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Kişisel Bilgiler

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Publons / Web Of Science ResearcherID: B-1471-2016

ScopusID: 9743932900

Yoksis Araştırmacı ID: 196686

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 - 2021

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

Somel M., Inter-tissue convergence of gene expression and loss of identity during ageing, Doktora, H.İZGİ(Öğrenci), 2023

Somel M., Somatic copy number variant load in neurons of healthy controls and Alzheimer's disease patients, Doktora,

Z.GÖZDE(Öğrenci), 2023

Somel M., Resolving reticulate speciation in bisexual and parthenogenetic lizards of genus *Darevskia* in East Anatolia and Caucasus, Doktora, M.ERDOLU(Öğrenci), 2023

Somel M., Archaeogenomics of Anatolian wild ass, Doktora, M.ÖZKAN(Öğrenci), 2023

Somel M., Assessment of genetic relatedness tools for ancient DNA using pedigree simulations, Yüksek Lisans, Ş.AKTÜRK(Öğrenci), 2023

Somel M., MTaxi: A comparative tool for taxon identification of ultra low coverage ancient genomes, Yüksek Lisans, G.ATAĞ(Öğrenci), 2023

Somel M., Predicting first-degree relationships from ancient samples using deep neural networks, Yüksek Lisans, M.NUR(Öğrenci), 2023

Somel M., Meta-analysis of gene expression heterogeneity in brain development and aging, Yüksek Lisans, U.İŞILDAK(Öğrenci), 2022

Somel M., Genetic history of Anatolia during Holocene, Doktora, D.KOPTEKİN(Öğrenci), 2022

Somel M., Realistically simulating SARS-CoV-2 wastewater metagenome sequencing data, Yüksek Lisans, F.RABİA(Öğrenci), 2022

SOMEL M., Convergent evolution of primate testis transcriptomes in response to mating strategy differences, Yüksek Lisans, E.YAPAR(Öğrenci), 2021

SOMEL M., Comparison of methylation patterns in ancient hunter-gatherers and farmers, Yüksek Lisans, S.SEDA(Öğrenci), 2021

Somel M., ARCHAEOGENOMIC ANALYSIS OF POPULATION GENETIC RELATIONSHIPS AND KINSHIP PATTERNS IN THE SEDENTARY SOCIETIES FROM NEOLITHIC ANATOLIA, Doktora, R.YAKA(Öğrenci), 2020

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

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., Özer A. N., Kuzey İskandinavlı insan örneklerinde hesaplamalı antik DNA çalışmaları, Yüksek Lisans, N.DUHA(Öğrenci), 2018

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., Alzheimer hastalığının gen anlatımı düzeyinde meta analizi, Yüksek Lisans, H.İzgi(Öğrenci), 2017

SOMEL M., Genetic relatedness estimation using ancient genomic data, Yüksek Lisans, A.GHALİCHI(Öğrenci), 2017

SOMEL M., Context dependent mutation biases in the human genome, Yüksek Lisans, A.YETKİN(Öğrenci), 2017

SOMEL M., TUNÇBAĞ N., Beyin yaşlanması ve Alzheimer hastalığının transkriptomik ağ analizi, Yüksek Lisans, P.Parvizi(Öğrenci), 2017

SOMEL M., TUNÇBAĞ N., Transcriptomic network analysis of brain aging and Alzheimer's disease, Yüksek Lisans, P.PARVIZI(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., Meta-analysis of gene expression reversals in ageing brain, Yüksek Lisans, H.MELİKE(Öğrenci), 2016

SOMEL M., Notable decrease in transcriptome conservation during mammalian aging, Yüksek Lisans, Z.GÖZDE(Öğrenci), 2016

SOMEL M., Evolution of bladder cancer investigated using exome sequencing, Yüksek Lisans, E.ÖZKURT(Öğrenci), 2015

Tasarladığı Dersler

Somel M., Atakuman Ç., Sürer E., Digital Archaeology of the Neolithic Transition, Yüksek Lisans, 2018 - 2019

