Jędrzej Dobrogojski
30.12.1994, Polish

Institution: Institute of Biology II, Department of Molecular Plant Physiology (MoPP), University of Freiburg
Contact:
Phone: +49 761 203-97635
Email: jedrzej.dobrogojski@biologie.uni-freiburg.de
Position: Postdoctoral researcher
ORCiD: 0000-0002-0390-8191

Academic education including academic degrees

10.2018 – 06.2024 Doctoral studies in Agricultural and Horticultural Sciences.
Faculty of Agronomy and Bioengineering, Departament of Biochemistry and Biotechnology, Poznań University of Life Sciences Poznań, Poland.
Doctoral thesis title: "The role of dinucleoside polyphosphates (Np_nN') and nucleoside 5′-phosphoramidates (NH_2-pN) in signal transduction and regulation of the phenylpropanoid pathway in grapevine (*Vitis vinifera* L.) and thale cress (*Arabidopsis thaliana* (L.) Heynh.)."

10.2016 – 06.2018 Biotechnology, Master's degree.
Faculty of Biology, Department of Plant Physiology, Adam Mickiewicz University Poznań, Poland.
Master thesis title – "The role of the intramembrane zinc metalloprotease AtEgy1 in the regulation of the level of Arabidopsis thaliana chloroplasts' proteins."

10.2013 – 06.2016 Biotechnology, Bachelor's degree.
Faculty of Biology, Department of Plant Physiology, Adam Mickiewicz University Poznań, Poland.
Bachelor thesis title – "Genetically modified plants as a source of polyhydroxyalkanoates."

Scientific graduation

08.07.2024 PhD in Agricultural Sciences, specialization in Agriculture and Horticulture. Poznań University of Life Sciences

Employment

04.2025 – now Postdoctoral researcher.
Center for Integrative Biological Signalling Studies (CIBSS), Institute of Biology II, Department of Molecular Plant Physiology (MoPP), University of Freiburg, Germany.
Project title - "Unravelling Spatiotemporal Auxin Intracellular Redistribution for Morphogenesis (STARMORPH)"

01.2025 – 03.2025 Product Specialist.
RELVO Sp. z o.o
I supported customers—including lab managers, researchers, and procurement teams—in selecting appropriate products by providing technical guidance and resolving product-related inquiries.

07.2024 – 12.2024 Principal Investigator (PI) in the Short-Term Grants, German Academic Exchange Service (DAAD).
Center for Integrative Biological Signalling Studies (CIBSS), Institute of Biology II, Department of Molecular Plant Physiology (MoPP), University of Freiburg, Germany.
Project title - “Cell wall charge and its impact on calcium homeostasis in plants.”

12.2020 – 09.2023 Teaching assistant.
Faculty of Agronomy and Bioengineering, Departament of Biochemistry and Biotechnology, Poznań University of Life Sciences Poznań, Poland.

05.2019 – 08.2019 Erasmus+ internship.
Institute of Applied Genetic and Cell Biology (IAGZ) at the University of Natural Resources and Life Sciences, Vienna, Austria.

06.2018 – 09.2018 Professional internship.
Internship at Institute of Plant Protection - National Research Institute in Poznań, Poland.

06.2016 – 09.2016 Professional internship.
Internship at Institute of Natural Fibers & Medicinal Plants in Poznań, Poland
Project title “Development of technology for obtaining cannabinoids from hemp with a low THC content as remedies supporting cancer treatment”.

Other activities, awards and honours

04.2020 – 05.2020 Volountary work during SARS-CoV-2 pandemic.
Provincial Sanitary-Epidemiological Station in Poznań, Poland

Awarded distinction during the defense of my PhD thesis titled “The role of dinucleoside polyphosphates (Np_nN') and nucleoside 5′-phosphoramidates (NH_2-pN) in signal transduction and regulation of the phenylpropanoid pathway in grapevine (*Vitis vinifera* L.) and thale cress (*Arabidopsis thaliana* (L.) Heynh.).”

