

Doç.Dr. MEHMET SOMEL

Kişisel Bilgiler

E-posta: msomel@metu.edu.tr

Eğitim Bilgileri

Doktora, Universitaet Leipzig, Faculty Of Biosciences Pharmacy And Psychology, Almanya 2004 - 2008
Yüksek Lisans, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Biyoteknoloji (YI) (Tezli), Türkiye 2001 - 2003
Lisans, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Biyolojik Bilimler Bölümü, Türkiye 1996 - 2001

Yaptığı Tezler

Doktora, Exploring Phenotypic Variation with the Transcriptome: Applications in Human Evolution and Ageing, Universitaet Leipzig, Faculty Of Biosciences Pharmacy And Psychology, 2008
Yüksek Lisans, Characterisation of DNA from archaeological wheat (Triticum L.) seeds from anatolia, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Biyoteknoloji (YI) (Tezli), 2003

Araştırma Alanları

Evrin, Populasyon Genetiği

Akademik Unvanlar / Görevler

Doç.Dr., Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Biyolojik Bilimler Bölümü, 2014 - Devam Ediyor
Yrd.Doç.Dr., Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Biyolojik Bilimler Bölümü, 2013 - 2014
Araştırma Görevlisi, University Of California, Berkeley, Letters And Science, Integrative Biology, 2011 - 2013
Araştırma Görevlisi, Chinese Academy Of Sciences, Cas-Mpg Partner Institute For Computational Biology, 2008 - 2011
Araştırma Görevlisi, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Biyolojik Bilimler Bölümü, 2001 - 2004

Yönetilen Tezler

Acar A. C. , Somel M., De novo SNP calling and demographic inference using trio genome data, Yüksek Lisans, E.BOZLAK(Öğrenci), 2019
Somel M., Exploring the evolutionary history of anatolian neolithic sheep using modern and ancient genomics, Yüksek Lisans, E.YURTMAN(Öğrenci), 2019
Somel M., Testing natural selection on polygenic trait-associated alleles in anatolia using neolithic and present-day human genomes, Yüksek Lisans, E.FER(Öğrenci), 2019
SOMEL M., Differences in learning performance and related behaviors across three honey bee subspecies from Turkey, Yüksek Lisans, B.ERDEM(Öğrenci), 2018
SOMEL M., Testis transcriptome evolution among hominids, Yüksek Lisans, E.SAĞLİCAN(Öğrenci), 2018
Somel M., Özer A. N. , Kuzey iskandinavyalı insan örneklerinde hesaplamalı antik DNA çalışmaları, Yüksek Lisans, N.DUHA(Öğrenci), 2018
SOMEL M., Context dependent mutation biases in the human genome, Yüksek Lisans, A.YETKİN(Öğrenci), 2017

SOMEL M., Genetic relatedness estimation using ancient genomic data, Yüksek Lisans, A.GHALICHI(Öğrenci), 2017
SOMEL M., Understanding domestication process of sheep across Central and Western Anatolia by using ancient DNA, Yüksek Lisans, O.ÖZER(Öğrenci), 2017
SOMEL M., Meta analysis of Alzheimer's disease at the gene expression level, Yüksek Lisans, H.İZGİ(Öğrenci), 2017
SOMEL M., TUNÇBAĞ N., Transcriptomic network analysis of brain aging and Alzheimer's disease, Yüksek Lisans, P.PARVIZI(Öğrenci), 2017
SOMEL M., Notable decrease in transcriptome conservation during mammalian aging, Yüksek Lisans, Z.GÖZDE(Öğrenci), 2016
SOMEL M., Meta-analysis of gene expression reversals in ageing brain, Yüksek Lisans, H.MELİKE(Öğrenci), 2016
SOMEL M., Evolution of bladder cancer investigated using exome sequencing, Yüksek Lisans, E.ÖZKURT(Öğrenci), 2015

