



PLATEFORME D'INGÉNIERIE CELLULAIRE ET ANALYSES DES PROTEINES

2023

TMT-based quantitative proteomics analysis reveals differentially expressed proteins between different sources of hMSCs. *Int. J. Mol. Sci.* 2023, 24, 13544.

The bovine uterine fluid proteome is more impacted by the stage of the estrous cycle than the proximity of the ovulating ovary in the periconception period. *Theriogenology*. 2023. 198: 332-343.

Impact of Rhamnolipids (RLs), Natural Defense Elicitors, on Shoot and Root Proteomes of Brassica napus by a Tandem Mass Tags (TMTs) Labeling Approach. *Int. J. Mol. Sci.* 2023, 24, 2390.

2022

Altered protein pattern of human brain pericyte-derived small extracellular vesicles after treatment with pro-inflammatory cytokines. *Analytics*. Nantes, France. 5-9 Septembre 2022.

Etude de l'impact de l'utilisation de stimulateurs de défenses naturelles (SDN) sur la paroi chez le colza par une approche protéomique différentielle. *Analytics*. Nantes, France. 5-9 Septembre

A deep characterization of human brain pericyte-derived small extracellular vesicles and their protein composition once exposed to pro-inflammatory cytokines. *ISEV Annual Meeting*. Lyon, France. 25-29 Mai.

2021

Astrogliosis and compensatory neurogenesis after the first ethanol binge drinking-like exposure in the adolescent rat. **Alcohol Clin Exp Res.** 46(2): 207-200.

Characterization of human pericyte-derived small extracellular vesicles. **International Symposium on Signal Transduction at the Blood-Brain Barriers**, 22-24 Septembre 2021. Bari, Italy

Evaluation of Placental Transfer and Tissue Distribution of cis- and Trans-Permethrin in Pregnant Rats and Fetuses Using a Physiological-Based Pharmacokinetic Model. **Front Pediatr.** 2021. 23;9:730383.

Physiological and Biochemical Traits of Two Major *Arabidopsis* Accessions, Col-0 and Ws, Under Salinity. **Front Plant Sci.** 2021. 12:639154.

A Tandem Mass Tags (TMTs) labeling approach highlights differences between the shoot proteome of two *Arabidopsis thaliana* ecotypes, Col-0 and Ws. **Proteomics.** 2021. 11-12:e2000293.

2020

Acute pathophysiological myocardial changes following intra-cardiac electrical shocks using a proteomic approach in a sheep model. **Nature Sci Rep.** 2020 Nov 20;10(1):20252.

The combination of a poly-caprolactone/nano-hydroxyapatite honeycomb scaffold and mesenchymal stem cells promotes bone regeneration in rat calvarial defects. **Journal of Tissue Engineering and Regenerative Medicine.** 2020. 14(11):1570-1580.

An alginate-based hydrogel with a high angiogenic capacity and a high osteogenic potential. **BioResearch Open Access.** 2020. 9(1):174-182.

Functional validation of a new alginate-based hydrogel scaffold combined with mesenchymal stem cells in a rat hard palate cleft model. **Plastic and Reconstructive Surgery, Global Open**. 2020. 8(4):e2743.

An untargeted liquid chromatography-mass spectrometry-based workflow for the structural characterization of plant polyesters. **Plant J.** 2020. 102(6):1323-1339.

2019

Determination of maternal and foetal distribution of cis- and trans-permethrin isomers and their metabolites in pregnant rats by liquid chromatography tandem mass spectrometry (LC-MS/MS). **Anal Bioanal Chem.** 2019. 411(30):8043-8052.

Cytological Approaches Combined With Chemical Analysis Reveals the Layered Nature of Flax Mucilage. **Front Plant Sci.** 2019 10 (684):1-16.

Metabolic markers for the yield of lipophilic indole alkaloids in dried woad leaves (*Isatis tinctoria L.*). **Phytochemistry.** 2019. 163:89-98.

Urinary Metabolomics Profiles Associated to Bovine Meat Ingestion in Humans. **Mol Nutr Food Res.** 2019. 63(1):e1700834.

Original association of ion transporters mediates the ECM-induced breast cancer cell survival: Kv10.1-Orai1-SPCA2 partnership. **Sci Rep.** 2019. 9(1):1175.

Activation of the calcium-sensing receptor in human valvular interstitial cells promotes calcification. **J Mol Cell Cardiol.** 2019 Feb 12;129:2-12.

The contribution of the SOS signaling pathway in the cell wall dynamics in *Arabidopsis*. Poster. **15th Cell Wall Meeting**, Cambridge, Royaume-Uni. 7-12 Juillet 2019.

The mode of action of pectin methylesterases as a determinant of pectin structure, cell wall mechanics and growth. Communication orale. **15th Cell Wall Meeting, Cambridge**, Royaume-Uni. 7-12 Juillet 2019.

