

# Vaidevutis Šveikauskas

## CONTACT INFORMATION

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Science social networks: <https://www.researchgate.net/profile/Vaidevutis-Sveikauskas>

## EDUCATION AND ACADEMIC DEGREE

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2001 – 2007 Doctor degree in the area of Biomedical sciences (B 000), field of Botany (04 B), branch of Vascular Plant Physiology (B 310) (Institute of Botany and Vilnius University).  
Doctoral thesis topic: “ The role of plasmalemma and tonoplast in the system of auxin basipetal transport”, supervisor – dr. A. Merkys.  
Research area: Plant Physiology.

1990 – 1995 Vilnius University, Biology

## PROFESSIONAL EXPERIENCE

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2021.06 – iki dabar **Senior researcher**  
Plant Physiology Laboratory, Nature Research Centre

2019.03 – 2021.06 **Researcher**  
Plant Physiology Laboratory, Nature Research Centre

2006.11 – 2018.12 **Senior specialist**  
Phytosanitary Research Laboratory, SPSMoA

2001.01 – 2006.11 **Researcher**  
Plant Physiology Laboratory, Institute of Botany

1997.01 – 2001.01 **PhD student**  
Plant Physiology Laboratory, Institute of Botany

1995.11 – 1998.03 **Laboratory assistant**  
Plant Physiology Laboratory, Institute of Botany

1995.05 – 1995.10 **Senior laboratory technician**  
Plant Physiology Laboratory, Institute of Botany

## RESEARCH INTERESTS

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**Research area:** plant physiology, research of plant resistance to unfavorable abiotic conditions, influence of microorganisms and calcium to the resistance of plants to drought.

**Methods used:** plant morphological analysis, analysis of biochemical processes in plants, research of changes in gene expression under unfavorable environment abiotic conditions.

## PUBLICATIONS

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*Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science“ database (with citation index):*

1. Vaštakaitė-Kairienė V, Samuolienė G, Šveikauskas V, Laužikė K, Jurkonienė S. 2022. The influence of end-of-day blue light on the growth, photosynthetic, and metabolic parameters of

- lettuce at different development stages. – *Plants*, 11(20): 2798. <https://doi.org/10.3390/plants11202798>.
2. Žalnierius T., Šveikauskas V., Aphalo P.J., Gavelienė V., Būda V. Jurkonienė S. 2022. Gibberellic acid (GA<sub>3</sub>) applied to flowering *Heracleum sosnowskyi* decreases seed viability even if seed development is not inhibited. – *Plants*, 11(3): 314. <https://doi.org/10.3390/plants11030314>.
  3. Gylytė B., Jurkonienė S., Cimperman R., Šveikauskas V., Manusadžianas L. 2021. Biomarker identification of isolated compartments of the cell wall, cytoplasm and vacuole from the internodal cell of characean *Nitellopsis obtusa*. – *PeerJ*, 9: e10930. <https://doi.org/10.7717/peerj.10930>.
  4. Jankovska-Bortkevič E., Gavelienė V., Šveikauskas V., Mockevičiūtė R., Jankauskienė J., Todorova D., Sergiev I., Jurkonienė S. 2020. Foliar application of polyamines modulates winter oilseed rape responses to increasing cold. – *Plants*, 9(2): 179. <https://doi.org/10.3390/plants9020179>.
  5. Olivier T., Šveikauskas V., Demonty E., De Jonghe K., Gentit P., Viršček-Marn M., Grausgruber-Gröger S., Morio S., Faggioli F., Visage M., Fauche F., Gusina M., Luigi M., Lasner H., Mavrič Pleško I. 2016. Inter-laboratory comparison of four RT-PCR based methods for the generic detection of pospiviroids in tomato leaves and seeds. – *European Journal of Plant Pathology*, 144 (3): 645-654. <https://doi.org/10.1007/s10658-015-0803-8>.
  6. Faggioli F., Luigi M., Šveikauskas V., Olivier T., Viršček Marn M., Mavric Plesko I., De Jonghe K., Van Bogaert N., Grausgruber-Gröger S. 2015. An assessment of the transmission rate of four pospiviroid species through tomato seeds. – *European Journal of Plant Pathology*, 143 (3): 613-617. <https://doi.org/10.1007/s10658-015-0707-7>.
  7. Olivier T., Šveikauskas V., Grausgruber-Gröger S., Viršček Marn M., Faggioli F., Luigi M., Pitchugina E., Planchon V. 2015. Efficacy of five disinfectants against *Potato spindle tuber viroid*. – *Crop Protection*, 67: 257-260. <https://doi.org/10.1016/j.cropro.2014.10.018>.
  8. Darginavičienė J., Pasakinskiene I., Maksimov G., Rognli O. A., Jurkonienė S., Šveikauskas V., Bareikienė N. 2008. Changes in plasmalemma K<sup>+</sup>Mg<sup>2+</sup>-ATPase dephosphorylating activity and H<sup>+</sup> transport in relation to seasonal growth and freezing tolerance of *Festuca pratensis* Huds. – *Journal of Plant Physiology*, 165 (8): 825-832. <https://doi.org/10.1016/j.jplph.2007.07.009>.
  9. Maksimov G., Šveikauskas V., Darginavičienė Yu., Jurkonienė S., Baniene J., Shiemaite J. 2002. The usage of plasmalemmal vesicles inverted by Brij 58 treatment for studying processes, which occur on the cytosolic membrane surface. – *Russian Journal of Plant Physiology*, 49(6): 761-765. <https://doi.org/10.1023/A:1020957427426>.

