PERSONAL INFORMATION

Name, Surname: Ayşegül AÇIKSARI

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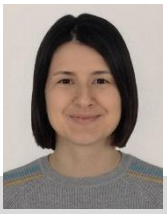
Date of Birth: 18.08.1988



EDUCATIONAL AND PROFESSIONAL BACKGROUND

2023-ongoing: Postdoctoral Researcher in Sabancı University Nanotechnology Research and Application Center (SUNUM), Istanbul

Provides support for Lignonano and Maestro TUBITAK projects, particularly cell culture experiments

Supported by TÜBİTAK 2218 National Postdoctoral Research Fellowship Program for the project titled "Investigation of the in vitro and in vivo Effectiveness of Epigallocatechin Gallate-Loaded PLGA Nanoparticles for the Treatment of Neovascular Age-Related Macular Degeneration."

Supervisor: Assist. Prof. Dr. Sibel Çetinel

2013-2021: Research Assistant in Kocaeli University, Center for Stem Cell and Gene Therapies Research and Practice (KOGEM), Kocaeli

Cell culture laboratory specialist, responsible for cell production and preparing and performing scientific and technological research projects (TUBITAK etc.).

2014-2021: PhD in Stem Cell and Tissue Regeneration (GPA: 3.75/4.00) Kocaeli University, Center for Stem Cell and Gene Therapies Research and Practice (KOGEM), Kocaeli

Thesis: *"Investigation of the Effects of Targeted Nanoparticles Containing Different Growth Factors on Neural Stem Cell Differentiation"*

Supervisor: Prof. Dr. Yusufhan YAZIR

2011-2014: M. Sc. in Stem Cell and Tissue Regeneration (GPA: 3.78/4.00) Kocaeli University, Center for Stem Cell and Gene Therapies Research and Practice (KOGEM), Kocaeli

Thesis: *"The Production of Pancreatic Islet Beta like Insulin Producing Cells from Mesenchymal Stem Cells by Recombinant DNA Technology"*

Supervisor: Assoc. Prof. Dr. Gökhan DURUKSU

2006-2011: B. Sc. in Biology (GPA: 2.74/4.00) Anadolu University, Eskisehir

Thesis: *"The isolation and characterization of Haloquadratum walsbyi from hypersaline environment"*

Supervisor: Assoc. Prof. Dr. Mehmet Burçin MUTLU

AREA, TOPICS and PROFESSIONAL SKILLS

Area:

Cell Biology

Topics:

Stem Cells

Neuroscience

Nanotechnology for regenerative medicine

Polymeric nanoparticles

Professional Skills:

Isolation of stem cells from laboratory animals

Differentiation of stem cells

Characterization of stem cells

- *Immunofluorescence staining and fluorescent microscopic imaging of cells*
- *Gene expression analysis (PCR, RT-PCR) of stem cells*
- *Protein expression by Western Blotting*
- *Flow cytometric characterization of stem cells*

Preparation of polymeric nanoparticles and characterization with double emulsion method

Characterization of nanoparticles

- Size and distribution by Malvern Zeta Sizer
- Determination of loading efficiency by ELISA

PUBLICATIONS

- Tezel Ö., Ceylan R., **Açıksarı A.,** Demir E., Çetinel S. Investigation of Cell-Seeded Growth on 3D Printed Scaffold Obtained from Sustainable Sources (**Under revision**)
- **Açıksarı A.,** Yazır Y, Mert S., Halbutoğulları ZS, Narin S., Gacar G. The effects of PLGA nanoparticles containing different growth factors on neural stem cell differentiation and their transition efficiency after targeting with TRF (**Under revision**)
- Durak S., Sutova H.E., Ceylan R., **Aciksari A.**, Yetisgin A.A., Onder Tokuc E., Kutlu O., Karabas V.L., Cetinel S. A nanogel formulation of anti-VEGF peptide for ocular neovascularization treatment. ACS Applied Bio Materials 7 (9), 6001-6013. Doi: 10.1021/acsabm.4c00585
- Cinar M.C., Shahsavar Gocmen M., **Aciksari A.,** Ceylan R., Sahsuvar S., Cetinel S., Gok O., Dulda A. Upconversion nanoparticles–based targeted imaging of MCF-7 breast cancer cells. Journal of Nanoparticle Research 2024 June; 26 (6), 1-13. Doi: 10.1007/s11051-024-06035-x
- **Açiksari A**., Mert S. & Yazir Y. Polymeric Nanoparticles in Neurodegenerative Diseases. Tural B., Haspolat Y. K.& Tural S. [Editors], Nanotechnology in Industry and Biomedicine (95 - 109) (Book chapter) Turkey: Orient Publications, 22 December 2023.
- Demirci Kucuk K., Tokuc E. O., **Aciksari A.**, Duruksu G., Yazir Y. and Karabas V. L. The effects of crocetin on oxidative stress induced ARPE-19 cells by H_2O_2. Experimental Eye Research. 2023 Jan; 226:109305. Doi: 10.1016/j.exer.2022.109305
- Oz Oyar E., **Aciksari A.**, Azak Pazarlar B., Egilmez C. B., Duruksu G., Rencber S. H., et al. The therapeutical effects of damage-specific stress induced exosomes on the cisplatin nephrotoxicity IN VIVO. Molecular and Cellular Probes, 2022 Dec; 66:101861. Doi: 10.1016/j.mcp.2022.101861.
- Duruksu G. and **Aciksari A.** Guiding the Differentiation Direction of Pancreatic Islet-Derived Stem Cells by Glycated Collagen. Stem Cells Int. 2018 Jul 3;2018:6143081. Doi: 10.1155/2018/6143081.
- **Aciksari A.,** Duruksu G., Karaoz E. Improved insulin-secreting properties of pancreatic islet mesenchymal stem cells by constitutive expression of Pax4 and MafA. Turkish Journal of Biology, 2017 41(6), 979-991., Doi: 10.3906/biy-1707-79

