

## Assoc. Prof. MELTEM ALPER

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: GLR-5622-2022

ScopusID: 54883275300

Yoksis Researcher ID: 126390

### Education Information

Doctorate, Balikesir University, Institute Of Science, Turkey 2007 - 2013

Postgraduate, Balikesir University, Institute Of Science, Turkey 2004 - 2007

Postgraduate, Balikesir University, Institute Of Science, Turkey 2003 - 2005

Undergraduate, Balikesir University, Faculty Of Arts And Sciences, Department Of Biology, Turkey 1999 - 2003

### Dissertations

Doctorate, İnsan ADAMTS2 geninin transkripsiyonel regülasyonu, Balikesir University, Institute Of Science, 2013

Postgraduate, İnsan karbonik anhidraz I (HCA I)geninin klonlanması, E.coli'xxde ekspresyonu ve Phe91Asn yönlendirilmiş mutageneziyle elde edilen mutant enzimin inhibitörlere karşı ilgisinin araştırılması, Balikesir University, Institute Of Science, Biyoloji, 2007

### Research Areas

Life Sciences, Molecular Biology and Genetics

### Academic Titles / Tasks

Assistant Professor, Dokuz Eylul University, Onkoloji Enstitüsü, 2021 - Continues

Assistant Professor, Aksaray University, Teknik Bilimler Meslek Yüksek Okulu, Bitkisel ve Hayvansal Üretim Bölümü, 2014 - 2021

Research Assistant, Balikesir University, Faculty Of Arts And Sciences, Department Of Biology, 2009 - 2014

### Academic and Administrative Experience

Translasyonel Onkoloji Doktora Programı Asgari Öğretim Üyesi, Dokuz Eylul University, Sağlık Bilimleri Enstitüsü, 2023 - Continues

Birim Yayın Komisyonu Üyesi, Dokuz Eylul University, Onkoloji Enstitüsü, 2022 - Continues

## Courses

PDÖ, Undergraduate, 2023 - 2024, 2022 - 2023

Araştırma Becerileri ÖÇM, Undergraduate, 2023 - 2024

## Advising Theses

Alper M., Köçkar F., İnsan ADAMTS-8 Geninin Transkripsiyonel Regülasyonu, Postgraduate, Y.KELEŞ(Student), 2022

Alper M., Köçkar F., IL-6'nın ADAMTS-8 gen ifadesi üzerine etkisinin belirlenmesi, Postgraduate, N.KÖTÜZ(Student), 2021

Alper M., Köçkar F., KOLON KANSER MODELİNDE TGF- $\beta$ 1'İN ADAMTS8 GEN EKSPRESYONUNA ETKİLERİNİN BELİRLENMESİ, Postgraduate, F.NUR(Student), 2021

Alper M., Köçkar F., TNF-alfa aracılı ADAMTS-2 ve ADAMTS-3 genlerinin regülasyonu, Postgraduate, E.MUHAMMED(Student), 2019

Alper M., Köçkar F., Normal oksijen ve hipoksik koşullarda VEGF sitokininin ADAMTS-2 ve ADAMTS-3 genlerinin ifadeleri üzerinde etkisi, Postgraduate, C.AKDIR(Student), 2018

## Jury Memberships

Post Graduate, Post Graduate, Balıkesir Üniversitesi, July, 2023

Doctoral Examination, Doctoral Examination, Gebze Teknik Üniversitesi, June, 2023

