

## 9. Plant Research

Abbott E, Hall D, Hamberger B, Bohlmann J.:

**Laser microdissection of conifer stem tissues: isolation and analysis of high quality RNA, terpene synthase enzyme activity and terpenoid metabolites from resin ducts and cambial zone tissue of white spruce (*Picea glauca*).**

BMC Plant Biol 10: 106 (2010)

<http://www.biomedcentral.com/1471-2229/10/106>

Agusti J, Lichtenberger R, Schwarz M, Nehlin L, Greb T:

**Characterization of transcriptome remodeling during cambium formation identifies MOL1 and RUL1 as opposing regulators of secondary growth**

PLoS Genet. 2011 Feb;7(2):e1001312

<http://www.plosgenetics.org/article/info%3Adoi%2F10.1371%2Fjournal.pgen.1001312>

Agustí J, Merelo P, Cercós M, Tadeo FR, Talón M:

**Comparative transcriptional survey between laser-microdissected cells from laminar abscission zone and petiolar cortical tissue during ethylene-promoted abscission in citrus leaves**

BMC Plant Biol. 2009 Oct 23;9:127

<http://www.biomedcentral.com/1471-2229/9/127>

Artico S, Ribeiro-Alves M, Oliveira-Neto OB, de Macedo LL, Silveira S, Grossi-de-Sa MF, Martinelli AP, Alves-Ferreira M:

**Transcriptome analysis of *Gossypium hirsutum* flower buds infested by cotton boll weevil (*Anthonomus grandis*) larvae**

BMC Genomics. 2014 Oct 4;15(1):854.

<http://www.biomedcentral.com/content/pdf/1471-2164-15-854.pdf>

Aubert MK, Coventry S, Shirley NJ, Betts NS, Würschum T, Burton RA, Tucker MR:

**Differences in hydrolytic enzyme activity accompany natural variation in mature aleurone morphology in barley (*Hordeum vulgare* L.)**

Sci Rep. 2018 Jul 23;8(1):11025. doi: 10.1038/s41598-018-29068-4.

<http://dx.doi.org/10.1038/s41598-018-29068-4>

Balestrini R., Gomez-Ariza, J., Lanfranco, L., and Bonfante, P.:

**Laser microdissection reveals that transcripts for five plant and one fungal phosphate transporter genes are contemporaneously present in arbusculated cells**

Mol Plant Microbe Interact 20(9): 1055-1062 (2007)

<http://apsjournals.apsnet.org/doi/abs/10.1094/MPMI-20-9-1055>

Balestrini R, Nerva L, Sillo F, Girlanda M, Perotto S:

**Plant and fungal gene expression in mycorrhizal protocorms of the orchid *Serapias vomeracea* colonized by *Tulasnella calospora***

Plant Signaling & Behavior, 2014 Nov 03, DOI: 10.4161/15592324.2014.977707

[http://www.tandfonline.com/doi/abs/10.4161/15592324.2014.977707#.VGB\\_ycmteik](http://www.tandfonline.com/doi/abs/10.4161/15592324.2014.977707#.VGB_ycmteik)

Balestrini R, Ott T, Güther M, Bonfante P, Udvardi MK, De Tullio MC:

**Ascorbate oxidase: The unexpected involvement of a 'wasteful enzyme' in the symbioses with nitrogen-fixing bacteria and arbuscular mycorrhizal fungi**

Plant Physiology and Biochemistry, 2012

<http://dx.doi.org/10.1016/j.plaphy.2012.07.006>

Becker MG, Zhang X, Walker PL, Wan JC, Millar JL, Khan D, Granger MJ, Cavers JD, Chan AC, Fernando DW, Belmonte MF:

**Transcriptome analysis of the *Brassica napus* - *Leptosphaeria maculans* pathosystem identifies receptor, signalling and structural genes underlying plant resistance**

Plant J. 2017 Feb 21. doi: 10.1111/tpj.13514.

<http://dx.doi.org/10.1111/tpj.13514>

Belmondo S, Fiorilli V, Pérez-Tienda J, Ferrol N, Marmeisse R, and Lanfranco L:

**A dipeptide transporter from the arbuscular mycorrhizal fungus *Rhizophagus irregularis* is upregulated in the intraradical phase**

Front. Plant Sci. | doi: 10.3389/fpls.2014.00436

<http://journal.frontiersin.org/Journal/10.3389/fpls.2014.00436/abstract>

Belmonte MF, Kirkbride RC, Stone SL, Pelletier JM, Bui AQ, Yeung EC, Hashimoto M, Fei J, Harada CM, Munoz MD, Le BH, Drews GN, Brady SM, Goldberg RB, Harada JJ:

**Comprehensive developmental profiles of gene activity in regions and subregions of the *Arabidopsis* seed**

Proc Natl Acad Sci U S A. 2013 Jan 14.

<http://www.pnas.org/cgi/pmidlookup?view=long&pmid=23319655>

Berruti A, Bianciotto V, Borriello R, Lumini E, Scariot V, Balestrini R:

**Application of laser microdissection to identify the arbuscular mycorrhizal fungi inside the root cells**

Frontiers in Plant Science, Nov 2013, ISSN 1664-462X

<http://www.frontiersin.org/Journal/abstract/38008>

Berruti A, Borriello R, Lumini E, Scariot V, Bianciotto V and Balestrini R:

**Application of laser microdissection to identify the mycorrhizal fungi that establish arbuscules inside root cells**

Front. Plant Sci. | doi: 10.3389/fpls.2013.00135

[http://www.frontiersin.org/Plant-Microbe\\_Interaction/10.3389/fpls.2013.00135/abstract](http://www.frontiersin.org/Plant-Microbe_Interaction/10.3389/fpls.2013.00135/abstract)

Bi H, Kovalchuk N, Langridge P, Tricker PJ, Lopato S, Borisjuk N:

**The impact of drought on wheat leaf cuticle properties**

BMC Plant Biol. 2017 May 8;17(1):85. doi: 10.1186/s12870-017-1033-3

<https://bmcpantbiol.biomedcentral.com/articles/10.1186/s12870-017-1033-3>

Bi H, Shi J, Kovalchuk N, Luang S, Bazanova N, Chirkova L, Zhang D, Shavrukov Y, Stepanenko A, Tricker P, Langridge P, Hrmova M, Lopato S, Borisjuk N:

**Overexpression of the TaSHN1 transcription factor in bread wheat leads to leaf surface modifications, improved drought tolerance and no yield penalty under controlled growth conditions**

Plant Cell Environ. 2018 May 14. doi: 10.1111/pce.13339.

<http://dx.doi.org/10.1111/pce.13339>

Campos-Soriano L, Gomez-Ariza J, Bonfante P, San Segundo B:

**A rice calcium-dependent protein kinase is expressed in cortical root cells during the presymbiotic phase of the arbuscular mycorrhizal symbiosis**

BMC Plant Biol. 2011 May 19;11(1):90.

