Curriculum vitae

Mgr. Stanislav Vosolsobě, Ph.D.

Born May 5 1986 in Jablonec nad Nisou, Czech Republic, male, nationality Czech
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Education

2005 - 2010	**Biology**, Charles University, Faculty of Science, Prague, Czech Republic Supervisor: RNDr. Kateřina Schwarzerová, Ph.D Bachelor's thesis: Lipid raft in plants Master's thesis: Characterisation of DREPP protein family
2010-2019	**Ph.D. in Plant Anatomy and Physiology** Charles University, Faculty of Science, Prague, Czech Republic Supervisor: RNDr. Kateřina Schwarzerová, Ph.D./RNDr. Jan Petrášek, Ph.D. Dissertation: Evolutionary-developmental study of membrane proteins

Professional experience

Since 2019	**Researcher and lector** Charles University, Faculty of Science, department of Experimental Plant Biology Plant Hormonal Signalling Group, leader RNDr. Jan Petrášek, Ph.D.
Mentorship	**Bachelor's students:** Jan Martinek (2010-2013), Anna Kampová (2017-2018), Ema Albrechtová (2021-2022), Klára Jandová (2022-) **Master's students:** Anna Kampová (2018-2020) **PhD students:** Anna Kampová (2020-), Katarina Kurtović (2020-)
Lectures	Plant signalling evolution (2015-, 100 %, in Czech)
Peer reviews	Frontiers in Plant Sci, BMC Plant Biol., Int. J. of Molecular Sciences, Communications Biology Reviewer for the Charles University Grant Agency (GAUK), Czech Republic

Field of research

Interaction of proteins with plasma membrane in plants, evolution of auxin signalling, plant terrestrialisation, evolutionary-developmental biology. role of environmental aspect in opening of anthers, orchid germination and ecology

Methods

Bioinformatic analysis, R and Bash scripting, grid computing, NGS-data processing, automation using Raspberry and Arduino modules, fluorescent tagging of proteins, transformation of plants (Agrobacterium-mediated, biolistics), proteomic analysis

Publications sorted thematically

Total publications (Scopus, IV.2024): 19 (2x review), as first author – 3, H-index – 12, citations – 649

Evolution of auxin transport

1. **Vosolsobě S.**, Skokan R., Petrášek J. (2020): The evolutionary origins of auxin transport: what we know and what we need to know. ***Journal of Experimental Botany*** 71 (11), 3287-3295
2. Skokan R., Medvecká E., Viaene T., **Vosolsobě S.**, Zwiewka M., Müller K, … Petrášek J., Friml J. (2019): PIN-driven auxin transport emerged early in streptophyte evolution. ***Nature Plants*** 5 (11), 1114-1119
3. Nishiyama T., Sakayama H., de Vries J., Buschmann H., Saint-Marcoux D, …, **Vosolsobě S.**, …, Rensing S. (2018): The chara genome: Secondary complexity and implications for plant terrestrialization. ***Cell*** 174 (2), 448-464. e2
4. Kurtović, K., Schmidt, V., Nehasilová, M., **Vosolsobě, S.**, Petrášek, J. (2023): Rediscovering Chara as a model organism for molecular and evo-devo studies. ***Protoplasma*** 261(2), pp. 183–196
5. Feraru, E., **Vosolsobě, S.**, Feraru, M. I., Petrášek, J., Kleine-Vehn, J. (2012): Evolution andstructural diversification of PILS putative auxin carriers in plants. ***Frontiers in Plant Science*** 3
6. Retzer, K., Lacek, J., Skokan, R., del Genio, C., **Vosolsobě, S.**, Laňková, M., Malínská, K., Konstantinova, N., Zažímalová, E., Napier, R. (2017): Evolutionary conserved cysteines function as cis-acting regulators of *Arabidopsis* PIN-FORMED 2 distribution. ***International Journal of Molecular Sciences*** (18)11, 2274
7. Singh, G., Retzer, K., **Vosolsobě, S.**, Napier, R. (2018): Advances in Understanding the Mechanism of Action of the Auxin Permease AUX1. ***International Journal of Molecular Sciences*** (19)11, 3391

Study of membrane proteins & cytoskeleton

1. Martinek, J., Cifrová, P., **Vosolsobě, S.**, ...Sparkes, I., Schwarzerová, K. (2023): ARP2/3 complex associates with peroxisomes to participate in pexophagy in plants. ***Nature Plants*** 9(11), pp. 1874–1889
2. **Vosolsobě S.**, Petrášek J., Schwarzerová K. (2017): Evolutionary plasticity of plasma membrane interaction in DREPP family proteins. ***Biochimica et Biophysica Acta (BBA)-Biomembranes*** 1859 (5), 686-697
3. **Vosolsobě, S.**, Schwarzerová, K., Petrášek, J. (2018): Determination of Plasma Membrane Partitioning for Peripherally-associated Proteins. ***Journal of Visualized Experiments*** (136), e57837
4. Laňková, M.,Humpolíčková, J., **Vosolsobě, S.,** Cit, Z., Lacek, J., Čovan, M., Čovanová, M., Hof, M., Petrášek, J. (2016): Determination of dynamics of plant plasma membrane proteins with fluorescence recovery and raster image correlation spectroscopy. ***Microscopy and Microanalysis*** (22)2, 290-299
5. Angelini J., **Vosolsobě S.**, Skůpa P., Ho AYY., Bellinvia E., Valentová O., Marc J. (2018): Phospho-lipase Dδ assists to cortical microtubule recovery after salt stress. ***Protoplasma***, 1-10
6. Krtková, J., Havelková, L., Křepelová, A., Fišer, R., **Vosolsobě, S**., Novotná, Z., Martinec, J., Schwarzerová, K. (2012): Loss of membrane fluidity and endocytosis inhibition are involved in rapid aluminum-induced root growth cessation in *Arabidopsis thaliana*. ***Plant Physiology and Biochemistry*** (60)88-97

Orchid physiology

1. Ponert, J., Šoch, J., **Vosolsobě, S.**, Čiháková, K., Lipavská, H. (2021): Integrative Study Supports the Role of Trehalose in Carbon Transfer From Fungi to Mycotrophic Orchid. ***Frontiers in Plant Science***, 12
2. Ponert, J., **Vosolsobě, S.**, Kmecová, K., Lipavská, H. (2011): European orchid cultivation–from seed to mature plant. ***European Journal of Environmental Sciences*** (1)2
3. Ponert, J., Figura, T,. **Vosolsobě, S.**, Lipavská, H., Vohník, M., Jersáková, J., (2013): Asymbiotic germination of mature seeds and protocorm development of *Pseudorchis albida* (Orchidaceae) are inhibited by nitrates even at extremely low concentrations. ***Botany*** (91)10, 662-670

Fungal ecology

4. Kohout, P., Sudová, R., Brabcová, V., **Vosolsobě, S.**, Baldrian, P., Albrechtová, J. (2021): Forest Microhabitat Affects Succession of Fungal Communities on Decomposing Fine Tree Roots. ***Frontiers in Microbiology*** (12), 541583
5. Janoušková, M., Kohout, P., Moradi, J., Doubková, P., Frouz, J., **Vosolsobě, S.**, Rydlová, J. (2018): Microarthropods influence the composition of rhizospheric fungal communities by stimulating specific taxa. ***Soil Biology and Biochemistry*** (122), 120-130