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **TGF- $\beta$ 1 Transactivates ADAMTS-2 (ADAM Metallopeptidase with Thrombospondin Type 1 Motif 2) in Saos-2 Cells through Canonical and Non-Canonical Pathways**  
Alper M.  
CYTOLOGY AND GENETICS, vol.57, no.3, pp.282-289, 2023 (SCI-Expanded)
- II. **Hypoxic regulation of ADAMTS-2 and-3 (a disintegrin and matrix metalloproteinase with thrombospondin motifs 2 and 3) procollagen N proteinases by HIF-1 alpha in endothelial cells**  
Altuntas C., ALPER M., Keles Y., Sav F. N., KÖÇKAR F.  
MOLECULAR AND CELLULAR BIOCHEMISTRY, 2022 (SCI-Expanded)
- III. **USF1 Suppresses Expression of Fibrillar Type I, II, and III Collagen and pNP Adamts-3 in Osteosarcoma Cells**  
Alper M., Aydemir T., Kockar F.  
MOLECULAR BIOLOGY, vol.55, no.4, pp.580-588, 2021 (SCI-Expanded)
- IV. **Molecular cloning and biochemical characterization of a Tau class glutathione S-transferase from Pinus brutia Ten**  
Alper M., Oztetik E., Kaya M. Y., Kockar F.  
TREES-STRUCTURE AND FUNCTION, vol.34, no.3, pp.835-843, 2020 (SCI-Expanded)
- V. **SP1-mediated downregulation of ADAMTS3 gene expression in osteosarcoma models**  
Aydemir A. T., Alper M., Kockar F.  
GENE, vol.659, pp.1-10, 2018 (SCI-Expanded)
- VI. **Amplification of GC-rich ADAMTS-2 and URG4/URGCP promoter regions with optimized combination of PCR enhancers**  
Alper M., Tokay E., Kockar F.  
TURKISH JOURNAL OF BIOLOGY, vol.40, no.1, pp.196-205, 2016 (SCI-Expanded)
- VII. **Induction of human ADAMTS-2 gene expression by IL-1 alpha is mediated by a multiple crosstalk of**

### **MEK/JNK and PI3K pathways in osteoblast like cells**

Alper M., Aydemir A. T., Kockar F.

GENE, vol.573, no.2, pp.321-327, 2015 (SCI-Expanded)

- VIII. **Molecular characterization of zeta class glutathione S-transferases from Pinus brutia Ten.**  
Oztetik E., Kockar F., Alper M., Iscan M.  
JOURNAL OF GENETICS, vol.94, no.3, pp.417-423, 2015 (SCI-Expanded)
- IX. **IL-6 upregulates a disintegrin and metalloproteinase with thrombospondin motifs 2 (ADAMTS-2) in human osteosarcoma cells mediated by JNK pathway**  
Alper M., Kockar F.  
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.393, no.1-2, pp.165-175, 2014 (SCI-Expanded)
- X. **Mutation of active site residues Asn67 to Ile, Gln92 to Val and Leu204 to Ser in human carbonic anhydrase II: Influences on the catalytic activity and affinity for inhibitors**  
Turkoglu S., Maresca A., Alper M., Kockar F., Isik S., Sinan S., Ozensoy O., Arslan O., Supuran C. T.  
BIOORGANIC & MEDICINAL CHEMISTRY, vol.20, no.7, pp.2208-2213, 2012 (SCI-Expanded)
- XI. **Evaluation of in vitro effects of some analgesic drugs on erythrocyte and recombinant carbonic anhydrase I and II**  
Gokce B., Gencer N., Arslan O., Turkoglu S. A., Alper M., Kockar F.  
JOURNAL OF ENZYME INHIBITION AND MEDICINAL CHEMISTRY, vol.27, no.1, pp.37-42, 2012 (SCI-Expanded)
- XII. **Mutation of Phe91 to Asn in human carbonic anhydrase I unexpectedly enhanced both catalytic activity and affinity for sulfonamide inhibitors**  
Kockar F., Maresca A., Aydin M., Isik S., Turkoglu S., Sinan S., Arslan O., Gueler O. O., Turan Y., Supuran C. T.  
BIOORGANIC & MEDICINAL CHEMISTRY, vol.18, no.15, pp.5498-5503, 2010 (SCI-Expanded)
- XIII. **Saccharomyces cerevisiae beta-Carbonic Anhydrase: Inhibition and Activation Studies**  
Isik S., Guler O. O., Kockar F., Aydin M., Arslan O., Supuran C. T.  
CURRENT PHARMACEUTICAL DESIGN, vol.16, no.29, pp.3327-3336, 2010 (SCI-Expanded)
- XIV. **Carbonic anhydrase activators: Activation of the beta-carbonic anhydrase Nce103 from the yeast Saccharomyces cerevisiae with amines and amino acids**  
Isik S., Kockar F., Aydin M., Arslan O., Guler O. O., Innocenti A., Scozzafava A., Supuran C. T.  
BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, vol.19, no.6, pp.1662-1665, 2009 (SCI-Expanded)
- XV. **Carbonic anhydrase inhibitors: Inhibition of the beta-class enzyme from the yeast Saccharomyces cerevisiae with sulfonamides and sulfamates**  
Isik S., Kockar F., Aydin M., Arslan O., Guler O. O., Innocenti A., Scozzafava A., Supuran C. T.  
BIOORGANIC & MEDICINAL CHEMISTRY, vol.17, no.3, pp.1158-1163, 2009 (SCI-Expanded)

