

# ELİF KARLIK

[elif.karlik@istinye.edu.tr](mailto:elif.karlik@istinye.edu.tr)

Department of Molecular Biology and Genetics, Istinye University

## **CURRENT POSITION**

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**University of Istinye**, Department of Molecular Biology and Genetics

Teaching Assistant, 2019-2020

Assistant Professor, 2020- present

## **EDUCATION**

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**Istanbul University**

PhD, Biotechnology

Dissertation: Investigations on Long Non-coding RNAs in Barley (*Hordeum vulgare* L.)

Istanbul

2012-2018

**Istanbul University**

MSc., Molecular Biology and Genetic

Dissertation: Virus-Induced Gene Silencing Studies in Barley (*Hordeum vulgare* L.)

Istanbul

2010-2012

**Istanbul University**

BSc, Molecular Biology and Genetic

Dissertation: Osmotic and Heat Stress Shock on Glucose Suppression Constitutive Invertase Mutants of *Schizosaccharomyces pombe*

Istanbul

2005-2009

## **GRANTS and AWARDS**

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THE SCIENTIFIC AND TECHNOLOGICAL RESEARCH COUNCIL OF TURKEY, National Scholarship Programme for MSc Students

THE SCIENTIFIC AND TECHNOLOGICAL RESEARCH COUNCIL OF TURKEY, National Scholarship Programme for PhD Students

## **TEACHING EXPERIENCE**

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Istinye University, Molecular Evolution

2019-2020; 2020-2021

Istinye University, Nutrigenetics

2020-2021

Istinye University, Basic Genetics

2019-2020; 2020-2021

Istinye University, Molecular Genetics

2019-2020; 2020-2021

Istinye University, Genetic Engineering and Biotechnology

2018-2019; 2019-2020; 2020-2021

## PUBLICATIONS

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Karlık, E. (2021). Why lncRNAs were not conserved? Is it for adaptation?. *Front Life Sci RT*, 2(3), 103-110.

Karlık, E. Potential stress tolerance roles of barley germins and GLPs. *Dev Genes Evol* 231, 109–118 (2021). <https://doi.org/10.1007/s00427-021-00680-1>

Altıntaş, S., Ilgar, B. A. & Karlık, E. (2021). COMPARATIVE RETROTRANSPOSON ANALYSIS in WHEAT. *Journal of Advanced Research in Natural and Applied Sciences*, 7 (3), 369-374. DOI: 10.28979/jarnas.961832

Karlık E, Gurbuz O, Yidiz Y, Gozukirmizi N. (2021). Endogenous retrovirus HERV-K6 and HERV-K11 polymorphisms' analyses in head and neck squamous cell carcinoma patients. *Meta Gene* 28(6):100876.

Karlık E and Gozukirmizi N. (2021) Distinctive SIRE1 Retrotransposon Patterns on Barley Chromosomes?. *Trakya University Journal of Natural Sciences*, 22(1).

Karlık E. (2020). Display of Sukkula Distributions on Barley Roots via in Situ Hybridization. *Caryologia*, DOI: 10.13128/caryologia-191.

Karlık E, Deger M, Uzen E, Gozukirmizi N. (2020). Pioneering in vitro Studies for Callus Formation of *Colchicum chalconicum* Azn. *Trakya University Journal of Natural Sciences*, 21(2): 131-137.

Sahin O, Karlık E, Meric S, Ari S, Gozukirmizi N. (2020). Genome organization changes in GM and non-GM soybean [*Glycine max* (L.) Merr.] under salinity stress by retro-transposition events, *Genetic Resources and Crop Evolution*, DOI: 10.1007/s10722-020-00928-1.

Karlık E, Değer M, Albayrak M, Üzen E, Gözükirmizi N. (2019). Transposon studies on *Colchium chalconicum*. *International Journal of Life Sciences and Biotechnology*, 2(1), 25-35.

Karlık E, Ari Ş, Gözükirmizi N (2019). lncRNAs: genetic and epigenetic effects in plants. *Biotechnology Biotechnological Equipment*, 1-11., Doi: 10.1080/13102818.2019.1581085.

Karlık, E. and Gözükirmizi, N., 2018, Expression analysis of lncRNA AK370814 involved in the barley vitamin B6 salvage pathway under salinity, *Molecular Biology Reports*, DOI: 10.1007/s11033-018-4289-2.

Çakmak, B., Karlık E., Maraklı S., Gözükirmizi N., 2018, Detection of HERV-K6 and HERV-K11 Transpositions in the Human Genome, *Biomedical Reports*, 8(6), 1-5.

Karlık, E., Maraklı, S., Gözükirmizi, N., 2018, Two lncRNAs Expression Profiles in Salt Stressed Barley (*Hordeum vulgare* L.) Roots, *Cytologia*, 83(1), 37-43.

Karlık, E. and Gözükirmizi, N., 2018, Evaluation of Barley lncRNA Expression Analysis in Salinity Stress, *Russian Journal of Genetics*, 54(2), 198-204.

Türkeç A., Lucas S.J. and E. Karlık, Monitoring the prevalence of genetically modified (GM) soybean in Turkish food and feed products, *Food Cont.*, 59:766-772. DOI:10.1016/j.foodcont.2015.06.052, 2015.

Türkeç A., Lucas S.J. and E. Karlık, Monitoring the prevalence of genetically modified (GM) maize in commercial animal feeds and food products in Turkey, *J Sci Food Agriculture* DOI:10.1002/jsfa.7496, 2015.