<http://www.biomedcentral.com/1471-2229/11/90/abstract>

Cañas RA, Canales J, Gómez-Maldonado J, Avila C, Cánovas FM:

**Transcriptome analysis in maritime pine using laser capture microdissection and 454 pyrosequencing**

Tree Physiol. 2014 Jan 3.

<http://treephys.oxfordjournals.org/cgi/pmidlookup?view=long&pmid=24391165>

Caruso M, Distefano G, La Malfa S, Gentile A, Merelo P, Tadeo FR, Talon M  
**Identification of candidate genes involved in the self incompatibility response in clementine**  
Acta Hort, 2012

[http://www.actahort.org/members/showpdf?booknrarnr=967\\_14](http://www.actahort.org/members/showpdf?booknrarnr=967_14)

Caruso M, Merelo P, Distefano G, La Malfa S, Lo Piero AR, Tadeo FR, Talon M, Gentile A  
**Comparative transcriptome analysis of stylar canal cells identifies novel candidate genes implicated in the self-incompatibility response of Citrus clementina**  
BMC Plant Biol. 2012 Feb 14;12(1):20

<http://www.biomedcentral.com/1471-2229/12/20>

Castro-Rodríguez V, García-Gutiérrez A, Cañas RA, Pascual M, Avila C, Cánovas FM:  
**Redundancy and metabolic function of the glutamine synthetase gene family in poplar**  
BMC Plant Biol. 2015 Jan 22;15(1):20.

<http://www.biomedcentral.com/1471-2229/15/20>

Celedon JM, Yuen MMS, Chiang A, Henderson H, Reid KE, Bohlmann J:  
**Cell-type and tissue specific transcriptomes of the white spruce (*Picea glauca*) bark unmask fine-scale spatial patterns of constitutive and induced conifer defense**  
Plant J. 2017 Aug 30. doi: 10.1111/tpj.13673.

<http://onlinelibrary.wiley.com/doi/10.1111/tpj.13673/full>

Chandran D, Inada N, Hather G, Kleindt CK, Wildermuth MC:  
**Laser microdissection of Arabidopsis cells at the powdery mildew infection site reveals site-specific processes and regulators**

Proc Natl Acad Sci U S A. 2010 Jan 5;107(1):460-5.

<http://www.pnas.org/content/107/1/460.abstract>

Chandran D, Inada N, Wildermuth MC:  
**Laser microdissection of plant-fungus interaction sites and isolation of RNA for downstream expression profiling**

Methods Mol Biol 712:241-62 (2011)

<http://www.springerlink.com/content/g8x0633768v71816/#section=862301&page=1>

Chen HC, Song J, Wang JP, Lin YC, Ducoste J, Shuford CM, Liu J, Li Q, Shi R, Nepomuceno A, Isik F, Muddiman DC, Williams C, Sederoff RR, Chiang VL:

**Systems Biology of Lignin Biosynthesis in Populus trichocarpa: Heteromeric 4-Coumaric Acid:Coenzyme A Ligase Protein Complex Formation, Regulation, and Numerical Modeling**

Plant Cell. 2014 Mar 11.

<http://www.plantcell.org/cgi/pmidlookup?view=long&pmid=24619612>

Chen QL, Chen YJ, Zhou SS, Yip KM, Xu J, Chen HB, Zhao ZZ:

**Laser microdissection hyphenated with high performance gel permeation chromatography-charged aerosol detector and ultra performance liquid chromatography-triple quadrupole mass spectrometry for histochemical analysis of polysaccharides in herbal medicine: Ginseng, a case study**

Int J Biol Macromol. 2017 Aug 31. pii: S0141-8130(17)32336-X. doi: 10.1016/j.ijbiomac.2017.08.162.

[https://linkinghub.elsevier.com/retrieve/pii/S0141-8130\(17\)32336-X](https://linkinghub.elsevier.com/retrieve/pii/S0141-8130(17)32336-X)

Chen Y, Xu L, Zhao Y, Zhao Z, Chen H, Yi T, Qin M, Liang Z:

**Tissue-specific metabolite profiling and quantitative analysis of ginsenosides in Panax quinquefolium using laser microdissection and liquid chromatography–quadrupole/time of flight-mass spectrometry**

Chem Cent J. 2015; 9: 66. 2015 Dec 9. doi: 10.1186/s13065-015-0141-0

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4673779/>

Chen Z, Zhao W, Ge D, Han Y, Ning K, Luo C, Wang S, Liu R, Zhang X, Wang Q:

**LCM-seq reveals the crucial role of LsSOC1 in heat-promoted bolting of lettuce (*Lactuca sativa* L.)**

Plant J. 2018 May 17. doi: 10.1111/tpj.13968.

<https://onlinelibrary.wiley.com/doi/abs/10.1111/tpj.13968>

Chitarra W, Balestrini R, Vitali M, Pagliarani C, Perrone I, Schubert A, Lovisolo C:

**Gene expression in vessel-associated cells upon xylem embolism repair in *Vitis vinifera* L. petioles**

Planta. 2014 Jan 9.

<http://dx.doi.org/10.1007/s00425-013-2017-7>

Corradi N, Bonfante P:

**The arbuscular mycorrhizal symbiosis: origin and evolution of a beneficial plant infection**

PLoS Pathog. 2012 Apr;8(4):e1002600.

[www.ncbi.nlm.nih.gov/pmc/articles/PMC3330121/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3330121/)

Day, R.C., Grossniklaus, U., and Macknight, R.C.:

**Be more specific! Laser-assisted microdissection of plant cells**

Trends Plant Sci 10(8): 397-406 (2005)

<http://dx.doi.org/10.1016/j.tplants.2005.06.006>

Doidy J, Grace E, Kühn C, Simon-Plas F, Casieri L, Wipf D:

**Sugar transporters in plants and in their interactions with fungi**

Trends Plant Sci. 2012 Apr 16.

<http://www.sciencedirect.com/science/article/pii/S1360138512000611>

Elhiti M, Wally OS, Belmonte MF, Chan A, Cao Y, Xiang D, Datla R, Stasolla C:

**Gene expression analysis in microdissected shoot meristems of *Brassica napus* microspore-derived embryos with altered SHOOTMERISTEMLESS levels**

Planta. 2013 Apr;237(4):1065-82. doi: 10.1007/s00425-012-1814-8.

