

## Asst. Prof. ŞERİFE AYAZ GÜNER

### Personal Information

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### Education Information

Doctorate, University of Wisconsin-Madison, Cellular and Molecular Biology, United States Of America 2007 - 2013

Undergraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Biology, Turkey 1997 - 2012

Postgraduate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Biotechnology, Turkey 2002 - 2005

### Dissertations

Doctorate, Dissecting the role of estrogen receptor palmitoylation in breast cancer cells, University of Wisconsin-Madison, 2013

### Research Areas

Proteomics, Molecular Biology of Cancer, Protein Engineering

### Academic Titles / Tasks

Assistant Professor, Abdullah Gul University, Yaşam ve Doğa Bilimleri Fakültesi, Moleküler Biyoloji ve Genetik, 2018 - Continues

Research Assistant PhD, The University of Wisconsin Madison, Cell and Regenerative Biology, 2014 - 2015

Research Assistant, The University of Wisconsin Madison, Cellular and Molecular Biology, 2007 - 2013

### Courses

Special Techniques and Advances in Molecular Biology, Undergraduate, 2019 - 2020

Molecular Biology, Undergraduate, 2018 - 2019

### Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Proteomic and Biological Analysis of the Effects of Metformin Senomorphics on the Mesenchymal Stromal Cells**  
Acar M. B. , AYAZ GÜNER Ş., Gunaydin Z., KARAKÜKCÜ M., Peluso G., Di Bernardo G., ÖZCAN S., GALDERISI U. FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY, vol.9, 2021 (Journal Indexed in SCI)
- II. **Why Do Muse Stem Cells Present an Enduring Stress Capacity? Hints from a Comparative Proteome Analysis**

- Acar M. B. , Aprile D., AYAZ GÜNER Ş., GÜNER H., TEZ C., Di Bernardo G., Peluso G., ÖZCAN S., Galderisi U. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.22, no.4, 2021 (Journal Indexed in SCI)
- III. **Obesity induced by high-fat diet is associated with critical changes in biological and molecular functions of mesenchymal stromal cells present in visceral adipose tissue.**  
Acar M. B. , Ayaz-Güner Ş., Di Bernardo G., Güner H., Murat A., Peluso G., Özcan S., Galderisi U. Aging, vol.12, 2020 (Journal Indexed in SCI)
- IV. **Obesity induced by high-fat diet is associated with critical changes in biological and molecular functions of mesenchymal stromal cells present in visceral adipose tissue**  
Acar M. B. , AYAZ GÜNER Ş., Di Bernardo G., GÜNER H., Murat A., Peluso G., ÖZCAN S., Galderisi U. AGING-US, vol.12, no.24, pp.24894-24913, 2020 (Journal Indexed in SCI)
- V. **A comparative study on normal and obese mice indicates that the secretome of mesenchymal stromal cells is influenced by tissue environment and physiopathological conditions**  
AYAZ GÜNER Ş., Alessio N., Acar M. B. , Aprile D., ÖZCAN S., Di Bernardo G., Peluso G., Galderisi U. CELL COMMUNICATION AND SIGNALING, vol.18, no.1, 2020 (Journal Indexed in SCI)
- VI. **A photocleavable surfactant for top-down proteomics**  
Brown K. A. , Chen B., Guardado-Alvarez T. M. , Lin Z., Hwang L., Ayaz-Guner Ş., Jin S., Ge Y. NATURE METHODS, vol.16, no.5, pp.417-423, 2019 (Journal Indexed in SCI)
- VII. **Monophosphorylation of cardiac troponin-I at Ser-23/24 is sufficient to regulate cardiac myofibrillar Ca<sup>2+</sup> sensitivity and calpain-induced proteolysis**  
Martin-Garrido A., Biesiadecki B. J. , Salhi H. E. , Shaifta Y., dos Remedios C. G. , Ayaz-Guner Ş., Cai W., Ge Y., Avkiran M., Kentish J. C. JOURNAL OF BIOLOGICAL CHEMISTRY, vol.293, no.22, pp.8588-8599, 2018 (Journal Indexed in SCI)
- VIII. **A Family of Photolabile Nitroveratryl-Based Surfactants That Self-Assemble into Photodegradable Supramolecular Structures**  
Hwang L., Guardado-Alvarez T. M. , Ayaz-Gunner Ş., Ge Y., Jin S. LANGMUIR, vol.32, no.16, pp.3963-3969, 2016 (Journal Indexed in SCI)
- IX. **MASH Suite Pro: A Comprehensive Software Tool for Top-Down Proteomics**  
Cai W., Guner H., Gregorich Z. R. , Chen A. J. , Ayaz-Guner Ş., Peng Y., Valeja S. G. , Liu X., Ge Y. MOLECULAR & CELLULAR PROTEOMICS, vol.15, pp.703-714, 2016 (Journal Indexed in SCI)
- X. **Comprehensive Characterization of AMP-Activated Protein Kinase Catalytic Domain by Top-Down Mass Spectrometry**  
Yu D., Peng Y., Ayaz-Guner Ş., Gregorich Z. R. , Ge Y. JOURNAL OF THE AMERICAN SOCIETY FOR MASS SPECTROMETRY, vol.27, no.2, pp.220-232, 2016 (Journal Indexed in SCI)
- XI. **Effective Top-Down LC/MS plus Method for Assessing Actin Isoforms as a Potential Cardiac Disease Marker**  
Chen Y., Ayaz-Guner Ş., Peng Y., Lane N. M. , Locher M. R. , Kohmoto T., Larsson L., Moss R. L. , Ge Y. ANALYTICAL CHEMISTRY, vol.87, no.16, pp.8399-8406, 2015 (Journal Indexed in SCI)
- XII. **Specific Enrichment of Phosphoproteins Using Functionalized Multivalent Nanoparticles**  
Hwang L., Ayaz-Guner Ş., Gregorich Z. R. , Cai W., Valeja S. G. , Jin S., Ge Y. JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol.137, no.7, pp.2432-2435, 2015 (Journal Indexed in SCI)
- XIII. **Top-down mass spectrometry of cardiac myofilament proteins in health and disease**  
Peng Y., Ayaz-Guner Ş., Yu D., Ge Y. PROTEOMICS CLINICAL APPLICATIONS, vol.8, pp.554-568, 2014 (Journal Indexed in SCI)
- XIV. **Systematic Analyses of the Cytotoxic Effects of Compound 11a, a Putative Synthetic Agonist of Photoreceptor-Specific Nuclear Receptor (PNR), in Cancer Cell Lines**  
Zhao Z., Wang L., Wen Z., Ayaz-guner Ş., Wang Y., Ahlquist P., Xu W. PLOS ONE, vol.8, no.9, 2013 (Journal Indexed in SCI)
- XV. **The impact of antibody selection on the detection of cardiac troponin I**  
Guy M. J. , Chen Y., Clinton L., Zhang H., Zhang J., Dong X., Xu Q., Ayaz-Guner Ş., Ge Y. CLINICA CHIMICA ACTA, vol.420, pp.82-88, 2013 (Journal Indexed in SCI)

