

Title:

From Biological intelligence to Artificial Intelligence: Traversing the path in genomics for affordable and stratified P4 medicine solutions

Abstract:

A new paradigm of network medicine for developing more effective and affordable health care solutions is felt. This is because human individuality is an outcome of evolution and adaptations over time, variability in which can also lead to emergence and evolution of new couplings in spatio-temporal scales. P4 medicine aims to integrate information along organizational, spatial and temporal dimensions to tailor an individual's treatment more effectively. We need innovative solutions to implement P4 medicine in ethnically and culturally diverse Indian populations not only for management of health but also for addressing the precision intervention needs in rare and complex diseases. Integration of the holistic concepts of P4 medicine of Ayurveda that is in practice over 5000 years in modern efforts through Ayurgenomics can augment the developmental needs in this area. Research highlights of an innovative integrative genomics framework that relies on understanding biology through natural variations in genomes, individuals and populations and its large scale implementation through 'Big Data' analytics framework would be presented.