<http://link.springer.com/article/10.1007%2Fs00425-012-1814-8>

Fang J, Reichelt M, Hidalgo W, Agnolet S, Schneider B:

**Tissue-Specific Distribution of Secondary Metabolites in Rapeseed (*Brassica napus* L.)**

PLoS ONE 7(10): e48006. doi:10.1371/journal.pone.0048006

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0048006>

Fang J, Schneider B:

**Laser Microdissection: a Sample Preparation Technique for Plant Micrometabolic Profiling**

Phytochem. Anal., 23 Sep 2013, 1099-1565, 10.1002/pca.2477

<http://dx.doi.org/10.1002/pca.2477>

Fernández I, Merlos M, López-Ráez JA, Martínez-Medina A, Ferrol N, Azcón C, Bonfante P, Flors V, Pozo MJ:

**Defense Related Phytohormones Regulation in Arbuscular Mycorrhizal Symbioses Depends on the Partner Genotypes**

J Chem Ecol. 2014 Jul 6.

<http://dx.doi.org/10.1007/s10886-014-0473-6>

Fiorilli V, Belmondo S, Khouja HR, Abbà S, Faccio A, Daghino S, Lanfranco L :

**RIPEIP1, a gene from the arbuscular mycorrhizal fungus *Rhizophagus irregularis*, is preferentially expressed in planta and may be involved in root colonization**

Mycorrhiza. 2016 Apr 13.

<http://dx.doi.org/10.1007/s00572-016-0697-0>

Fiorilli V, Catoni M, Miozzi L, Novero M, Accotto GP, Lanfranco L:

**Global and cell-type gene expression profiles in tomato plants colonized by an arbuscular mycorrhizal fungus**

New Phytol. 2009 Dec;184(4):975-87. Epub 2009 Sep 17.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1469-8137.2009.03031.x/full>

Fochi V, Chitarra W, Kohler A, Voyron S, Singan VR, Lindquist EA, Barry KW, Girlanda M, Grigoriev IV, Martin F, Balestrini R, Perotto S:

**Fungal and plant gene expression in the *Tulasnella calospora*-*Serapias vomeracea* symbiosis provides clues about nitrogen pathways in orchid mycorrhizas**

New Phytol. 2016 Nov 11. doi: 10.1111/nph.14279.

<http://onlinelibrary.wiley.com/doi/10.1111/nph.14279/abstract>

Gambetta GA, Fei J, Rost TL, Knipfer T, Matthews MA, Shackel KA, Walker MA, McElrone AJ:

**Water uptake along the length of grapevine fine roots: developmental anatomy, tissue specific aquaporin expression, and pathways of water transport**

Plant Physiol. 2013 Sep 18.

<http://www.plantphysiol.org/content/early/2013/09/18/pp.113.221283.long>

Giovannetti M, Balestrini R, Volpe V, Guether M, Straub D, Costa A, Ludewig U, Bonfante P:

**Two putative-aquaporin genes are differentially expressed during arbuscular mycorrhizal symbiosis in *Lotus japonicus***

BMC Plant Biol. 2012 Oct 9;12(1):186.

<http://www.biomedcentral.com/1471-2229/12/186>

Giovannetti M, Tolosano M, Volpe V, Kopriva S, Bonfante P:

**Identification and functional characterization of a sulfate transporter induced by both sulfur starvation and mycorrhiza formation in *Lotus japonicus***

New Phytol. 2014 Jul 31. doi: 10.1111/nph.12949.

<http://dx.doi.org/10.1111/nph.12949>

Gomez SK, Harrison MJ:

**Laser microdissection and its application to analyze gene expression in arbuscular mycorrhizal symbiosis**

Pest Manag Sci 65(5): 504-11 (2009)

<http://onlinelibrary.wiley.com/doi/10.1002/ps.1715/full>

González-Chávez Ma, del Carmen A, Ortega-Larrocea M, Carrillo-González R, López-Meyer M, Xoconostle-Cázares B, Gomez SK, Harrison MJ, López AMF, Maldonado-Mendoza IE

**Arsenate induces the expression of fungal genes involved in As transport in arbuscular mycorrhiza**

Fungal Biology (2011), ISSN 1878-6146, 10.1016/j.funbio.2011.08.005.

<http://www.sciencedirect.com/science/article/pii/S1878614611001577>

Gorshkov O, Chernova T, Mokshina N, Gogoleva N, Suslov D, Tkachenko A, Gorshkova T:

**Intrusive Growth of Phloem Fibers in Flax Stem: Integrated Analysis of miRNA and mRNA Expression Profiles**

Plants (Basel). 2019 Feb 19;8(2). pii: E47. doi: 10.3390/plants8020047.

<http://www.mdpi.com/resolver?pii=plants8020047>

Gotté M, Bernard M, Kiefer-Meyer MC, Jaber R, Moore JP, Vicré-Gibouin M, and Driouich A:

**Endoplasmic Reticulum Body-Related Gene Expression in Different Root Zones of Arabidopsis Isolated by Laser-Assisted Microdissection**

The Plant Genome, Vol. 9 No. 2 Jul 7 2016, doi:10.3835/plantgenome2015.08.0076

<https://dl.sciencesocieties.org/publications/tpg/articles/9/2/plantgenome2015.08.0076>

Granados JM, Ávila C, Cánovas FM, Cañas RA:

**Selection and testing of reference genes for accurate RT-qPCR in adult needles and seedlings of maritime pine**

Tree Genetics & Genomes, June 2016, 12:60

<http://link.springer.com/article/10.1007/s11295-016-1018-7>

Guether M, Balestrini R, Hannah M, He J, Udvardi MK, Bonfante P:

**Genome-wide reprogramming of regulatory networks, transport, cell wall and membrane biogenesis during arbuscular mycorrhizal symbiosis in *Lotus japonicus***

New Phytol 182(1):200-12 (2009)

<http://onlinelibrary.wiley.com/doi/10.1111/j.1469-8137.2008.02725.x/full>

Guether, M., Neuhäuser, B., Balestrino, R., Dynowski, M., Ludewig, U., Bonfante, P:

**A Mycorrhizal-Specific Ammonium Transporter from *Lotus japonicus* Acquires Nitrogen Released by Arbuscular Mycorrhizal Fungi<sup>1</sup>**

Plant Physiology 150: 73-83 (2009)

<http://www.plantphysiol.org/content/150/1/73.long>

Guether M, Volpe V, Balestrini R, Requena N, Wipf D and Bonfante P:

**LjLHT1.2—a mycorrhiza-inducible plant amino acid transporter from *Lotus japonicus***

Biol Fertil Soils, DOI 10.1007/s00374-011-0596-7 (2011)

<http://www.springerlink.com/content/j30236128156x734/>

Hall HC, Cheung J, Ellis BE:

**Immunoprofiling reveals unique cell-specific patterns of wall epitopes in the expanding *Arabidopsis* stem**

Plant J. 2013 Jan 7. doi: 10.1111/tpj.12111.

