

## Res. Asst. PhD BEYZA AYAZGÖK

### Personal Information

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### Education Information

Post Doctorate, Université Strasbourg I, Centre National De La Recherche Scientifique (CNRS) , Institute des Neurosciences Cellulaires Et Integratives (INCI), France 2018 - 2021

Doctorate, Hacettepe University, Sağlık Bilimleri Enstitüsü, Biyokimya, Turkey 2011 - 2017

Undergraduate, Hacettepe University, Eczacılık Fakültesi, Eczacılık, Turkey 2005 - 2010

### Foreign Languages

Italian, B1 Intermediate

English, C1 Advanced

French, B1 Intermediate

### Research Areas

Basic Pharmaceutics Sciences, Health Sciences, Pharmacology and Therapeutics, Biochemistry

### Academic Titles / Tasks

Research Assistant, Hacettepe University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2012 - Continues

Research Assistant PhD, Universite Strasbourg 1, CNRS (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE) INCI (Institut des Neurosciences Cellulaires et Intégratives), 2018 - 2021

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

- I. **The basolateral amygdala-anterior cingulate pathway contributes to depression-like behaviors and comorbidity with chronic pain behaviors in male mice**  
Becker L. J., Fillinger C., Waegaert R., Journée S. H., Hener P., Ayazgok B., Humo M., Karatas M., Thouaye M., Gaikwad M., et al.  
Nature Communications, vol.14, no.1, 2023 (SCI-Expanded)
- II. **Synthesis of New 3-Arylcoumarins Bearing N-Benzyl Triazole Moiety: Dual Lipoxygenase and Butyrylcholinesterase Inhibitors With Anti-Amyloid Aggregation and Neuroprotective Properties Against Alzheimer's Disease**  
Pourabdi L., Kuecuekkilinc T. T., Khoshtale F., Ayazgoek B., Nadri H., Farokhi Alashti F., Forootanfar H., Akbari T., Shafiei M., Foroumadi A., et al.  
FRONTIERS IN CHEMISTRY, vol.9, 2022 (SCI-Expanded)
- III. **Hybridization-based design of novel anticholinesterase indanone-carbamates for Alzheimer's**

**disease: Synthesis, biological evaluation, and docking studies**

Shahrivar-Gargari M., Hamzeh-Mivehroud M., Hemmati S., Mojarrad J. S., TÜYLÜ KÜÇÜKKILINÇ Z. T., AYZAGÖK B., Dastmalchi S.

ARCHIV DER PHARMAZIE, vol.354, no.7, 2021 (SCI-Expanded)