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **READv2: advanced and user-friendly detection of biological relatedness in archaeogenomics**
Alaçamlı E., Naidoo T., GÜLER M., Sağlıcan E., Aktürk Ş., Mapelli I., Vural K. B., SOMEL M., Malmström H., Günther T.
Genome Biology, cilt.25, sa.1, 2024 (SCI-Expanded)
- II. **An explanation for the sister repulsion phenomenon in Patterson's f-statistics**
Atag G., Waldman S., Carmi S., SOMEL M.
GENETICS, cilt.228, sa.3, 2024 (SCI-Expanded)
- III. **The Population History of Domestic Sheep Revealed by Paleogenomes.**
Kaptan D., Atağ G., Vural K. B., Morell Miranda P., Akbaba A., Yüncü E., Buluktaev A., Abazari M. F., Yorulmaz S., Kazancı D. D., et al.
Molecular biology and evolution, cilt.41, sa.10, 2024 (SCI-Expanded)
- IV. **The first complete genome of the extinct European wild ass (*Equus hemionus hydruntinus*)**
Özkan M., GÜRÜN K., Yüncü E., VURAL K. B., Atağ G., Akbaba A., FİDAN F. R., Sağlıcan E., ALTINIŞIK N. E., Koptekin D., et al.
Molecular Ecology, cilt.33, sa.14, 2024 (SCI-Expanded)
- V. **Benchmarking kinship estimation tools for ancient genomes using pedigree simulations**
Akturk S., Mapelli I., Guler M., Gurun K., Katircioglu B., Vural K. B., Saglıcan E., Cetin M., Yaka R., Sürer E., et al.
MOLECULAR ECOLOGY RESOURCES, cilt.24, sa.5, 2024 (SCI-Expanded)
- VI. **Investigating food production-associated DNA methylation changes in paleogenomes: Lack of consistent signals beyond technical noise**
Çokoğlu S. S., Koptekin D., FİDAN F. R., SOMEL M.
Evolutionary Applications, cilt.17, sa.7, 2024 (SCI-Expanded)
- VII. **Ancient Sheep Genomes Reveal Four Millennia of North European Short-Tailed Sheep in the Baltic Sea Region**
Larsson M. N. A., Morell Miranda P., Pan L., Başak Vural K., Kaptan D., Rodrigues Soares A. E., Kivikero H., Kantanen J., SOMEL M., ÖZER F., et al.
Genome Biology and Evolution, cilt.16, sa.6, 2024 (SCI-Expanded)
- VIII. **Population Genomic History of the Endangered Anatolian and Cyprian Mouflons in Relation to Worldwide Wild, Feral, and Domestic Sheep Lineages**
Atag G., Kaptan D., Yüncü E., VURAL K. B., Mereu P., Pirastru M., Barbato M., Leoni G. G., Güler M. N., Er T., et al.
Genome Biology and Evolution, cilt.16, sa.5, 2024 (SCI-Expanded)
- IX. **Comparison and optimization of protocols and whole-genome capture conditions for ancient DNA samples**
Yaka R., Maja Krzewińska K., Lagerholm V. K., Linderholm A., ÖZER F., SOMEL M., Götherström A.
BioTechniques, cilt.76, sa.5, ss.216-223, 2024 (SCI-Expanded)
- X. **Single hybrid population but multiple parental individuals at the origin of parthenogenetic rock lizards *Darevskia sapphirina* and *D. bendimahiensis* Schmidtler, & Eiselt Darevsky (1994) endemic to the area of Lake Van in East Turkey**
Erdolu M., ŞAHİN M. K., SOMEL M., Yanchukov A.
Molecular Phylogenetics and Evolution, cilt.189, 2023 (SCI-Expanded)
- XI. **The time and place of origin of South Caucasian languages: insights into past human societies, ecosystems and human population genetics**
Gavashelishvili A., Chukhua M., Sakhltkhutsishvili K., Koptekin D., SOMEL M.
Scientific Reports, cilt.13, sa.1, 2023 (SCI-Expanded)
- XII. **Effects of coumaphos on locomotor activities of different honeybee (*Apis mellifera* L.) subspecies and ecotypes**
ARSLAN O. C., ERDEM B., SOMEL M., Giray T., Kence M.
Apidologie, cilt.54, sa.4, 2023 (SCI-Expanded)
- XIII. **Mobility and kinship in the world's first village societies**
Pearson J., Evans J., Lamb A., Baird D., Hodder I., Marciniak A., Larsen C. S., Knüsel C. J., Haddow S. D., Pilloud M. A.,

et al.

