



Contact

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Merkez Mah. Mektep Cad.
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Personal information

Gender: Female

Date of Birth: 22.04.1994

Marital Status: Single

Nationality: Turkish

Skills

- Fermentation Technology
- Bioprocess Optimization
 - Medium Optimization
 - In vitro cell culture (*E. coli*, *P. pastoris*)
 - Protein Purification
 - SDS Page Analysis
 - Whole cell catalysis
 - Molecular Biology
- Enzyme Engineering
 - Super Pro Designer
 - MATLAB
 - R-programming
 - CHEMCAD
 - Adobe in Design
- Languages
 - o Turkish (Native)
 - o English (Fluent)
 - o German (Beginner)

Zeynep Efsun Duman

Research Assistant, Bioengineer

Education

MSc, Biotechnology

2018-Present

Gebze Technical University, Turkey

With the researcher scholarship by The Scientific and Technological Research Council (TUBITAK) of Turkey

Thesis: "Enhanced Large-Scale Production of Recombinant *Staphylococcus simulans* Lysostaphin using Media Engineering and Its Characterization"

Supervisor: Assoc. Prof. Barış BİNAY

MSc, Biochemistry

2017-2018

University of Bonn, Bonn, Germany

BSc with Honors, Bioengineering

2012-2017

Marmara University, Istanbul, Turkey

With the scholarship for undergraduate students by Government of Turkey.

Thesis: "Production of Bacterial Cellulose by *Komagataeibacter hansenii* utilizing Food Residues"

Supervisor: Prof. Dr. Dilek KAZAN

Publications

Duman, Z.E., Unlu, A., Cakar, M.M., Unal, H. Binay, B. 2019 "Enhanced production of recombinant *Staphylococcus simulans* lysostaphin using medium engineering" *Preparative Biochemistry and Biotechnology*, 49, 5, 521-528. <https://doi.org/10.1080/10826068.2019.1599393>

Work Experiences

Research assistant

04/2019-Present

Department of Bioengineering, Gebze Technical University, Kocaeli, Turkey

Work on recombinant enzyme production, bacterial and yeast expression systems, fermentation technology and optimization.

Researcher

02/2018-Present

BERC Lab, Gebze Technical University, Kocaeli, Turkey

Worked on expression of recombinant enzymes, transformation of construct into competent cell lines, purification of recombinant proteins, SDS PAGE analysis and enzyme activity assay under the supervision of Assoc. Prof. Barış BİNAY.

Junior Researcher

01/2018-02/2018

GEEN Biotechnology, Istanbul, Turkey

Worked on the selection of diploids, sporulation, and tetrad analysis of yeast, for GEEN Biotechnology, a second stage biotech start-up with branches in Istanbul and California.

Laboratory/Teaching Assistant

09/2015-06/2016

Department of Bioengineering, Marmara University, Istanbul, Turkey

Assisting the students in biochemistry and molecular biology and genetics courses and laboratory courses.

References

Prof. Dr. Ahu ALTINKUT
UNCUOĞLU

Vice Dean of the Engineering
Faculty, Coordinator of the
Marmara University
Technology Transfer Office
(Student Counsellor for
Bachelor's)
ahu.uncuoglu@marmara.ed
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Assoc. Prof. Barış BİNAY
Founder of Gebze Enzyme
Recognition Center,
Project Support Office
director in Technology
transfer Office, Gebze
Technical University
(Master's Thesis)
binay@gtu.edu.tr

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Prof. Dr. Dilek KAZAN
Founder of BACPOLZYME,
Deputy Head of
Bioengineering Department,
Marmara University
(Bachelor's Thesis)
dkazan@marmara.edu.tr

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Dr. Luis Rodríguez LORENZO
Institute of Polymer Science
and Technology,
Polymeric Nanomaterials
and Biomaterials
Department,
Spanish Council for Scientific
Research (CSIC)
(Research Internship)
luis.rodriguez-
lorenzo@ictp.csic.es

Research Experiences

Guest researcher

05/2019-08/2019

with Erasmus+ Trainee Scholarship

*Department of Chemical and Biochemical Engineering, Process and Systems
Engineering, Technical University of Denmark, Lyngby, Denmark*

Worked on optimizing large-scale production of recombinant formate
dehydrogenase enzyme via *Pichia pastoris* and characterizing of produced
enzyme under the supervision of Prof. John WOODLEY

Research Internship

06/2015-08/2015

*Department of Immunology, Aziz Sançar Institute of Experimental Medicine,
Istanbul University, Istanbul, Turkey*

Worked on blood, marrow and blood serum analysis by using flow cytometry
and performing routine immune profiling, MRD, IFA tests under the
supervision of Assoc. Prof. Dr. Umut Can KÜÇÜKSEZER.

Research Internship

09/2014-12/2014

Molecular Ecology Laboratory, Marmara University, Istanbul, Turkey

Worked on testing the effects of chemicals of plastic bottles on yeast growth
under the supervision of Prof. Dr. Bülent MERTOĞLU.

Research Internship

06/2014-07/2014

Plant Biotechnology Laboratory, Marmara University, Istanbul, Turkey

Worked on routine analysis of DNA extraction, real-time PCR, gel
electrophoresis and gene sequencing under the supervision of Prof. Dr. Ahu
ALTINKUT UNCUOĞLU.

Presentations and Workshops

Oral Presentation

2018 - 'Enhanced Production of Recombinant *Staphylococcus simulans*
Lysostaphin using Media Engineering', 1st Eurasia Biochemical Approaches and
Biochemistry, Antalya, Turkey

Poster Presentation

2017 - 'Alternative usage of Food Residues: Bacterial Cellulose Production via
Komagataeibacter hansenii DSM 5602', VI. National Molecular Biology and
Biotechnology Congress, Çukurova University, Adana, Turkey

Workshops

2018 - GMP (Good Manufacturing Practice), Society of Chemical Engineers,
Istanbul, Turkey

2018 - Entrepreneurship, Gebze Technical University, Kocaeli, Turkey

2018 - Workshop of CHEMCAD, Society of Chemical Engineers, Istanbul, Turkey

2017 - Class of Planning and Management of Research, Marmara University,
Istanbul, Turkey

2016 - XIII. IUGEN International Molecular Biology and Genetics Winter School,
Istanbul University, Istanbul, Turkey

Personal Skills

Organizational/Managerial Experiences

Chairman of Bioengineering Society in Marmara University between 2015-
2016 and lead organizer of the 3rd National Bioengineering Student Congress.

Volunteer Works

Youth Member of TEMA (The Turkish Foundation for Combating Soil Erosion,
for Reforestation and the Protection of Natural Habitats)

Scientific environmentalism volunteer of LEGAMBIENTE, Italy

Volunteer of Children of the Sun Aid, Turkey

Member of Chamber of Chemical Engineers, Turkey