- IV. **Chromone-lipoic acid conjugate: Neuroprotective agent having acceptable butyrylcholinesterase inhibition, antioxidant and copper-chelation activities**  
Jalili-Baleh L., Nadri H., Forootanfar H., Kucukkilinc T. T., AYZAGÖK B., Sharifzadeh M., Rahimifard M., Baeeri M., Abdollahi M., Foroumadi A., et al.  
DARU-JOURNAL OF PHARMACEUTICAL SCIENCES, vol.29, no.1, pp.23-38, 2021 (SCI-Expanded)
- V. **Design, synthesis, and biological evaluation of novel indanone-based hybrids as multifunctional cholinesterase inhibitors for Alzheimer's disease**  
Shahrivar-Gargari M., Hamzeh-Mivehroud M., Hemmati S., Shahbazi Mojarrad J., Notash B., Tüylü Küçükkılınç T., AYZAGÖK B., Dastmalchi S.  
Journal of Molecular Structure, vol.1229, 2021 (SCI-Expanded)
- VI. **Ketamine induces rapid and sustained antidepressant-like effects in chronic pain induced depression: Role of MAPK signaling pathway**  
Humo M., Ayazgok B., Becker L. J., Waltisperger E., Rantamaki T., Yalcin I.  
PROGRESS IN NEURO-PSYCHOPHARMACOLOGY & BIOLOGICAL PSYCHIATRY, vol.100, 2020 (SCI-Expanded)
- VII. **New classes of carbazoles as potential multi-functional anti-Alzheimer's agents**  
Choubdar N., Golshani M., Jalili-Baleh L., Nadri H., Küçükkılınç T., Ayazgök B., Moradi A., Moghadam F., Abdolahi Z., Ameri A., et al.  
Bioorganic Chemistry, vol.91, 2019 (SCI-Expanded)
- VIII. **Design and Synthesis of 2-Substitutedphenyl Benzo[D]Thiazole Derivatives and Their  $\beta$ -Amyloid Aggregation and Cholinesterase Inhibitory Activities**  
ZENGİN M., Unsal-Tan O., Küçükkılınç T. T., AYZAGÖK B., BALKAN A.  
Pharmaceutical Chemistry Journal, vol.53, no.4, pp.322-328, 2019 (SCI-Expanded)
- IX. **Synthesis and biological assessment of 2-hydroxyiminoethanones as anti-inflammatory and  $\beta$ -amyloid aggregation inhibitors**  
Valipour M., Davaji I., Abedi N., Rajabi M., Kucukkilinc T. T., AYZAGÖK B., Irannejad H.  
Iranian Journal of Pharmaceutical Research, vol.18, no.3, pp.1288-1298, 2019 (SCI-Expanded)
- X. **3-Aryl Coumarin Derivatives Bearing Aminoalkoxy Moiety as Multi-Target-Directed Ligands against Alzheimer's Disease**  
Abdshahzadeh H., Golshani M., Nadri H., Kia I. S., Abdolahi Z., Forootanfar H., Ameri A., Kucukkilinc T. T., AYZAGÖK B., Jalili-Baleh L., et al.  
Chemistry and Biodiversity, vol.16, no.5, 2019 (SCI-Expanded)
- XI. **Synthesis and biological evaluation of new N-benzylpyridinium-based benzoheterocycles as potential anti-Alzheimer's agents**  
Salehi N., Mirjalili B. B. F., Nadri H., Abdolahi Z., Forootanfar H., Samzadeh-Kermani A., Kucukkilinc T. T., AYZAGÖK B., Emami S., Haririan I., et al.  
Bioorganic Chemistry, vol.83, pp.559-568, 2019 (SCI-Expanded)
- XII. **Discovery of novel 1,2,4-triazolo-1,2,4-triazines with thiomethylpyridine hinge binders as potent c-Met kinase inhibitors**  
Dadashpour S., Küçükkılınç T., Ayazgök B., Hosseinimehr S., Chippindale A., Foroumadi A., Irannejad H.  
Future Medicinal Chemistry, vol.11, no.10, pp.1119-1136, 2019 (SCI-Expanded)
- XIII. **Low-dose bisphenol A induces RIPK1-mediated necroptosis in SH-SY5Y cells: Effects on TNF- $\alpha$  and acetylcholinesterase**  
Ayazgoek B., Kucukkilinc T. T.  
Journal of Biochemical and Molecular Toxicology, vol.33, no.1, 2019 (SCI-Expanded)
- XIV. **Synthesis, molecular docking, and biological evaluation of novel 2-pyrazoline derivatives as multifunctional agents for the treatment of Alzheimer's disease**  
Unsal-Tan O., Kucuekkilinc T. T., AYZAGÖK B., BALKAN A., Ozadali-Sari K.

