

Anil Can ÖNDER

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Thorvaldsensvej 40, 1871 Frederiksberg C

Education

University of Copenhagen

Plant Molecular Sciences

Ph.D. Candidate

2023 – Present

Copenhagen, Denmark

Izmir Institute of Technology

Biotechnology

M.Sc. Degree

2019 - 2022

Izmir, Turkey

Izmir Institute of Technology

Molecular Biology and Genetics

B.Sc. Degree

2013 - 2018

Izmir, Turkey

University of Latvia

Erasmus+ Exchange Student

Spring 2016

Riga, Latvia

UPSC, Swedish University of Agricultural Sciences

Forest Genetics and Plant Physiology

Internship

Summer 2016

Umeå, Sweden

Research Experience

The Persson Lab

Ph.D. Candidate

Ph.D. student, investigating carbon allocation of plants in neighbor detection conditions

Supervisor: Prof. Staffan Persson

10/2023 – Present

Copenhagen, Denmark

PlantaLab

Postgraduate Researcher

Postgraduate trainee of *C. annuum* seed priming with nanoparticles (nanopriming).

Advisor: Prof. Alfredo Ambrosone

09/2022 - 02/2023

Salerno, Italy

BioNanoLab

Graduate Researcher

M.Sc. student, investigating biomedical nanoparticle characterization and optimization of nanodispersions.

Supervisor: Assoc. Prof. Ceyda Öksel Karakuş

Thesis: Optimizing the dispersion of ceramic nanoparticles and assessing the role of aggregation in mediating biological activity

02/2021 - 07/2012

Izmir, Turkey

Undergraduate student, in the project entitled "Development of SNP markers for N gene conferring resistance to Root-Knot Nematodes in Pepper".

Supervisors: Prof. Anne Frary and Prof. Sami Doğanlar

UPSC, The Department of Forest Genetics and Plant Physiology**Summer 2016**

Undergraduate Intern

Umeå, Sweden

Summer internee, in the project entitled "Role of Neutral Alkaline Invertases in Aspen Wood Formation".

Supervisor: Prof. Totte Niittylä

Work Experience

University of Copenhagen, PLEN**09/2023 – Present**

Teaching Assistant

Copenhagen, Denmark

Teaching assistant at PLEN, Section for Glycobiology.

Türkiye Sağlık Enstitüleri Başkanlığı (TÜSEB), Turkish Ministry of Health**04/2020 - 11/2020**

Molecular Biologist

Izmir, Turkey

Istanbul, Turkey

Volunteer molecular biologist and Lab crew leader (both) at İzmir

Halk Sağlığı Laboratuvarı, Covid-19 Detection Center (1 April 2020 - 7

July 2020) and İstanbul Dr. Lütfi Kırdar City Hospital, Covid-19

Detection Laboratory (7 July 2020 - 15 November 2020).

Publications & Presentations

Publications

Cappetta, E.; Del Regno, C.; Conte, M.; Castro-Hinojosa, C.; Del Sol-Fernández, S.; Vergata, C.; Buti, M.; Curcio, R.; **Onder, A.**; Mazzei, P.; Funicello, N.; De Pasquale, S.; Terzaghi, M.; Del Gaudio, P.; Leone, A.; Martinelli, F.; Moros, M.; Ambrosone, A. An Integrated Multilevel Approach Unveils Complex Seed–Nanoparticle Interactions and Their Implications for Seed Priming. *ACS Nano* **2023**, 17 (22), 22539–22552. doi.org/10.1021/acsnano.3c06172

Onder, A. C.; Tomak, A.; Oksel Karakus, C. Optimizing the Dispersion of Calcium Phosphate Nanoparticles for Cellular Studies Using Statistical Design of Experiments. *Ceramics International* **2023**, 49 (16), 26890–26899. doi.org/10.1016/j.ceramint.2023.05.226

Presentations**Poster Presentation****2022**

International Congress of Toxicology 2022

Maastricht, Netherlands

Poster Presentation**2024**

Young Researchers Symposium in Plant Photobiology 2024

Utrecht, Netherlands

BEST POSTER AWARD

Skills

Languages: Turkish (Native), English (Proficient), Spanish (Independent), Italian (Independent)

Coding: Front-end web development (HTML, CSS, JavaScript), R (Proficient), Python (Proficient)

Wet Lab: Alcohol insoluble residue extraction, agarose gel electrophoresis, Anthrone assay, bacterial counting techniques, Bradford assay, mammalian cell culture, cell staining techniques, cell viability assays (LDH, MTT, WST-1), column chromatography, Isolation techniques (DNA, RNA, Protein), dynamic light scattering applications, enzymatic activity assays, flow cytometry, Klason lignin, microscopy (bright field, fluorescence), nanoparticle dispersion, PCR techniques (PCR, RT-qPCR), protein purification, restriction digestion and ligation, SDS-PAGE, seed nanopriming, trimethyl derivatization, Updegraff analysis, western blot

Cloning: Blue-white screening, gateway cloning, Gibson assembly, GreenGate cloning, LR cloning, plasmid transformation methods (heat shock, electroporation), sub-cloning, TA cloning

Plant Oriented: Plant growth maintenance (*Arabidopsis*, *Brassica rapa*, *Populus tremula*), plant crossing (*Arabidopsis*), plant phenotyping (*Arabidopsis*, *Brassica rapa*, *Populus tremula*), plant transformation (*Arabidopsis*)

Computational: Adobe PhotoShop (proficient), CLI applications (BLAST, MSA), data clustering (HCA, LDA), data mining, factorial design of experiment (2-level factorial, Plackett-Burman, Taguchi), multivariate statistical analyses (PCA, PCR, CCA, MDS, FA), PCord5 analyses, response surface design of experiment (central composite, box-behnken)

Teaching

B.Sc. Thesis: Effects of hormones on the internal biomass distribution of plants growing in dense populations

Project co-supervisor

University of Copenhagen

02/2025 - 07/2025

Copenhagen, Denmark

Basic Plant Biology Course

Teaching assistant

University of Copenhagen

12/2024

Copenhagen, Denmark

Biochemistry II Course

Teaching assistant

University of Copenhagen

12/2024

Copenhagen, Denmark

Project in Experimental Molecular Biology (PEMB)

Project co-supervisor

University of Copenhagen

04/2024 – 07/2024

Copenhagen, Denmark

BE556 Nanotoxicology

Teaching assistant

Izmir Institute of Technology

Autumn 2022

Izmir, Turkey