### **Articles Published in Other Journals**

- I. **C/EBP $\alpha$  Mediated Transcriptional Regulation of Human ADAMTS-3 Gene and Collagen Expression in Osteosarcoma Cells**  
Alper M., Aydemir T., Köçkar F.  
Adıyaman Üniversitesi Fen Bilimleri Dergisi, vol.14, no.2, 2024 (Peer-Reviewed Journal)
- II. **Expression Pattern of ADAMTS-3 (A Disintegrin and Matrix Metalloproteinase Type,1 Motif 3) in Normal and Cancer Cell Lines**  
Alper M., Aydemir A., Köçkar F.  
Süleyman Demirel Üniversitesi Sağlık Bilimleri Dergisi, vol.13, no.1, pp.40-47, 2022 (Peer-Reviewed Journal)
- III. **Effect of Angiogenesis Related Growth Factors VEGF-a and FGF-1 on Osteosarcoma Cell Proliferation**  
ALPER M.  
Adıyaman Üniversitesi Fen Bilimleri Dergisi, vol.10, no.2, pp.403-412, 2020 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **TGF- $\beta$ 1 Induces ADAMTS8 (A Disintegrin and Metalloproteinase with Thrombospondin Motif 8) Expression in MG-63 Cells.**  
Alper M.  
International Eurasian Conference on Biotechnology and Biochemistry, Ankara, Turkey, 16 - 18 December 2020, pp.162
- II. **EGF (Epidermal Growth Factor) Suppresses ADAMTS-8 (A disintegrin and metalloproteinase with thrombospondin motif, 8) mRNA Expression in Saos-2 and MG-63 Osteosarcoma Models.**  
Alper M.  
9th INTERNATIONAL MOLECULAR BIOLOGY AND BIOTECHNOLOGY CONGRESS, Kars, Turkey, 6 - 10 December 2020, pp.39
- III. **Molecular cloning and sequence analysis of human ADAMTS-8 (A disintegrin and metalloproteinase with thrombospondin motif, 8) gene promoter.**  
Alper M., Keskin S. D., Köçkar F.  
3 rd International Eurasian Conference on Biological and Chemical Sciences (, Ankara, Turkey, 19 - 20 March 2020, pp.345
- IV. **USF Mediated Regulation of Human A Disintegrin and Metalloproteinase with Thrombospondin Type 1, Motif 3 (ADAMTS-3) Gene Expression in Osteosarcoma**  
Alper M., Aydemir A. T., Köçkar F.  
International Science and Academic Congress, Konya, Turkey, 19 - 20 April 2019, pp.42-43
- V. **TNF- $\alpha$  Mediated Upregulation of the human ADAMTS-3 Gene Expression in osteoblast-like cells.**  
Alper M., Aymaz E. M., Aydemir A. T., Köçkar F.  
' 6th International Molecular Biology and Biotechnology Congress, Afyonkarahisar, Turkey, 22 - 25 December 2017, pp.18
- VI. **Transactivation of the human ADAMTS-2 gene promoter through proinflammatory cytokine TNF- $\alpha$  in osteoblast-like cells**  
Alper M., Aydemir T., Köçkar F.  
40th FEBS Congress, Berlin, Germany, 4 - 09 July 2015, vol.282, pp.82
- VII. **TNF $\alpha$  Differentially Regulate Human ADAMTS-3 Promoter Activity in Osteosarcoma Cells**  
Aydemir A., Alper M., Köçkar F.  
EACR-Sponsored 3rd Anticancer Agent Development Congress, İzmir, Turkey, 18 - 19 May 2015, pp.179
- VIII. **Up-regulation of Human ADAMTS-2 via IL-6 in Osteosarcoma Cells**  
Alper M., Köçkar F.  
III. Uluslararası Moleküler Biyoloji Kongresi, İzmir, Turkey, 10 - 12 September 2014, pp.229
- IX. **Functional Analysis of the Human ADAMTS-3 Gene Promoter**  
Aydemir A. T., Alper M., Köçkar F.  
III. International Congress of the Molecular Biology Assoc, İzmir, Turkey, 10 - 12 September 2014, pp.177
- X. **Molecular cloning and in silico analysis of human ADAMTS-3 (a disintegrin and metalloprotease with thrombospondin motifs) gene promoter**  
Alper M., Aydemir A., Köçkar F.  
FEBS EMBO 2014, Paris, France, 30 August - 04 September 2014, vol.281, pp.253-254
- XI. **İnsan ADAMTS-2 (A Disintegrin and Metalloprotease Domain with Thrombospondin Type I Motif II) Geninin Transkripsiyonel Regülasyonu**  
Alper M., Köçkar F.  
22. Ulusal Biyoloji Kongresi, Eskişehir, Turkey, 23 - 27 June 2014, pp.304
- XII. **IL-1 $\alpha$  (İnterlökin 1 $\alpha$ ) Sitokininin İnsan ADAMTS-3 (A Disintegrin and Metalloprotease Domain with Thrombospondin Type I Motif III) Ekspresyonuna Olan Etkisinin Belirlenmes**  
Aydemir A., Alper M., Köçkar F.  
22. Ulusal Biyoloji Kongresi, Eskişehir, Turkey, 23 - 27 June 2014, pp.294
- XIII. **İnsan SMAD4 Geninin Ökaryotik Ekspresyon Vektörüne Klonlanması**

