UNIVERSITY OF TENNESSEE
RESEARCH FOUNDATION

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Complete Plant Transformation Vector Set for Monocots

The Technology

Researchers at the University of Tennessee have designed and constructed a versatile set of twenty-four destination vectors for transgenic crop improvement applications. These vectors allow for convenient insertion of any open reading frame (ORF) or other target sequence and are suitable for both overexpression and silencing of target sequences. The vectors are designed with versatile selection and reporter cassette options and can be used with either biolistic bombardment or agroinfiltration transformation methods. This novel vector set will facilitate cloning, selection and gene expression reporting allowing for high-throughput screening of any sequence of interest in monocot plants.

Benefits

- Versatile, ready to use, vector set that allows the user to select appropriate properties including:
    - Selection marker cassette
    - Reporter cassette
    - Transformation method
    - Sequence of interest

Lead Inventor

Dr. Neal Stewart is a professor of Plant Sciences at the University of Tennessee, Institute of Agriculture, and holds the distinction of being the Racheff Chair of Excellence in Plant Molecular Genetics. Dr. Stewart's research spans the biosafety of transgenic plants, phytosensor research and development, to genomics. Most recently, Dr. Stewart's group is working as part of the Bioenergy Science Center (BESC) partnership to use switchgrass biotechnology for bioenergy solutions.

Contact

The University of Tennessee Research Foundation (UTRF) is a non-profit corporation responsible for commercializing University of Tennessee technologies and for supporting University research. UTRF is seeking parties interested in learning more about this technology and in exploring possible research and/or commercialization arrangements.

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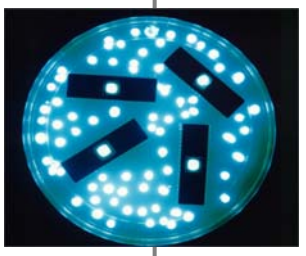
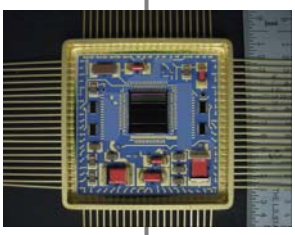
AGRICULTURE

BIOTECHNOLOGY



ENGINEERING



MATERIALS

MEDICINE