The maize low-lignin mutant F2bm3 shows pleiotropic effects on photosynthetic and cell wall metabolism in response to chilling. Poster. **15th Cell Wall Meeting**, Cambridge, Royaume-Uni. 7-12 Juillet 2019.

Développement d'une méthode simple et rapide pour quantifier les pyréthrinoïdes dans le méconium par une approche LC-MS/MS. Communication orale. **Congrès Francophone sur les Sciences Séparatives et les couplages**. Paris. 25-28 mars 2019.

2018

IP3R3 silencing induced actin cytoskeletal reorganization through ARHGAP18/RhoA/mDia1/FAK pathway in breast cancer cell lines. **Biochem Biophys Acta Mol Cell Res.** 2018 Jul;1865(7):945-958.

Quantitative Proteomic studies in flax seed development: seed coat-embryo interaction. **67th ASMS Conference on Mass Spectrometry and Allied Topics.** San Diego, USA. 2-6 Juin 2018.

Development and validation of an LC-MS/MS method for the determination of maternal and fetal tissue distribution of permethrin and its metabolites in pregnant rats. **13rd International Mass Spectrometry Conference.** Florence, Italie. 26 - 31 Août 2018.

Defect in pectin acetylesterase (PAE) expression triggers changes in pectin remodeling enzymes activities with consequent effect on root development. Communication orale. **ICAR Congress.** 25-28 Juin 2018.

2017

Phenylpropanoid profiling reveals a class of hydroxycinnamoyl glucaric acid conjugates in *Isatis tinctoria* leaves. **Phytochemistry.** 2017 144:127-140.

Structural and dynamical characterization of the pH-dependence of the pectin methylesterase-pectin methylesterase inhibitor complex. **J Biol Chem.** 2017 Dec 29;292(52):21538-21547.

Apolipoprotein(a) inhibits hepatitis C virus entry through interaction with infectious particles. **Hepatology.** 2017 Jun;65(6):1851-1864.

Combined Experimental and Computational Approaches Reveal Distinct pH Dependence of Pectin Methylesterase Inhibitors. **Plant Physiol.** 2017 Feb;173(2):1075-1093.

Identification of the water-soluble protein components with acidic and neutral pH in peanuts and determination of their immunoreactivity and behavior under roasting. **Curr. Trends in Immunology.** 2017 18 : 29-41.

Etude transcriptomique et métabolomique de la graine de lin au cours de son développement : interactions tégument-embryon. Poster. **11ème Journées Réseau Français des Parois,** Orléans, France. 27-29 Juin 2017.

Molecular dynamics simulations reveals pH-dependent inhibition of PMEs through the modulation of PME-PMEi interaction. Poster. **11ème Journées Réseau Français des Parois,** Orléans, France. 27-29 Juin 2017.

Rôle des ploygalacturoanes (PGs), des enzymes de dégradation des pectines dans le remodelage de la paroi durant le développement racinaire chez *Arabidopsis thaliana*. Poster. **11ème Journées Réseau Français des Parois,** Orléans, France. 27-29 Juin 2017.

Functionnal characterization of two *Arabidopsis* pectin acetylesterases AtPAE7 and AtPAE11 and their deletion mutants. Poster. **11ème Journées Réseau Français des Parois,** Orléans, France. 27-29 Juin 2017.

2016

The kinetics of angiotensin-I metabolism in human carotid atheroma: An emerging role for angiotensin (1-7). **Vascul Pharmacol.** 2016 Oct;85:50-56.

PME58 plays a role in pectin distribution during seed coat mucilage extrusion through homogalacturonan modification. **J Exp Bot.** 2016 Apr;67(8):2177-90.

Expression of the calcium-sensing receptor in monocytes from synovial fluid is increased in osteoarthritis. **Joint Bone Spine.** 2016 Jun 23. pii: S1297-319X.

Defect in the expression of a pectin methylesterase triggers compensation mechanisms with consequent effects on cell wall mechanics. Poster. **11ème Journées Réseau Français des Parois**, Orléans. 27-29 Juin 2016.

Combined experimental and computational approaches reveal distinct pH-controlled inhibiting capacities of Arabidopsis Pectin Methylesterase Inhibitors (PMEIs). Communication orale. **Congrès Société Française de Biologie Végétale**, Angers, France. 6-8 Juillet 2016.

Disruption of an Arabidopsis pectin acetyl esterase, AtPAE7, alters root elongation. Poster. **14th Cell Wall Meeting**, Chania, Crète. 12 - 17 Juin 2016.

Mechanochemical regulation of the release of flax seed coat mucilage. Poster. **14th Cell Wall Meeting**, Chania, Crète. 12 - 17 Juin 2016.