**Scientific articles published in conference proceedings, indexed in „Clarivate Analytics Web of Science“ database:**

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**Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science“ database (without citation index):**

1. Darginavičienė J., Jurkonienė S., Bareikienė N., Šveikauskas V. 2008. H<sup>+</sup>-ATPase functional activity in plant cell plasma membrane. – *Sodininkystė ir daržininkystė. Mokslo darbai*, 27(2): 27–37.
2. Šveikauskas V. 2000. Studies on the role of the plasmalemma in the process of basipetal indole-3-acetic acid transport. – *Sodininkystė ir daržininkystė. Mokslo darbai*, 19(3/1): 98-108.
3. Savičienė E., Maksimov G., Šveikauskas V., Bareikienė N., 2000. Indole-3-acetic acid compartmentation in the cell: a possible role of the vacuole. – *Sodininkystė ir daržininkystė. Mokslo darbai*, 19(3/1): 144-153.

**Other reviewed scientific publications (books, books' chapters, collections of articles, articles, textbooks and etc.):**

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**Reviewed scientific articles, published in Lithuania:**

1. Darginavičienė J., Žemėnas J., Jurkonienė S., Meškienė I., Šveikauskas V., Chramova L., Bareikienė N. 2007. Signalling of indole-3-acetic acid: inhibitory analysis of MAP kinase / phosphatase pathways. – *Biologija*, 53(2):40-43.
2. Maksimov G., Darginavičienė J., Baniene J., Šiemitė J., Šveikauskas V. 2004. The role of transmembrane potential of plant cell plasmalemma *in vitro* in the functional activity of IAA-receptor complexes. – *Biologija*, 1: 42-44.
3. Šveikauskas V., Bareikienė N., Jančys Z. 2003. Energy-dependent auxin transport through the plasmalemma: the role of H<sup>+</sup>-ATPase. – *Biologija*, 3: 60-62.
4. Savičienė E., Maksimov G., Šveikauskas V., 1998. Transmembrane IAA transport *in vitro*. – *Biologija*, 3: 26-30.
5. Savičienė E., Merkys A., Šveikauskas V., Maksimov G., 1997. Characteristic of IAA transport into tonoplast vesicles of wheat coleoptile cells. – *Biologija*, 2: 75-80.

