

NİSA İREM BÜYÜK, MSc
Beykoz, Istanbul, 34815
E-Mail: irem.buyuk@yeditepe.edu.tr



NİSA İREM BÜYÜK

Date of Birth: October 26, 1992

Place of Birth: Istanbul

Citizenship: Turkish

EDUCATION

- 2018- **Doctor of Philosophy (Biotechnology)**, Yeditepe University, Istanbul
❖ Final Grade: 4.00/4.00
- 2014-2017 **Master of Science (Bioengineering)**, Yildiz Technical University (YTU), Istanbul
❖ Master's thesis: "Synthesis Chitosan Nanoparticles for Controlled Release of the Antiarrhythmic Drug "Amiodarone" "
Advisor: Prof. Dr. Sevil YUCEL
❖ Final Grade: 4.00/4.00
❖ High honor student
- 2010-2014 **Bachelor's degree (Bioengineering)**, Yildiz Technical University (YTU), Istanbul
❖ Thesis: " Activated Genome Regions in Bladder Cancer"
Advisor: Assist. Prof. Dr. Alper YILMAZ
❖ Final Grade: 3.28/4.00
❖ Honor student
- 2006-2010 **High School Degree**, Istanbul Coskun College
❖ Final Grade: 89/100

PROFESSIONAL EXPERIENCE

- 11/2018- **Research assistant**, Yeditepe University, Istanbul
- 7/2013-8/2013 **Intern**, Yilteks Washing Company, Günesli/Istanbul
❖ Business internship
- 7/2012-8/2012 **Intern**, Memorial Healthcare Group, Sisli/Istanbul
❖ Genetic laboratory intership

TEACHING EXPERIENCE

- 11/2018- **GBE216**, Yeditepe University, Istanbul
❖ Classical and Molecular Genetics Laboratory

PUBLICATIONS, PRESENTATIONS AND POSTERS

- ❖ İ. Duru, N. İ. Büyük, G. Torun Köse, and D. Ege, "Fullerenol optimizes setting time, mechanical properties and biocompatibility of calcium phosphate cements", 2023 (waiting for approval)
- ❖ N. İ. Büyük, D. Aksu, and G. Torun Köse, Hydrogels Used in Cartilage Treatment, N.Hasırcı (ed), 1. Edition. Ankara, (in press)
- ❖ N. İ. Büyük, D. Aksu, and G. Torun Köse, "Effect of Pore Sizes of 3D Printed Scaffolds on Bone Regeneration" *Biomaterials and Tissue Eng. Society Publications.*, pp. 28, Nov 2022. (oral presentation)
- ❖ N. İ. Büyük, D. Aksu, and G. Torun Köse, "Effect of Different Pore Sizes of 3D Printed PLA-Based Scaffold in Bone Tissue Engineering" *Int. J. Polym. Mater. Polym. Biomater.*, pp. 1-11, May 2022.
- ❖ N. İ. Büyük, K. Tüfekçi, A. Cumbul, E. Ayşan, and G. Torun Köse, "A novel method for providing scaffold: Decellularization of parathyroid capsule," *J. Biomater. Appl.*, vol. 0, no. 0, pp. 1–12, Dec. 2021.
- ❖ D. Aksu, N. İ. Büyük, and G. T. Köse, "Nanotoksikoloji," in *Nanobiyoteknoloji*, 1. Baskı., A. Akın, Ed. Ankara: Türkiye Klinikleri, 2021, pp. 58–66.
- ❖ N.I. Büyük, P.P. Arayıcı, S. Derman, Z. Mustafaeva, and S. Yücel, "An Optimization Study for Chitosan Nanoparticles : Synthesis and Characterization," *Celal Bayar Univ. J. Sci.*, vol. 16, no. 2, pp. 119–127, 2020.
- ❖ N. I. Buyuk, P. P. Arayici, S. Derman, Z. Mustafaeva, and S. Yucel, "Synthesis of chitosan nanoparticles for controlled release of amiodarone," *Indian J. Pharm. Sci.*, vol. 82, no. 1, pp. 131–138, 2020.
- ❖ I. Büyük, P.P. Arayıcı, and S. Yücel, "Optimization Of Chitosan Nanoparticles For Drug Delivery Systems," in *IVEK 3rd International Convention of Pharmaceuticals and Pharmacies*, Istanbul, 26-29 April 2017, pp. 422.
- ❖ I. Büyük, P.P. Arayıcı, and S. Yücel, "İlaç Salımında Kullanılan Polimerik Nanopartiküller", in *V. National Nanotechnology Congress*, Istanbul, 9-10 March 2017.
- ❖ A. Yılmaz, N.I. Büyük, Y. Çelik, "Linux Terminalinde Veri Analizi ve Görüntüleme", YTÜ Bioengineering Lecture Notes, İstanbul, 2015.

AWARDS

- | | |
|------|--|
| 2018 | Turkish Anti-Smoking Association <ul style="list-style-type: none">❖ "Humanity's Real Friend" award for the project about smoking effect on lung cancer |
|------|--|

PROJECTS

- | | |
|------|---|
| 2015 | Genomic Representation of the Effect of Smoking on Lung Cancer Seminar Course |
| 2013 | Tissue Scaffold Fabrication Methods: Dental and Bone Tissue Engineering Applications Project Course |
| 2013 | A Biosensor Developed for <i>Cri-du-chat</i> Detection Biosensors Course Term Project |
| 2013 | Benzoic Acid Production Process |

	Bioprocesses Term Project
2012	Cell Transplantation to Parkinson's Patients
	Cell Biology Course Term Project
2012	Polymer Toy Production Design
	Polymer Technologies Course Term Project
2012	Intraocular Lens Construction
	Biomaterials Course Term Project

MEMBERSHIPS

- ❖ YTU Social Responsibility Club
- ❖ YTU Biotechnology Club
- ❖ Innovation Project Research and Development Assosication
- ❖ Humanitarian Relief Foundation
- ❖ Hudayi Foundation

CERTIFICATES

2021	TA Instruments DMA 850, Likrom
2019	Certification of Experimental Animals Usage, Yeditepe University
2017-2018	Calligraphy, ISMEK
2014-2015	Diction Course, ISMEK

LANGUAGES

- ❖ Turkish (native language)
- ❖ English (upper-intermediate)
- ❖ German (beginner)

TECHNICAL SKILLS

- ❖ MS Office Programs (Word,Powerpoint, Excel)
- ❖ Linux
- ❖ SQL
- ❖ MathCad
- ❖ MatLab
- ❖ ImageJ
- ❖ Graphpad Prism

REFERENCES

Available upon interest