2015

Increased tumor infiltration by mucosal-associated invariant T cells correlates with poor survival in colorectal cancer patients. **Cancer Immunol Immunother.** 2015 Dec;64(12):1601-8.

Radical scavenging, antioxidant, and cytotoxic activities of the methanolic extracts from different organs of *Ternstroemia pringlei*. **Pak J Pharm Sci.** 2015 28(6 Suppl):2279-84.

Tuning of Pectin Methylesterification: Pectin methylesterase inhibitor 7 modulates the processive activity of co-expressed pectin methylesterase 3 in a pH-dependent manner. **J Biol Chem.** 2015 Sep 18;290(38):23320-35.

Arabidopsis PME17 Activity can be Controlled by Pectin Methylesterase Inhibitor4. **Plant Signal Behav.** 2015;10(2):e983351.

The retinoblastoma (Rb) protein regulates ferroptosis induced by sorafenib in human hepatocellular carcinoma cells. **Cancer Lett.** 2015. 356(2 Pt B):971-7.

Factors involved in CLL pathogenesis and cell survival are disrupted by differentiation of CLL B-cells into antibody-secreting cells. **Oncotarget.** 2015. 6(21):18484-503.

Substrate specificity of plant and fungi pectin methylesterases: Identification of novel inhibitors of PMEs. **Int J Biol Macromol.** 2015. 81:681-91.

Scenarios of crack propagation in bast fibers: Combining experimental and finite element approaches. **Composite Structures.** 2015. 133: 667–678.

Calcitriol prevents in vitro vascular smooth muscle cell mineralization by regulating calcium-sensing receptor expression. **Endocrinology.** 2015. 156(6):1965-74.

Distinct Effects of Inorganic Phosphate on Cell Cycle and Apoptosis in Human Vascular Smooth Muscle Cells. **J Cell Physiol.** 2015. 230(2):347-55.

Phenotypic, Transcriptomic and Metabolomic analysis of the interactions between seed coat and embryo of

flaxseed. Poster. **9ème Journées Scientifiques du Réseau Français de Métabolomique et Fluxomique**, Lille, France. 9-11 Juin 2015.

Down-regulation of Pectin Methylesterase 32 expression triggers compensatory mechanisms in *Arabidopsis thaliana*. Poster. **International Conference on Arabidopsis Research**, Paris, France. 5-9 Juillet 2015.

2014

Arabidopsis pectin methylesterase 17 is co-expressed with and processed by SBT3.5, a subtilisin-like serine protease. **Ann Bot**. 2014. 114(6):1161-75.

Innate mucosal-associated invariant T (MAIT) cells are activated in inflammatory bowel diseases. **Clin Exp Immunol**. 2014. 176(2):266-74.

Phorbol myristate acetate, but not CD40L, induces the differentiation of CLL B cells into Ab-secreting cells. **Immunol Cell Biol**. 2014. 92(7):591-604.

Total calcium-sensing receptor expression in circulating monocytes is increased in rheumatoid arthritis patients with severe coronary artery calcification. **Arthritis Res Ther**. 2014. 16(5):412.

Increased gut permeability and bacterial translocation after chronic chlorpyrifos exposure in rats. **PLoS One**. 2014. 9(7):e102217.

TLR9 Ligand (CpG Oligodeoxynucleotide) Induces CLL B-Cells to Differentiate into CD20(+) Antibody-Secreting Cells. **Front Immunol**. 2014. 16;5:292.

Calcimimetics increase CaSR expression and reduce mineralization in vascular smooth muscle cells: mechanisms of action. **Cardiovasc Res**. 2014. 101(2):256-65.

Impact of press fractioning on Pinot meunier grape juice composition. Communication orale. **International Conference Wine Active Compounds**, Beaune, France, Mars 2014.

Mass Spectrometry based metabolomic analysis of flax germinating seeds: Is there a remobilisation of the lignan macromolecule? Poster. **8ème Journées Scientifiques du Réseau Francophone de Métabolomique et Fluxomique**. Lyon, France, Mai 2014.

Use of 1H- NMR for the metabolomic study of flaxseed (*Linum usitatissimum*) in development. Poster. **8ème Journées Scientifiques du Réseau Français de Métabolomique et Fluxomique**, Lyon, France. 19-21 Mai 2014.

Expression of the chloride co-transporters KCC2 and NKCC1 in the hippocampus of adolescent rats after perinatal exposure to alcohol: An immunofluorescence study. Poster. **18th Annual Meeting of the LARC-Neuroscience**. Octobre 2014.

Metabolomic analysis of the interactions between seed coat and embryo of flaxseed. Poster. **10ème journées du Réseau Français des Parois**, Amiens, France. 7-9 Juillet 2014.

Control of hypocotyl growth by pectin methylesterases (PMEs) in *Arabidopsis thaliana*. Poster. **10ème journées du Réseau Français des Parois**, France, Amiens. 7-9 Juillet 2014.