Best poster award at the 7th Edition of the Young Scientists' Conference on Doctoral Students' Scientific Achievements. Poster titled "Synthesis of Stilbenes in *Vitis vinifera* L. Cell Cultures Under the Influence of Dinucleoside Polyphosphates," Poznań on March 30, 2019. Abstract book, page 35; ISBN: 978-83-63058-86-9.

Scholarship for best doctoral students for academic achievements awarded for the first, second, third, fourth and fifth year of doctoral studies (academic year 2018/19, 2019/20, 2020/21, 2021/2022, 2022/2023). Scholarship from the pro-quality grant for academic achievement awarded for the first, third and fifth year of doctoral studies (academic year 2018/19, 2020/21, 2022/2023).

Ten most important publications

1. **Dobrogojski J**., Nguyen V.H., Kowalska J., Borek S., Pietrowska-Borek M. 2023. The plasma membrane purinoreceptor P2K1/DORN1 is essential in stomatal closure evoked by extracellular diadenosine tetraphosphate (Ap_4A) in *Arabidopsis thaliana*. *International Journal of Molecular Sciences*, 24, 16688. Doi.org/10.3390/ijms242316688.

2. Pietrowska-Borek M., Wojdyła-Mamoń A., **Dobrogojski J**., Młynarska-Cieślak A., Baranowski M.R., Dąbrowski J.M., Kowalska J., Jemielity J., Borek S., Pedreño M.A., Guranowski A. 2020. Purine and pyrimidine dinucleoside polyphosphates differentially affect the phenylpropanoid pathway in *Vitis vinifera* L. cv. Monastrell suspension cultured cells. *Plant Physiology and Biochemistry*, 147, 125-132. Doi.org/10.1016/j.plaphy.2019.12.015.

3. Pietrowska-Borek M., **Dobrogojski J**., Sobieszczuk-Nowicka E., Borek S. 2020. New insight into plant signaling: extracellular ATP and uncommon nucleotides, *Cells*, 9 (2), 345. Doi.org/10.3390/cells9020345.

4. **Dobrogojski J**., Adamiec M, Luciński R. 2020. The chloroplast genome: a review. *Acta Physiologiae Plantarum*, 42, 1-13. Doi.org/10.1007/s11738-020-03089-x.

5. Führer M., Gaidora A., Venhuizen P., **Dobrogojski J**., Béziat C., Feraru M.I., Kleine-Vehn J., Kalyna, M., Barbez E. 2020. FRUITFULL Is a Repressor of Apical Hook Opening in *Arabidopsis thaliana*. *International Journal of Molecular Sciences*, 21, 6438 Doi.org/10.3390/ijms21176438.

6. Luciński R., **Dobrogojski J**., Ishikawa T., Adamiec M. 2024. The role of EGY2 protease in response to high light stress. *Functional Plant Biology*, 51. Doi.org/10.1071/FP23243.

7. Adamiec M., **Dobrogojski J**., Wojtyla Ł., Luciński, R. 2022. Stress-related expression of the chloroplast EGY3 pseudoprotease and its possible impact on chloroplasts' proteome composition. *Frontiers in Plant Science*, 13. Doi.org/10.3389/fpls.2022.965143.

8. Pietrowska-Borek M., **Dobrogojski J**., Wojdyła-Mamoń A.M., Romanowska J., Gołębiewska J., Borek S., Murata K., Ishihara A., Pedreño M.Á., Guranowski A. 2021. Nucleoside 5′-phosphoramidates control the phenylpropanoid pathway in *Vitis vinifera* suspension-cultured cells. *International Journal of Molecular Sciences*, 22, 13567. Doi.org/10.3390/ijms222413567.

9. Adamiec M., Szomek M., Gabała E., **Dobrogojski J**., Misztal L., Luciński R. 2021. Fatty acid composition and cpDNA content in *Arabidopsis thaliana* mutants deprived of EGY1 protease. *Photosynthetica*, 59, 633-639. Doi.org/10.32615/ps.2021.053.

10. **Dobrogojski J**., Spychalski M., Luciński R., Borek S. 2018. Transgenic plants as a source of polyhydroxyalkanoates. *Acta Physiologiae Plantarum*, 40, 1-17. Doi.org/10.1007/s11738-018-2742-4.