

Laboratoire de Recherche en Sciences Végétales
UMR 5546 CNRS-UPS
Pôle de Biotechnologies Végétales
24 Chemin de Borde Rouge
BP 42617 Auzeville

Date of birth: 09/01/1985 31326 Castanet Tolosan
Nationality: French FRANCE
Married - 2 children

Education and work experience

- 2003 – 2006:** B.S. University of Toulouse, France, Biochemistry and Biotechnology
2006 – 2008: M.S. University of Toulouse, France, Biochemistry and Molecular Biology
2008 – 2011: Ph.D University of Toulouse, France, Plant – microbes interactions.
Advisors: Dr. Guillaume Bécard / Dr. Nathalie Sejalon-Delmas
2011 – 2014: Postdoctoral researcher, University of Wisconsin – Madison, USA. Advisor:
Dr. Jean-Michel Ané
Nov. 2014 – Oct. 2015: Postdoctoral researcher, John Innes Centre, Norwich.
Advisor: Dr. Giles Oldroyd
Since Oct. 2015: CNRS research associate (Chargé de Recherche 2ème classe).
Laboratoire de recherche en sciences végétales (LRSV).
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Professional services

- Reviewer for the following journals: The New Phytologist, Trends in Plant Science, Annals of Botany, The Plant Cell, PLoS One, Molecular Genetics and Genomics, Frontiers in Plant Sciences, Frontiers in Microbiology.
 - Review Editor for Frontiers in Plant Science and Frontiers in Microbiology.
 - Chair of the concurrent session « Evolution and Ecology » at the XVI International Congress on Molecular Plant-Microbe Interactions (MPMI).
 - Associate faculty member for the plant biology section at F1000 (<http://f1000.com/prime/thefaculty/plant>).
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Teaching & Training

- 2008 – 2011:** Teaching assistant at the University of Toulouse (France) in Biochemistry, Enzymology and Plant Physiology.
2011 – 2014 : Training of 15 undergrad students for the URS, Bio152 and AGRO699 programs, mentoring of two rotation students (Genetics) and one research assistant (University of Wisconsin – Madison, USA).
Summer 2012 and 2013: Training of five high school students for the Summer Science Institute (SSI) program.
October 2013: Lectures in Plant Biotechnology and Genetics. University of Wisconsin – Madison (USA).
2014 – 2015 : Mentoring of two PhD. students (John Innes Centre, UK).

Grants and Awards

- Jury prize 2010 « Journée SEVAB », for the talk entitled « Evolutive Origin of Strigolactones ».
- « Henry Gaussen » 2012 Award from the academy of science and litterature of Toulouse for Ph. D dissertation entitled « Rôles des strigolactones et évolution des compétences mycorhiziennes dans la lignée verte ».
- 2013 – « 2013 WARF Discovery Challenge Grant » recipient. – (\$7, 500)
- « 2014 IS-MPMI Conference travel award » recipient.
- 2015 Coordinator « Evolution of Nodulation Consortium » funded by BGI-Shenzhen

Outreach activities

- Darwin Day 2012, 2013 and 2014, Madison, WI (USA).
- Family gardening Day 2012, Madison, WI (USA).
- 2nd Annual French American Science Festival, 2012, Chicago, IL (USA).
- Video « How plants crawled out of the sea » with BBSRC.
- Currator of Scoop it « Plant & Evolution » (<http://www.scoop.it/t/plant-evolution>).

Poster communications

- Delaux P-M. Evolutive Origin of Strigolactones. “6th International Congress On Mycorrhiza”, Belo Horizonte, Brasil (August 2009).
- Delaux P-M. Evolutive Origin of Strigolactones. “2nd Journées Francophones des Mycorhizes”, Bruxelles, Belgium (September 2010).
- Delaux P-M. Evolutive Origin of Strigolactones. Conference Jacques Monod “Evolution des mécanismes de régulation du développement des plantes”, Roskoff, France (May 2011).
- Delaux P-M, Graham LE, Ané J-M. Origin of the plant –microbes symbiosis toolkit. “10th European Nitrogen Fixation Conference”, Munich, Germany (September 2012).
- Delaux P-M, Graham LE, Ané J-M. Origin of the plant –microbes symbiosis toolkit. “1st Molecular Mycorrhizal Meeting”, Munich, Germany (September 2012).

