

## **Prof. MESUT MUYAN**

### **Personal Information**

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### **International Researcher IDs**

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Publons / Web Of Science ResearcherID: AAZ-4888-2020

ScopusID: 6602713197

Yoksis Researcher ID: 164791

### **Education Information**

Doctorate, University of California, Davis, Endocrinology, United States Of America 1985 - 1991

Doctorate, Ankara University, Ankara Veteriner Fakültesi, Turkey 1981 - 1987

Associate Degree, Ankara University, Ankara Veteriner Fakültesi, Turkey 1975 - 1980

### **Foreign Languages**

English, C2 Mastery

### **Dissertations**

Doctorate, Direct effects of gonadal steroids on LH subunit polypeptide synthesis and glycosylation by CAMP and GnRH, University Of California, Davis, Endocrinology, 1991

Doctorate, Ankara Keçilerinde Başlıca Spermatolojik özellikler, Ankara Üniversitesi, 1987

### **Research Areas**

Health Sciences, Natural Sciences

### **Academic Titles / Tasks**

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2016 - Continues

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2011 - Continues

### **Academic and Administrative Experience**

Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2017 - Continues

## Courses

PHYSIOLOGY, Undergraduate, 2022 - 2023

## Advising Theses

- MUYAN M., Cell cycle-dependent regulation of CXXC5 synthesis, Postgraduate, Ö.DENİZ(Student), 2022
- MUYAN M., The regulation of the CXXC5 gene expression, Doctorate, P.YAŞAR(Student), 2021
- MUYAN M., Functional importance of CXXC5 in E2-driven cellular proliferation, Postgraduate, N.Razizadeh(Student), 2019
- MUYAN M., Establishment of cell lines with inducible expression of shRNA for an estrogen responsive gene, Postgraduate, B.KARAKAYA(Student), 2018
- MUYAN M., Structural and functional characterization of the CXXC-type zinc finger protein 5 (CXXC5), Doctorate, G.AYAZ(Student), 2018
- MUYAN M., Protein characterization of human YPEL2 and YPEL homolog yeast MOH1, Postgraduate, Ç.ECE(Student), 2018
- MUYAN M., Epigenetic characterization of CXXC5 gene locus, Postgraduate, G.KARS(Student), 2018
- MUYAN M., Assessment of 17beta-estradiol-estrogen receptor alpha complex-mediated changes in genome-wide methylation and gene expression profiles, Postgraduate, S.DAMLA(Student), 2016
- MUYAN M., Initial characterization of CXXC5 as a putative DNA binding protein, Postgraduate, P.YAŞAR(Student), 2015
- MUYAN M., Cloning and initial characterization of an estrogen responsive gene: YPEL2, Postgraduate, G.GÜPÜR(Student), 2014
- MUYAN M., Cloning and initial protein characterization of an estrogen responsive gene: YPEL2, Postgraduate, G.Güpür(Student), 2014

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

- I. **Dynamic proximity interaction profiling suggests that YPEL2 is involved in cellular stress surveillance**  
Turan G., OLGUN Ç. E., AYTEN H., Toker P., Ashyralyev A., Savaş B., KARACA EREK E., MUYAN M.  
Protein Science, vol.33, no.2, 2024 (SCI-Expanded)
- II. **Vicinal Diaryl-Substituted Isoxazole and Pyrazole Derivatives with in Vitro Growth Inhibitory and in Vivo Antitumor Activity**  
Turanlı S., NALBAT E., LENGERLİ D., İBİŞ K., Güntekin Ergün S., Akhan Güzelcan E., MUYAN M., Cetin-Atalay R., Çallışkan B., BANOĞLU E.  
ACS Omega, vol.7, no.41, pp.36206-36226, 2022 (SCI-Expanded)
- III. **MotifGenie: A Python Application for Searching Transcription Factor Binding Sequences Using ChIP-Seq Datasets.**  
Oguztuzun C., Yasar P., Yavuz K., Muyan M., Can T.  
Bioinformatics (Oxford, England), vol.37, pp.4238-4239, 2021 (SCI-Expanded)
- IV. **A prelude to the proximity interaction mapping of CXXC5**  
Ayaz G., Turan G., OLGUN Ç. E., Kars G., Karakaya B., Yavuz K., Demiralay O. D., CAN T., MUYAN M., Yasar P.  
SCIENTIFIC REPORTS, vol.11, no.1, 2021 (SCI-Expanded)
- V. **A CpG island promoter drives the CXXC5 gene expression**  
Yasar P., Kars G., Yavuz K., Ayaz G., Oguztuzun C., Bilgen E., Suvaci Z., Cetinkol Ö., CAN T., MUYAN M.  
SCIENTIFIC REPORTS, vol.11, no.1, 2021 (SCI-Expanded)
- VI. **Dynamic transcriptional events mediated by estrogen receptor alpha**  
Ayaz G., Yasar P., OLGUN Ç. E., Karakaya B., Kars G., Razizadeh N., Yavuz K., Turan G., MUYAN M.  
FRONTIERS IN BIOSCIENCE-LANDMARK, vol.24, pp.245-276, 2019 (SCI-Expanded)
- VII. **Estradiol-Estrogen Receptor alpha Mediates the Expression of the CXXC5 Gene through the Estrogen Response Element-Dependent Signaling Pathway**

Yasar P., Ayaz G., MUYAN M.

