

Patrick du Jardin (PdJ) is professor and head of the Plant Biology laboratory at Gembloux Agro-Bio Tech - University of Liège (Belgium). He was dean of faculty between 2007 and 2009. He is an active teacher in plant biology and his current research is focused on biological interactions between plants roots and their soil environment, mediated by volatile and non volatile allelochemical compounds, and on the modes of action of microbial and non microbial biostimulants in crop plants. As a consultant for the European Commission, PdJ has issued two reports on biostimulants in 2012 and 2014, in the framework of the future EU regulation on fertilizing products. PdJ has a long-standing expertise on the risk assessment of agricultural technologies as external expert for the European Food Safety Authority. He has been actively involved in ethical committees of the French Institutes INRA and Cirad over the last ten years, where expert advice is provided on the ethics of agricultural innovation.

#### Selected publications

Bouhaouel, I., Gfeller, A., Boudabous, K., Fauconnier, M.-L., Slim Amara, H., & du Jardin, P. (2018). Physiological and biochemical parameters: new tools to screen barley root exudates allelopathic potential (*\*Hordeum vulgare\** L. subsp. *\*vulgare\**). *Acta Physiologiae Plantarum*, 40(2), 1-14.

Digrado, A., Gourlez de la Motte, L., Bachy, A., Mozaffar, A., Schoon, N., Bussotti, F., Amelynck, C., Dalcq, A.-C., Fauconnier, M.-L., Aubinet, M., Heinesch, B., du Jardin, P., & Delaplace, P. (2018). Decrease in the photosynthetic performance of temperate grassland species does not lead to a decline in the gross primary production of the ecosystem. *Frontiers in Plant Science*, 9, 16 p., article 67.

Mozaffar, M. A., Schoon, N., Bachy, A., Digrado, A., Heinesch, B., Aubinet, M., Fauconnier, M.-L., Delaplace, P., du Jardin, P., & Amelynck, C. (2018). Biogenic volatile organic compound emissions from senescent maize leaves and a comparison with other leaf developmental stages. *Atmospheric Environment*, 176, 71-81.

Digrado, A., Bachy, A., Mozaffar, A., Schoon, N., Bussotti, F., Amelynck, C., Dalcq, A.-C., Fauconnier, M.-L., Aubinet, M., Heinesch, B., du Jardin, P., & Delaplace, P. (2017). Long-term measurements of chlorophyll a fluorescence using the JIP-test show that combined abiotic stresses influence the photosynthetic performance of the perennial ryegrass (*Lolium perenne*) in a managed temperate grassland. *Physiologia Plantarum*, 161(3), 355-371.

Mozaffar, A., Schoon, N., Digrado, A., Bachy, A., Delaplace, P., du Jardin, P., Fauconnier, M.-L., Aubinet, M., Heinesch, B., & Amelynck, C. (2017). Methanol emissions from maize: Ontogenetic dependence to varying light conditions and guttation as an additional factor constraining the flux. *Atmospheric Environment*, 152, 405-417.

Delory, B., Delaplace, P., Fauconnier, M.-L., & du Jardin, P. (2016). Root-emitted volatile organic compounds: can they mediate belowground plant-plant interactions? *Plant and Soil*, 402, 1-26.

Delory, B., Baudson, C., Brostaux, Y., Lobet, G., du Jardin, P., Pagès, L., & Delaplace, P. (2016). archiDART: an R package for the automated computation of plant root architectural traits. *Plant and Soil*, 398(1), 351-365.

Delory, B. M., Delaplace, P., du Jardin, P., & Fauconnier, M.-L. (2016). Barley (*Hordeum distichon* L.) roots synthesise volatile aldehydes with a strong age-dependent pattern and release (E)- non-2-enal and (E,Z)-nona-2,6-dienal after mechanical injury. *Plant Physiology and Biochemistry*, 104.

Le Mire, G., Nguyen, M., Fassotte, B., du Jardin, P., Verheggen, F., Delaplace, P., & Jijakli, H. (2016). Review: Implementing biostimulants and biocontrol strategies in the agroecological management of cultivated ecosystems. *Biotechnologie, Agronomie, Société et Environnement = Biotechnology, Agronomy, Society and Environment [=BASE]*. 20(S1), 299-313.

Delaplace, P., Delory, B., Baudson, C., Mendaluk-Saunier de Cazenave, M., Spaepen, S., Varin, S., Brostaux, Y., & du Jardin, P. (2015). Influence of rhizobacterial volatiles on the root system architecture and the production and allocation of biomass in the model grass *Brachypodium distachyon* (L.) P. Beauv. *BMC Plant Biology*, 15(195).

du Jardin, P. (2015). Plant biostimulants: Definition, concept, main categories and regulation. *Scientia Horticulturae*, 196, 3-14.

Casacuberta, J. M., Devos, Y., du Jardin, P., Ramon, M., Vaucheret, H., & Nogué, F. (2015). Biotechnological uses of RNAi in plants: Risk assessment considerations. *Trends in Biotechnology*, 33(3), 145-147.

Pauwels, K., De Keersmaecker, S., De Schrijver, A., du Jardin, P., Roosens, N., & Herman, P. (2015). Next-generation sequencing as a tool for the molecular characterisation and risk assessment of genetically modified plants: Added value or not ? *Trends in Food Science & Technology*, 45, 319-326.

Bouhaouel, I., Gfeller, A., Fauconnier, M.-L., Rezgui, S., Amara, H. S., & du Jardin, P. (2014). Allelopathic and autotoxicity effects of barley (*Hordeum vulgare* L. ssp. *vulgare*) root exudates. *BioControl*, Online First.

Mariutto, M., Fauconnier, M.-L., Ongena, M., Laloux, M., Wathelet, J.-P., du Jardin, P., Thonart, P., & Dommes, J. (2014). Reprogramming of fatty acid and oxylipin synthesis in rhizobacteria-induced systemic resistance in tomato. *Plant Molecular Biology*, 84(4-5), 455-476.

Brokl, M.\* , Fauconnier, M.-L.\* , Benini, C., Lognay, G., du Jardin, P., & Focant, J.-F. (2013). Improvement of Ylang-Ylang Essential Oil Characterization by GCxGC-TOFMS. *Molecules*, 18(2), 1783-1797.

Gfeller, A., Laloux, M., Barsics, F., Edine Kati, D., Haubruge, E., du Jardin, P., Verheggen, F., Lognay, G., Wathelet, J.-P., & Fauconnier, M.-L. (2013). Characterization of volatile organic compounds emitted by Barley (*Hordeum vulgare* L.) roots and their attractiveness to wireworms. *Journal of Chemical Ecology*, 39(8), 1129-1139.