

Silvana Porco, Ph.D.

Research Associate

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Education

- 2010-2014 PhD. Plant Biology, University of Nottingham, England
2003-2007 M.Sc. Biology, Université Libre de Bruxelles, Belgium
1989-1994 B.A. Langue et littérature françaises, Université Libre de Bruxelles, Belgium

Postdoctoral Training

- 2015-2016 Postdoctoral Fellow, Biological Sciences, University of Southern California;
Advisor: Dr. Steve Kay
2016-2017 Postdoctoral Fellow, Molecular Medicine, The Scripps Research Institute
Advisor: Dr. Steve Kay
2017- Research Associate, Keck School of Medicine, University of Southern California;
Advisor: Dr. Steve Kay

Research

Studying the circadian rhythms in plants. Her current projects focus on the characterization of NOX protein and determine its role in the circadian clock network; elucidate the role of the circadian clock in the root.

Previous research: 2008-2009 Visiting Graduate Student, Colorado State University

Publications

Porco S, Pěnčík A, Rashed A, Voß U, Casanova-Sáez R, Bishopp A, Golebiowska A, Bhosale R, Swarup R, Swarup K, Peňáková P, Novák O, Staswick P, Hedden P, Phillips AL, Vissenberg K, Bennett MJ, Ljung K. (2016) Dioxygenase-encoding AtDAO1 gene controls IAA oxidation and homeostasis in *Arabidopsis*. Proc Natl Acad Sci;113(39):11016-21

Porco S, Larrieu A, Du Y, Gaudinier A, Goh T, Swarup K, Swarup R, Kuempers B, Bishopp A, Lavenus J, Casimiro I, Hill K, Benkova E, Fukaki H, Brady SM, Scheres B, Péret B, Bennett MJ. (2016) Lateral root emergence in *Arabidopsis* is dependent on transcription factor LBD29 regulation of auxin influx carrier *LAX3*. Development 143: 3340-3349

Mellor, N., Péret, B., **Porco, S.**, Sairanen, I., Ljung, K., Bennett, M., King, J.. (2015) Modelling of *Arabidopsis* *LAX3* expression suggests auxin homeostasis. *J Theor Biol.* 7;366:57-70

Hill, K., **Porco, S.**, Lobet, G., Zappala, S., Mooney, S., Draye, X., and Bennett, M.J. (2013). Root systems biology: integrative modeling across scales, from gene regulatory networks to the rhizosphere. *Plant Physiol* 163, 1487-1503.

Peret, B., Middleton, A.M., French, A.P., Larrieu, A., Bishopp, A., Njo, M., Wells, D.M., **Porco, S.**, Mellor, N., Band, L.R., et al. (2013). Sequential induction of auxin efflux and influx carriers regulates lateral root emergence. *Mol Syst Biol* 9, 699.

Hermans, C., **Porco, S.**, Vandenbussche, F., Gille, S., De Pessemier, J., Van Der Straeten, D., Verbruggen, N., and Bush, D.R. (2011). Dissecting the role of CHITINASE-LIKE1 in nitrate-dependent changes in root architecture. *Plant Physiol* 157, 1313-1326.

Hermans, C., **Porco, S.**, Verbruggen, N., and Bush, D.R. (2010). Chitinase-like protein CTL1 plays a role in altering root system architecture in response to multiple environmental conditions. *Plant Physiol* 152, 904-917.