



## BIOLOGIE DES PLANTES ET INNOVATION

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#### 2016

**AL BALKHI M.H.**, MOHAMMAD M.A., TISSERANT L.P., **BOITEL-CONTI M.** (2016) Development of a liquid-liquid extraction method of resveratrol from cell culture media using solubility parameters. Separation and purification technology, 170 : 138-145.

DUGARD C.K., MERTZ R.A., **RAYON C.**, MERCADANTE D., HART C., BENATTI M.R., OLEK A.T., SANMIGUEL P.J., COOPER B., REITER W.D., MCCANN M.C., CARPITA N.C. (2016) The cell wall arabinose-deficient *Arabidopsis thaliana* mutant murus5 encodes a defective allele of REVERSIBLY GLYCOSYLATED POLYPEPTIDE2. Plant Physiology, 171 : 1095-1920.

GAURIVAUD P., BARANOWSKI E., **PAU-ROBLLOT C.**, SAGNE E., CITTI C., TARDY F. (2016) Mycoplasma agalactiae secretion of  $\beta$ -(1 $\rightarrow$ 6)-glucan, a rare polysaccharide in prokaryotes, is governed by high-frequency phase variation. Applied and environmental microbiology, 82 : 3370-3383.

HA L.T., **PAWLICKI-JULLIAN N.**, LEQUART-PILLON M., **BOITEL-CONTI M.**, XO H.D., **GONTIER E.** (2016) Hairy root cultures of *Panax vietnamensis*, a promising approach for the production of ocotillol-type ginsenosides. Plant Cell, Tissue and Organ Culture, 126 : 93-103.

MAI N.T.P., **BOITEL-CONTI M.**, **GUERINEAU F.** (2016) *Arabidopsis thaliana* hairy roots for the production of heterologous proteins. Plant Cell, Tissue and Organ Culture, 127 : 489-496.

MEYER M., HUTTENLOCHER F., CEDZICH A., PROCOPIO S., SIEFERER E., STROEDER J., **PAU-ROBLLOT C.**, LEQUART-PILLON M., **PELLOUX J.**, STINZI A., SCHALLER A. (2016) The subtilisin-like protease SBT3 contributes to insect resistance in tomato. Journal of Experimental Botany, 67 : 4325-4338.

**QUERO A.**, **MOLINIE R.**, BRANCOURT D., REMY M.J., **MESNARD F.** (2016) Sesquiterpene composition of *Cinnamosma fragrans*: A Malagasy endemic plant used in traditional medicine. Comptes Rendus Chimie, 19 : 1056-1061.

QURERO A., **MOLINIE R.**, MATHIRON D., THIOMBIANO B., **FONTAINE J.X.**, BRANCOURT D. **VAN WUYTSWINKEL O.**, PETIE E., DEMAILLY H., MONGELARD G., PILARD S., THOMASSET B., **MESNARD F.** (2016) Metabolite profiling of developing *Camelina sativa* seeds. Metabolomics, 12 : 186.

ROULARD R., **PETIT E.**, **MESNARD F.**, RHAZI L. (2016) Molecular investigations of flaxseed mucilage polysaccharides. *International Journal of Biological Macromolecules*, 86 : 840-847.

TISSERANT L.P., HUBERT J., LEQUART M., BORIE N., MAURIN N., PILARD S., JEANDET P., AZIZ A., RENAULT J.H., NUZILLARD J.M., CLEMENT C., **BOITEL-CONTI M.**, COUROT E. (2016) <sup>13</sup>C NMR and LC-MS Profiling of Stilbenes from Elicited Grapevine Hairy Root Cultures. *Journal of Natural Products*, 79 : 2846-2855.

TISSERANT L.P., AZIZ A., **PAWLICKI-JULLIAN N.**, JEANDET P., CLEMENT C., COUROT E., **BOITEL-CONTI M.** (2016) Enhanced Stilbene Production and Excretion in *Vitis vinifera* cv Pinot Noir Hairy Root Cultures. *Molecules*, 21 : 1703.