Proceedings of the National Academy of Sciences of the United States of America, cilt.120, sa.4, 2023 (SCI-Expanded)

- XIV. **Spatial and temporal heterogeneity in human mobility patterns in Holocene Southwest Asia and the East Mediterranean.**
Koptekin D., Yüncü E., Rodríguez-Varela R., Altınışık N. E., Psonis N., Kashuba N., Yorulmaz S., George R., Kazancı D. D., Kaptan D., et al.
Current biology : CB, cilt.33, 2023 (SCI-Expanded)
- XV. **CONGA: Copy number variation genotyping in ancient genomes and low-coverage sequencing data**
Söylev A., Çokoglu S. S., KOPTEKİN D., Alkan C., SOMEL M.
PLoS Computational Biology, cilt.18, sa.12, 2022 (SCI-Expanded)
- XVI. **Somatic copy number variant load in neurons of healthy controls and Alzheimer's disease patients**
Turan Z. G., Richter V., Bochmann J., Parvizi P., Yapar E., Işıldak U., Waterholter S., Leclere-Turbant S., SON Ç. D., Duyckaerts C., et al.
Acta Neuropathologica Communications, cilt.10, sa.1, 2022 (SCI-Expanded)
- XVII. **A genomic snapshot of demographic and cultural dynamism in Upper Mesopotamia during the Neolithic Transition**
ALTINIŞIK N. E., Kazancı D. D., Aydoğan A., GEMİCİ H. C., ERDAL Ö. D., SARIALTUN S., VURAL K. B., KOPTEKİN D., GÜRÜN K., Sağlıcan E., et al.
Science Advances, cilt.8, sa.44, 2022 (SCI-Expanded)
- XVIII. **New insights on commemoration of the dead through mortuary and architectural use of pigments at Neolithic Catalhoyuk, Turkey**
Schotsmans E., Busacca G., Lin S., Vasić M., Lingle A., Veropoulidou R., Mazzucato C., Tibbetts B., Haddow S., SOMEL M., et al.
SCIENTIFIC REPORTS, cilt.12, sa.1, 2022 (SCI-Expanded)
- XIX. **Inter-tissue convergence of gene expression during ageing suggests age-related loss of tissue and cellular identity**
İZGİ H., Han D., Isildak U., Huang S., Kocabiyik E., Khaitovich P., SOMEL M., Dönertaş H. M.
eLife, cilt.11, 2022 (SCI-Expanded)
- XX. **Archaeogenetic analysis of Neolithic sheep from Anatolia suggests a complex demographic history since domestication**
Yurtman E., Ozer O., Yuncu E., Dagtas N. D., Koptekin D., Çakan Y. G., Ozkan M., Akbaba A., Kaptan D., Atag G., et al.
Communications Biology, cilt.4, sa.1, 2021 (SCI-Expanded)
- XXI. **Collaborate equitably in ancient DNA research and beyond**
SOMEL M.
NATURE, cilt.600, sa.7887, ss.37, 2021 (SCI-Expanded)
- XXII. **Human inbreeding has decreased in time through the Holocene**
Ceballos F. C., Gurun K., ALTINIŞIK N. E., Gemici H. C., Karamurat C., Koptekin D., Vural K. B., Mapelli I., Saglıcan E., SÜRER E., et al.
CURRENT BIOLOGY, cilt.31, sa.17, ss.3925-3943, 2021 (SCI-Expanded)
- XXIII. **Million-year-old DNA sheds light on the genomic history of mammoths**
Van Der Valk T., Pecnerova P., Diez-Del-Molino D., Bergstrom A., Oppenheimer J., Hartmann S., Xenikoudakis G., Thomas J. A., Dehasque M., Saglıcan E., et al.
NATURE, cilt.591, sa.7849, ss.265-282, 2021 (SCI-Expanded)
- XXIV. **Human population dynamics and Yersinia pestis in ancient northeast Asia**
Kilinc G. M., Kashuba N., Koptekin D., Bergfeldt N., Donertas H. M., Rodriguez-Varela R., Shergin D., Ivanov G., Kichigin D., Pestereva K., et al.
SCIENCE ADVANCES, cilt.7, sa.2, 2021 (SCI-Expanded)
- XXV. **Variable kinship patterns in Neolithic Anatolia revealed by ancient genomes**
Yaka R., Mapelli I., Kaptan D., Doğu A., Chyleński M., Erdal Ö. D., Koptekin D., Vural K. B., Bayliss A., Mazzucato C., et al.