- Gültekin A. S., Güler G., Alper M., Köçkar F.  
22. Ulusal Biyoloji Kongresi, Eskişehir, Turkey, 23 - 27 June 2014, pp.1237
- XIV. **Rekombinant *Pinus brutia* Ten. Glutathione-S transferase Tau Enziminin Ekspresyonu ve Karakterizasyonu**  
Alper M., Kaya M. Y., Öztetik E., Köçkar F.  
II.Ulusal Moleküler Biyoloji ve Biyoteknoloji Kongresi, Antalya, Turkey, 15 - 18 November 2012, pp.35
- XV. **İnsan Smad3 Geninin Farklı Hücre Hatlarındaki Ekspresyon Analizi ve Klonlanması**  
Güler G., Alper M., Köçkar F.  
II.Ulusal Moleküler Biyoloji ve Biyoteknoloji Kongresi, Antalya, Turkey, 15 - 18 November 2012, pp.149
- XVI. **Effects of fibroblast growth factor (FGF acidic) and epidermal growth factor (EGF) on procollagen-N proteinases; ADAMTS-2 and ADAMTS-3 in osteosarcoma model**  
Alper M., Kockar F.  
22nd IUBMB Congress/37th FEBS Congress, Sevilla, Spain, 4 - 09 September 2012, vol.279, pp.494
- XVII. **Expression analysis of URG4 (upregulated gene 4) in osteoblast-like cells, Saos-2 and MG63**  
Kockar F., Tokay E., Alper M.  
36th FEBS Congress of the Biochemistry for Tomorrows Medicine, Torino, Italy, 25 - 30 June 2011, vol.278, pp.213
- XVIII. **Cloning of human ADAMTS-2 Promoter: Strategies for cloning extremely GC rich promoters**  
Alper M., Kockar F.  
36th FEBS Congress of the Biochemistry for Tomorrows Medicine, Torino, Italy, 25 - 30 June 2011, vol.278, pp.74
- XIX. **MCF-7 Hücre Hattında URG4(UpRegulated Gene 4) Geninin Ekspresyon Analizi**  
Tokay E., Alper M., Köçkar F.  
I.Ulusal Moleküler Biyoloji ve Biyoteknoloji Kongresi , Antalya, Turkey, 26 - 29 October 2010, pp.20
- XX. **Kollajen Metabolizmasında Anahtar ADAMTS-2 Geninin Hep3B, MCF7, HT-29, PC3 ve DU145 Hücre Hatlarındaki Ekspresyonu**  
Alper M., Köçkar F.  
I.Ulusal Moleküler Biyoloji ve Biyoteknoloji Kongresi , Antalya, Turkey, 26 - 29 October 2010, pp.32
- XXI. **The effects of some neuroleptic drugs on Paraoxonase enzyme activity purified from human serum and in Hep3B cells**  
Avcıkurt A., Aydın M., Demir D., Yildirim H., Eryılmaz S., Turkoglu S. A., Kockar F., Sinan S.  
34th Congress of the Federation-of-European-Biochemical-Societies, Prague, Czech Republic, 4 - 09 July 2009, vol.276, pp.299-300
- XXII. **Phylogenetic and bioinformatic analysis of Glutathione S-Transferase Tau from *Pinus brutia***  
Öztetik E., Aydın M., Kockar F.  
34th Congress of the Federation-of-European-Biochemical-Societies, Prague, Czech Republic, 4 - 09 July 2009, vol.276, pp.116
- XXIII. **Is there any antitumor effects of oleuropein in different tumour types: Breast, Prostate and Hepatoma models?**  
Alper M., Aydoğan Türkoğlu S., Köçkar F.  
4th EORTC Pathobiology Group Annual Meeting & 1st International Multidisciplinary Cancer Research Congress, Antalya, Turkey, 21 - 24 May 2009
- XXIV. **Karbonik Anhidraz I (hCAI) Geninin Klonlanması E.coli 'de Ekspresyonu ve Phe91Asn Yönlendirilmiş Mutageneziyle Elde Edilen Mutant Enzimin İnhibitörlere Karşı İlgisinin Araştırılması**  
Alper M., Köçkar F., Aydoğan Türkoğlu S., Işık S., Arslan O., Turan Y.  
19. Ulusal Biyoloji Kongresi, Trabzon, Turkey, 23 - 27 June 2008, pp.188
- XXV. **HCAII Geninde Lösin204/Serin Yönlendirilmiş Mutagenezi ve E.coli'de Ekspresyonu**  
Aydoğan Türkoğlu S., Köçkar F., Sinan S., Alper M., Arslan O.  
19. Ulusal Biyoloji Kongresi, Trabzon, Turkey, 23 - 27 June 2008, pp.188
- XXVI. **Sequence analysis of Tau class glutathione S-transferase from *Pinus brutia* (Pinaceae)**  
Öztetik E., Aydın M., Kockar F.  
Joint Conference of the 33rd FEBS Congress/11th IUBMB Conference, Athens, Greece, 28 June - 03 July 2008, vol.275, pp.363