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- **Temporal changes in the gene expression heterogeneity during brain development and aging**
Isildak U., SOMEL M., Thornton J. M. , Donertas H. M.
SCIENTIFIC REPORTS, cilt.10, 2020 (SCI İndekslerine Giren Dergi)
- **Molecular footprint of Medawar's mutation accumulation process in mammalian aging**
Turan Z. G. , Parvizi P., Donertas H. M. , Tung J., Khaitovich P., SOMEL M.
AGING CELL, cilt.18, 2019 (SCI İndekslerine Giren Dergi)
- **Ancient Mitochondrial Genomes Reveal the Absence of Maternal Kinship in the Burials of catalhoyuk People and Their Genetic Affinities**
Chylenski M., Ehler E., SOMEL M., Yaka R., Krzewinska M., Dabert M., Juras A., Marciniak A.
GENES, cilt.10, 2019 (SCI İndekslerine Giren Dergi)
- **Genomic and Strontium Isotope Variation Reveal Immigration Patterns in a Viking Age Town**
Krzewinska M., Kjellstrom A., Guenther T., Hedenstierna-Jonson C., Zachrisson T., Omrak A., Yaka R., Kilinc G. M. , SOMEL M., Sobrado V., et al.
CURRENT BIOLOGY, cilt.28, ss.2730-2748, 2018 (SCI İndekslerine Giren Dergi)
- **Investigating Holocene human population history in North Asia using ancient mitogenomes**
Kilinc G. M. , Kashuba N., Yaka R., Sumer A. P. , Yuncu E., Shergin D., Ivanov G. L. , Kichigin D., Pestereva K., Volkov D., et al.
SCIENTIFIC REPORTS, cilt.8, 2018 (SCI İndekslerine Giren Dergi)
- **Archaeogenetics of Late Iron Age Cemialo Srt, Batman: Investigating maternal genetic continuity in north Mesopotamia since the Neolithic**
Yaka R., Birand A., Yilmaz Y., Caner C., Acan S. C. , Gunduzalp S., Parvizi P., Ozdogan A. E. , Togan I., SOMEL M.
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY, cilt.166, ss.196-207, 2018 (SCI İndekslerine Giren Dergi)
- **Variation and Functional Impact of Neanderthal Ancestry in Western Asia**
Taskent R. O. , Alioglu N. D. , Fer E., Donertas H. M. , SOMEL M., Gokcumen O.
GENOME BIOLOGY AND EVOLUTION, cilt.9, ss.3516-3524, 2017 (SCI İndekslerine Giren Dergi)
- **Archaeogenomic analysis of the first steps of Neolithization in Anatolia and the Aegean**
Kilinc G. M. , KOPTKIN D., ATAKUMAN Ç., SUMER A. P. , DONERTAS H. M. , YAKA R., BİLGİN C. C. , BÜYÜKKARAKAYA A. M. , Baird D., ALTINISIK E., et al.
PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES, cilt.284, 2017 (SCI İndekslerine Giren Dergi)
- **Gene expression reversal toward pre-adult levels in the aging human brain and age-related loss of cellular identity**
Donertas H. M. , İZGİ H., Kamacioglu A., He Z., Khaitovich P., SOMEL M.
SCIENTIFIC REPORTS, cilt.7, 2017 (SCI İndekslerine Giren Dergi)
- **The Demographic Development of the First Farmers in Anatolia**
Kilinc G. M. , Omrak A., Ozer F., Gunther T., BÜYÜKKARAKAYA A. M. , Bicakci E., Baird D., Donertas H. M. , Ghalichi A., Yaka R., et al.
CURRENT BIOLOGY, cilt.26, ss.2659-2666, 2016 (SCI İndekslerine Giren Dergi)

● **Disruption of an Evolutionarily Novel Synaptic Expression Pattern in Autism**

Liu X., Han D., Somel M., Jiang X., Hui H., Guijarro P., Zhang N., Mitchell A., Halene T., Ely J. J., et al.
PLOS BIOLOGY, cilt.14, 2016 (SCI İndekslerine Giren Dergi)

● **Determining the origin of synchronous multifocal bladder cancer by exome sequencing**

Acar O., Ozkurt E., Demir G., Sarac H., ALKAN C., Esen T., SOMEL M., LACK N.
BMC CANCER, cilt.15, 2015 (SCI İndekslerine Giren Dergi)

● **Transcriptomic insights into human brain evolution: acceleration, neutrality, heterochrony**

SOMEL M., Rohlf S., Liu X.

