

10Th Khwarizmi International Award

Feb 1997

Researcher: Dr. Sheikh Riazuddin

Research Title: Transgenic Plant Technology

Rank: Second

Field: Agricultural and Natural Resources

Country: Pakistan



Abstract:

Traditional plant breeding for insect resistance is not moving fast enough to cope with the continuously growing food needs of the ever-expanding world population. International agricultural planners, therefore conceive the utility of plant genetic engineering as a technically, feasible, economically viable and environmentally friendly crop development strategy.

This project exploits the soil microbial flora to develop a reservoir of pesticide genes that are genetically manipulated for optimal expression in local cultivars of rice, chickpea and cotton through novel plant transformation procedures developed part of the project.

Sheikh Riazuddin (born 15 April 1944 Lahore, Pakistan) obtained Ph.D. in Biochemistry from Reading University, England. He worked for post-doctoral research at Brandies University (1973-75), at Johns Hopkins University (1975-77), and at the Karolinska Institute, Stockholm Sweden (1978). He is the founding director of Center for Excellence in Molecular Biology (CEMB) in Lahore.

Prof. S. Riazuddin has discovered eleven DNA repair enzymes and forty-five new restriction enzymes in different microorganisms. He has discovered five-hundred and fifty entomocidal isolates of *Bacillus thuringiensis* (BT) possessing pesticidal properties against a variety of agronomical important pests.

His developmental efforts have led to the establishment of a genetic engineering research and development laboratory in university of the Punjab, Lahore.