Lisbon, Portugal.

**E. Özcan**, D. A. Sela. *Bifidobacterium longum* subsp. *infantis* differentially metabolizes breast milk oligosaccharides as a sole carbohydrate source. Pioneer Valley Microbiology Symposium, January 14, 2017, University of Massachusetts Amherst, MA.

**E. Özcan**, J. Sun, D. C. Rowley, D. A. Sela. Plant cell wall xyloglucans are utilized by human gut colonizing bifidobacteria as a sole carbon source. American Society for Microbiology, Microbe 2016, June 17-20, 2016, Boston, MA.

**E. Özcan**, D. A. Sela. Human-associated bifidobacteria utilize plant cell wall xyloglucans as a sole carbon source. Pioneer Valley Microbiology Symposium, January 14, 2016, University of Massachusetts Amherst, MA.

**E. Özcan**, Ö. Güçlü-Üstündağ, F.Y. Ekinci. Could diet link to changes in gut microbiota? ENGIHR Conference: The Gut Microbiota throughout Life, September 24-26, 2014, Max Rubner-Institut, Karlsruhe, Germany.

#### **Talks**

*Bifidobacterium infantis* differentially catabolizes the human milk oligosaccharides lacto-N-tetraose and lacto-N-neo-tetraose, Nutrition 2018, Boston, MA

*Bifidobacterium longum* subsp. *infantis* utilizes the F6PPK pathway to catabolize human milk oligosaccharides and their derivatives. FASEB 2017 SRC on Origins and Benefits of Biologically Active Components in Human Milk Lisbon, Portugal, 2017.

*Bifidobacterium* spp. selectively utilizes starch and xylan. Life Science Graduate Research Symposium, UMass Amherst, MA, 2014

Mechanisms Underlying the Effects of Lactic Acid Bacteria (LAB) on Phenolic Compounds.

International Conference on Food and Biosystems Engineering, Skiathos Islands, Greece, 2013.

### **HONORS, AWARDS AND SCHOLARSHIPS**

2018-Travel Award, International Society of Research on Human Milk and Lactation Conference 2018, Japan

2018-Emerging Leaders in Nutrition Science, American Society for Nutrition, Nutrition 2018, Boston, MA

2018-Travel Award, International Society of Research on Human Milk and Lactation for Nutrition 2018, Boston, MA

2018- IFT Feeding Tomorrow, Gerber Endowment in Pediatric Nutrition Fellowship

2017- Travel Award, FASEB 2017 SRC on Origins and Benefits of Biologically Active Components in Human Milk, Lisbon, Portugal

2017-IFT Feeding Tomorrow, Gerber Endowment in Pediatric Nutrition Fellowship

2017-Francis Poster Competition at UMass Food Science, Runner-up

2015-IFT Annual Meeting 2015, Student Monitor Volunteer

2014-Travel Award, 2014 ENGIHR Conference: The Gut Microbiota throughout Life, Karlsruhe, Germany

2014-2211 National Scholarship for MSc Students, The Scientific and Technological Research Council of Turkey

2011-Natural Science Graduate Assistantship, Yeditepe University

2010-Erasmus+ Internship Activity Grant

2011-Dean's Undergraduate Honor List, METU

### **PRESS**

July 2017-UMass Amherst Food Scientists Find Cranberries May Aid the Gut Microbiome, MorningAgClips, UMass News Office (News Record with 5,800 page views)

### **PROFESSIONAL MEMBERSHIPS**

Institute of Food Technologists (IFT), Northeastern Division (NEIFT), Student Association (IFTSA)

American Society for Microbiology (ASM)

American Society for Nutrition (ASN)

International Society for Research in Human Milk and Lactation (ISRHML)

Phi Tau Sigma- The Honor Society of Food Science and Technology