Anil Can ÖNDER

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Education

University of Copenhagen — **2023 – Present**
Plant Molecular Sciences — **Copenhagen, Denmark**
Ph.D. Candidate

Izmir Institute of Technology — **2019 - 2022**
Biotechnology — **Izmir, Turkey**
M.Sc. Degree

Izmir Institute of Technology — **2013 - 2018**
Molecular Biology and Genetics — **Izmir, Turkey**
B.Sc. Degree

University of Latvia — **Spring 2016**
Erasmus+ Exchange Student — **Riga, Latvia**

UPSC, Swedish University of Agricultural Sciences — **Summer 2016**
Forest Genetics and Plant Physiology — **Umeå, Sweden**
Internship

Research Experience

The Persson Lab — **10/2023 – Present**
Ph.D. Candidate — **Copenhagen, Denmark**
Ph.D. student, investigating carbon allocation of plants in neighbor detection conditions
Supervisor: Prof. Staffan Persson

PlantaLab — **09/2022 - 02/2023**
Postgraduate Researcher — **Salerno, Italy**
Postgraduate trainee of *C. annuum* seed priming with nanoparticles (nanopriming).
Advisor: Prof. Alfredo Ambrosone

BioNanoLab — **02/2021 - 07/2012**
Graduate Researcher — **Izmir, Turkey**
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

The Doğanlar/Frary Lab for Plant Molecular Genetics and Breeding **09/2015 – 02/2017**
Undergraduate Researcher **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**
Izmir, Turkey
Molecular Biologist **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 — **02/2025 - 07/2025**
Project co-supervisor — **Copenhagen, Denmark**
University of Copenhagen

Basic Plant Biology Course — **12/2024**
Teaching assistant — **Copenhagen, Denmark**
University of Copenhagen

Biochemistry II Course — **12/2024**
Teaching assistant — **Copenhagen, Denmark**
University of Copenhagen

Project in Experimental Molecular Biology (PEMB) — **04/2024 – 07/2024**
Project co-supervisor — **Copenhagen, Denmark**
University of Copenhagen

BE556 Nanotoxicology — **Autumn 2022**
Teaching assistant — **Izmir, Turkey**
Izmir Institute of Technology