

**Dr. Jesús Caballero-Mellado**  
**(1953-2010)**

Dr. Jesús Caballero-Mellado, was born 18 March 1953 in the oil port city of Tampico near the Gulf of Mexico. He received a degree in chemistry and bacteriologist from the National School of Biological Sciences-National Polytechnic Institute in Mexico City in 1979 and obtained his doctoral degree in biomedical research from the National Autonomous University of Mexico in 1995.

In 1980, Jesus, together with other two microbiologists, established the Biomedical Research Center, subsequently becoming the Microbiological Research Center at the University of Puebla in Puebla, Mexico. Concomitantly, he established the Soil Microbiology Group at this Center and developed it until 1991. This center focused on the distribution, ecology, and use of nitrogen-fixing bacteria, with emphasis on the bacteria *Azospirillum* and *Acetobacter* (currently known as *Gluconacetobacter diazotrophicus*). In 1991, he spent a sabbatical year at the Nitrogen Fixation Research Center (CIFN; now the Center for Genomic Sciences in Cuernavaca, Mexico), and continued his doctoral studies there on genetic diversity of bacteria, emphasizing the then recently discovered nitrogen-fixing endophytic bacterium *G. diazotrophicus*. After graduation in 1995, he joined the staff at the CIFN as permanent researcher. His work focused on taxonomy, discovery of several new bacteria, diversity, and microbial ecology of nitrogen-fixing bacteria and their agricultural applications.

Jesús had selected *Azospirillum* strains efficient for increasing crop yields and developed formulations for large biomass production and stability in storage. Such technology has been applied by the Mexican Ministry of Agriculture to over two million hectares, and currently is commercialized by a private company. He is considered the founder of *Azospirillum* research field in Mexico.

Jesús participated, as an invited speaker, in numerous scientific meetings, such as the European Nitrogen Fixation Conference, International Congress on Nitrogen Fixation, North American Conference on Symbiotic Nitrogen Fixation, International Molecular Plant Microbe Interaction Congress, Reunión Latinoamericana de Rhizobiología, and Mexican Congress on Microbiology, as well as Nitrogen Fixation.

Jesús was the Secretary of the Mexican Society of Microbiology; Secretary and President of the National Society of Biological Nitrogen Fixation; Advisor in the Biofertilizers National Program-Ministry of Agriculture, and Member of the National Advisory Council in Bio-Safety-Mexico. Jesús was responsible for the thematic area of Plant Growth Promoting Rhizobacteria in the Red Iberoamericana de Biofertilizantes para la agricultura-BIOFAG, Programa de Ciencia y Tecnología para el Desarrollo (CYTED).

During his science career, Jesus published over 50 publications in peer-reviewed scientific journals and numerous publications in books, proceedings of conferences, and popular science presentations in the general media. To his credit, there are over 1000 citations in international journals (up to 2010). For a complete list of his activities visit his publication list in this website (in Spanish).