

Last Name, Name TIMMUSK, Salme	Position Title Associate professor/docent, Dept. of Forest Mycology Plant pathology Swedish University of Agricultural Sciences (SLU), Uppsala, Sweden
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EDUCATION/TRAINING

Institution and Location	Degree	Year(s)	Field of Study
University of Tartu	Diploma	1992	Biochemistry
University of Uppsala	PhD	2004	Microbiology

Nationality Estonian, Swedish

Languages English, Swedish, German, Estonian

Postdoctoral study

2004-2005 Institute of Evolution, Haifa University, Israel

2005-2007 Dept. of Biology, University of Waterloo, Canada

Other Positions

2007-2011 Assistant professor, Dept. of Forest Mycology Plant pathology Swedish University of Agricultural Sciences (SLU)

Since 2011 Associate professor/docent, Dept. of Forest Mycology Plant pathology SLU

Parental leave Mother to two daughters. 14 months

Honors, Awards and Scholarships

2004 EMBO fellowship

2005-2007 FORMAS (Project 2005-3196-4034-42)

2007-2010 FORMAS (Project 2007-275)

2007-2011 FORMAS (Project 2007-1690)

2007-2011 FORMAS (Project 2007-243)

2008 VINNOVA (Project 2008-01122)

2008 FORMAS (Project 2008-1858)

2009 FORMAS (Project 2009-134)

2009-2013 FORMAS (Project 2009-243)

2009 Carl Tryggers (for postdoctoral student)

2009-2013 Stiftelsen Oscar och Lili Lamms Minne (for PhD student)

European Union

2009 EU, Marie Curie FP-7-PEOPLE-IRSES

2011 Carl Tryggers (for postdoctoral student)

2012 Vetenskapsrådet 2013-1015

2005 Invited reviewer for United States Department of Agriculture (USDA); topic: plant drought tolerance and molecular mechanisms of plant microbe interaction

2009 Invited reviewer for The United States - Israel Binational Agricultural Research and Development Fund; topic: Isolation and development of new plant growth promoting strains

2009 Invited reviewer for Natural Sciences and Engineering Research Council of Canada; topic: Biochemical and genetic mechanisms used by plant growth-promoting bacteria

2012 Recent Patents on Biotechnology: Bentham Science Publishers Guest Editor

Tutor

1. Master student Salah Albasoumi
2. PhD student I. Abd El Daim grant 2009 Stiftelsen Oscar och Lili Lamms Minne)
3. Postdoctoral student Dr. Seong-Bin Kim (grant 2009-2012 Carl Tryggers)
4. In the frame of EU, Marie Curie FP-7-PEOPLE-IRSES grant co-supervisor to four PhD students from the participating EU countries, USA and Canada.

Research Innovations (see patent application)

Sept 2012-May 2013 Business Start Course at Uppsala Innovation Center

Invited lectures

Invited to give presentations on more than 10 scientific and commercial meetings

C. List of selected peer-reviewed publications on abiotic stress tolerance (book chapters*)

1. **Timmusk, S. & Wagner, E. G. H. (1999).** The plant-growth-promoting rhizobacterium *Paenibacillus polymyxa* induces changes in *Arabidopsis thaliana* gene expression: a possible connection between biotic and abiotic stress responses. *Mol Plant Microbe Interact* 12, 951
2. **Timmusk, S., Grantcharova, N. & Wagner, E. G. H. (2005)** *Paenibacillus polymyxa* invades plant roots and forms biofilms. *Appl Env Microbiol* 11, 7292
3. **Timmusk, S., Nevo, E. (2008)** Detection and quantification of plant drought tolerance enhancing bacterium *Paenibacillus polymyxa* in the rhizosphere of wild barley (*Hordeum spontaneum*) with real-time PCR. *J. Biotechnol. IBS* 2008, 613
4. ***Timmusk, S. and Nevo, E. (2010)** *Plant root associated biofilms*. In: Bacteria in agrobiolology (vol 3) : plant nutrient management. Ed. Maheshwari, D.K. Review Springer Verlag, pp. 1-12
5. **Timmusk, S., Paalme, V., Pavlicek, T., Bergquist, J., Vangala, A., Tanilas, T., Nevo E.(2011)** Bacterial distribution in the rhizosphere of wild barley under contrasting microclimates *PLoS ONE* 6(3): e17968. doi:10.1371/journal.pone.0017968
6. **Timmusk, S. and Behers, L. (2012)** Rhizobacterial application for sustainable water management on the areas of limited water resources *IDSE journal* 10.4172/2168-9768.1000e111 v.1: 4
7. **Timmusk, S. and Behers, L. (2012)** *Enhancing drought tolerance in crops* <http://pub.epsilon.slu.se/9324/>
8. **Kim, SB. and Timmusk, S (2013)** A simplified method for *Paenibacillus polymyxa* gene knockout and insertional screening. *PLoS ONE* 10.1371/journal.pone.0068092
9. **Timmusk, S; Timmusk, K.; Behers, L. (2013)** Rhizobacterial plant drought stress tolerance enhancement. Towards sustainable water resource management and food security. *J. Food Security* v1.
10. **S. Timmusk et al. (2014)** Drought-tolerance of wheat improved by soil bacteria from harsh environments: enhanced biomass production and reduced emissions of stress volatiles. *PlosONE* DOI 10.1371/journal.pone.0096086

Patent application

S. Timmusk, *Rhizobacteria and uses thereof* PCT/SE2013/050898 27Aug 2013 Aros Patent AB Pending