Oral communications

- Delaux P-M. Evolutive Origin of Strigolactones. “21th International Conference on Plant Growth Substances”. Tarragona, Spain (July 2010).
- Delaux P-M. Evolutive Origin of Strigolactones. “Journée SEVAB”, Toulouse, France, (October 2010).
- Delaux P-M. Evolution of plant – microbe symbiotic ‘toolkit’, “*Arabidopsis thaliana* group meeting”, Madison, WI, USA - Seminar (October 2012).
- Delaux P-M. Evolution of plant – microbe symbiotic ‘toolkit’ “Plant and Animal Genome conference XXI”, San Diego, CA, USA – invited speaker (January 2013).
- Delaux P-M. Evolution of plant – microbe symbiotic ‘toolkit’ “Evolution Seminar Series”, Madison, WI, USA - Seminar (March 2013).
- Delaux P-M. Gain and losses of the symbiotic ‘toolkit’ “23rd North American Symbiotic Nitrogen Fixation Conference” Minneapolis, MI, USA (July 2013).
- Delaux P-M. Plant – microbe signaling: when evolution joins the party - University of Cambridge, UK – Invited Seminar (December 2013).

- Delaux P-M. Plant – microbe signaling: when evolution joins the party - University of Munich, Germany - Invited Seminar (March 2014).
- Delaux P-M. Plant – microbe signaling: when evolution joins the party - John innes Center, Norwich, UK – Invited Seminar (March 2014).
- Delaux P-M. Evolution and engineering of symbiotic signaling between plants and microbes. “XVI International Congress on Molecular Plant-Microbe Interactions (MPMI)” Rhodes, Greece – Invited speaker (July 2014 – session Evolution and Ecology).
- Delaux P-M. Origin of the plant – microbe symbiotic ‘toolkit’. “XVI International Congress on Molecular Plant-Microbe Interactions (MPMI)” Rhodes, Greece (July 2014 – session Symbiosis).
- Delaux P-M. Origin of the plant – microbe symbiotic ‘toolkits’. “New Phytologist workshop” London, UK – Invited speaker (September 2014).
- Delaux P-M. Evolution of symbiotic genomes. “Evolution of Nodulation workshop” Munich, Germany – Invited speaker (January 2015).
- Delaux P-M. Plant – Microbe Symbioses: a Phylogenomic Perspective. “Phylogeny meets Genomics – Center for Advanced Studies workshop” Munich, Germany – Invited speaker (May 2015).
- Delaux P-M. Re-evolving symbiotic signalling. “OpenPlant meeting” Cambridge, UK – Invited speaker (July 2015).
- Delaux P-M. Evolution of symbioses: From phylogenetic patterns to gene discovery. “Legume Workshop” Norwich, UK – Invited speaker (August 2015).
- Delaux P-M. Evolution of symbioses: From phylogenetic patterns to gene discovery. “ENSA meeting” San Francisco, USA – Invited speaker (October 2015).

Publications

* Participated equally to the work # Corresponding author

1. Kapulnik Y.*, **Delaux P-M.***, Resnick N., Mayzlish-Gati E., Winer S., Bhattacharya C., Sejalon-Delmas N., Combiér J-P., Becard G., Belausov E., Beeckman T., Dor E., Hershenhorn J., Koltai H. *Strigolactones affect lateral root formation and root-hair elongation in Arabidopsis*. (2011) Planta. 233: 209-16.
(IF: 3.26 / Citations: 161)
2. **Delaux P-M.**, Nanda A.K., Mathé C., Sejalon-Delmas N., Dunand C. *Molecular and biochemical aspects of plants terrestrialization*. (2012) Perspectives in Plant Ecology, Evolution and Systematics. 14: 49-59.
(IF: 3.6 / Citations: 19)
3. **Delaux P-M.**, Xie X., Timme RE., Puech-Pages V., Lecompte E., Dunand C., Delwiche C.F., Yoneyama K., Bécárd G., Séjalon-Delmas N. *Origin of strigolactones in the green lineage*. (2012) New Phytologist. 195: 857-871.
(IF 7.67 / Citations: 74)
4. Laressergues D*., **Delaux P-M.***, Lelandais-Brière C, Bécárd G, Niebel A, Roux C., Combiér J-C. *The microRNA miR171h regulates arbuscular mycorrhizal colonization of Medicago truncatula by targeting NSP2*. (2012) The Plant Journal. 72:512-22.
(IF: 5.97 / Citations: 47)
5. **Delaux P-M.**, Séjalon-Delmas N., Bécárd G., Ané J-M. *Evolution of the plant–microbe symbiotic ‘toolkit’*. (2013) Trends in Plant Science. 18:298-304.
(IF: 12.9 / Citations: 32)
6. Ye VH., Gemperline E., Venkateshwaran M., Che R., **Delaux P-M.**, Howes-Podoll M., Ané J-M., Li L. *MALDI mass spectrometry-assisted molecular imaging of metabolites during root nodule formation and biological nitrogen fixation in Medicago truncatula*. (2013) The Plant Journal. doi: 10.1111/tpj.12191.
(IF: 5.97 / Citations: 26)