## **PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS**

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2022 – 2023	LSC International Collaboration Lithuania – Ukraine programme project „Investigation of the effect of proline and $\gamma$ -aminobutyric acid on plant resistance to water deficit“.
2019 – 2021	Agreement of bilateral cooperation with Ukraine Kholodny Institute of Botany „Research of embryogenesis of Sosnowsky's hogweed“.
2015 – 2019	The project of European Innovation Partnership (EIP): „Improving soil structure and quality (restoration) using microorganisms. Reducing the emission of nitrogen compounds while maintaining plant productivity using new generation micro-nutrients“.
2012 – 2014	International ERA-NET project „Detection and Epidemiology of Pospiviroids 2“ (EUPHRESKO DEP2). <a href="https://www.euphresco.net/media/project_reports/dep2_final_report.pdf">https://www.euphresco.net/media/project_reports/dep2_final_report.pdf</a>

## **INTERNSHIP AND TRAINING**

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## **PARTICIPATION IN SCIENTIFIC CONFERENCES**

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**International scientific conferences:**

1. Žalnierius T., Šveikauskas V., Jurkonienė S. 2022. Seeds of *H. sosnowskyi* from terminal and satellite umbels developed under gibberellic acid treatment, germinate differently. – *Joint ESENIAS and DIAS Scientific Conference 2022*, 13-15 November, Demre, Turkey. Abstracts: in press.
2. Jurkonienė S., Gavelienė V., Mockevičiūtė R., Jankauskienė J., Jankovska-Bortkevič E., Šveikauskas V. 2021. Effects induced by the probiotics on antioxidant potential of blackcurrant

berries. – *XII International Scientific Agriculture Symposium “AGROSYM 2021”*, 7-10 October, Jahorina, Bosnia and Herzegovina. Book of Abstracts: 435.

3. Manusadžianas L., Džiugelis M., Garnytė G., Gylytė B., Grigutytė R., Jurkonienė S., Šveikauskas V. 2019. Responses of charophyte *Nitellopsis obtusa* to lanthanides. – *19th International Symposium on Toxicity Assessment*, 25-30 August, Thessaloniki, Greece. Abstracts: 111.
4. Olivier T., Faggioli F., Šveikauskas V., De Jonghe K., Grausgruber-Gröger S., Virscek Marn M., Gentit P., Luigi M., Gusina M., Lasner H., Demonty E., Morio S., Van Bogaert N., Visage M., Fauche F., Mavric Plesko I., Smaghe G. 2015. DEP2: A Euphresco project on pospiviroid transmission, detection and disinfection. – *Viroid 2015: International Conference on Viroid and Viroid-like RNAs*, 25-28 June, České Budějovice, Czech Republic. Abstracts: 66.
5. Jurkonienė S., Darginavičienė J., Šveikauskas V., Meškienė I. 2014. Tonoplast participation in cold and salt stress induced changes in cytosolic Ca<sup>2+</sup> level. 2014. *COST action FA0901: Putting halophytes to work from genes to ecosystems*, final meeting, 9-10 April, Coimbra, Portugal. Abstracts: 63.

### National scientific conferences:

1. Šveikauskas V. 1999. Dependence of IAA transport through the plasmalemma and tonoplast on the pH values on both sides of the membranes (in Lithuanian). – *Lietuvos jaunujų botanikų darbai*, 27-28 April, Vilnius, Lithuania. Abstracts of the Second Scientific Conference: 96–97.

## PARTICIPATION IN THE STUDY PROCESS

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### Supervision of PhD students:

Scientific area: *Nature sciences* (N 000). Scientific field: *Biology* (N 010)

<a href="#">Mariam</a>	Doctoral thesis topic: „Physiological and genetic reactions of	2022-10-01 –
<a href="#">Zareyan</a>	plants to drought under the influence of probiotic microorganisms	2026-09-30
	and calcium“	

### Scientific consultant:

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### Supervision of bachelor and master students:

Aleksandr Denisenko	Topic of bachelor's thesis: „The role of calcium ion to vacuole transporting proteins in thale cress ( <i>Arabidopsis thaliana</i> ) during abiotic stress (VGTU, Faculty of Fundamental sciences, Department of Chemistry and Bioengineering, Bioengineering study program)	2021 – 2022
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## OTHERS

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1. V. Šveikauskas. 2021. Giant hogweeds: who are they, where are they from and why are they?. Part I. The history of the origin of the name Heracleum of the giant hogweed genus (in Lithuanian) Internet site of „Mokslo Lietuva“: <http://mokslolietuva.lt/2021/05/barsciai-milzinai-kas-jie-is-kur-jie-ir-kam-jie/>.