



## Dr Alexandre de Saint Germain Short CV

Alexandre de Saint Germain obtained his PhD thesis in 2012 at IJPB-INRAE (France) in the group of C Rameau, where he studied Strigolactone signalling. After a first post doc at the SALK Institute (La Jolla, USA) working on the Strigolactone receptor family (2013-2016) and a second Post doc at IJPB (2013-2020) on allelochemicals perception, he obtained, in 2020, a permanent position at INRAE. He is now developing a new thematic on allelopathy in the Strigolactone and Allelochemical Signalling (SAS) Team at IJPB. His current research aims to decipher the genetic and molecular mechanisms of chemical belowground plant-plant interactions.

### Selected publications

- Strigolactones (SLs) modulate the plastochron by regulating KLUH (KLU) transcript levels in Arabidopsis (2021) Florent Cornet, Jean-Paul Pillot, Philippe Le Bris, Jean-Bernard Pouvreau, Nicolas Arnaud, **Alexandre de Saint Germain**, Catherine Rameau *New Phytol.* 09 September 2021 <https://doi.org/10.1111/nph.17725>
- Lopez-Obando M, Guillory A, Boyer FD, Cornu D, Hoffmann B, Le Bris P, Pouvreau JB, Delavault P, Rameau C, **de Saint Germain A**, Bonhomme S. (2021) The *Physcomitrium* (*Physcomitrella*) patens PpKAI2L receptors for strigolactones and related compounds function via MAX2-dependent and independent pathways. *Plant Cell.* 2021 Aug 30 doi: 10.1093/plcell/koab217.
- **de Saint Germain A**, Anse Jacobs, Guillaume Brun, Jean-Bernard Pouvreau, Lukas Braem, David Cornu, Guillaume Clavé, Emmanuelle Baudu, Vincent Steinmetz, Vincent Servajean, Susann Wicke, Kris Gevaert, Philippe Simier, Sofie Goormachtig, Philippe Delavault, François-Didier Boyer. (2021) A *Phelipanche ramosa* KAI2 protein perceives strigolactones and isothiocyanates enzymatically, *Plant Communications*, 100166, <https://doi.org/10.1016/j.xplc.2021.100166>
- Arellano-Saab A, Bunsick M, Al Galib H, Zhao W, Schuetz S, Bradley JM, Xu Z, Adityani C, Subha A, McKay H, **de Saint Germain A**, Boyer FD, McErlean CSP, Toh S, McCourt P, Stogios PJ, Lumba S. (2021) Three mutations repurpose a plant karrikin receptor to a strigolactone receptor. *Proc Natl Acad Sci U S A.* 2021 Jul 27;118(30):e2103175118. doi: 10.1073/pnas.2103175118.PMID: 34301902
- **de Saint Germain A**, Clavé G, Badet-Denisot MA, Pillot JP, Cornu D, Le Caer JP, Burger M, Pelissier F, Retailleau P, Turnbull C, Bonhomme S, Chory J, Rameau C, Boyer FD. (2016) An histidine covalent receptor and butenolide complex mediates strigolactone perception. *Nat Chem Biol.* 2016 Oct;12(10):787-794. doi: 10.1038/nchembio.2147.