TURBANT A., FOURNET F., LEQUART-PILLON M., ZABIJAK L., **PAGEAU K.**, **BOUTON S.**, **VAN WUYTSWINKEL O.** (2016) PME58 plays a role in pectin distribution during seed coat mucilage extrusion through homogalacturonan modification. *Journal of Experimental Botany*, 67 : 2177-2190.

## 2015

ABOURAICHA E., EL ALAOUI-TALIBI Z., **EL BOUTACHFAITI R.**, **PETIT E.**, **COURTOIS J.**, **COURTOIS B.**, EL MODAFAR C. (2015) Induction of natural defense and protection against *Penicillium expansum* and *Botrytis cinerea* in apple fruit in response to bioelicitors isolated from green algae. *Scientia Horticulturae*, 181 : 121-128.

BERTIN C., **PAU-ROBLOT C.**, **COURTOIS J.**, MANSO-SILVAN L., TARDY F., POUMARAT F., CITTI C., SIRAND-PUGNET P., GAURIVAUD P., THIAUCOURT F. (2015) Highly dynamic genomic loci drive the synthesis of two types of capsular or secreted polysaccharides within the *Mycoplasma mycoides* cluster. *Applied and Environmental Microbiology*, 81 : 676-687.

BOUAL Z., PIERRE G., DELATTRE C., BENAOUN F., **PETIT E.**, GARDARIN C., MICHAUD P., DIDILOULDELHADJ M. (2015) Mediterranean semi-arid plant *Astragalus armatus* as a source of bioactive galactomannan. *Bioactive Carbohydrates and Dietary Fibre*, 5 : 10-18.

BOUGOFFA-SADAOU K., **GONTIER E.**, TELLIEZ M.S., LEQUART-PILLON M., OUADID-AHIDOUCH H., MAIZA-BENABDESSELAM F. (2015) Caractérisation des alcaloïdes isoquinoléiques de *Fumaria agraria* et évaluation de leur potentiel antiprolifératif vis-à-vis des cellules cancéreuses mammaires. *Phytothérapie*, septembre : 1-8.

CONG L.H., **DAUWE R.**, **LEQUART M.**, VINCHON S., RENOUEAU S., **FLINIAUX O.**, COLAS C., CORBIN C., DOUSSOT J., HANO C., LAMBLIN F., **MOLINIE R.**, PILARD S., JULLIAN N., **BOITEL M.**, **GONTIER E.**, **MESNARD F.**, **LABERCHE J.C.** (2015) Kinetics of glucosylated and non-glucosylated aryltetralin lignans in *Linum* hairy root cultures. *Phytochemistry*, 115 : 70-78.

DELATTRE C., PIERRE G., GARDARIN C., TRAIKIA M., **EL BOUTACHFAITI R.**, ISOGAI A., MICHAUD P. (2015) Antioxidant activities of a polyglucuronic acid sodium salt obtained from TEMPO-mediated oxidation of xanthan. *Carbohydrate Polymers*, 116 : 34-41.

HAMANISHI E.T., BARCHET G.L.H., **DAUWE R.**, MANSFIELD S.D., CAMPBELL M. (2015) Poplar trees reconfigure the transcriptome and metabolome in response to drought in a genotype- and time-of-day-dependent manner. *BMC Genomics*, 16 : 329.

JULLIAN-PAWLICKI N., LEQUART-PILLON M., CONG L.H., LESUR D., CAILLEU D., **MESNARD F.**, **LABERCHE J.C.**, **GONTIER E.**, **BOITEL-CONTI M.** (2015) Arylnaphthalene and aryltetralin-type lignans in hairy root cultures of *Linum perenne*, and the stereochemistry of 6-methoxypodophyllotoxin and one diastereoisomer by high performance liquid chromatography/mass spectrometry and NMR spectrometry. *Phytochemical analysis*, 26 : 310-319.

LE GALL H., PHILIPPE F., **DOMON J.M.**, **GILLET F.**, **PELLOUX J.**, **RAYON C.** (2015) Cell wall metabolism in response to abiotic stress. *Plants*, 4 : 112-116.

