

GWAS: An insight in to the reproductive health of women

Mahima Gulabani

Department of Anthropology, University of Delhi, India

Puberty, the transition from childhood to adult body size and sexual maturity, is a complex multi-staged process. Epidemiological studies with regard to reproductive health often use age at menarche, to indicate the timing of puberty and age at natural menopause, marking the end of the pubertal period. Menarche (first menstrual period) and Menopause (end of menstruation) are the hallmark maturational (physiological) events in a female's reproductive life. Throughout the last decades the interest in the mechanisms behind ovarian ageing and the timing of menarche and natural menopause has increased since both of them have great cultural, social, and epidemiological implications for women's fertility, health and health risks. Genome-wide association (GWA) studies have been successful in identifying many common susceptibility genes and variants associated with complex disease and quantitative traits and we therefore use this approach to identify genes (LIN28B, MCM8, BRSK1 etc.), involved in determining age at menarche (AAM) and age at natural menopause (ANM). Anthropological studies on AAM and ANM provide inference about growth and pattern of women under particular ecological settings, having direct developmental application in improving population growth for various populations living under challenging conditions (like infectious disease, malnutrition etc.) by effectively controlling diseases affecting women's reproductive period. Clinical epidemiologists can effectively design their randomized control trials for testing the efficacy of drugs affecting women's reproductive health based on their genetic profiles. Genetic epidemiologists can enhance the value of epidemiological research by incorporating information about genetic differences in risk into accurate statistical prediction of the time of menarche and menopause. Further, Demographers study fertility in order to foresee the future health profile of the national population. Therefore, the data on the validation of the genetic markers on Indian population will help to remodel surveys according to the genetic-make up of women populations by incorporating more parameters. Broadly, this study will help in creating more women specific public health policies, and hence women empowerment.

Biography

Mahima Gulabani is a Graduate and Post-Graduate in Anthropology with specialisation in Physical or Biological Anthropology with an excellent academic record from the University of Delhi. I am currently a Junior Research Fellow at University of Delhi, pursuing my Ph.D. in Molecular Anthropology (Molecular genetics) with regard to genomic study related to women's reproductive health among the Indian populations. I have published paper in reputed journal and some under communication.

mahi923@gmail.com

Use of a lipase from marine *Bacillus sonorensis* as an additive in detergent formulations

Madhura Nerurkar, Manasi Joshi and Ravindra Adivarekar

Department of Fibres and Textile Processing Technology, Institute of Chemical Technology, India

The efficacy of lipase (Triacylglycerol acylhydrolases EC 3.1.1.3) as a detergent additive from a newly isolated marine halophilic bacteria *Bacillus sonorensis* from marine clams *Paphia malabarica* collected from the Kalbadevi estuary, Mumbai, has been assessed and reported. In terms of activity and stability, the lipase exhibited maximum activity in alkaline conditions and was observed to be stable over a temperature range of RT [room temperature]-60°C. The activity of the lipase increased in the presence of surfactants and detergents. Due to these properties of the lipase from marine bacteria, it was used as an additive in detergent to study its efficiency of corn oil removal from fabrics. The washing studies indicated that the efficiency of corn oil removal from the cotton fabrics increased by 20% when lipase was incorporated in the detergent as compared to the treatment with detergent alone. The lipase was also capable of removing corn oil from natural as well as synthetic fabrics dyed with respective, preferred class of dyes.

Keywords: Marine, *Bacillus sonorensis*, lipase, detergents, corn oil removal.

Biography

Madhura Nerurkar is pursuing PhD in Biotechnology at Institute of Chemical Technology, Matunga, Mumbai, India. She has published 5 papers in national as well as international journals and is a life member of Biotech Research Society, India [BRSI].

madhura4_s@yahoo.com