MedChemComm, vol.10, no.6, pp.1018-1026, 2019 (SCI-Expanded)

- XV. **Neurotoxic effects of bisphenol a on SH-SY5Y neuroblastoma cells via nitric oxide**  
AYAZGÖK B., Tuylü Kucukkilinc T.  
Marmara Pharmaceutical Journal, vol.23, no.3, pp.354-359, 2019 (SCI-Expanded)
- XVI. **Novel 3-phenylcoumarin-lipoic acid conjugates as multi-functional agents for potential treatment of Alzheimer's disease**  
Jalili-Baleh L., Nadri H., Forootanfar H., Samzadeh-Kermani A., Kucukkilinc T. T., AYAZGÖK B., Rahimifard M., Baeri M., Doostmohammadi M., Firoozpour L., et al.  
Bioorganic Chemistry, vol.79, pp.223-234, 2018 (SCI-Expanded)
- XVII. **Design, synthesis and evaluation of novel multi-target-directed ligands for treatment of Alzheimer's disease based on coumarin and lipoic acid scaffolds**  
Jalili-Baleh L., Forootanfar H., Kucukkilinc T. T., Nadri H., Abdolahi Z., Ameri A., Jafari M., AYAZGÖK B., Baeri M., Rahimifard M., et al.  
European Journal of Medicinal Chemistry, vol.152, pp.600-614, 2018 (SCI-Expanded)
- XVIII. **Synthesis and neuroprotective activity of novel 1,2,4-triazine derivatives with ethyl acetate moiety against H<sub>2</sub>O<sub>2</sub> and A $\beta$ -induced neurotoxicity**  
Kucukkilinc T. T., Yangghagh K. S., AYAZGÖK B., Roknipour M. A., Moghadam F. H., Moradi A., Emami S., Amini M., Irannejad H.  
Medicinal Chemistry Research, vol.26, no.11, pp.3057-3071, 2017 (SCI-Expanded)
- XIX. **Novel 2-Arylbenzimidazole derivatives as multi-targeting agents to treat Alzheimer's disease**  
Unsal-Tan O., Ozadali-Sari K., AYAZGÖK B., Küçükılınç T. T., BALKAN A.  
Medicinal Chemistry Research, vol.26, no.7, pp.1506-1515, 2017 (SCI-Expanded)
- XX. **Novel multi-targeted agents for Alzheimer's disease: Synthesis, biological evaluation, and molecular modeling of novel 2-[4-(4-substitutedpiperazin-1-yl)phenyl]benzimidazoles**  
Ozadali-Sari K., Tüylü Küçükılınç T., AYAZGÖK B., BALKAN A., Unsal-Tan O.  
Bioorganic Chemistry, vol.72, pp.208-214, 2017 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Big Effects of Low Dose Bisphenol A**  
Ayazgök B., Tüylü Küçükılınç Z. T.  
Fabad Journal of Pharmaceutical Sciences, vol.42, no.2, pp.139-150, 2017 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Studies on Some Benzothiazole Derivatives**  
ZENGİN M., BALKAN A., ÜNSAL TAN O., TÜYLÜ KÜÇÜKKİLİNÇ Z. T., AYAZGÖK B.  
12. International Symposium on Pharmaceutical Sciences, ISOPS, Ankara, Turkey, 26 - 29 June 2018
- II. **Synthesis and Evaluation of Benzimidazole and 2-pyrazoline Derivatives as Multi-Target-Directed Ligands against Alzheimer's Disease**  
ÜNSAL TAN O., ÖZADALI SARI K., AYAZGÖK B., TÜYLÜ KÜÇÜKKİLİNÇ Z. T., BALKAN A.  
12. International Symposium on Pharmaceutical Sciences, ISOPS, Ankara, Turkey, 26 - 29 June 2018
- III. **N-ACETYL DERIVATIVES OF 2-PYRAZOLINES AS POTENT MULTI-TARGETING AGENTS FOR ALZHEIMER'S DISEASE**  
ÖZADALI SARI K., TÜYLÜ KÜÇÜKKİLİNÇ Z. T., AYAZGÖK B., BALKAN A., ÜNSAL TAN O.  
2nd International Gazi Pharma Symposium Series, 11 - 13 October 2017
- IV. **4,5-dihydro-1h-pyrazoles as cholinesterase and AB aggregation inhibitors for Alzheimer's disease**  
TÜYLÜ KÜÇÜKKİLİNÇ Z. T., AYAZGÖK B., ÖZADALI SARI K., BALKAN A., ÜNSAL TAN O.  
Uluslararası Biyokimya Kongresi 2017- 28. Ulusal Biyokimya kongresi, 19 - 23 September 2017