SELECTED PRESENTATIONS

- **Aciksari A**., Mert S., Halbutogullari Z. S., Aslan D., Yazir Y. Increased Differentiation Efficacy of Neural Stem Cell with the Combination of Three Growth Factors Loaded Nanoparticles. 1st International Microscopy & Spectroscopy Congress, 22-24 September 2021 – Online. (Oral Presentation)
- **Aciksari A.**, Yazir Y., Mert S., Ozcan O., Halbutogullari Z. S. Investigation of the TRF Conjugated Polymeric Nanoparticles Efficiency *in vitro* Blood-Brain Barrier Model. 1st International Microscopy & Spectroscopy Congress, 22-24 September 2021 – Online. (Poster Presentation)
- Mert S., **Aciksari A.**, Vardar A., Halbutogullari ZS., Yazir Y. Preparation of Neurotrophin Loaded Poly(lactide-co-glycolide) Nanoparticles for the Differentiation of Neural Stem Cell into Dopaminergic Neurons. The Applied Nanotechnology and Nanoscience International Congress, 22-24 October 2018, Berlin, Germany. (Oral Presentation)
- **Aciksari A.,** Turac Karakurt G., Polat S., Duruksu G., Gacar G., Erman G., Yazır Y. A Novel Isolation Method For Rat Brain Pericyte. 15th International Congress Of Histochemistry And Cytochemistry, 18-21 May 2017, Antalya, Turkey. (Poster Presentation)
- **Baglar A.**, Duruksu G., Karaoz E. The effect of Pax4 gene expression on the differentiation of pancreatic islet and adipose tissue derived stem cells into insulin producing cells. Tissue Engineering and Regenerative Medicine (TERMIS-EU), 10-13 July 2014, Genova, Italy. (Poster Presentation)

- **Baglar A.**, Duruksu G., Karaoz E. The Potential of Pax4 Transfected Pancreatic Islet Derived Stem Cells to Endocrine Cell Linage. 1th International Congress on Stem Cell and Cell Therapies, 20-23 March 2014, Kocaeli, Turkey. (Oral Presentation)
- **Baglar A.**, Duruksu G., Karaoz E. Improvement of Differentiation Efficiency into Insulin-Secreting Cells by Ngn3 and Pax4 Expression. Tissue Engineering and Regenerative Medicine, (TERMIS-EU), 17-20 June 2013, Istanbul, Turkey. (Poster Presentation)

SELECTED PROJECTS & SCHOLARSHIP

- TUBITAK National Postdoctoral Research Fellowship Program (2218)
  Project Number: 124C486 'Investigation of the in vitro and in vivo effectiveness of epigallocatechin gallate-loaded PLGA nanoparticles for the treatment of neovascular age-related macular degeneration' Project Start/End Dates: 01.02.2025 - 01.08.2026
- Nanosis 20AG004, 1004 – Research Platform,
  Project Joining/Leaving Dates: 07.08.2023 - 01.02.2025, Project Start/End Dates: 01.02.2021 - 01.02.2025.
- Kocaeli University BAP, 2019-2020
  Project Number: 2019/036 'Investigation of the Effects of Targeted Nanoparticles Containing Different Growth Factors on Neural Stem Cell Differentiation'
- TUBITAK Project, 2018-2020
  Project Number: 117R058 'The investigation of the therapeutical effects of exosomes derived from Wharton Jelly mesenchymal stem cells induced by in vitro renal microenviroment under cisplatin stress on cisplatin nephrotoxicity in vivo'
- TUBITAK Project, 2012-2015
  Project Number: 112S125 'Generation of Functional Insulin Producing Cells by Cloning of Genes (MafA, Ngn3, Pax4), Associated with Pancreatic Islet Neogenesis, into Progenitor/Stem Cells and Tissue Engineering Approach'

CERTIFICATES, ORGANIZED COURSES FOR CERTIFICATION

- Bioinformatic course, 9 January 2018, Institute of Health Sciences, Kocaeli University.
- 3. TUBA International Stem Cell Course, Innovative Cellular Therapies in Hematologic Oncology, 19-22 May 2016, Antalya, Turkey.
- Certificate in Laboratory Animals, 12 December 2012, Kocaeli University.
- Organization Committee Member; Stem Cell and Tissue Engineering Course: Basic Techniques and Applications of Molecular Biology, KOGEM, Kocaeli University. (XIX. 2015 - XXVI. 2019)
- Organization Committee Member; 3rd International GENEOCELL&Kocaeli University Summerschool, Advanced Stem Cell Technologies and Therapies, 9-15 September 2013, KOGEM, Kocaeli University.
- Organization Committee Member; XVIII. National The Basic Stem Cell Technics and Moleculer Biology Applications Course, 5-9 November 2012, KOGEM, Kocaeli University.

SKILLS & INTERESTS & ACTIVITIES

Foreign Language:	English (Full working proficiency)
Computer Skills:	Microsoft Windows 98/XP/7/10 Operating Systems, Microsoft Office 03/07/10 (Word, Excel, PowerPoint), IBM SPSS Statistics 19.0 (Beginner), Notepad++, FileZilla.
Interests:	Travelling, Movies, Reading, Swimming, Music, Photography, HTML bootstrap-Website designing
Memberships:	Society of Stem Cell and Cellular Therapies (2014-Ongoing), Turkish Society for Electron Microscopy (2021-ongoing)