

## Publications- Last 5 years

### 2021

**Domozych, D.S.**, Kozel, L. & Palacio-Lopez, K. (2021) The effects of osmotic stress on the cell wall-plasma membrane domains of the unicellular streptophyte, *Penium margaritaceum*. *Protoplasma* (2021) <https://doi-org.lib-proxy01.skidmore.edu/10.1007/s00709-021-01644-y>

Mikkelsen, M.D., Harholt, J., Westereng, B., **Domozych D.S.**, Fry, S.C., Johansen, I.E., Fangel, J.U., Łężyk, M., Feng, T., Nancke, L., Mikkelsen, J.D., Willats, W.G.T. and Ulvskov, P. (2021) Ancient origin of fucosylated xyloglucan in charophycean green algae. *Nature Communications Biology*. <https://doi.org/10.1038/s42003-021-02277-w> |

### 2020

Palacio-Lopez, K., Sun, L., *Reed, R., Kang, E., Sørensen, I., Rose, J.K.C. and Domozych D.S.* (2020) Experimental Manipulation of Pectin Architecture in the Cell Wall of the Unicellular Charophyte, *Penium Margaritaceum*. *Frontiers in Plant Science* <https://doi.org/10.3389/fpls.2020.01032>

**Domozych, D.S.**, Sun, L., Palacio-Lopez, K., *Reed, R., Jeon, S., Li, M., Jiao, C., Sørensen, I., Fei, Z. and Rose, J.K.C.* (2020) Endomembrane architecture and dynamics during secretion of the extracellular matrix of the unicellular charophyte, *Penium margaritaceum*, *Journal of Experimental Botany* <https://doi.org/10.093/jxb/eraa039>

Jiao, C., Sørensen, I., Sun, X., *Behar, H., Alseekh, S., Philippe, G., Fernie, A.R., Brumer, H., Domozych, D.S., Fei, Z. and Rose, J.K.C.* (2020) The Genome of the Charophyte Alga *Penium margaritaceum* Bears Footprints of Terrestrialization and Preludes the Evolutionary Origins of Land Plants, *Cell* 181: 1-15., <https://doi.org/10.1016/j.cerll.2020.04.019>.

Davis, D.J., Wang, M., Sørensen, I., Rose, J.K.C., **Domozych, D.S.**, Drakakaki, G. (2020) Callose deposition is essential for the completion of cytokinesis in the unicellular alga, *Penium margaritaceum*. *Journal of Cell Science* doi: 10.1242/jcs.249599

### 2019

Palacio-Lopez, K., Tinaz, B., Holzinger, A. and **Domozych, D.S.** (2019) Arabinogalactan Proteins and the Extracellular Matrix of Charophytes: A Sticky Business. *Frontiers in Plant Science* <https://doi.org/10.3389/fpls.2019.00447>

Rodriguez-Furlan, C., **Domozych, D.**, Qian, W., Enquist, P.A., Li, X., Zhang, C., Schenk, R., Saulsbery Winbigler, H., Jackson, W., Raikhel, N.V. and Hicks, G.R. (2019) Interaction between VPS35 and RABG3f is necessary as a checkpoint to control fusion of late compartments with the vacuole. *Proceedings of the National Academy of Sciences* 116: 21291-21301. <https://doi.org/10.1073/pnas.1905321116>

Wilkop, T., Pattathil, S., Ren, G., Davis, D.J., Bao, W., Duan, D., Peralta, A.G., **Domozych, D.S.**, Hahn, M.J. and. (2019) A Hybrid Approach Enabling Large-Scale Glycomic Analysis of Post-Golgi Vesicles Reveals a Transport Route for Polysaccharides. *Plant Physiology* 31: 627-641. <https://doi.org/10.1105/tpc.18.00854>.

Rosquette, M.R., Worden, N., Ren, G., Sinclair, R.M., Pflieger S., Salemi, M., Phinney, B.S., **Domozych, D.**, Wilkop, T. Drakakaki. G. (2019) AtTRAPPC11/ROG2: A Role for TRAPPs in Maintenance of the Plant *Trans*-Golgi Network/Early Endosome Organization and Function. *Plant Cell* 31: 1879-1898. <https://doi.org/10.1105/tpc.19.00110>

## 2018

Shinozaki, Y., Nichols, P., Fernandez-Pozo, N., Ma, Q., Evanich, D.J., Shi, Y., Xu, Y., Zheng, Y., Snyder, S.I., Martin, L.B.B., Ruiz-May, E., Thannhauser, T.W., Chen, K., **Domozych, D.S.**, Catalá, C., Fei, Z., Mueller, L., Giovannoni, J.J. and Rose, J.K.C. (2018) High-resolution spatiotemporal transcriptome mapping of tomato fruit development and ripening. *Nature Communications* 9: 364. <https://doi.org/10.1038/s41467-017-02782-9>

Raimundo, S.C., Sørensen, I., Tinaz, B., Ritter, E., Rose, J.K.C., and **Domozych, D.S.** (2018) Protoplast isolation and manipulation of protoplasts from the unicellular green alga *Penium margaritaceum*. *Plant Methods* 14: 18. <https://doi.org/10.1186/s13007-018-0284-9>

## 2017

Martin, L.B.B., Romero, P., Fich, E.A., **Domozych, D.S.**, and Rose, J.K.C. (2017) Cuticle Biosynthesis in Tomato Leaves is Developmentally Regulated by Abscisic Acid. *Plant Physiology* 174: 1384-1398. <https://doi.org/10.1104/pp.17.00387>

Mravec, J., Kračun, S.K., Rydahl, M.G., Westereng, B., Pontiggia, D., De Lorenzo, G., **Domozych, D. S.** and Willats, W.G.T. (2017) An oligogalacturonide-derived molecular probe demonstrates the dynamics of calcium-mediated pectin complexation in cell walls of tip-growing structures. *The Plant Journal* 91: 534-546. <https://doi.org/10.1111/tpj.13574>

Mravec, J., Guo, X., Hansen, A.R., Schückel, J., Kračun, S.K., Mikkelsen, M.D., Mouille, G., Johansen, E., Ulvskov, P., **Domozych, D.S.**, and Willats, W.G.T. (2017) Pea Border Cell Maturation and Release Involve Complex Cell Wall Structural Dynamics. *Plant Physiology* 174: 1051-1066. <https://doi.org/10.1104/pp.16.00097>

Tafolla-Arellano, J.C., Zheng, Y., Sun, H., Jiao, C., Ruiz-May, E., Hernández-Oñate, M.A., González-León, A., Báez-Sañudo, R., Fei, Z., **Domozych, D.**, Rose, J.K.C., and Tiznado-Hernández, M.E. (2017) Transcriptome Analysis of Mango (*Mangifera indica*

L.) Fruit Epidermal Peel to Identify Putative Cuticle-Associated Genes. *Scientific Reports* 7: 46163.

Ulusik, S., Chapman, N.H., Smith, R., Poole, M., Adams, G., Gillis, R.B., Besong, T.M.D., Sheldon, J., Stieglmeier, S., Perez, L., Samsulrizal, N., Wang, D., Fisk, I.D., Yang, N., Baxter, C., Rickett, D., Fray, R., Blanco-Ulate, B., Powell, A.L.T., Harding, S.E., Craigon, J., Rose, J.K.C., Fich, E.A., Sun, L., **Domozych, D.S.**, Fraser, P.D., Tucker, G.A., Grierson, D., and Seymour, G.B. (2016) Genetic improvement of tomato by targeted control of fruit softening. *Nature Biotechnology* 34: 950-952.  
<https://doi.org/10.1038/nbt.3602>.