- XXVII. **Comparison of hydratase, esterase activities and inhibition manner of mutant Asn67/Ile and Leu204/Ser of human CAII**  
Turkoglu S. A., Kockar F., Aydin M., Sinan S., Arslan O.  
Joint Conference of the 33rd FEBS Congress/11th IUBMB Conference, Athens, Greece, 28 June - 03 July 2008, vol.275, pp.157
- XXVIII. **Inhibition studies on mutant Phe91Asn human carbonic anhydrase I (HCA I) gene**  
Kockar F., Ayduen M., Turkoglu S. A., Arslan O., Turan Y.  
Joint Conference of the 33rd FEBS Congress/11th IUBMB Conference, Athens, Greece, 28 June - 03 July 2008, vol.275, pp.168
- XXIX. **Cloning and expression of PBrutia GST-zeta in E-coli**  
Öztetik E., Alper M., Köçkar F., İşcan M.  
32 nd FEBS Congress, Vienna, Austria, 7 - 12 July 2007, pp.305
- XXX. **Cloning and expression of human CAI in E-coli**  
Yildirim H., Kockar F., Aydin M., Arslan O.  
31st Congress of the Federation-of-European-Biochemical-Societies (FEBS), İstanbul, Turkey, 24 - 29 June 2006, vol.273, pp.287-288