- Current Biology, cilt.31, sa.11, 2021 (SCI-Expanded)
- XXVI. **EVOLUTIONARY GENETICS Of dogs and men**
Pavlidis P., SOMEL M.
SCIENCE, cilt.370, sa.6516, ss.522-523, 2020 (SCI-Expanded)
- XXVII. **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, sa.1, 2020 (SCI-Expanded)
- XXVIII. **Social Memory and Mortuary Practices in Neolithic Anatolia**
Pilloud M. A., Haddow S. D., Knusel C. J., Larsen C. S., SOMEL M.
POETICS OF PROCESSING, ss.145-165, 2020 (SSCI)
- XXIX. **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, sa.4, 2019 (SCI-Expanded)
- XXX. **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, sa.3, 2019 (SCI-Expanded)
- XXXI. **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, sa.17, ss.2730-2748, 2018 (SCI-Expanded)
- XXXII. **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-Expanded)
- XXXIII. **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, sa.1, ss.196-207, 2018 (SCI-Expanded)
- XXXIV. **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, sa.12, ss.3516-3524, 2017 (SCI-Expanded)
- XXXV. **Archaeogenomic analysis of the first steps of Neolithization in Anatolia and the Aegean**
Kilinc G. M., KOPEKIN D., ATAKUMAN Ç., SUMER A. P., DONERTAS H. M., YAKA R., BİLGİN C. C., BÜYÜKKARAKAYA A. M., Baird D., ALTINISIK E., et al.
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- XXXVI. **Gene expression reversal toward pre-adult levels in the aging human brain and age-related loss of cellular identity**
Donertas H. M., İzgi H., Kamacioglu A., He Z., Khaitovich P., Somel M.
SCIENTIFIC REPORTS, cilt.7, 2017 (SCI-Expanded)
- XXXVII. **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.
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- XXXVIII. **Disruption of an Evolutionarily Novel Synaptic Expression Pattern in Autism**
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PLOS BIOLOGY, cilt.14, sa.9, 2016 (SCI-Expanded)
- XXXIX. **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.
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- XL. **Transcriptomic insights into human brain evolution: acceleration, neutrality, heterochrony**

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

- XLII. **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-Expanded)
- XLIII. **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, sa.5, ss.954-957, 2014 (SCI-Expanded)
- XLIV. **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.
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- XLV. **Population Genomics Reveal Recent Speciation and Rapid Evolutionary Adaptation in Polar Bears**
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- XLVI. **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.
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- XLVII. **Evolution of Human Longevity Uncoupled from Caloric Restriction Mechanisms**
Zhao G., Guo S., Somel M., Khaitovich P.
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- XLVIII. **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, sa.8, ss.1808-1815, 2013 (SCI-Expanded)
- XLIX. **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, sa.3, ss.558-568, 2013 (SCI-Expanded)
- L. **Human brain evolution: transcripts, metabolites and their regulators**
Somel M., Liu X., Khaitovich P.
NATURE REVIEWS NEUROSCIENCE, cilt.14, sa.2, ss.112-127, 2013 (SCI-Expanded)
- L. **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-Expanded)
- LI. **Accelerated aging-related transcriptome changes in the female prefrontal cortex**
Yuan Y., Chen Y. P., Boyd-Kirkup J., Khaitovich P., Somel M.
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- LII. **A Comparison of Brain Gene Expression Levels in Domesticated and Wild Animals**
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- LIII. **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.
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- LIV. **Extension of cortical synaptic development distinguishes humans from chimpanzees and macaques**
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- LV. **MicroRNA-Driven Developmental Remodeling in the Brain Distinguishes Humans from Other**

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PLOS BIOLOGY, cilt.9, sa.12, 2011 (SCI-Expanded)

- LVI. **Development and application of a modified dynamic time warping algorithm (DTW-S) to analyses of primate brain expression time series**
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- LVII. **Rapid metabolic evolution in human prefrontal cortex**
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- LVIII. **MicroRNA, mRNA, and protein expression link development and aging in human and macaque brain**
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GENOME RESEARCH, cilt.20, sa.9, ss.1207-1218, 2010 (SCI-Expanded)
- LIX. **Intergenic and Repeat Transcription in Human, Chimpanzee and Macaque Brains Measured by RNA-Seq**
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- LX. **Evolution of Neuronal and Endothelial Transcriptomes in Primates**
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GENOME BIOLOGY AND EVOLUTION, cilt.2, ss.284-292, 2010 (SCI-Expanded)
- LXI. **A Humanized Version of Foxp2 Affects Cortico-Basal Ganglia Circuits in Mice**
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Atıf (WoS): 3426

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