- XVI. **Phosphorylation, but Not Alternative Splicing or Proteolytic Degradation, Is Conserved in Human and Mouse Cardiac Troponin T**  
Zhang J., Zhang H., Ayaz-Guner Ş., Chen Y., Dong X., Xu Q., Ge Y.  
BIOCHEMISTRY, vol.50, no.27, pp.6081-6092, 2011 (Journal Indexed in SCI)
- XVII. **In Vivo Phosphorylation Site Mapping in Mouse Cardiac Troponin I by High Resolution Top-Down Electron Capture Dissociation Mass Spectrometry: Ser22/23 Are the Only Sites Basally Phosphorylated**  
Ayaz-Guner Ş., Zhang J., Li L., Walker J. W. , Ge Y.  
BIOCHEMISTRY, vol.48, no.34, pp.8161-8170, 2009 (Journal Indexed in SCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Immunoproteomic Analysis of Acinetobacter baumannii Surface and Secreted Proteins**  
AYAZ GÜNER Ş., ÖZCAN S.  
International Congress of the Molecular Biology Association of Turkey, İstanbul, Turkey, 27 - 29 September 2019
- II. **Monophosphorylation of cardiac troponin-I at Ser23/24 regulates cardiac myofibrillar Ca<sup>2+</sup> sensitivity and modulates calpain-induced proteolysis**  
Kentish J. C. , Martin-Garrido A., Biesiadecki B. J. , Salhi H. E. , Shaifta Y., Dos Remedios C., Ayaz-Guner Ş., Cai W., Ge Y., Avkiran M.  
5th Congress of the ESC-Council-on-Basic-Cardiovascular-Science on Frontiers in Cardio Vascular Biology, Vienna, Austria, 20 - 22 April 2018, vol.114
- III. **Kalp Miyofilamentlerinde Top-Down Proteomik Uygulamaları**  
AYAZ GÜNER Ş.  
2. Ulusal Proteomik Kongresi, İstanbul, Turkey, 24 - 25 November 2017
- IV. **Estrogen receptor (ER $\alpha$ ) palmitoylation is essential for its membrane localization and the intact function of ER $\alpha$  in breast cancer cell.**  
AYAZ GÜNER Ş., Elaine A., Xu W.  
5th International Congress of the Molecular Biology Association of Turkey, 8 - 10 September 2017

## Supported Projects

Ayaz Güner Ş., Özcan S., TÜBİTAK Project, Determination of the New Chimeric Antigen Receptor (CAR) Targets by Investigation of B-Cell Acute Lymphoblastic Leukemia (B-ALL) Surface Proteome, 2020 - 2022

## Activities in Scientific Journals

Turkish Journal Of Biology, Assistant Editor, 2019 - Continues

## Citations

Total Citations (WOS):270

h-index (WOS):7