OAK RIDGE NATIONAL LABORATORY
Managed by UT-Battelle for the Department of Energy

BESC - A key gene G-paralog regulating plant cell-wall recalcitrance and sugar release

Disclosure Number

201102657

Technology Summary

The invention relates to the discovery of a gene, gene G-paralog. Gene G-paralog regulates plant cell-wall recalcitrance and sugar release. The gene can be used to (i) alter glucose and xylose release, (ii) alter syringyl to guaiacyl ratio in cell walls (iii) manipulate cellulose fiber extension, cell death, lignification, and secondary cell wall formation, (iv) alter hexose and pentose sugar composition in the cell wall for biofuel production, (v) enhance resistance to pests and pathogens (vi) enhance plant growth, and the promoter associated with this gene can used for tissue specific gene expression.

Inventor

MUCHERO, WELLINGTON
Biosciences Division

Licensing Contact

SPECK, ROBERTA R
UT-Battelle, LLC
Oak Ridge National Laboratory
Rm 141, Bldg 4500N, MS: 6196
1 Bethel Valley Road
Oak Ridge, TN 37831

Office Phone: (865) 576-4680
E-mail: SPECKRR@ORNL.GOV

Note: The technology described above is an early stage opportunity. Licensing rights to this intellectual property may be limited or unavailable. Patent applications directed towards this invention may not have been filed with any patent office.