Yörük, E., Karlık, E., Gazdaglı, A., Kayis, M., Kaya, F., Albayrak, G., 2015, Expression Analysis of PKS13, FG08079.1 and PKS10 Genes in *Fusarium graminearum* and *Fusarium culmorum*, *Iranian Journal of*

Biotechnology, 13(2), e1035.

Shahid M. Q., Ucarli C., Karlik E., Uzuner S. K. And F. Gurel, Silencing of G-Protein  $\alpha$ -Subunit in Barley (*Hordeum vulgare* L.) by VIGS and its Effect on the Plant Growth, Turkish Journal of Field Crops, 20(2), 259-264.

## **BOOK CHAPTERS and Others**

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Karlik, E, (2020). Role of long noncoding RNAs during stress in cereal crops. In: Long Noncoding RNAs in Plants: Roles in Development and Stress. Eds: Santosh Kumar Upadhyay. Elsevier Academic Press, ISBN: 978-0-12-821452-7.

Gözükirmizi N., Karlik E. (2020). Short term mutagenicity and carcinogenicity tests. Zeugma Biological Journal. 1(1).

Gozukirmizi N, Karlik E, Celebi G. (2020). History and development of non-coding RNAs, In book: Recent Advances in Plant Science, Nova Science Publishers, Inc.

Gözükirmizi N., Karlik E, 2019. Bitki Biyoteknolojisinde Güncel Yaklaşımlar, Chapter (Bitki Biyoteknolojisinde Tarihsel Gelişmeler) (2019)., Palme Yayıncılık, Eds: Prof. Dr. Yelda Özden Çiftçi ve Prof. Dr. Ahu Altınkut Uncuoğlu, 1, (382), ISBN:9786052823040. In Turkish.

Gözükirmizi, N. and Karlik, E., 2017, Bitki Biyoteknolojisinde Tarihsel Gelişmeler, Journal of Türktob 6(24), 4-11.

Gözükirmizi, N. and Karlik, E., 2017, Barley (*Hordeum vulgare* L.) improvement past, present and future, Brewing Technology, In: Kanauchi, M. (ed.), Chapter 1, Intech-open science-open, Hungry Minds Inc., Rijeka, 1-25.

Karlik E. and N. Gozukirmizi, "New Player of ncRNAs: Long Non-coding RNAs", Journal of Analytical & Pharmaceutical Research, vol.3, no.4, pp.64-68, 2016.

Karlik E. and H. Tombuloglu, "Molecular Markers and Their Applications", Plant Omics: Trends and Applications, ed K.R. Hakeem, H. Tombuloglu and G. Tombuloglu, Springer, pp.137-157, 2016.

Lucas S.J., Türkeç A. and E. Karlik, "The Future of GM Foods or GM Foods of the Future: Where is the Biotech Revolution Headings?", Food Toxicology ed D. Bagchi, CRC Press/Taylor and Francis, pp.518-537,2016.

## **PRESENTATIONS**

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Karlik E, (2021). Receptor like-kinases in Plant Defence. International ICONTECH SYMPOSIUM-4. 18-19 July 2021.

Karlik E and Gozukirmizi, N. (2019). Tuz Stresi ile İlişkili Uzun Kodlama Yapmayan RNA'ların Biyoinformatik Analizleri. 20. International Biotechnology Association Congress. 10-12 October 2019.

Karlik E, (2019). Germin and Germin-like Proteins (Glps): A Solution for Stress Responses. II. International Green Biotechnology Congress, Turkey, 09 - 11 September 2019.

Gözükirmizi, N., 2018, Alterations of LncRNAs Expressions Under Salinity Stress and Display of Localizations via FISH in Barley, ICAFOF, IZMIR, TURKEY, 2-5 April 2018, 1(1), 39-39.

Albayrak, M., Karlik, E., Gözükirmizi, N., 2018, Identification of Transposon Movements on *Colchicum chalconicum* ICAFOF, IZMIR, TURKEY, 2-5 April 2018, 1(1), 254-254.

Karlık, E. and Gözükirmizi, N., 2017, Salt stress effects during germination on barley, ICAFOF, NEVŞEHİR, TURKEY, 15-17 May 2017, 1(1), 107-107.

Albayrak, M., Karlık, E., Gözükirmizi, N., 2017, Tissue Culture and Transposon Studies on *Colchicum chalconicum*, Green Biotechnology, ISTANBUL, TURKEY, 11-13 September 2017, 1(1), 86-86.

Karlık, E. and Gözükirmizi, N., 2017, Expression Analysis of lncRNAs in Barley Under Salinity Stress, Green Biotechnology, ISTANBUL, TURKEY, 11-13 September 2017, 1(1), 95-95.

Gözükirmizi, N. and Karlık, E., 2017, Salt stress effects on germination and lncRNA expression in barley roots, III.Plant Breeding Congress, Girne, TURKISH REPUBLIC of NORTHERN CYPRUS, 15-19 October 2017, 1(1), 14-14.

Karlık, E. and Tombuloğlu, H., 2015, Interactions between miRNAs and lncRNAs, EMBO/EMBL Symposium: The Non-Coding Genome, 2015.

Yörük, E., Gazdaglı, A., Karlık, E., Kayış, M., Kaya, F., and Albayrak G., 2013, Mycotoxin Profiling of *Fusarium* spp. from Turkey, 2<sup>nd</sup> International Congress of the Molecular Biology Association of Turkey, 2013.