<http://onlinelibrary.wiley.com/doi/10.1111/tpj.12111/abstract>

Hamberger B, Ohnishi T, Hamberger B, Seguin A, Bohlmann J:

**Evolution of diterpene metabolism: Sitka spruce CYP720B4 catalyses multiple oxidations in resin acid biosynthesis of conifer defense against insects**

Plant Physiol. 2011 Oct 13. [Epub ahead of print]

<http://www.plantphysiol.org/content/early/2011/10/12/pp.111.185843.abstract>

Happyana N, Agnolet S, Muntendam R, Van Dam A, Schneider B, Kayser O

**Analysis of cannabinoids in laser-microdissected trichomes of medicinal *Cannabis sativa* using LCMS and cryogenic NMR**

Phytochemistry. 2012 Dec 29. pii: S0031-9422(12)00475-X. doi: 10.1016/j.phytochem.2012.11.001.

[http://linkinghub.elsevier.com/retrieve/pii/S0031-9422\(12\)00475-X](http://linkinghub.elsevier.com/retrieve/pii/S0031-9422(12)00475-X)

Harrop TW, Ud Din I, Gregis V, Osnato M, Jouannic S, Adam H, Kater MM:

**Gene expression profiling of reproductive meristem types in early rice inflorescences by laser microdissection**

Plant J. 2016 Apr;86(1):75-88. doi: 10.1111/tpj.13147.

<http://dx.doi.org/10.1111/tpj.13147>

Hettenhausen C, Baldwin IT, Wu J:

**Silencing MPK4 in *Nicotiana attenuata* enhances photosynthesis and seed production but compromises abscisic acid-induced stomatal closure and guard cell-mediated resistance to *Pseudomonas syringae* pv tomato DC3000**

Plant Physiol. 2012 Feb;158(2):759-76. doi: 10.1104/pp.111.190074.

<http://www.plantphysiol.org/cgi/pmidlookup?view=long&pmid=22147519>

Hölscher D:



**Cellular-Specific Detection of Polyphenolic Compounds by NMR-and MS-Based Techniques**

Recent Advances in Polyphenol Research, 2019

<https://books.google.de/>

Hölscher D, Fuchser J, Knop K, Menezes RC, Buerkert A, Svatoš A, Schubert US, Schneider B:  
**High resolution mass spectrometry imaging reveals the occurrence of phenylphenalenone-type compounds in red paracytic stomata and red epidermis tissue of *Musa acuminata* ssp. *zebrina* cv. 'Rowe Red'**

Phytochemistry. 2015 May 21. pii: S0031-9422(15)00147-8. doi: 10.1016/j.phytochem.2015.04.010.

[http://linkinghub.elsevier.com/retrieve/pii/S0031-9422\(15\)00147-8](http://linkinghub.elsevier.com/retrieve/pii/S0031-9422(15)00147-8)

Hölscher, D. and Schneider, B.:

**Application of laser-assisted microdissection for tissue and cell-specific analysis of RNA, proteins, and metabolites**

Progress in Botany 69: 141-167 (2007)

<http://www.springerlink.com/content/m15305g9262t5776/>

Hölscher, D. and Schneider, B.:

**Laser microdissection and cryogenic nuclear magnetic resonance spectroscopy: an alliance for cell type-specific metabolite profiling**

Planta 225(3): 763-770 (2007)

<http://www.springerlink.com/content/m5787044k63758q0/>

Hölscher, D., Shroff, R., Knop, K., Gottschaldt, M., Crecelius, A., Schneider, B., Heckel, D.G., Schubert, U.S., Svatos, A.

**Matrix-free UV-laser desorption/ionization (LDI) mass spectrometric imaging at the single-cell level: distribution of secondary metabolites of *Arabidopsis thaliana* and *Hypericum species***

The Plant Journal 60 (5): 907-918 (2009)

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-313X.2009.04012.x/full>

Hollender CA, Kang C, Darwish O, Geretz A, Matthews BF, Slovin J, Alkharouf N, Liu Z:

**Floral transcriptomes in woodland strawberry uncover developing receptacle and anther gene networks**

Plant Physiol. 2014 May 14. pii: pp.114.237529.

<http://www.plantphysiol.org/content/early/2014/05/14/pp.114.237529.full.pdf>

Huisman R, Hontelez J, Mysore KS, Wen J, Bisseling T, Limpens E:

**A symbiosis-dedicated SYNTAXIN OF PLANTS 13II isoform controls the formation of a stable host-microbe interface in symbiosis**

New Phytol. 2016 Apr 25. doi: 10.1111/nph.13973.

<http://dx.doi.org/10.1111/nph.13973>

Inada, N. and Wildermuth, M.C.:

**Novel tissue preparation method and cell-specific marker for laser microdissection of *Arabidopsis* mature leaf**

Planta 221(1): 9-16 (2005)

<http://www.springerlink.com/content/5n2fvbd0q0ue888w/>

Ishimura T, Ida M, Hirose S, Shimamura S, Masumura T, Nishizawa NK, Nakazono M, Kondo M:

**Laser microdissection-based gene expression analysis in the aleurone layer and starchy endosperm of developing rice caryopses in the early storage phase**

Rice, July 2015, 8:22,

<http://link.springer.com/article/10.1186%2Fs12284-015-0057-2#>

Ishimaru T, Parween S, Saito Y, Shigemitsu T, Yamakawa H, Nakazono M, Masumura T, Nishizawa NK, Kondo M, Sreenivasulu N:

**Laser microdissection-based tissue specific transcriptome analyses reveals novel regulatory network of genes involved in heat-induced grain chalk in rice endosperm**

Plant Cell Physiol. 2018 Dec 4. doi: 10.1093/pcp/pcy233.

<https://academic.oup.com/pcp/article-lookup/doi/10.1093/pcp/pcy233>

Ishimaru, Y., Suzuki, M., Tsukamoto, R., Suzuki, K., Nakazono, M., Kobayashi, T., Wada, Y., Watanabe, S., Matsuhashi, S., Takahashi, M., Nakanishi, H., Mori, S., and Nishizawa, N.K.:

**Rice plants take up iron as an Fe<sup>3+</sup>-phytosiderophore and as Fe<sup>2+</sup>**

Plant Journal 45(3): 335-346 (2006)

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-313X.2005.02624.x/full>

Jaiswal YS, Liang Z, Guo P, Ho HM, Chen HB, Zhao Z:

**Tissue-specific Metabolite Profiling of *Cyperus rotundus* L. Rhizomes and (+)-Nootkatone Quantitation by Using Laser Micro Dissection, UHPLC-QTOF MS and GC-MS Techniques**

J Agric Food Chem. 2014 Jun 17.

