

EDITORIAL

Opportunity in a time of crisis: New technology in pathology

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SARS-CoV-2 has been constantly evolved since its appearance in the late 2019, and recently with the emergence of Omicron variant. World Health Organisation is tracking and published all the identified variants, namely variants of concern (VOC), variants of interest (VOI) and variants under monitoring (VUM).¹ So far, the VOCs include alpha, beta, gamma, delta and omicron, while VOIs are lambda and mu. In our previous issue, we published a review article on COVID-19 vaccine.² COVID-19 pandemic has led to a rapid development of vaccine. In the 1990s, the first mRNA vaccine was tested in mice.³ In response of the time of crisis, the production and implementation of COVID-19 vaccine has progressed at an extraordinary speed.

Companies that are more innovative and resilience do not only survive but thrive during this period, for example, online shopping app platform, food delivery service and virtual cloud-based meeting platform. Virtual meetings are a norm and the skill in using the online platform is a must.⁴ Other new technologies like digital pathology is becoming more relevant to improve both diagnostic service and postgraduate teaching.⁵ Digitally scan glass slides can be sent to pathologists who are located distance from the central laboratory, shortening the time of reporting. In addition, glass slides have a life-span of approximately 10 years, while digital slides can be stored indefinitely. However, digital pathology has itself own challenges such as high cost, difficulty in adapting from glass slide to digital slide reporting and storage issue. This is an example of turning challenges into opportunities in time of crisis. Digital pathology has also open door to the utility of artificial intelligence (AI) in pathology. AI applications in pathology include diagnostic-assisted tool, prognostic prediction tool and integration of large scale genomic/proteomic for patient diagnosis.⁶

Keywords: Artificial intelligence, COVID-19, digital pathology, new technology, vaccine

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