## **Precision Medicine-Tailoring Treatments** to Individuals

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## Abstract

In the chapter, the author focuses on how precision medicine emerged, grew, and might continue to evolve, while defining and explaining the concept, principles, tools, and use of precision medicine. As such, precision medicine's success depends on the ability to identify multiple outcomes or subtypes of a particular disease and treat them all with targeted therapies. In this article, the fields of emphasis include the definition of precision medicine, its advancements and future developments, the key components of the framework that defines it and practical applications with examples. This model indeed relies on the ability of precision medicine to treat a great number of subtypes of diseases with corresponding individualized therapies, with an emphasis on improvement of the current advancements. This paper aims at providing an analysis of Precision medicine, focusing its historical background, the real-world problems it aims at solving, and its impact on the delivery of healthcare. It bases itself on download sequence technology and information technology and high-throughput sequencing bioinformatics stressing on the role of genetic and genomic and molecular analysis in methods of personalized medicine. Precision medicine is embedded into healthcare as an antecedent to patient-centric, polite and trustworthy care. Acceptance requires improving translational research for translating these techniques into novelties, having methods and their efficiency tested, disseminating results, and applying them to clinical practice. This global approach integrates precision medicine into clinical care, discovery, translational and clinical research and achieves the objective of enhanced patient health. This chapter responds to phenol-typing of transcranial magnetic stimulationelectroencephalogram, as well as statistical and machine learning models, and precision neuroimaging research strategy.

Keywords: Personalized Medicines, Precision Medicine, Pharmaco-Omics, Tailored Pathology

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