<http://pubs.acs.org/doi/abs/10.1021/jf502494z?journalCode=jafcau>

Jaiswal Y, Liang Z, Ho A, Chen H, Williams L, Zhao Z:

**Tissue based metabolite profiling and qualitative comparison of two species of *Achyranthes* roots by use of UHPLC-QTOF MS and laser micro dissection**

Journal of Pharmaceutical Analysis, 16 June 2017

<http://www.sciencedirect.com/science/article/pii/S2095177917300709>

Jaiswal Y, Liang Z, Ho A, Chen H, Zhao Z:

**A Comparative Tissue-specific Metabolite Analysis and Determination of Protodioscin Content in *Asparagus* Species used in Traditional Chinese Medicine and Ayurveda by use of Laser Microdissection, UHPLC-QTOF/MS and LC-MS/MS**

Phytochem Anal. 2014 Apr 16. doi: 10.1002/pca.2522.

<http://dx.doi.org/10.1002/pca.2522>

Jiang, K., Zhang, S., Lee, S., Tsai, G., Kim, K., Huang, H., Chilcott, C., Zhu, T., and Feldman, L.J.:

**Transcription profile analyses identify genes and pathways central to root cap functions in maize**

Plant Mol Biol 60(3): 343-363 (2006)

<http://www.springerlink.com/content/t863g13256081071/>

Jyske TM, Suuronen JP, Pranovich AV, Laakso T, Watanabe U, Kuroda K, Abe H:

**Seasonal variation in formation, structure, and chemical properties of phloem in *Picea abies* as studied by novel microtechniques**

Planta. 2015 Sep;242(3):613-29. doi: 10.1007/s00425-015-2347-8.

<http://dx.doi.org/10.1007/s00425-015-2347-8>

Klink, V.P., Overall, C.C., Alkharouf, N.W., MacDonald, M.H., and Matthews, B.F.:

**Laser capture microdissection (LCM) and comparative microarray expression analysis of syncytial cells isolated from incompatible and compatible soybean (*Glycine max*) roots infected by the soybean cyst nematode (*Heterodera glycines*)**

Planta 226(6): 1389-1409 (2007)

<http://www.springerlink.com/content/427n6258j4858561/>

Lenzi L1, Caruso C2, Bianchedi PL3, Pertot I4, Perazzolli M:

**Laser microdissection of grapevine leaves reveals site-specific regulation of transcriptional response to *Plasmopara viticola***

Plant Cell Physiol. 2015 Nov 6. pii: pcv166.

<http://pcp.oxfordjournals.org/cgi/pmidlookup?view=long&pmid=26546320>



Li CH, Liu Y, Hua J, Luo SH, Li SH:

**Peltate glandular trichomes of *Colquhounia seguinii* Vaniot harbor new defensive clerodane diterpenoids**

J Integr Plant Biol. 2014 Jul 22. doi: 10.1111/jipb.12242.

<http://www.jipb.net/pubsoft/content/2/10.1111/jipb.12242.pdf>

Li SH, Nagy NE, Hammerbacher A, Krokene P, Niu XM, Gershenzon J, Schneider B:

**Localization of Phenolics in Phloem Parenchyma Cells of Norway Spruce (*Picea abies*)**

Chembiochem. 2012 Dec 21;13(18):2707-13. doi: 10.1002/cbic.201200547. Epub 2012 Nov 13.

<http://dx.doi.org/10.1002/cbic.201200547>

Li, S-H., Schneider, B., Gershenzon, J.

**Microchemical analysis of laser-microdissected stone cells of Norway spruce by cryogenic nuclear magnetic resonance spectroscopy**

Planta 225(3): 771-9 (2007)

<http://www.springerlink.com/content/j81p14274x734t73/>

Liang L, Xu J, Liang ZT, Dong XP, Chen HB, Zhao ZZ:

**Tissue-Specific Analysis of Secondary Metabolites Creates a Reliable Morphological Criterion for Quality Grading of *Polygoni Multiflori Radix***

Molecules. 2018 May 8;23(5). pii: E1115. doi: 10.3390/molecules23051115.

<https://europepmc.org/abstract/med/29738485>

Liang Z, Zhang J, Yang G, Chen H, Zhao Z:

**Chemical profiling and histochemical analysis of *Bupleurum marginatum* roots from different growing areas of Hubei province**

Acta Pharmaceutica Sinica B, 21 May 2013, ISSN 2211-3835, 10.1016/j.apsb.2013.04.002.

<http://www.sciencedirect.com/science/article/pii/S2211383513000348>

Liu C, Srividya N, Parrish AN, Yue W, Shan M, Wu Q, Lange BM:

**Morphology of glandular trichomes of Japanese catnip (*Schizonepeta tenuifolia* Briquet) and developmental dynamics of their secretory activity**

Phytochemistry. 2018 Mar 10;150:23-30. doi: 10.1016/j.phytochem.2018.02.018.

[https://linkinghub.elsevier.com/retrieve/pii/S0031-9422\(18\)30056-6](https://linkinghub.elsevier.com/retrieve/pii/S0031-9422(18)30056-6)

Liu Y, Luo SH, Schmidt A, Wang GD, Sun GL, Grant M, Kuang C, Yang MJ, Jing SX, Li CH, Schneider B, Gershenzon J, Li SH:

**A Geranyl-farnesyl Diphosphate Synthase Provides the Precursor for Sesterterpenoid (C<sub>25</sub>) Formation in the Glandular Trichomes of the Mint Species *Leucosceptrum canum***

Plant Cell. 2016 Mar;28(3):804-22. doi: 10.1105/tpc.15.00715.

<http://www.plantcell.org/cgi/pmidlookup?view=long&pmid=26941091>

López-Ráez J, Fernández I, García JM, Berrio E, Bonfante P, Walter MH, Pozo MJ:

**Differential spatio-temporal expression of carotenoid cleavage dioxygenases regulates apocarotenoid fluxes during AM symbiosis**

Plant Science, 2014 Nov 01, DOI: 10.1016/j.plantsci.2014.10.010

<http://www.sciencedirect.com/science/article/pii/S0168945214002519>

Losa A., Gilardetti R., Pasquini M., Sari Gorla M., Gianfranceschi L.

**Morphological and molecular analysis of the interaction between Durum Wheat and Puccinia Triticina**

Poster Abstract – 2.20, Proceedings of the 53rd Italian Society of Agricultural Genetics Annual Congress Torino, Italy – 16/19 September, 2009, ISBN 978-88-900622-9-2

[http://www.siga.unina.it/SIGA2009/SIGA\\_2009/2\\_20.pdf](http://www.siga.unina.it/SIGA2009/SIGA_2009/2_20.pdf)

Ma L, Xin H, Qu L, Zhao J, Yang L, Zhao P, Sun M:  
**Transcription Profile Analysis Reveals That Zygotic Division Results in Uneven Distribution of Specific Transcripts in Apical/Basal Cells of Tobacco**

PLoS One. 2011 Jan 7;6(1):e15971

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0015971>

Martin LB, Nicolas P, Matas AJ, Shinozaki Y, Catalá C, Rose JK:

**Laser microdissection of tomato fruit cell and tissue types for transcriptome profiling**

Nat Protoc. 2016 Dec;11(12):2376-2388. doi: 10.1038/nprot.2016.146.