CURRENT OPINION IN GENETICS & DEVELOPMENT, cilt.29, ss.110-119, 2014 (SCI İndekslerine Giren Dergi)

● **Whole genome sequencing of Turkish genomes reveals functional private alleles and impact of genetic interactions with Europe, Asia and Africa**

Alkan C., Kavak P., Somel M., Gokcumen O., Ugurlu S., Saygi C., Dal E., Bugra K., GÜNGÖR T., Sahinalp S. C., et al.
BMC GENOMICS, cilt.15, 2014 (SCI İndekslerine Giren Dergi)

● **Shared signatures of social stress and aging in peripheral blood mononuclear cell gene expression profiles**

Snyder-Mackler N., SOMEL M., Tung J.

AGING CELL, cilt.13, ss.954-957, 2014 (SCI İndekslerine Giren Dergi)

● **Altitude adaptation in Tibetans caused by introgression of Denisovan-like DNA**

Huerta-Sanchez E., Jin X., Asan A., Bianba Z., Peter B. M., Vinckenbosch N., Liang Y., Yi X., He M., Somel M., et al.
NATURE, cilt.512, ss.194-210, 2014 (SCI İndekslerine Giren Dergi)

● **Population Genomics Reveal Recent Speciation and Rapid Evolutionary Adaptation in Polar Bears**

Liu S., Lorenzen E. D., Fumagalli M., Li B., Harris K., Xiong Z., Zhou L., Korneliusson T. S., Somel M., Babbitt C., et al.
CELL, cilt.157, ss.785-794, 2014 (SCI İndekslerine Giren Dergi)

● **Classic Selective Sweeps Revealed by Massive Sequencing in Cattle**

Qanbari S., Pausch H., Jansen S., Somel M., Strom T. M., Fries R., Nielsen R., Simianer H.
PLOS GENETICS, cilt.10, 2014 (SCI İndekslerine Giren Dergi)

● **Evolution of Human Longevity Uncoupled from Caloric Restriction Mechanisms**

Zhao G., Guo S., Somel M., Khaitovich P.

PLOS ONE, cilt.9, 2014 (SCI İndekslerine Giren Dergi)

● **A Scan for Human-Specific Relaxation of Negative Selection Reveals Unexpected Polymorphism in Proteasome Genes**

Somel M., Sayres M. A. W., Jordan G., Huerta-Sanchez E., Fumagalli M., Ferrer-Admetlla A., Nielsen R.
MOLECULAR BIOLOGY AND EVOLUTION, cilt.30, ss.1808-1815, 2013 (SCI İndekslerine Giren Dergi)

● **Early gene expression divergence between allopatric populations of the house mouse (*Mus musculus domesticus*)**

Bryk J., Somel M., Lorenc A., Teschke M.

ECOLOGY AND EVOLUTION, cilt.3, ss.558-568, 2013 (SCI İndekslerine Giren Dergi)

● **Human brain evolution: transcripts, metabolites and their regulators**

Somel M., Liu X., Khaitovich P.

NATURE REVIEWS NEUROSCIENCE, cilt.14, ss.112-127, 2013 (SCI İndekslerine Giren Dergi)

● **Widespread splicing changes in human brain development and aging**

Mazin P., Xiong J., Liu X., Yan Z., Zhang X., Li M., He L., Somel M., Yuan Y., Chen Y. P., et al.
MOLECULAR SYSTEMS BIOLOGY, cilt.9, 2013 (SCI İndekslerine Giren Dergi)

● **Accelerated aging-related transcriptome changes in the female prefrontal cortex**

Yuan Y., Chen Y. P., Boyd-Kirkup J., Khaitovich P., Somel M.