SCIENTIFIC REPORTS, vol.6, 2016 (SCI-Expanded)

- VIII. **Modulation of Estrogen Response Element-Driven Gene Expressions and Cellular Proliferation with Polar Directions by Designer Transcription Regulators**  
Muyan M., Gupur G., Yasar P., Ayaz G., User S. D., Kazan H. H., Huang Y.  
PLOS ONE, vol.10, 2015 (SCI-Expanded)
- IX. **The ligand-mediated nuclear mobility and interaction with estrogen-responsive elements of estrogen receptors are subtype specific**  
Muyan M., Callahan L. M., Huang Y., Lee A. J.  
JOURNAL OF MOLECULAR ENDOCRINOLOGY, vol.49, no.3, pp.249-266, 2012 (SCI-Expanded)

## Articles Published in Other Journals

- I. **MAZ (MYC Associated Zinc Finger Protein)**  
MUYAN M.  
Atlas of Genetics and Cytogenetics in Oncology and Haematology, 2017 (Scopus)
- II. **GRHL2 (grainyhead like transcription factor 2)**  
MUYAN M.  
Atlas of Genetics and Cytogenetics in Oncology and Haematology, 2017 (Scopus)
- III. **SNW1 (SNW domain containing 1)**  
OLGUN Ç. E., MUYAN M.  
Atlas of Genetics and Cytogenetics in Oncology and Haematology, 2017 (Scopus)
- IV. **Molecular mechanism of estrogen-estrogen receptor signaling.**  
Yaşar P., Ayaz G., User S., Güpür G., Muyan M.  
Reproductive medicine and biology, vol.16, pp.4-20, 2016 (ESCI)
- V. **A tale of two estrogen receptors ERs how differential ER estrogen responsive element interactions contribute to subtype specific transcriptional responses**  
HUANG J., LI X., QIAO T., BAMBARA R., HILF R., MUYAN M.  
NUCLEAR RECEPTOR SIGNALING, 2006 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Functional characterization of CXXC type zinc finger protein 5**  
MUYAN M.  
1st International Congress on Environment and Animal Health, 6 - 08 April 2018
- II. **Estrogen signaling and breast cancer**  
MUYAN M.  
1st International Congress on Environment and Animal Health, 6 - 08 April 2018
- III. **Assessing putative protein partners of selected estrogen responsive gene products by a yeast-two-hybrid approach**  
OLGUN Ç. E., MUYAN M.  
HIBIT2017, 28 - 30 June 2017
- IV. **Towards proteomic analysis of YPEL2 interacting partners identified with proximity dependent biotinylation**  
OLGUN Ç. E., TUNÇBAĞ N., MUYAN M.  
HIBIT2017, 28 - 30 June 2017
- V. **Protein interaction approaches to assign a function for an estrogen responsive gene protein: CXXC5**  
MUYAN M.  
HIBIT2017, 28 - 30 June 2017