<http://www.nature.com/nprot/journal/v11/n12/pdf/nprot.2016.146.pdf>

Masiero S, Colombo L, Grini PE, Schnittger A, Kater MM:

**The Emerging Importance of Type I MADS Box Transcription Factors for Plant Reproduction**

Plant Cell. 2011 Mar;23(3):865-72. Epub 2011 Mar 4.

<http://www.plantcell.org/content/23/3/865.citation>

Matas AJ, Agustí J, Tadeo FR, Talón M, Rose JK:

**Tissue-specific transcriptome profiling of the citrus fruit epidermis and subepidermis using laser capture microdissection**

J Exp Bot 61(12):3321-30 (2010)

<http://jxb.oxfordjournals.org/content/61/12/3321.short>

Matias-Hernandez L, Battaglia R, Galbiati F, Rubes M, Eichenberger C, Grossniklaus U, Kater MM, Colombo L:

**VERDANDI is a direct target of the MADS domain ovule identity complex and affects embryo sac differentiation in Arabidopsis**

Plant Cell. 2010 Jun;22(6):1702-15

<http://www.plantcell.org/content/22/6/1702.short>

Matsye PD, Kumar R, Hosseini P, Jones CM, Tremblay A, Alkharouf NW, Matthews BF, Klink VP:

**Mapping cell fate decisions that occur during soybean defense responses**

Plant Mol Biol. 2011 Nov;77(4-5):513-28. Epub 2011 Oct 11.

<http://www.springerlink.com/content/107x4477w8173720/>

Meng D, Zhao J, Zhao C, Luo H, Xie M, Liu R, Lai J, Zhang X, Jin W:

**Sequential gene activation and gene imprinting during early embryo development in maize**

Plant J. 2017 Nov 24. doi: 10.1111/tpj.13786.

<http://dx.doi.org/10.1111/tpj.13786>

Merelo P, Agusti J, Arbona V, Costa ML, Estornell LH, Gomez-Cadenas A, Coimbra SV, Gomez MD, Perez-Amador MA, Domingo C, Talon M, and Tadeo FR:

**Cell Wall Remodeling In Abscission Zone Cells During Ethylene-Promoted Fruit Abscission In Citrus**

Front. Plant Sci. | doi: 10.3389/fpls.2017.00126

<http://journal.frontiersin.org/article/10.3389/fpls.2017.00126/abstract>

Millar JL, Khan D, Becker MG, Chan A, Dufresne A, Sumner M, Belmonte MF:

**Chalazal seed coat development in Brassica napus**

Plant Science, Volume 241, December 2015, Pages 45–54

<http://www.sciencedirect.com/science/article/pii/S0168945215300765>

Millar JL, Becker MG, Belmonte MF:

**Laser Microdissection of Plant Tissues**

Chapter 20, Plant Microtechniques and Protocols Book

ISBN 978-3-319-19943-6, ISBN 978-3-319-19944-3 (eBook)

Muñoz-Sanhueza LG, Lee Y, Tillmann M, Cohen JD, Hvoslef-Eide AK:

**Auxin analysis using laser microdissected plant tissues sections**

BMC Plant Biol. 2018 Jun 25;18(1):133. doi: 10.1186/s12870-018-1352-z.

<https://bmcpantbiol.biomedcentral.com/articles/10.1186/s12870-018-1352-z>

Murata, N., Masuda, K., Nishiyama, R., and Nomura, K.:

**Construction of a micro-library enriched with genomic replication origins of carrot somatic embryos by laser microdissection**

Plant Physiol Biochem 43(6): 513-519 (2005)

<http://dx.doi.org/10.1016/j.plaphy.2005.04.004>

Nagy NE, Sikora K, Krokene P, Hietala AM, Solheim H, and Fossdal CG:

**Using laser micro-dissection and qRT-PCR to analyze cell type-specific gene expression in Norway spruce phloem**

PeerJ, 2014

<https://peerj.com/articles/362/>

Nakada, M., Komatsu, M., Ochiai, T., Ohtsu, K., Nakazono, M., Nishizawa, N.K., Nitta, K., Nishiyama, R., Kamey, T., and A., K.:

**Isolation of MaDEF from *Muscari armeniacum* and analysis of its expression using laser microdissection**

Plant Sci. 170: 143-150 (2006)

<http://dx.doi.org/10.1016/j.plantsci.2005.08.021>

Nelson, T., Tausta, S.L., Gandotra, N., and Liu, T.:

**Laser microdissection of plant tissue: what you see is what you get**

Annu Rev Plant Biol 57: 181-201 (2006)

<http://www.annualreviews.org/doi/full/10.1146/annurev.arplant.56.032604.144138>

Ohtsu, K., Takahashi, H., Schnable, P.S., and Nakazono, M.:

**Cell type-specific gene Expression profiling in plants by using a combination of laser microdissection and high-throughput technologies**

Plant Cell Physiol. 48(1): 3-7 (2007)

<http://pcp.oxfordjournals.org/content/48/1/3.long>

Oikawa A, Saito K:

**Metabolite analyses of single cells**

Plant J. 2012 Apr;70(1):30-8. doi: 10.1111/j.1365-313X.2012.04967.x.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-313X.2012.04967.x/full>

Okada T, Hu Y, Tucker MR, Taylor JM, Johnson SD, Spriggs A, Tsuchiya T, Oelkers K, Rodrigues JC, Koltunow AM:

**Enlarging cells initiating apomixis in *Hieracium praealtum* transition to an embryo sac program prior to entering mitosis**

Plant Physiol. 2013 Jul 17.

<http://www.plantphysiol.org/cgi/pmidlookup?view=long&pmid=23864557>

Ortu G, Balestrini R, Pereira PA, Becker JD, Küster H, Bonfante P:

**Plant Genes Related to Gibberellin Biosynthesis and Signaling Are Differentially Regulated during the Early Stages of AM Fungal Interactions**

Mol Plant. 2012 Mar 26.

<http://mplant.oxfordjournals.org/content/early/2012/03/25/mp.sss027.extract>

Pelletier JM, Kwong RW, Park S, Le BH, Baden R, Cagliari A, Hashimoto M, Munoz MD, Fischer RL, Goldberg RB, Harada JJ:

**LEC1 sequentially regulates the transcription of genes involved in diverse developmental processes during seed development**

Proc Natl Acad Sci U S A. 2017 Aug 8;114(32):E6710-E6719. doi: 10.1073/pnas.1707957114. Epub 2017 Jul 24.

<http://www.pnas.org/cgi/pmidlookup?view=long&pmid=28739919>

Perazzolli M, Palmieri MC, Matafora V, Bachi A, Pertot I:

**Phosphoproteomic analysis of induced resistance reveals activation of signal transduction processes by beneficial and pathogenic interaction in grapevine**

J Plant Physiol. 2016 May 20;195:59-72. doi: 10.1016/j.jplph.2016.03.007.