## Supported Projects

ALPER M., Project Supported by Higher Education Institutions, Osteosarkoma Modelinde FGF'nin (Fibroblast Growth Factor) ADAMTS8 mRNA Düzeyine olan Etkisinin Belirlenmesi, 2023 - Continues

Alper M., Köçkar F., Tokay E., Hacıoğlu N., TÜBİTAK Project, Hepatosellüler Kanserde Proinflamatuvar Sitokinler Il-6 Ve Tnfa'nın Mir100hg Geninin Regülasyonuna Olan Etkisinin Belirlenmesi, 2023 - 2026

Alper M., Köçkar F., Tokay E., Hacıoğlu N., TÜBİTAK Project, Hepatosellüler Kanserde MIR100HG'nin Moleküler Karakterizasyonu, 2022 - 2025

Alper M., Köçkar F., TÜBİTAK Project, Kolon Kanser Modelinde Tgf- $\beta$ 1'in Adamts-8 Geninin Transkripsiyonel Regülasyonuna Olan Etkilerinin Belirlenmesi, 2023 - 2024

Alper M., Köçkar F., TÜBİTAK Project, KOLON KANSERİNDE ADAMTS-8 GENİNİN TRANSKRİPSİYONEL REGÜLASYONU ve ENFLAMASYON SİTOKİNLERİNİN (TNF- $\alpha$  ve IL-6) BU REGÜLASYONA OLAN ETKİLERİ, 2019 - 2023

Alper M., Köçkar F., Project Supported by Higher Education Institutions, Osteosarkom hücre modelinde TNF Alfa'nın ADAMTS2 gen ifadesine etkilerin belirlenmesi, 2019 - 2022

Alper M., Köçkar F., TÜBİTAK Project, İNSAN ADAMTS 3 GEN PROMOTORUNUN FONKSİYONEL ANALİZİ, 2014 - 2017

Alper M., Köçkar F., TÜBİTAK Project, İNSAN ADAMTS 2 GENİNİN MOLEKÜLER ANALİZİ, 2012 - 2014

Alper M., Köçkar F., Project Supported by Higher Education Institutions, İnsan ADAMTS 2 Geninin Transkripsiyonel Regülasyonu, 2010 - 2013

Köçkar F., TÜBİTAK Project, Tümör İlgili Karbonik Anhidraz IX Geninin Transkripsiyonel Regülasyonu, 2006 - 2009

## Scientific Refereeing

Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Türkiye Sağlık Enstitütüleri Başk., Turkey, January 2024

International Journal of Chemistry and Technology (IJCT), National Scientific Refreed Journal, November 2022

BIOTECHNOLOGY AND APPLIED BIOCHEMISTRY, Journal Indexed in SCI-E, September 2022

FRONTIERS IN ONCOLOGY, Journal Indexed in SCI-E, May 2022

Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, April 2022

## Tasks In Event Organizations

Başbınar Y., ALPER M., Translasyonel Onkoloji Araştırma Okulları 4. Temel ve İleri Teknikler Yaz Okulu, Science / Art Camp or Summer School Organization, Turkey, Haziran 2022

## **Metrics**

Publication: 50

Citation (WoS): 187

H-Index (WoS): 7