LE ROUX C., **BOUTON S.**, KIEFER-MEYER M.C., FABRICE T.N., MARECK A., GUENIN S., **FOURNET F.**, RINGLI C., **PELLOUX J.**, DRIOUICH A., LEROUGE P., LEHNER A., MOLLET J.C. (2015) PECTIN METHYLESTERASE48 is involved in *Arabidopsis* pollen grain germination. *Plant Physiology*, 167 : 367-380.

LEVESQUE-TREMBLAY G., **PELLOUX J.**, BRAYBROOK S.A., MÜLLER K. (2015) Tuning of pectin

methylesterification: consequences for cell wall biomechanics and development. *Planta*, 242 : 791-811.

**L'ENFANT M., DOMON J.M., RAYON C., DESNOS T., RALET M.C., BONNIN E., PELLOUX J., PAU-ROBLOT C.** (2015) Substrate specificity of plant and fungi pectin methyl esterases: Identification of novel inhibitors of PME. *International Journal of Biological Macromolecules* , 81 : 681-691.

MARTIN J.C., MATTHIEU MAILLOT M., MAZEROLLES G., VERDU A., LYAN B., MIGNE C., DEFOORT C., CANLET C., JUNOT C., GUILLOU C., MANACH C., JABOB D., BOUVERESSE D., PARIS E., PUJOS-GUILLOT E., JOURDAN F., GIACOMONI F., COURANT F., FAVE G., LE GALL G., CHASSAIGNE H., TABEL J.C., MARTIN J.F., ANTIGNAC J.P., SHINTU L., DEFERNEZ M., PHILO M., ALEXANDRE-GOUAUBAU M.C., AMIOT-CARLIN M.J., BOSSIS M., TRIBA M.N., STOJILKOVIC N., BANZET N., **MOLINIE R.**, BOTT R., GOULITQUER S., CALDARELLI S., RUTLEDGE D.N. (2015) Can we trust untargeted metabolomics? Results of the metabo-ring initiative, a large-scale, multi-instrument inter-laboratory study. *Metabolomics*, 11 : 807-821.

MATI-BAOUCHE N., DE BAYNAST H., VIAL C., AUDONNET F., SUN S. **PETIT E.**, PENNEC F., PREVOT V., MICHAUD P. (2015) Physico-chemical, thermal, and mechanical approaches for the characterization of solubilized and solid state chitosans. *Journal of Applied Polymer Science*, 132 : 41257.

**NGUYEN T.K.O., JAMALI A., LANOUE A., GONTIER E., DAUWE R.** (2015) Unravelling the architecture and dynamics of tropane alkaloid biosynthesis using metabolite correlation networks . *Phytochemistry*, 116 : 94-103.

PETERA B. DELATTRE C., PIERRE G., WADOUACHI A., **EL BOUTACHFAITI R.**, ENGEL E., POUGHON L., MICHAUD P., FENORADOSOA T.A. (2015) Characterization of arabinogalactan-rich mucilage from *Cereus triangularis* cladodes. *Carbohydrate Polymers*, 127 : 372-380.

**QUERO A., FLINIAUX O., EL BOUTACHFAITI R., PETIT E., GUILLOT X., HAWKINS S., COURTOIS J., MESNARD F.** (2015) -aminobutyric acid increases drought tolerance and reorganizes solute content and water homeostasis in flax (*Linum usitatissimum*). *Metabolomics*, 11 : 1363-1375.

SALGADO N., ARAGON P.N.A., ACEVEDO M., CORONA L., RODRIGUEZ V., MESNARD F., **FLINIAUX M.A., MOLINIE R., MARCELO P., VILLARREAL M.L., CARDOSO-TAKETA A.T.** (2015) Radical scavenging, antioxidant, and cytotoxic activities of the methanolic extracts from different organs of *Ternstroemia pringlei*. *Pakistan Journal of Pharmaceutical Sciences*, 28 : 2279-2284.

SAVOIRE R., LAZOUK M.A., VAN-HECKE E., **ROULARD R.**, TAVERNIER R., GUILLOT X., RHAZI L., **PETIT E., MESNARD F.**, THOMASSET B. (2015) Environmental and varietal impact on linseed composition and on oil unidirectional expression process. *OCL - Oilseeds and fats, Crops and Lipids*, 22 : D605.

