

# 13<sup>th</sup> Biotechnology Congress

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### Plant transformation services

University of Missouri (MU) Plant Transformation Core Facility was established in 2000. The key mission of the facility is to enhance both basic and applied plant biology research by providing plant transformation services and advancing transgenic technologies. Since 2000, the facility has been providing state-of-the-art plant transformation services. The services are on fees for cost recovery only, not for profit. The facility staff is dedicated to providing various types of transformation services with a focus on maize (*Zea mays*), soybean (*Glycine max*), switchgrass (*Panicum virgatum*), sorghum (*Sorghum bicolor*), wheat (*Triticum aestivum*) and model plant species. The service categories include both standard and customized transformation. Transformation systems for all crops utilize *Agrobacterium*-mediated approaches and somatic embryogenesis processes except for soybean. The *Agrobacterium*-mediated cot-node transformation system coupled with organogenesis regime is employed for soybean transformation. The facility is also ready to take on new service projects to transform new plant species as user's requests. Research activities are geared towards developing high-throughput transformation systems, effective small RNA-mediated gene silencing, gene stacking through coordinated transgene expression and precise genome modifications to meet the needs of crop improvement and genome discoveries. More details on the facility operations and experiences as well as its impact on research collaborations and funding opportunities will be discussed wherever appropriate during the talk.

### Biography

Zhanyuan J Zhang has completed his PhD from University of Nebraska-Lincoln, USA and Postdoctoral studies from the same university. He is the Director of Plant Transformation Core Facility at University of Missouri, Columbia. He has published more than 30 papers in reputed journals and has been serving as an Editorial Board Member of two international journals. He is also a peer Reviewer of over 10 international journals.

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