AGING CELL, cilt.11, ss.894-901, 2012 (SCI İndekslerine Giren Dergi)

● **A Comparison of Brain Gene Expression Levels in Domesticated and Wild Animals**

Albert F. W., Somel M., Carneiro M., Aximu-Petri A., Halbwax M., Thalmann O., Blanco-Aguilar J. A., Plyusnina I. Z., Trut L., Villafuerte R., et al.

PLOS GENETICS, cilt.8, 2012 (SCI İndekslerine Giren Dergi)

● **Mechanisms of Dietary Response in Mice and Primates: A Role for EGR1 in Regulating the Reaction**

to Human-Specific Nutritional Content

Weng K., Hu H., Xu A. G. , Khaitovich P., Somel M.

PLOS ONE, cilt.7, 2012 (SCI İndekslerine Giren Dergi)

Extension of cortical synaptic development distinguishes humans from chimpanzees and macaques

Liu X., Somel M., Tang L., Yan Z., Jiang X., Guo S., Yuan Y., He L., Oleksiak A., Zhang Y., et al.

GENOME RESEARCH, cilt.22, ss.611-622, 2012 (SCI İndekslerine Giren Dergi)

MicroRNA-Driven Developmental Remodeling in the Brain Distinguishes Humans from Other Primates

Somel M., Liu X., Tang L., Yan Z., Hu H., Guo S., Jiang X., Zhang X., Xu G., Xie G., et al.

PLOS BIOLOGY, cilt.9, 2011 (SCI İndekslerine Giren Dergi)

Development and application of a modified dynamic time warping algorithm (DTW-S) to analyses of primate brain expression time series

Yuan Y., Chen Y. P. , Ni S., Xu A. G. , Tang L., Vingron M., Somel M., Khaitovich P.

BMC BIOINFORMATICS, cilt.12, 2011 (SCI İndekslerine Giren Dergi)

Rapid metabolic evolution in human prefrontal cortex

Fu X., Giavalisco P., Liu X., Catchpole G., Fu N., Ning Z., Guo S., Yan Z., Somel M., Paeaebo S., et al.

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, cilt.108, ss.6181-6186, 2011 (SCI İndekslerine Giren Dergi)

MicroRNA, mRNA, and protein expression link development and aging in human and macaque brain

Somel M., Guo S., Fu N., Yan Z., Hu H. Y. , Xu Y., Yuan Y., Ning Z., Hu Y., Menzel C., et al.

GENOME RESEARCH, cilt.20, ss.1207-1218, 2010 (SCI İndekslerine Giren Dergi)

Intergenic and Repeat Transcription in Human, Chimpanzee and Macaque Brains Measured by RNA-Seq

Xu A. G. , He L., Li Z., Xu Y., Li M., Fu X., Yan Z., Yuan Y., Menzel C., Li N., et al.

PLOS COMPUTATIONAL BIOLOGY, cilt.6, 2010 (SCI İndekslerine Giren Dergi)

Evolution of Neuronal and Endothelial Transcriptomes in Primates

Giger T., Khaitovich P., Somel M., Lorenc A., Lizano E., Harris L. W. , Ryan M. M. , Lan M., Wayland M. T. , Bahn S., et al.

GENOME BIOLOGY AND EVOLUTION, cilt.2, ss.284-292, 2010 (SCI İndekslerine Giren Dergi)

A Humanized Version of Foxp2 Affects Cortico-Basal Ganglia Circuits in Mice

Enard W., Gehre S., Hammerschmidt K., Hoelter S. M. , Blass T., Somel M., Brueckner M. K. , Schreiwies C., Winter C., Sohr R., et al.

CELL, cilt.137, ss.961-971, 2009 (SCI İndekslerine Giren Dergi)

Transcriptional neoteny in the human brain

Somel M., Franz H., Yan Z., Lorenc A., Guo S., Giger T., Kelso J., Nickel B., Dannemann M., Bahn S., et al.

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, cilt.106, ss.5743-5748, 2009 (SCI İndekslerine Giren Dergi)

Evolution of Primate Gene Expression: Drift and Corrective Sweeps?