**SCHILTZ S., GAILLARD I., PAWLICKI-JULLIAN N., THIOMBIANO B., MESNARD F., GONTIER E.** (2015) A review: what is the spermosphere and how can it be studied?. *Journal of Applied Microbiology*, 119 : 1467-1481.

SENECHAL F., L'ENFANT M., **DOMON J.M.**, ROSIAU E., CREPEAU M.J., SURCOUF O., ESQUIVEL-RODRIGUEZ J., MARCELO P., MARECK A., **GUERINEAU F.**, KIM H.R., MRAVEC J., BONNIN E., JAMET E., KIHARA D., LEROUGE P., RALET M.C., **PELLOUX J., RAYON C.** (2015) Tuning of pectin methylesterification: pectin methyl esterase inhibitor 7 modulates the processive activity of co-expressed pectin methyl esterase 3 in a pH-dependant manner. *The Journal of Biological Chemistry*, 290 : 23320-23335.

SENECHAL F., MARECK A., MARCELO P., LEROUGE P., **PELLOUX J.** (2015) *Arabidopsis* PME17 activity can be controlled by Pectin Methyl esterase Inhibitor 4. *Plant Signaling and Behavior*, 2 : e983351.

TROUILLARD R., HUBERT-ROUX M., TOGNETTI V., GUILHAUDIS L., PLASSON C., MENU-BOUAOUICHE L., COQUET L., **GUERINEAU F.**, HARDOUIN J., ELE EKOUNA J.P., COSETTE P., LEROUGE P., **BOITEL-CONTI M.**, AFONSO C., GALAS-MILAZZO I. (2015) Determination of multimodal isotopic distributions: the case of a <sup>15</sup>N labeled protein produced into hairy roots. *Analytical chemistry*, 87 : 5938-5946.

## 2014

BALDWIN L., **DOMON J.M.**, KLIMEK J.F., **FOURNET F.**, SELLIER H., **GILLET F.**, Pelloux J., LEJEUNE-HENAUT I., CARPITA N.C., **RAYON C.** (2014) Structural alteration of cell wall pectins

accompanies pea development in response to cold. *Phytochemistry*, 104 : 37-47.

BARCET G.L.H., **DAUWE R.**, GUY R.D., SCHROEDER W.R., SOOLANAYAKANAHALLY R.Y., CAMPBELL M.M., MANSFIELD S.D. (2014) Investigating the drought-stress response of hybrid poplar genotypes by metabolite profiling. *Tree Physiology*, 34 : 1203-1219.

CHANTREAU M., PORTELETTE A., **DAUWE R.**, KIYOTO S., CRONIER D., MORREEL K., ARRIBATA S., NEUTELINGS G., CHABI M., BOERJAN W., YOSHINAGA A., **MESNARD F.**, GREC S., CHABBERT B., HAWKINS S. (2014) Ectopic lignification in the flax lignified bast fiber1 mutant stem is associated with tissue-specific modifications in gene expression and cell wall composition. *Plant Cell*, 26 : 4462-4482.

DUMONT M., LEHNER A., **BOUTON S.**, KIEFER-MAYER M.C., VOXEUR A., **PELLOUX J.**, LEROUGE P., MOLLET J.C. (2014) The cell wall pectic polymer rhamnogalacturonan-II is required for proper pollen tube elongation: implications of a putative sialyltransferase-like protein. *Annals of Botany*, Special issue : 1-12.

**FLINIAUX O.**, CORBIN C., RAMSAY A., RENOUEUR S., BEEJMOHUN V., DOUSSOT J., FALGUIERES A., FERROUD C., LAMBLIN F., LAINE E., ROSCHER A., GRAND E., **MESNARD F.**, HANO C. (2014) Microwave-assisted extraction of herbacetin diglucoside from flax (*Linum usitatissimum* L.) seed cakes and its quantification using an RP-HPLC-UV system. *Molecules*, 19 : 3025-3037.