Pectin methylesterase inhibitors (PMEIs) are not all equal: new insights into the specificity of the interaction between pectin methylesterases (PME) and their inhibitors in *Arabidopsis*. Communication orale. **Plant Cell Wall Biology Conference**, Palm Cove, Australie. 27-31 Juillet 2014.

Implication of a PME gene in mucilage structuration of *Arabidopsis thaliana* seed. Communication orale. **10ème Congrès Réseau Français des Parois**, Amiens, France, 7-9 Juillet 2014.

2013

Proteomics Analysis of Morphogenic Changes of Human Umbilical Vein Endothelial Cells Induced by a Phorbol-Ester Mimicking Angiogenesis. **Journal of Integrated OMICS**. 2013. Vol 3, No 2 (2013)

New proteins and protein species identified in human umbilical vein endothelial cells by Fourier transform ion cyclotron resonance-mass spectrometry. 2013. **Natural Science** 05(08):919-924

Determination and modulation of total and surface calcium-sensing receptor expression in monocytes in vivo and in vitro. **PLoS One**. 2013. 8(10): e74800.

Identification of SLAMF3 (CD229) as an Inhibitor of Hepatocellular Carcinoma Cell Proliferation and Tumour Progression. **PLoS One**. 2013. 8(12): e82918.

A combination of cytokines rescues highly purified leukemic CLL B-cells from spontaneous apoptosis in vitro. **PLoS One**. 2013. 8(3):e60370.

Evaluation of a metabolic profiling strategy using liquid chromatography LTQ Orbitrap mass spectrometry for the metabolic characterization of *Isatis tinctoria* L. leaf extracts. Communication orale. **7ème Journées Scientifiques du Réseau Francophone de Métabolomique et Fluxomique**. Amiens, France, Juin 2013.

A role for pectin methylesterases (PMEs) in dark grown hypocotyl elongation in Arabidopsis. Poster. **13th Cell Wall Meeting**. Nantes, Juillet 2013.

Biochemical characterization of an Arabidopsis pectin methylesterase AtPME3 and a pectin methylesterase inhibitor. Poster. **13th Cell Wall Meeting**. Nantes, Juillet 2013.

Pectins demethylesterification and seed development. Poster. **13th Cell Wall Meeting**, Nantes, France. 7-12 Juillet 2013.

Regulation of pectin methylesterases (PMEs) by subtilases (SBTs) and pectin methylesterases inhibitors (PMEIs) during root growth. Poster. **13th Cell Wall Meeting**, Nantes, Juillet 2013.

Characterisation of proteins used as wine fining agent by LC-MS analysis: application to yeast protein extract (YPE). Poster. **In-vino-analytica-scientia-symposium (IVAS)**. Juillet 2013.

2012

Inorganic phosphate accelerates the migration of vascular smooth muscle cells: evidence for the involvement of miR-223. **PLoS One**. 2012. 7(10): e47807.

Phénotypage métabolique de lins mutants, *Linum usitatissimum*, pour la voie des phénolpropanoïdes. Poster. **Congrès du Réseau Francophone de Métabolomique et Fluxomique**. Nantes, France, Mai 2012.

Flax seed coat mucilage: formation and carbohydrate composition. Poster. **7ème Congrès Société Française de Biologie Végétale**, Grenoble, France, Juillet 2012.

New fragmentation pathway of tetrahydroprotoberberine alkaloids determined following *in vivo* bioconversion of 6-13C labelled tyramine in *Corydalis bracteata* (Fumariaceae). Poster. **29èmes Journées Françaises de Spectrométrie de Masse**, Orléans, France, Septembre 2012.

Investigation of glycoclusters designed for lectin recognition by Q-TOF and LTQ-Orbitrap ESI-MS. Communication orale. **29èmes Journées Françaises de Spectrométrie de Masse**, Orléans, France, Septembre 2012.

Identification des protéines présentes dans le mucilage séminal de la graine de lin par une approche protéomique. **Congrès de la Société Française d'Electrophorèse & Analyses Protéomiques**, Rouen, France, Octobre 2012.

2011

Formation et structure du mucilage chez le lin. Poster. **Journées du Réseau Français des Parois**. Lille, France, Juin 2011.

2010

Strontium ranelate decreases receptor activator of nuclear factor-kB ligand-induced osteoclastic differentiation in vitro: involvement of the calcium-sensing receptor. **Mol Pharmacol**.2010. 78(4):569-76.

Implication of the calcium sensing receptor and the Phosphoinositide 3-kinase/Akt pathway in the extracellular calcium-mediated migration of RAW 264.7 osteoclast precursor cells. **Bone**.2010. 46(5):1416-23.

Distinct phenotypic features of two fibrocompetent liver cell types: the contribution of proteomic. **Proteomics**. 2010. (5) :1017-28.