Chaix R., Somel M., Kreil D. P. , Khaitovich P., Lunter G. A.

GENETICS, cilt.180, ss.1379-1389, 2008 (SCI İndekslerine Giren Dergi)

Human and Chimpanzee Gene Expression Differences Replicated in Mice Fed Different Diets

Somel M., Creely H., Franz H., Mueller U., Lachmann M., Khaitovich P., Paeaebo S.

PLOS ONE, cilt.3, 2008 (SCI İndekslerine Giren Dergi)

Metabolic changes in schizophrenia and human brain evolution

Khaitovich P., Lockstone H. E. , Wayland M. T. , Tsang T. M. , Jayatilaka S. D. , Guo A. J. , Zhou J., Somel M., Harris L. W. , Holmes E., et al.

GENOME BIOLOGY, cilt.9, 2008 (SCI İndekslerine Giren Dergi)

Identification and analysis of genomic regions with large between-population differentiation in humans

Myles S., Tang K., Somel M., Green R. E. , Kelso J., Stoneking M.

ANNALS OF HUMAN GENETICS, cilt.72, ss.99-110, 2008 (SCI İndekslerine Giren Dergi)

● **Turks fighting back against anti-evolution forces**

Somel M., Somel R. N. O. , Kence A.

NATURE, cilt.445, ss.147, 2007 (SCI İndekslerine Giren Dergi)

● **Identifying genes underlying skin pigmentation differences among human populations**

Myles S., Somel M., Tang K., Kelso J., Stoneking M.

HUMAN GENETICS, cilt.120, ss.613-621, 2007 (SCI İndekslerine Giren Dergi)

● **Gene expression becomes heterogeneous with age**

Somel M., Khaitovich P., Bahn S., Paabo S., Lachmann M.

CURRENT BIOLOGY, cilt.16, 2006 (SCI İndekslerine Giren Dergi)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

● **An Archaeogenomic Investigation of Consanguinity During the Neolithic Transition**

Taskent R. O. , Sumer A. P. , Koptekin D., Ozkan M., Ceballos F. C. , Gokcumen O., SOMEL M.

88th Annual Meeting of the American-Association-of-Physical-Anthropologists (AAPA), Ohio, Amerika Birleşik Devletleri, 27 - 30 Mart 2019, cilt.168, ss.244

● **Archaeogenomic Insights into Anatolian Demographic History During the Holocene**

ATAKUMAN Ç., BİRAND ÖZSOY A. C. , BİLGİN C. C. , ERDAL Y. S. , BÜYÜKKARAKAYA A. M. , Götherström A., GMKÇÜMEN Ö., GÜNDÜZALP S., Kılınç G. M. , KOKTEKİN D., et al.

5 International Congress of theMolecular Biology Association of Turkey, 8 - 10 Eylül 2017

● **Diverse Patterns of Neanderthal Introgression in Western Asia**

Taskent R. O. , Alioglu D., Fer E., Donertas H. M. , SOMEL M., Gokcumen O.

86th Annual Meeting of the American-Association-of-Physical-Anthropologists (AAPA), Louisiana, Amerika Birleşik Devletleri, 19 - 22 Nisan 2017, cilt.162, ss.377

● **Genome-wide cytosine methylation differences between ancient hunter-gatherers and farmers**

Koptekin D., Kilinc G. M. , Sumer A. P. , Donertas M., SOMEL M.

86th Annual Meeting of the American-Association-of-Physical-Anthropologists (AAPA), Louisiana, Amerika Birleşik Devletleri, 19 - 22 Nisan 2017, cilt.162, ss.250-251

● **Mechanisms of convergent testis transcriptome evolution in primates**

Saglican E., Donertas M., Rohlf R., Ozkurt E., Hu H., Neme R., Erdem B., Khaitovich P., SOMEL M.

86th Annual Meeting of the American-Association-of-Physical-Anthropologists (AAPA), Louisiana, Amerika Birleşik Devletleri, 19 - 22 Nisan 2017, cilt.162, ss.364

● **Mobility in Neolithic Central Anatolia: A Comparison of Dental Morphometrics and aDNA**

Pilloud M. A. , SOMEL M., Haddow S. D. , Knusel C. J. , Larsen C. S. , Ozbasaran M., ERDAL Ö. D. , Baird D., Pearson J., Gotherstrom A., et al.