- V. **4,5-dihydro-1h-pyrazoles as cholinesterase and A $\beta$  aggregation inhibitors for Alzheimer's disease**  
TÜYLÜ KÜÇÜKKILINÇ Z. T., AYAZGÖK B., ÖZADALI SARI K., BALKAN A., ÜNSAL TAN O.  
28. Ulusal biyokimya Kongresi, Erzurum, Turkey, 19 - 23 September 2017
- VI. **Necroptotic effects of Bisphenol A on SHSY-5Y neuroblastoma cells**  
Ayazgök B., Tüylü Küçükkılınç Z. T.  
28. Ulusal biyokimya Kongresi, Erzurum, Turkey, 19 - 23 September 2017
- VII. **Novel benzimidazole derivatives with multi functions on cholinesterase enzymes and neuroprotection**  
Ayazgök B., Tüylü Küçükkılınç Z. T., Özadalı Sarı K., Ünsal Tan O., Balkan A.  
: 15th International Symposium on Cholinergic Mechanisms (ISCM), Marseille, France, 16 - 20 October 2016, vol.142, pp.188
- VIII. **Apoptotic and Necrotic Effects of Low Dose Bisphenol A in SH-SY5Y neuroblastoma cells**  
Ayazgök B., Tüylü Küçükkılınç Z. T.  
41th FEBS Congress, İzmir, Turkey, 3 - 08 September 2016, pp.1
- IX. **Bisphenol A Leads to Necroptosis in SH-SY5Y Neuroblastoma Cells**  
Ayazgök B., Tüylü Küçükkılınç Z. T.  
2nd International Congress of Forensic Toxicology, Ankara, Turkey, 26 - 30 May 2016, pp.1
- X. **Hacettepe Üniversitesi Eczacılık Fakültesinin Akreditasyon Süreci ve Bu Sürecin Kazanımları**  
Ayazgök B.  
National Congress of Pharmaceutical Education and Accreditation, Ankara, Turkey, 16 - 20 May 2016, pp.1
- XI. **Low Dose Bisphenol A Alters Acetylcholinesterase and Butyrylcholinesterase Gene Expression levels**  
Ayazgök B., Tüylü Küçükkılınç Z. T.  
SFN Neuroscience 2015, California, United States Of America, 17 - 21 October 2015, pp.1
- XII. **The Studies on Novel Benzimidazole Derivatives as Potential Multifunctional Agents for the Treatment of Alzheimer's Disease**  
Ayazgök B., Tüylü Küçükkılınç Z. T.  
11. International Symposium on Pharmeucital Sciences, Ankara, Turkey, 9 - 12 June 2015, pp.280-281
- XIII. **Effects of Bisphenol A bpa on shsy5y cells evaluation of nitric oxide related pathways**  
AYAZGÖK B., TÜYLÜ KÜÇÜKKILINÇ Z. T.  
39.th FEBS Congress, 30 August - 04 September 2014
- XIV. **Effects of Bisphenol A (BPA) on SHSY5Y cells: Evaluation of Nitric Oxide Related Pathways**  
Ayazgök B., Tüylü Küçükkılınç Z. T.  
Federation of European Biochemical Societies Congress 2014, Paris, France, 30 August - 04 September 2014, pp.70
- XV. **Inhibition of Butrylcholinesterase and Acetylcholinesterase by Bisphenol A**  
Ayazgök B., Tüylü Küçükkılınç Z. T.  
IFCC WorldLab ISTANBUL 2014 22nd International Congress of Clinical Chemistry and Laboratory Medicine , İstanbul, Turkey, 22 - 27 June 2014, pp.1664
- XVI. **Inhibition of butyrylcholinesterase and acetylcholinesterase by Bisphenol A**  
AYAZGÖK B., TÜYLÜ KÜÇÜKKILINÇ Z. T.  
22nd International Congress of Clinical Chemistry and Laboratory Medicine (IFCC Worldlab 2014), 22 - 24 June 2014
- XVII. **Novel 2-pyrazoline Derivatives Bearing Thiazole Ring as Dual Monoamine Oxidase-B and Acetylcholinesterase Inhibitors also İnhibit Beta-Amyloid Fibril**  
Ayazgök B., Gökşen U. S., Tüylü Küçükkılınç Z. T., Gökhan Keleşçi N., Uçar G.  
Federation of European Biochemical Societies Congress 2013 (FEBS), Sankt-Peterburg, Russia, 6 - 11 July 2013, pp.431-432