7. **Delaux P-M.**, Bécard G., Combiér J-P. *NSP1 is a component of the Myc signaling pathway.* (2013) New Phytologist. 199:59-65.
(IF 7.67 / Citations: 31)
8. Barthelemy-Delaux C., Marburger D., **Delaux P-M.**, Conley S., Ané J-M. *Effect of Drought on Bradyrhizobium japonicum Populations in Midwest Soils.* (2014) Plant and Soil. 382:165-173.
(IF 2.77 / Citations: 1)
9. **Delaux P-M.#**, Varala K., Edger PP., Coruzzi GM., Pires JC., and Ané J-M.#. *Comparative Phylogenomics Uncovers the Impact of Microbial Symbionts on Host Genome evolution.* (2014) PLoS Genetics. 10:e1004487.
(IF 8.17 / Citations: 16)
10. Cardoso C., Charnikhova T., Jamil M., **Delaux P-M.**, Verstappen F., Amini M., Laressergues D., Ruyter-Spira C., Bouwmeester H. *Differential activity of Striga hermonthica seed germination stimulants and Gigaspora rosea hyphal branching factors in rice and their contribution to underground communication.* (2014) PLoS One. 9:e104201. doi: 10.1371/journal.pone.0104201.
(IF 3.23 / Citations: 1)
11. Xue L., Cui H., Buer B., Vijayakumar V., **Delaux P-M.**, Junkermann S., Bucher M. *Network of GRAS Transcription Factors Involved in the Control of Arbuscule Development in Lotus japonicus.* (2015) Plant Physiol. 2015 167:854-871. doi: 10.1104/pp.114.255430
(IF 6.84 / Citations: 6)
12. Knack JJ., Wilcox LW., **Delaux P-M.**, Ané J-M., Piotrowski MJ., Cook ME., Graham JM., Graham LE. *Microbiomes of Streptophyte Algae and Bryophytes Suggest that a Functional Suite of Microbiota Fostered Plant Colonization of Land.* (2015) Int. J. Plant Sci. 176:405-420.
(IF 1.69 / Citations: 1)
13. Garcia K., **Delaux P-M.**, Cope K., Ané J-M. *Molecular signals required for recognition, establishment and maintenance of ectomycorrhizal symbiosis.* (2015) New Phytologist. doi: 10.1111/nph.13423.
(IF: 7.67 / Citations: 0)
14. **Delaux P-M.#**, Radhakrishnan G., Oldroyd G.# *Tracing the evolutionary path to nitrogen-fixing crops.* (2015) Current Opinion in Plant Biology. doi:10.1016/j.pbi.2015.06.003
(IF: 7.85 / Citations: 0)
15. Patron N. *et al.* *Standards for Plant Synthetic Biology: A Common Syntax for Exchange of DNA Parts.* (2015) New Phytologist. doi: 10.1111/nph.13532
(IF: 7.67 / Citations: 0)
16. **Delaux P-M.#**, Radhakrishnan G., Jayaraman D., Cheema J., Malbreil M., Volkening JD., Sekimoto H., Nishiyama T., Melkonian M, Pokorny L., Rothfels CJ., Winter-Sederoff H., Stevenson DW., Surek B., Zhang Y., Sussman MR., Roux C., Morris RJ., Wong GKS., Oldroyd G., Ané J-M. *The algal ancestor of land plants was pre-adapted for symbiosis.* (accepted with minor editorial revisions) Proc Natl Acad Sci USA.
(IF: 9.81 / Citations: 0)

Book chapter

- Formey D., Jourda C., Roux C., **Delaux P-M.** *What the Genomics of Arbuscular Mycorrhizal Symbiosis Teaches Us about Root Development* (2012) in *Root Genomics and Soil Interactions*. doi: 10.1002/9781118447093.ch9.