86th Annual Meeting of the American-Association-of-Physical-Anthropologists (AAPA), Louisiana, Amerika Birleşik Devletleri, 19 - 22 Nisan 2017, cilt.162, ss.316

● **Neanderthal Introgression to Western Asian Human Populations**

Taskent R. O. , Xu D., Alioglu D., Donertas H. M. , Fer E., SOMEL M., Gokcumen O.

85th Annual Meeting of the American-Association-of-Physical-Anthropologists, Georgia, Amerika Birleşik Devletleri, 13 - 16 Nisan 2016, cilt.159, ss.310-311

● **Archaeogenomic analysis of ancient Anatolians: first genetic indication for Neolithic cultural diffusion in the Near East**

SOMEL M., Kilinc G. M. , Ozer F., Omrak A., Yaka R., Donertas M., Dagtas N. D. , Yuncu E., Koptekin D., BÜYÜKKARAKAYA A. M. , et al.

85th Annual Meeting of the American-Association-of-Physical-Anthropologists, Georgia, Amerika Birleşik Devletleri, 13 - 16 Nisan 2016, cilt.159, ss.297-298

● **Whole genome sequencing of Turkish genomes reveals functional private alleles and impact of genetic interactions with Europe, Asia and Africa**

Gokcumen O., Alkan C., Kavak P., SOMEL M., Ugurlu S., Dal E., Bugra-Bilge K., Gungor T., Sahinalp C., Ozeren N., et al.

83rd Annual Meeting of the American-Association-of-Physical-Anthropologists, Calgary, Kanada, 8 - 12 Nisan 2014, cilt.153, ss.126-127

● **Bringing the understanding of evolution to Turkish public: A volunteer organization model for developing countries**

Ozpolat B. D. , Akcay A., Somel N., Somel M.

69th Annual Meeting of the Society-for-Developmental-Biology/Japanese-Society-of-Developmental-Biologists, New-Mexico, Amerika Birleşik Devletleri, 5 - 09 Ağustos 2010, cilt.344, ss.439

Desteklenen Projeler

Somel M., TÜBİTAK Uluslararası Çoklu İşbirliği Projesi , Single cell genomics of the brain in healthy controls and disease, 2015 - 2019

SOMEL M., PARVIZI P., SAĞLICAN E., BALOĞLU O., TURAN Z. G. , ALICI A. Y. , GHALICHI A., DÖNERTAŞ H. M. , İZGİ H., ÖZKURT E., Yükseköğretim Kurumları Destekli Proje, Yeni nesil moleküler veri analizi yoluyla genom ve transkriptom evriminin incelenmesi, 2015 - 2016

SOMEL M., GHALICHI A., KOPEKİN D., TURAN Z. G. , Yükseköğretim Kurumları Destekli Proje, Determining the role of mutation load in mammalian senescence, 2014 - 2016

SOMEL M., Yükseköğretim Kurumları Destekli Proje, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

SOMEL M., Yükseköğretim Kurumları Destekli Proje, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

GÖZEN A. G. , ÖKTEM H. A. , FILİZ N., BUCAK T., COPPENS J. E. P. , KALVENAS J. E. , İZGÜ K. F. , BEKLİOĞLU M., BİRAND ÖZSOY A. C. , GÜNDÜZ U. , et al, Yükseköğretim Kurumları Destekli Proje, Sucul biofilm bakterilerinin arsenik, nikel ve kadmiyum dirençlerinin belirlenmesi ve moleküler karakterizasyonu, 2013 - 2014

Atıflar

Toplam Atıf Sayısı (WOS):2510

h-indeksi (WOS):21

Ödüller

Somel M., Üstün Başarılı Genç Bilim İnsanlarını Ödüllendirme Programı, Türkiye Bilimler Akademisi, Kasım 2015