## Supported Projects

AYAZGÖK B., YALCİN-CHRİSTMANN I., Project Supported by Higher Education Institutions, Farklı anterior singulat korteks hücre tiplerinin depresyondaki rolü, 2018 - 2020

BALKAN A., TÜYLÜ KÜÇÜKKİLİNÇ Z. T., ÜNSAL TAN O., ZENGİN M., AYAZGÖK B., Project Supported by Higher Education Institutions, 2-Fenilbenzotiyazol Türevleri Üzerinde Çalışmalar, 2018 - 2019

TÜYLÜ KÜÇÜKKİLİNÇ Z. T., AYAZGÖK B., Project Supported by Higher Education Institutions, RIPK1 RIPK3 fibril oluşumunda asetilkolinesterazın olası rolü, 2017 - 2018

AYAZGÖK B., Project Supported by Higher Education Institutions, 28. Ulusal Biyokimya Kongresi, 2017 - 2017

TÜYLÜ KÜÇÜKKİLİNÇ Z. T., AYAZGÖK B., Project Supported by Higher Education Institutions, BPA'nın SHS5Y neuroblastoma hücrelerinde AChE ve BChE protein ekspresyonuna olan etkilerinin incelenmesi, 2015 - 2017

Özadalı Sarı K., Ünsal Tan O., Balkan A., TÜBİTAK Project, Alzheimer Hastalığının Tedavisinde Çoklu Hedefe Yönelik Etki Göstermesi Beklenen Yeni 2 Pirazolin ve Benzimidazol Türevlerinin Moleküler Modelleme Sentez ve Biyolojik Aktivite Çalışmaları, 2014 - 2017

UÇAR G., ERİKÇİ A., BAYSAL İ., ERCAN A., YÜKSEL TEK M., BİBEROĞLU K., TÜYLÜ KÜÇÜKKİLİNÇ Z. T., AYAZGÖK B., TACAL Ö., YABANOĞLU ÇİFTÇİ S., et al., Project Supported by Higher Education Institutions, ECF385 Biyokimya III Laboratuvar Ders İçeriğinin Klinik Biyokimya Yöntemleri ile Zenginleştirilerek Güncellenmesi, 2015 - 2016

## Metrics

Publication: 38

Citation (WoS): 192

Citation (Scopus): 252

H-Index (WoS): 8

H-Index (Scopus): 9

## Scholarships

French Government 2020 Research Fellowships, Séjours Scientifiques de Haut Niveau (SSHN)-French Embassy Postdoctoral Research Fellowship, Official Institutions of Foreign Countries, 2020 - 2020

TÜBİTAK 2219 Uluslararası Doktora Sonrası Araştırma Bursu, TÜBİTAK, 2018 - 2019

## Awards

Ayazgök B., 2018 Hacettepe Awards - 2019-2020 Prof.Dr. Aziz SANCAR Medal of Honor Fund Award, Hacettepe Üniversitesi Rektörlüğü, July 2019

## Non Academic Experience

Institute des Neurosciences Cellulaires et Integratives