GONCALVES M.D.S., DELATTRE C., BALESTRINO D., CHARBONNEL N., **EL BOUTACHFAITI R.**, WADOUACHI A., BADEL S., BERNARDI T., MICHAUD P., FORESTIER C. (2014) Anti-biofilm activity: a function of *Klebsiella pneumoniae* capsular polysaccharide. *PLoS ONE* , 9 : e99995.

HUET Y., ELE EKOUNA J.P., CARON A., **MEZREB K.**, **BOITEL-CONTI M.**, **GUERINEAU F.** (2014) Production and secretion of a heterologous protein by turnip hairy roots with superiority over tobacco hairy roots. *Biotechnology Letters*, 36 : 181-190.

KOSIERADZKA K., LE FAUDER P., **MOLINIE R.**, GENTIL E., LEBRETON J., ROBINS R.J. (2014) Tropane alkaloid metabolism by *Pseudomonas* AT3 cell cultures: Interchange between the nortropine and norpseudotropine catabolic pathways. *Phytochemistry Letters*, 10 : lx-lxviii.

OLEK A.T., **RAYON C.**, MAKOWSKI L., KIM H.R., CIESIELSKI P., BADGER J., PAUL L.N., GHOSH S., KIHARA D., CROWLEY M., HIMMEL M.E., BOLIN J.T., CARPITA N.C. (2014) The structure of the catalytic domain of a plant cellulose synthase and its assembly into dimers. *Plant Cell*, 26 : 2996-3009.

PAYNEL F., LEROUX C., SURCOUF O., SCHAUMANN A., **PELLOUX J.**, DRIOUICH A., MOLLET J.C., LEROUGE P., LEHNER P., MARECK A. (2014) Kiwi fruit PME1 inhibits PME activity, modulates root elongation and induces pollen tube burst in *Arabidopsis thaliana*. *Plant Growth Regulation*, 74 : 285-297.

**QUERO A.**, JOUSSE C., LEQUART-PILLON M., **GONTIER E.**, GUILLOT X., **COURTOIS B.**, **COURTOIS J.**, **PAU-ROBLOT C.** (2014) Improved stability of TMS derivatives for the robust quantification of plant polar metabolites by gas chromatography-mass spectrometry. *Journal of Chromatography B*, 970 : 36-43.

**QUERO A.**, **MOLINIE R.**, **EL BOUTACHFAITI R.**, **PETIT E.**, **PAU-ROBLOT C.**, GUILLOT X., **MESNARD F.**, **COURTOIS J.** (2014) Osmotic stress alters the balance between organic and inorganic solutes in flax (*Linum usitatissimum*). *Journal of plant physiology*, 171 : 55-64.

RAMSAY A., **FLINIAUX O.**, FANG J., **MOLINIE R.**, ROSCHER A., GRAND E., GUILLOT X., KOVENSKY J., **FLINIAUX M.A.**, SCHNEIDER B., **MESNARD F.** (2014) Development of an NMR metabolomics-based tool for selection of flaxseed varieties. *Metabolomics*, 10 : 1258-1267.

RENOUEUR S., TRIBALAT M.A., LAMBLIN F., MONGELARD G., **FLINIAUX O.**, CORBIN C., MAROSEVIC D., PILARD S., DEMAILLY H., GUTIERREZ L., HANO C., **MESNARD F.**, LAINE E (2014) RNAi-mediated pinosresinol lariciresinol reductase gene silencing in flax (*Linum usitatissimum* L.) seed coat: Consequences on lignans and neolignans accumulation. *Journal of Plant Physiology*, 171 : 1372-1377.

**SENECHAL F.**, GRAFF L., SURCOUF O., MARCELO P., **RAYON C.**, **BOUTON S.**, MARECK A., MOUILLE G., STINTZI A., HÖFTE H., LEROUGE P., SCHALLER A., **PELLOUX J.** (2014) *Arabidopsis* PECTIN METHYLESTERASE17 is co-expressed with and processed by SBT3.5, a subtilisin-like serine protease. *Annals of Botany*, 114 : 1161-1175.

**SENECHAL F.**, WATTIER C., **RUSTERUCCI C.**, **PELLOUX J.** (2014) Homogalacturonan-modifying enzymes: structure, expression, and roles in plants. *Journal of Experimental Botany*, 65 : 5125-5160.

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