The coming era of Personal Genomics and Personalized Medicine-an ordinary citizen's view versus healthcare professional's view

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Introduction
With rapid advances in DNA sequencing technology and bioinformatics, personal genomics testing can be ordered over the counter in some countries. Such knowledge on oneself/one's kids is welcomed by many but also raises concerns from the healthcare profession. We can work to consolidate the advances in DNA sequencing, its interpreted risk and healthcare knowledge, to strengthen collaboration between the healthcare profession and the individual for sustainable quality living and healthcare services.

Objectives
(1) to review the recent practices and advances in genetic tests/personal genomics (2) to express the viewpoints and personal stories of individuals on usage of genomics test findings, and those of the healthcare professionals (3) to describe the possible service transformation and business opportunity, through collaboration for quality living and healthcare services

Methodology
Based on business experience on molecular/DNA/genetic lab service integration, aligning investor interests, and healthcare consultancy/research work, the speaker reviews, in an easily comprehensible way, the recent advances in personal genomics and therapy knowledge. He will also brief the legitimate response and criticisms from the medical societies, directing to a mature preparation for the coming era of personal medicines.

Result
Advances in quick and accurate test on SNP (single nucleotide polymorphism, rather than the whole DNA) and the associated interpretation related to personal risks are boosting individuals’ activism on jurisdiction of one's own healthcare. Over 200 disease risks like cancers, asthma, and back pain, and genetic carrier status such as
G6DP deficiency, and drug response can be revealed through a simple specimen of saliva. The cost is low nowadays and individuals—especially parents, welcome and are willing to pay for the availability of such personal information. Concerns from professionals: Unnecessary medical care—more tests, higher cost; better healthcare outcome? Insurance and employers accessing genetic profiles; Premature commercial application and activities like weight loss programme; Challenge to doctors on how much to tell patients/parents with the keep-on emergence of new genetic discoveries. With the rapid advance on personal genomics, we need the collaboration among healthcare professions, bioinformatics experts, investors, management, and customers, as partners and stakeholders to strengthen quality living and healthcare services. Caucasian database is widely available, but minimal for Chinese. The personal genomics service will be a great modern service for the current 1.35 billion population in China, to be extended globally to 1/4 of the world population.