[http://linkinghub.elsevier.com/retrieve/pii/S0176-1617\(16\)00066-3](http://linkinghub.elsevier.com/retrieve/pii/S0176-1617(16)00066-3)

Pérez-Tienda J, Testillano PS, Balestrini R, Fiorilli V, Azcón-Aguilar C, Ferrol N

**GintAMT2, a new member of the ammonium transporter family in the arbuscular mycorrhizal fungus *Glomus intraradices***

Fungal Genet Biol. 2011 Aug 31. [Epub ahead of print]

<http://www.sciencedirect.com/science/article/pii/S1087184511001575>

Perotto S, Rodda M, Benetti A, Sillo F, Ercole E, Rodda M, Girlanda M, Murat C, Balestrini R:

**Gene expression in mycorrhizal orchid protocorms suggests a friendly plant-fungus relationship**

Planta. 2014 Apr 24.

<http://dx.doi.org/10.1007/s00425-014-2062-x>

Qu LH, Zhou X, Li X, Li SS, Zhao J, Zhao P, Liu Y, Sun MX:

**The autonomous cell fate specification of basal cell lineage: the initial round of cell fate specification occurs at the two-celled proembryo stage**

Plant J. 2017 Jul 3. doi: 10.1111/tpj.13629.

<http://dx.doi.org/10.1111/tpj.13629>

Ragonezi C, Arnholdt-Schmitt B:

**Laser Capture Microdissection for Amplification of Alternative Oxidase (AOX) Genes in Target Tissues in *Daucus carota* L.**

Methods Mol Biol. 2017;1670:245-252. doi: 10.1007/978-1-4939-7292-0\_21.

[https://dx.doi.org/10.1007/978-1-4939-7292-0\\_21](https://dx.doi.org/10.1007/978-1-4939-7292-0_21)

Ramsay, K., Jones, M.G.K., and Wang, Z.:

**Laser capture microdissection: a novel approach to microanalysis of plant-microbe interactions**

Mol Plant Pathology 7(5): 429 (2006)

<http://onlinelibrary.wiley.com/doi/10.1111/j.1364-3703.2006.00348.x/full>

Sakamoto S, Takata N, Oshima Y, Yoshida K, Taniguchi T, Mitsuda N:

**Wood reinforcement of poplar by rice NAC transcription factor**

Sci Rep. 2016 Jan 27;6:19925. doi: 10.1038/srep19925.

<http://dx.doi.org/10.1038/srep19925>

Sanders, P.M., Bui, A.Q., Le, B.H., and Goldberg, R.B.:

**Differentiation and degeneration of cells that play a major role in tobacco anther dehiscence**

Sexual Plant Reproduction 17: 219-241 (2005)

<http://www.springerlink.com/content/51p4bwj9c1p058pn/>

Schmidt A, Schmid MW, Grossniklaus U:

**Analysis of plant germline development by high-throughput RNA profiling: technical advances and new insights**

Plant J. 2012 Apr;70(1):18-29. doi: 10.1111/j.1365-313X.2012.04897.x.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-313X.2012.04897.x/full>

Schneider, B., Hölscher, D.

**Laser microdissection and cryogenic nuclear magnetic resonance spectroscopy: an alliance for cell type-specific metabolite profiling**

Planta 225(3): 763-770 (2006)

<http://www.springerlink.com/content/m5787044k63758q0/>

Schollaen K, Heinrich I, Helle G:

**A novel approach for the preparation of high-resolution stable isotope records from tropical tree-rings**

Dendrosymposium 2012/2013: In proceeding of: 11th TRACE conference, At Potsdam/Eberswalde, Germany, Volume: 11

[http://www.researchgate.net/publication/255977905\\_A\\_novel\\_approach\\_for\\_the\\_preparation\\_of\\_high-resolution\\_stable\\_isotope\\_records\\_from\\_tropical\\_tree\\_rings](http://www.researchgate.net/publication/255977905_A_novel_approach_for_the_preparation_of_high-resolution_stable_isotope_records_from_tropical_tree_rings)

Schollaen K, Heinrich I, Helle G:

**UV-laser-based microscopic dissection of tree rings – a novel sampling tool for  $\delta^{13}\text{C}$  and  $\delta^{18}\text{O}$  studies**

New Phytol. 2013 Nov 13. doi: 10.1111/nph.12587.

<http://onlinelibrary.wiley.com/doi/10.1111/nph.12587/abstract>

Schollaen K; Heinrich I; Neuwirth B; Krusic P; D'Arrigo R; Karyanto O; Helle G:

**Multiple tree-ring chronologies (ring width,  $\delta^{13}\text{C}$  and  $\delta^{18}\text{O}$ ) reveal dry and rainy season signals in Indonesia**

Geophysical Research Abstracts, Vol. 15, EGU2013-13529, 2013

<http://edoc.gfz-potsdam.de/gfz/20435>

Schollaen K; Helle G:

**UV-laser microdissection system - A novel approach for the preparation of high-resolution stable isotope records (  $\delta^{13}\text{C}$  /  $\delta^{18}\text{O}$  ) from tree rings**

Geophysical Research Abstracts, Vol. 15, EGU2013-1016-2, 2013

<http://edoc.gfz-potsdam.de/gfz/20434>

Simeoni F:

**Transcriptional Regulation of Stomatal Responses to Stress: From a Model to *Vitis vinifera***

Thesis

[https://air.unimi.it/retrieve/handle/2434/252354/343945/phd\\_unimi\\_R09732.pdf](https://air.unimi.it/retrieve/handle/2434/252354/343945/phd_unimi_R09732.pdf)

Stevens ME, Woeste KE, Pijut PM:

**Localized gene expression changes during adventitious root formation in black walnut (*Juglans nigra* L.)**

Tree Physiol. 2018 Jan 25. doi: 10.1093/treephys/tpx175.

<https://academic.oup.com/treephys/advance-article-abstract/doi/10.1093/treephys/tpx175/4825051>

Svistoonoff, S., Creff, A., Reymond, M., Sigoillot-Claude, C., Ricaud, L., Blanchet, A., Nussaume, L., and Desnos, T.:

**Root tip contact with low-phosphate media reprograms plant root architecture**

Nat Genet 39(6): 792-796 (2007)

<http://www.nature.com/ng/journal/v39/n6/full/ng2041.html>

Takahashi N, Hirata Y, Aihara K, Mas P:

**A Hierarchical Multi-oscillator Network Orchestrates the Arabidopsis Circadian System**

Cell. 2015 Sep 24;163(1):148-59. doi: 10.1016/j.cell.2015.08.062.

