Description:
Over the past decade, genome sequencing projects and the associated efforts have facilitated the discovery of several novel disease targets and the approval of several innovative drugs. To further exploit this data for human health and disease, there is a need to understand the genome data itself in detail, discover novel targets, understand their role in physiological pathways and associated diseases, with the aim to translate these discoveries to clinical and preventive medicine. It is equally important to understand the labors and limitations in integrating clinical phenotypes with genomic, transcriptomic, proteomic and metabolomic approaches. This book focuses on some key advances in the field.

Technical topics discussed in the book include:

- Drug discovery
- Target identification and prioritization
- Hypothesis driven multi-target drug design
- Genomics in vaccine development
- Gene regulatory networks
- Vaccine design and development
- Prediction of drug side effects in silico

Keywords: Target identification, target prioritization, drug discovery, genomics, drug design, GRN, vaccine development, vaccine design, systems biology