Didem AKSU

CONTACT DETAILS

didemaksu35@gmail.com

Yeditepe University

Graduate School of Natural and Applied Sciences

34755 Ataşehir, Istanbul, Turkey

HONORS & AWARD

Graduated 2nd in biochemistry department in undergraduate education

EXPERIENCE & PROJECTS

PhD projects:

Preparation of bone cement including boron that is effective on the infection

Design of the allograft cartilage preservation medium

Cartilage regeneration with 3D bio-printed scaffolds

Teaching assistant : Classical and Molecular and Genetics Laboratory

Master thesis: Carmustine loaded solid lipid nanoparticles preparation, characterization and investigation of in vitro activity in brain cancer cell line

Bachelor thesis: Investigation of pemetrexed loaded magnetic O-carboxymethyl chitosan nanoparticles cytotoxicity in pulmonary carcinoma cell lines.

Projects: Synthesis of lavandin oil containing liposomes via microfluidics device

Removal of food dye with 2-aminoethylphosphonic acid-derived magnetite.

Conjugation of doxorubicin via glutaraldehyde onto amine coated magnetic nanoparticles for pH response cancer therapy.

Internship: Dokuz Eylül University Hospital Department of Basic Oncology, Izmir (Turkey)

Dokuz Eylül University Biophysics Department, Izmir (Turkey)

Izmir Biomedicine and Genome Center, Neuro-genomic Lab, Izmir (Turkey)

EDUCATION

PhD degree **Yeditepe University / Istanbul**

09.2019- Graduate School of Natural and Applied Sciences / Biotechnology

Master degree **Ege University / Izmir** **3.87/4.00**

09.2017- 08.2019 Graduate School of Natural and Applied Sciences / Biochemistry

Bachelor degree **Ege University / Izmir** **3.52/4.00**

09.2012-06.2017 Faculty of Science /Biochemistry

High School **Narlıdere Cahide Ahmet Dalyanoglu Anatolian High School** **85/100**

09.2008-06.2012

CONGRESS

21.02-23.02.2019 VI. Rare tumors symposium - Approach to Cancer Stem Cells and Rare Molecular Targets

02.05-06.05.2018 IV Internatıonal Conference on Engıneerıng and Natural Scıences (ICENS) - Poster presentation

26.10-27.10.2017 3D Bio-Images & Biotherapeutics Workshop

20.12.2015 EGE KOK- Basic Stem Cell Seminar 3 - I made a presentation about MS disease and applied stem cell treatments

05.12-06.12.2015 Mıddle East Technical University (METU)- Biochemistry Conference

05.2015 EGE KOK- Stem Cell Student Symposium

03.2015 EBILTET- 7th Science and Technology Symposium- Personalized Drug Treatment

10.2014-05.2015 EGE KOK (Ege University Stem Cell Group)- I took part in the research group for preparing a poster

06.2014 Neurodegenerative Diseases Symposium Ege University EBILTET-Ege University Science and Technology Centre- Technology Transfer Office (EBILTEM-TTO) - I took an active role in the symposium

PUBLICATIONS

2019 November **Delivery of pemetrexed by magnetic nanoparticles: design, characterization, in vitro and in vivo assessment, Prep Biochem Biotechnol. 2019 Nov 21:1-11.**

SKILLS AND TECHNIQUES

Molecular Biology : DNA / RNA isolation, , bacterial transformation, transfection, cloning, mammalian cell culture, PCR, flow cytometry, fluorescense microscopy and immunohistochemical analysis

Protein Characterization: Isolation, purification and characterization of enzyme (fungal laccase, and peroxidase), enzyme activity assay, fermentative enzyme production.

Nanotechnological methods: Synthesis of nanomaterials (solid lipid nanoparticles, magnetic nanoparticles, chitosan nanoparticles, and liposomes), adsorption of drugs into nanoparticles, microfluidic synthesis method, characterization of nanomaterials (SEM, Zeta potential, zeta sizer, and FTIR), drug release studies, and in vitro cytotoxicity assay.

Tissue engineering techniques: Bone cement preparation, preparation of allograft preservation medium with optimum boren concentration, sGAG assay, cell viability assay (MTS, Cell Titer Glo 3D Cell viability, and live-dead assay), biomechanical analysis, biodegradation analysis and histological analysis.

CERTIFICATES

GMP- Good Manufacturing Practice

GLP- Good Laboratory Practice

ISO / IEC 17025: 2017 Competence of Testing and Calibration Laboratories

ISO 9001: 2015 Quality Management System

BD Biosciences Flow Cytometry Workshop

V. Research Practices Course in Oncology: Molecular Techniques

FOREIGN LANGUAGES

English: C1

German: A 2.1

COMPUTER KNOWLEDGE

MS Office Programmes

Image J

Graphpad Prism

INTERESTS

Dance-Swing/Lindy hop- I studied for 4 years. I also participated in the show group of Ege University Latin Dance Ensemble for 3 years.

Violin, trekking.