[http://linkinghub.elsevier.com/retrieve/pii/S0092-8674\(15\)01114-9](http://linkinghub.elsevier.com/retrieve/pii/S0092-8674(15)01114-9)

Takahashi H, Saika H, Matsumura H, Nagamura Y, Tsutsumi N, Nishizawa NK, Nakazono M:

**Cell division and cell elongation in the coleoptile of rice alcohol dehydrogenase 1-deficient mutant are reduced under complete submergence**

Ann Bot. 2011 Aug;108(2):253-61

<http://aob.oxfordjournals.org/cgi/pmidlookup?view=long&pmid=21788375>

Tan YY, Li DS, Hua J, Luo SH, Liu Y, Li SH:

**Localization of a Defensive Volatile 4-Hydroxy-4-methylpentan-2-one in the Capitulate Glandular Trichomes of *Oenothera glazioviana***

Plant Diversity, 17 May 2017, ISSN 2468-2659, <https://doi.org/10.1016/j.pld.2017.05.004>.

<http://www.sciencedirect.com/science/article/pii/S2468265917300343>

Thakare D, Yang R, Steffen JG, Zhan J, Wang D, Clark RM, Wang X, Yadegari R:

**RNA-Seq analysis of laser-capture microdissected cells of the developing central starchy endosperm of maize**

Genomics Data, Volume 2, December 2014, Pages 242–245

<http://www.sciencedirect.com/science/article/pii/S2213596014000610>

Tsuji, H., Aya, K., Ueguchi-Tanaka, M., Shimada, Y., Nakazono, M., Watanabe, R., N.K., N., Gomi, K., Shimada, A., Kitano, H., Ashikari, M., and Matsuoka, M.:

**GAMYB controls different sets of genes and is differentially regulated by microRNA in aleurone cells and anthers**

Plant Journal 47: 427 (2006)

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-313X.2006.02795.x/full>

Wang Y, Luo SH, Hua J, Liu Y, Jing SX, Li XN, Li SH:

**Capitate Glandular Trichomes of *Paragutzlaffia henryi* Harbor New Phytotoxic Labdane Diterpenoids**

J Agric Food Chem. 2015 Oct 29.

<http://dx.doi.org/10.1021/acs.jafc.5b04113>

Xiao CJ, Liu YC, Luo SH, Hua J, Liu Y, Li SH:

**Localisation of Two Bioactive Labdane Diterpenoids in the Peltate Glandular Trichomes of *Leonurus japonicus* by Laser Microdissection Coupled with UPLC-MS/MS**

Phytochem Anal. 2017 May 9. doi: 10.1002/pca.2687.

<http://onlinelibrary.wiley.com/doi/10.1002/pca.2687/full>

Xie W, Zhang H, Zeng J, Chen H, Zhao Z, Liang Z:

**Tissues-based chemical profiling and semi-quantitative analysis of bioactive components in the root of *Salvia miltiorrhiza* Bunge by using laser microdissection system combined with UPLC-q-TOF-MS**

Chem Cent J. 2016 Jul 13;10:42. doi: 10.1186/s13065-016-0187-7. eCollection 2016.

<http://www.journal.chemistrycentral.com/content/10/42>

Yang H, Wang J, Kang X:

**Meiotic chromosome preparation techniques of pollen mother cells for laser micro-dissection in *Populus* spp.**

Forestry Studies in China, June 2010, Volume 12, Issue 2, pp 74-78

<http://link.springer.com/article/10.1007%2Fs11632-010-0014-5>

Zeng T, Holmer R, Hontelez J, Te Lintel-Hekkert B, Marufu L, de Zeeuw T, Wu F, Schijlen E, Bisseling T, Limpens E:

**Host- and stage-dependent secretome of the arbuscular mycorrhizal fungus *Rhizophagus irregularis***

Plant J. 2018 Mar 23. doi: 10.1111/tpj.13908.

<http://dx.doi.org/10.1111/tpj.13908>



Zhan J, Thakare D, Ma C, Lloyd A, Nixon NM, Arakaki AM, Burnett WJ, Logan KO, Wang D, Wang X, Drews GN, Yadegari R:

**RNA Sequencing of Laser-Capture Microdissected Compartments of the Maize Kernel Identifies Regulatory Modules Associated with Endosperm Cell Differentiation**

Plant Cell. 2015 Mar 17. pii: tpc.114.135657.

<http://www.plantcell.org/cgi/pmidlookup?view=long&pmid=25783031>

Zhang B, Zhang L, Li F, Zhang D, Liu X, Wang H, Xu Z, Chu C, Zhou Y:

**Control of secondary cell wall patterning involves xylan deacetylation by a GDSL esterase**

Nat Plants. 2017 Mar 3;3:17017. doi: 10.1038/nplants.2017.17.

<http://dx.doi.org/10.1038/nplants.2017.17>

Zhang D, Xu, Z, Cao S, Chen K, Li S, Liu X, Gao X, Zhang B, Zhou Y:

**An uncanonical CCCH-tandem zinc finger protein represses secondary wall synthesis and controls mechanical strength in rice**

Molecular Plant, 1674-2052, doi.org/10.1016/j.molp.2017.11.004

<https://www.sciencedirect.com/science/article/pii/S1674205217303386>

Zhang S, Thakare D, Yadegari R:

**Laser-Capture Microdissection of Maize Kernel Compartments for RNA-Seq-Based Expression Analysis**

Methods Mol Biol. 2018;1676:153-163. doi: 10.1007/978-1-4939-7315-6\_9.

[https://dx.doi.org/10.1007/978-1-4939-7315-6\\_9](https://dx.doi.org/10.1007/978-1-4939-7315-6_9)

Zheng J, Xi M, Lü Y, Lu Y and Shi J:

**Transcriptional Analysis Provides New Insights into Cold- and Dehydration-Tolerance Signaling Pathways and on Regulation of Stem Cell Activity in the Vascular Cambium of Poplar**

Plant Molecular Biology Reporter, 2012, DOI: 10.1007/s11105-012-0478-7

<http://www.springerlink.com/content/j9m521110p310220/?MUD=MP>

Zhou W, Liang Z, Li P, Zhao Z, Chen J:

**Tissue-specific chemical profiling and quantitative analysis of bioactive components of Cinnamomum cassia by combining laser-microdissection with UPLC-Q/TOF-MS**

Chem Cent J. 2018 Jun 21;12(1):71. doi: 10.1186/s13065-018-0438-x.

<https://link.springer.com/content/pdf/10.1186%2Fs13065-018-0438-x.pdf>

Zhou X, Shi C, Zhao P, Sun M:

**Isolation of living apical and basal cell lineages of early proembryos for transcriptome analysis**

Plant Reprod. 2018 Dec 13. doi: 10.1007/s00497-018-00353-6.

<https://link.springer.com/article/10.1007/s00497-018-00353-6>

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