

**Tuğçe Gültan Gürbüz, Chemical Engineer MSc.,****Research Assistant**

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PERSONAL

Date of Birth	06/07/1991
Place of Birth	İzmir

EDUCATION

2017 -	Hacettepe University, Institute of Science, Department of Chemical Engineering, Ph.D.
2014 - 2017	Hacettepe University, Institute of Science, Department of Chemical Engineering, M.Sc.
2009 - 2014	Hacettepe University, Faculty of Engineering, Department of Chemical Engineering, B.S.

ACADEMIC POSITIONS

10/2016 -	Research Assistant, Department of Chemical Engineering and Applied Chemistry, Atılım University, Ankara, TURKEY
06/2017-09/2017	Erasmus Intern, Helmholtz-Zentrum Geesthacht- Biointerface Engineering Department, Berlin, GERMANY.
07/2013-08/2013	Summer Intern, PETKİM Petrochemicals Co., Izmir, TURKEY.

AWARDS&SCHOLARSHIPS

1.	Turkish Scientific and Research Council- (TUBITAK) 2210-C National Scholarship Program for MSc Students. (15.02.2016- 01.10.2016).
2.	The Production of MTBE Alternative Additive for Increasing Octane Number of Gasoline (Honorable Mention.)

RESEARCH INTERESTS

1.	Scaffold Production and Characterization
2.	Surface Modification and Characterization of Biomaterials
3.	Animal Cell and Tissue Culture Techniques (Cytotoxicity Tests, Cell Culture on 3D scaffolds, Cell Culture on 2D Biomaterials)
4.	Polymerase Chain Reaction (PCR) Techniques (Classic PCR and Real Time PCR)
5.	Cell Imaging Techniques (Live/dead cell analysis, Cell wall/cell nuclei imaging)

PUBLICATIONS

1.	Efkan Çatiker, Elvan Konuk, Tuğçe Gültan, Menemşe Gümüşderelioğlu, Enhancement of Scaffolding Properties for Poly(3-Hydroxybutyrate): Blending with Poly-β-Alanine and Wet Electrospinning, The International Journal of Polymeric Materials and Polymeric Biomaterials. DOI: 10.1080/00914037.2018.1552862.
2.	Tuğçe Gültan, Merve Çapkın Yurtsever, Menemşe Gümüşderelioğlu, Osteogenic PEEK Implants Modified by NaOH Etching Combined with Boron-Doped Nanohydroxyapatite Coating. (In progress)
3.	Tuğçe Gültan, Şeyma Bektaş, Damla Çetin Altındal, Menemşe Gümüşderelioğlu, Effect of Fabrication and Stabilization Methods on Physicochemical and Biological Properties of 2D and 3D Chitosan Materials. (In progress)

PROJECTS

1.	Hacettepe University Coordination Agency for Scientific Research Projects (HACETTEPE-BAP) FHD-2018-16900- The Effect of Fabrication and Stabilization Processes on the Morphological, Mechanical and Biological Properties of Chitosan Tissue Scaffolds (01.03.2018-01.05.2019).
2.	The Scientific and Technological Research Council of Turkey (TÜBİTAK) Project 112M705- Microwave Induced Production of Biomimetic Hydroxyapatite (HAp)/Borondoped Hydroxyapatite (B-HAp) and Development of Chitosan-HAp Composite Scaffolds project scholarship (01.11.2014-15.04.2015).
3.	TÜBİTAK Project 214M100-Development of Tissue Scaffold Supported Perfusion Bioreactors for Bone Patches project scholarship (15.04.2015-01.10.2015).
4.	Design Project within the scope of Chemical Engineering Course KMU 468: Polyurethane (PU) Production Plant Design.
5.	Financial Project within the scope of Chemical Engineering Course KMU 467: The Production of MTBE Alternative Additive for Increasing Octane Number of Gasoline (Honorable Mention).

CONFERENCE PRESENTATIONS

1.	Tuğçe Gültan, Merve Çapkın Yurtsever, Menemşe Gümüşderelioğlu, Development of Polyetheretherketone (PEEK)-Based Implants, 03-06 September 2018, National Chemical Engineering Congress, UKMK-2018, Oral Presentation, Van, TURKEY.
2.	Efkan Çatiker, Elvan Konuk, Tuğçe Gültan, Menemşe Gümüşderelioğlu, Enhancement of Tissue Scaffold Properties of Poly-3-hydroxybutyrate (P3HB) with Poly-β-alanine (PBA) addition and Electrospinning Methods, 03-06 September 2018, National Chemical Engineering Congress, UKMK-2018, Oral Presentation, Van, TURKEY.
3.	Tuğçe Gültan, Şeyma Bektaş, Damla Çetin Altındal, Menemşe Gümüşderelioğlu, Effects of Different Neutralization Methods on Physicochemical Properties and Cytocompatibility of Chitosan SPHs, 12-14 May 2017, BIOMED –2017, Poster Presentation, Ankara, TURKEY.
4.	Tuğçe Gültan, Merve Çapkın Yurtsever, Menemşe Gümüşderelioğlu, The Increased Osteogenic Activity of PEEK Implants with Surface Roughness, 12-14 May 2017, BIOMED–2017, Poster Presentation, Ankara, TURKEY.
5.	Efkan Çatiker, Elvan Konuk, Tuğçe Gültan, Menemşe Gümüşderelioğlu, Binary Blends of Poly(3- hydroxybutyrate) /Poly(β-alanine) and Its Derivatives: New Tissue Scaffold Materials, 8- 11 August 2016, International Conference on Advances in Functional Materials 2016, Oral Presentation, ICC, SOUTH KOREA.
6.	Tuğçe Gültan, Merve Çapkın Yurtsever, Menemşe Gümüşderelioğlu, Enhancement of Active Surface Modification Processes for Polyetheretherketone (PEEK) Implants, 23-26 August 2016, National

	Chemical Engineering Congress, UKMK-2016, Oral Presentation, Izmir, TURKEY.
7.	Nanobiomaterials and Nanomedicine Applications Workshop, Middle East Technical University, BIOMATEN, Ankara, 26 December 2014.
8.	Young Engineering Society Career Day Event, Hacettepe University Campus of Beytepe Saloon K, 2011-2012 Spring Semester.
9.	Young Engineering Society Career Day Event, Hacettepe University Campus of Beytepe Saloon K, 2011-2012 Spring Semester.

DISSERTATIONS

1.	PhD Thesis, Development of Cardiovascular Cell Sheet Supported Photobiomodulated Cardiac Patch with Aloe Vera (AV) Doped Poly(butylene adipate-co-terephthalate) Scaffolds, 2023 (expected).
2.	Erasmus Internship Thesis, Effects of Mechanical Properties of Gelatin-based Hydrogels for the Formation of a Vascular Network: In vitro Studies, 2017.
3.	MSc Thesis, The Role of Different Surface Modifications for Increasing the Osteogenic Activity of Poly(etereterketone)-(PEEK) Material, 2017.
4.	Undergraduate Thesis, The Effects of the Melatonin Loaded Poly(lactic-co-glycolic acid)-(PLGA) Nano and Microparticles on MG-63 Cell Lines, 2014.