

# Anil Can ÖNDER

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## Education

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### 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

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### 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 - 07/2022**

Izmir, Turkey

**The Doğanlar/Frary Lab for Plant Molecular Genetics and Breed**

Undergraduate Researcher

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

**09/2015 – 02/2017**

Izmir, Turkey

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

Undergraduate Intern

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

**Supervisor:** Prof. Totte Niittylä

**Summer 2016**

Umeå, Sweden

**Work Experience****University of Copenhagen, PLEN**

Teaching Assistant

Teaching assistant at PLEN, Section for Glycobiology.

**09/2023 – Present**

Copenhagen, Denmark

**Türkiye Sağlık Enstitüleri Başkanlığı (TÜSEB), Turkish Ministry of Health**

Molecular Biologist

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).

**04/2020 - 11/2020**

Izmir, Turkey

Istanbul, Turkey

**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](https://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](https://doi.org/10.1016/j.ceramint.2023.05.226)

**Presentations****Poster Presentation**

International Congress of Toxicology 2022

**2022**

Maastricht, Netherlands

**Poster Presentation**

Young Researchers Symposium in Plant Photobiology 2024

**2024**

Utrecht, Netherlands

**BEST POSTER AWARD**

## Skills

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**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 nanoprimering, 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

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**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**