



TECHNOLOGY

Targeting plant hormone metabolism to promote growth and development in deficient conditions

OVERVIEW

Background:

Auxins are plant growth hormones that play a crucial role in developmental processes that include gametogenesis, embryogenesis, seedling growth, vascular patterning, and floral development. Understanding biodegradation of auxins will help uncover novel targets to spatio-temporally modulate the hormone levels thereby affecting desirable outcomes such as drought tolerance/resistance, climactic adaptations, and crop yields.

Innovative technology:

Researchers at the University of Maryland have identified a novel target in the auxin biodegradation pathway that can be manipulated to increase seed size, plant size, rooting and control bud opening, and extend plant growth regulator activity.

Advantages:

Non-GMO path to achieve big-seed and big-plant size

Applications:

Development of drought tolerant, spring-freeze resistant plant varieties that can protect and possibly enhance crop yields.

CONTACT INFO

UM Ventures
0134 Lee Building
7809 Regents Drive
College Park, MD 20742
Email: umdtechtransfer@umd.edu
Phone: (301) 405-3947 | Fax: (301) 314-9502

Additional Information

INSTITUTION

University of Maryland, College Park

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Pending

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EXTERNAL RESOURCES

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