## Supported Projects

- MUYAN M., TURAN G., Project Supported by Higher Education Institutions, CXXC5 geninin promotor bölgesine bağlanan transkripsiyon faktörlerin belirlenmesi, 2021 - 2022
- MUYAN M., DEMİRALAY Ö. D., CAN T., Project Supported by Higher Education Institutions, Genom Düzeyindeki Protein Bağlanma Verilerinin Biyoinformatik ve Deneysel Yöntemlerle Analizi, 2021 - 2022
- MUYAN M., KARS G., Project Supported by Higher Education Institutions, CXXC5 GENİNİN HÜCRE DÖNGÜSÜNE BAĞLI ANLATIMI, 2018 - 2019
- MUYAN M., YAVUZ K., Project Supported by Higher Education Institutions, CXXC5 GEN LOKUSUNDA İLERLETİCİ VE GÜÇLENDİRİCİ BÖLGELERİN UZUN MENZİLLİ ETKİLEŞİMLERİNİN ARAŞTIRILMASI, 2018 - 2019
- MUYAN M., YAŞAR P., Project Supported by Higher Education Institutions, ÖSTROJEN YANITLI CXXC5 GENİNİN KARAKTERİZASYONU, 2018 - 2019
- MUYAN M., AYAZ ŞEN G., Project Supported by Higher Education Institutions, CXXC-TİPİ ÇİNKO PARMAK 5 PROTEİNİNİN YAPISAL VE FONKSİYONEL KARAKTERİZASYONU, 2018 - 2019
- ERSON BENSAN A. E., KİRİŞ E., MUYAN M., GÜRSEL M., TERZİ ÇİZMECİOĞLU N., BANERJEE S., Project Supported by Higher Education Institutions, Meme dokusunun gelişim aşamalarının APA açısından analizi, 2018 - 2019
- MUYAN M., RAZIZADEH N., TUNÇBAĞ N., Project Supported by Higher Education Institutions, Östrojen sinyali tarafından tetiklenen epigenetik değişikliklerde rol oynayan protein ağlarının belirlenmesi ve modellenmesi, 2018 - 2019
- MUYAN M., Project Supported by Higher Education Institutions, ÖSTROJEN YANITLI CXXC5 GENİNİN KARAKTERİZASYONU, 2017 - 2017
- BANERJEE S., ERSON BENSAN A. E., BİRAND ÖZSOY A. C., MUYAN M., TERZİ ÇİZMECİOĞLU N., Project Supported by Higher Education Institutions, Kolorektal kanser hücrelerinde Siklooksijenaz -2 (COX-2)'nin sodyum bütirat aracılı transkripsiyon sonrası regülasyonu, 2017 - 2017
- MUYAN M., Project Supported by Higher Education Institutions, CXXC5 PROTEİN PARTNERLERİNİN TANIMLANMASI, 2017 - 2017
- MUYAN M., Project Supported by Higher Education Institutions, İNSAN YPEL GEN AİLESİNİN KARAKTERİZASYONU, 2017 - 2017
- MUYAN M., Project Supported by Higher Education Institutions, CXXC5 GENİNİN HÜCRE DÖNGÜSÜNE BAĞLI ANLATIMI, 2017 - 2017
- MUYAN M., Project Supported by Higher Education Institutions, CXXC5 PROTEİNİNİN İLİŞKİLENDİĞİ PROTEİN PARTNERLERİNİN TANIMLANMASI, 2017 - 2017
- Muyan M., Can T., TUBITAK Project, Östrojen Yanıt Geni Cxxc5 in Östrojen Tarafından Düzenlenen Hücre Çoğalmasındaki Etkisi, 2014 - 2017
- MUYAN M., ERSON BENSAN A. E., Project Supported by Higher Education Institutions, CXXC5 Proteinin İşlevsel Özelliklerinin Tanımlanmasında Protein Partnerleri, 2016 - 2016
- MUYAN M., ERSON BENSAN A. E., CAN T., Project Supported by Higher Education Institutions, Meme Kanseri Model Hücrelerinde Tüm Genom Düzeyinde RNA Ekspresyon Analizleri, 2015 - 2016
- MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2016
- MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2016
- MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2016
- MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015
- MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015
- MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015
- MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015
- MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

BANERJEE S., ERSON BENSAN A. E., MUYAN M., Project Supported by Higher Education Institutions, Kolon kanserinde 15-lipoksijenaz-1 ve Nükleer Faktör kappa B (NF-kB)'nin MTA1 ifadesini değiştiren karşılıklı etkileşimi, 2014 - 2014

MUYAN M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

ÖZEN C., Durusu I., MUYAN M., Project Supported by Higher Education Institutions, Kanser Hücre Tanısına Yönelik Yakın Kızıl Ötesi (NIR) Emisyonlu Gümüş Sülfid (Ag<sub>2</sub>S-DMSA) Kuantum Noktacıklarının in vitro Karakterizasyonu, 2013 - 2014

BANERJEE S., ERSON BENSAN A. E., MUYAN M., Project Supported by Higher Education Institutions, MikroRNA miR-106b nin ifadesinin artmasının meme kanseri üzerine olan etkisi, 2013 - 2013

MUYAN M., GÜPÜR G., Project Supported by Higher Education Institutions, YPEL2 GENİNİN İFADESİNİN ÖSTROJEN - ÖSTROJEN RESEPTÖR KOMPLEKSİ İLE DÜZENLENMESİ, 2013 - 2013

MUYAN M., Arslan O. C., Project Supported by Higher Education Institutions, Bal Arılarının Virüs Ve Patojenlerinin Belirlenmesi Ve Bal Arılarının Bunlardan Bir Kısmına Tepkilerinin Ölçülmesi, 2012 - 2013

MUYAN M., Project Supported by Higher Education Institutions, Transcriptional Swithes For Ere-Driven Genes, 2012 - 2012

## Metrics

Publication: 20

Citation (WoS): 174

Citation (Scopus): 179

H-Index (WoS): 5

H-Index (Scopus): 5