Dr Milan Župunski

Work address

Heinrich Heine University
Institute of Cell and Interaction Biology
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Date and place of birth

December 4th, 1986, Ruma, Republic of Serbia

Assignments

01.11.2021 - present	Researcher, Group of Prof. Dr. Guido Grossmann, Heinrich Heine University, Düsseldorf, Germany

Previous assignments

01.07.2012 – 31.12.2013	Research trainee, Faculty of Science, University of Novi Sad, Republic of Serbia
01.01.2014 – 31.12.2019	Teaching assistant, Faculty of Science, University of Novi Sad, Republic of Serbia
01.01.2020 – 30.10.2024	Assistant Professor, Faculty of Science, University of Novi Sad, Republic of Serbia

Fellowships/Research visits

01.01.2019 – 30.04.2019	
01.11.2019 – 07.03.2020	Guest Scientist in the Group of Dr. Guido Grossmann, COS, University of Heidelberg, Germany: calcium signaling in plant-environment interactions (8 months and 7 days in total).

Dissertation

2010 - 2017	Dissertation at the University of Novi Sad, under mentorship of Prof. Dr Milan Borišev "Potential of black locust (*Robinia pseudoacacia* L. 1753) in phytoextraction of Cd, Ni and Pb" Grade: 9.50 (out of 10 max)

Tertiary education

2005 - 2009	University of Novi Sad, Faculty of Science, Diploma in Biology
2009 - 2010	University of Novi Sad, Faculty of Science, Master in Biology

Skills

Wet lab: Biochemistry assays; Green Gate cloning; CRISPR-Cas9 gene editing; Microfluidics fabrication and experimentation;
Brightfield and fluorescence microscopy (epifluorescent and spinning-disk confocal);
Image analysis with macro language in FIJI;

Skills (continued)

Programming language:
R
- EDA tools: tidyverse
- Dataviz tools: ggplot2
- Programmatic reporting: RMarkdown
- Exploratory and inferential statistical methods, ML (random forest), multivariate analyses, RNA-seq workflow (DESeq3, edgeR, limma).

Python
- matplotlib
- pandas
- RNAseq analysis

Awards and Grants

An awardee of the Travelling Fellowship granted by The Company of Biologists/J. Cell Science (1901.00 EUR): research visit to Dr G. Grossmann Lab, University of Heidelberg, Germany; Oct-Dec 2019

Teaching

2012 - 2021	Teaching assistant/Dozent at University of Novi Sad, Faculty of Science, Department of biology and ecology: Plant physiology courses for undergraduate students (lectures, course supervision, and exams)
2019	University of Heidelberg, Germany, HBIGS Core Course "Principal component analysis in Biosciences" (16 hours of teaching; 0.5 credit points)

Scientific outreach

2011-2019 Workshops for science promotion at "Night of Biology" (yearly)

Referee activity

Journals: Ecotox Environ Safe, J Soils Sediments, Int J Phytoremediat, Photosynthetica, Food Chemistry, J Soil Sci Plant Nutr, Eur J For Res, Front Plant Sci, HAZMAT, CHEM.

Funding Agencies: NCN, Poland (full length proposal)

Memberships

Serbian Society for Plant Physiology (SPPS), The Federation of European Societies of Plant Biologists (FESPB), Society for Experimental Biology (SEB).

Düsseldorf, Feb 20th 2025 (Milan Župunski)

References

Prof. Dr **Milan Borišev** (PhD supervisor)
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Prof. Dr **Guido Grossmann** (Postdoc Advisor)
Heisenberg Professor
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Prof. Dr **Ivana Maksimović** (Collaborator)
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Faculty of Agriculture
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Selected Publications (last five years)

ORCID: 0000-0002-8576-1292
h-index: 15
Total citations: 950
Metrics according to Google Scholar (Feb 2025).

1. Chaudhary A, Hsiao Y-C, Yeh F-L J, **Župunski M**, Zhang H, Aizezi Y, Malkovskiy A, Grossmann G, Wu H-M, Cheung A Y, Xu S-L, Wang Z-Y. (2025). FERONIA signaling maintains cell wall integrity during brassinosteroid-induced cell expansion in Arabidopsis. **Molecular Plant**. https://doi.org/10.1016/j.molp.2025.02.001

2. VanBuren R, Wai CM, Giarola V, **Župunski M**, Pardo J, Kalinowski M, Grossmann G, Bartels D. (2023). Core cellular and tissue-specific mechanisms enable desiccation tolerance in Craterostigma. **Plant Journal**, 114: 231-245. https://doi.org/10.1111/tpj.16165 IF 7.091

3. Sadoine M, De Michele R, **Župunski M**, Grossmann G, Castro-Rodriguez V. (2023). Monitoring nutrients in plants with genetically encoded sensors: Achievements and perspectives, **Plant Physiology**, kiad337. https://doi.org/10.1093/plphys/kiad337 (review article)

4. Fuchs VAF, Denninger P, **Župunski M**, Jaillais Y, Engel U, Grossmann B. (2021). Nanodomain-mediated lateral sorting drives polarization of the small GTPase ROP2 in the plasma membrane of root hair cells. **bioRxiv**, 459822. https://doi.org/10.1101/2021.09.10.459822

5. **Župunski M***, Arsenov D, Borišev M, Nikolić N, Pajević S. (2021). Shold I GROW or should I SLOW: a meta-analysis of fast-growing tree-species grown in cadmium perturbed environment. **Physiologia Plantarum**, 174: e13594. 10.1111/ppl.13594

6. Borišev M, Borišev I, **Župunski M**, Arsenov D, Pajević S, Ćurčić Ž, Vasin J, Đorđević A. (2016). Drought Impact Is Alleviated in Sugar Beets (*Beta vulgaris* L.) by Foliar Application of Fullerenol Nanoparticles. **Plos One**, 11(11): e0166248. 10.1371/journal.pone.0166248

Conference Contributions

Župunski M. Decoding Environmental Signals: Calcium Responses to Abiotic and Biotic Stimuli in Arabidopsis Roots. The 5th Internation Conference on Plant Biology (24th SPPS Meeting), 2024, Srebrno jezero, Serbia. (***Talk, selected***).

* Corresponding author.