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## Translation of pharmacogenomics into clinical practice of personalized psycho-therapeutics

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Novel molecular techniques in pharmacogenomics study the precise genetic variations in man and correlate this with individual responses to therapeutics. From this emerged a new speciality called personalized medicine that aims at providing the right drug at right dose to the right person at the right time based on the genetic markers of drug metabolism, transport and receptor interactions. Knowledge in the basic principles of pharmacogenomics with their emerging role in personalized medicine is developing at a tremendous pace which requires the active participation of molecular lab medicine such as DNA testing services. Because drug metabolism is a critical aspect of pharmacogenomics, recent researchers have studied the genetics of CYP-450 enzymes system and the effect of their polymorphisms on the pharmacokinetics of drugs. Bolonna *et al.* applied those studies to psychiatric drugs and individual responses. Psychiatric disorders contribute significantly towards worldwide morbidity, mortality and healthcare burden. A large percentage of patients do not respond to antipsychotic or antidepressant drugs. Once a therapy is initiated, patients are basically categorized into responders and non-responders and in fact even non-responders show Adverse Drug Reactions. To minimise these discrepancies, personalized medicine is recommended. Currently, various informative tools to assist in the knowledge of genetic variations in clinical practice are available such as the "Pharmacogenetics Research Network"; "Pharmacogenomics Data Base" and a web based tool, called "DNA Twist" and a collaborative approach improves the quality of customized health care tailored to the needs of individual patients.

### Biography

Shakila Srikumar has completed her MBBS MD in Clinical Biochemistry from NTR University of Health Sciences and worked as Assistant Professor in Andhra Medical College & King George Hospital for 7 years. She moved to Malaysia in 2006 and continues to work in a medical school there. She is the Head of the Department of Biochemistry, Quest International University Perak. She has helped develop biochemistry curriculum for medical graduate programme. She holds Good Clinical Practice certificate issued by Ministry of Health, Malaysia. She has published scientific papers in reputed journals and serving as a reviewer and editorial board member of repute.

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