

Genetic profiling in non-communicable disease

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ABSTRACT

Summary: Non-communicable diseases (NCDs) are considered a global emergency responsible for 70% of deaths which is equivalent to 40 million deaths each year globally. The epidemics of NCDs are a consequence of a complex interaction of individual genome, the microbiome, the metabolome, the immune status, and environmental factors such as nutritional and chemical exposure. Therefore, it is essential to develop an innovative, personalized, preventative, early care model through the integration of diverse molecular profiles of individuals to identify both the critical biomarkers of NCD susceptibility and to discover novel therapeutic targets. These expanding knowledge of the genetic basis, pathogenesis, and therapeutic possibilities of NCDs has provided new targets for early diagnosis of human diseases, individualised drug discovery and development and proposed strategies to translate this knowledge and information into clinical practice as clinical trials.

How digitalisation in research promote multi-centre studies

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ABSTRACT

Summary: Digitalisation has revolutionised life worldwide. The advance in digitalisation including 3D printing, internet of things (IoT), artificial intelligence (AI), blockchain, and augmented and virtual reality (VR) soaring health industries, healthcare, and health research to another level of development. Digitalisation creates opportunities for multicentre research which promotes linkages between collaborative research teams involving members from various professions or disciplines, promotes the capacity, networking, and mentorship by bringing together researchers who share and leverage resources, expertise, and ideas; and opportunities for dissemination of high impact research findings and publications, best practices to and beyond network members. Deployment of digitalization for sustainable development research is crucial for the success of sustainable development goals (SDGs). Hence, it is a call for the adoption of digitalisation in local research to ensure the growth of research in Malaysia is in keeping with global development.