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The Benefits of Digital Pathology

Digital pathology comes with countless opportunities for innovation in pathology services. One major direction of the progress relies on a multitude of methods and their combinations to retrieve new quality of information by tissue-based testing. Digital imaging techniques, image analysis and analytics lead beyond conventional pathology testing with augmented vision and intelligence transforming it into deep context pathology assays. Taking into account spatial heterogeneity and tissue microenvironment aspects, along with retrieval of sub-visual indicators of the disease, the assays will enable new level of informative power for precision medicine. Another aspect of the progress relates to pathology workflow integration within the laboratory and into clinical environment. Pathology information systems maintain their crucial role in this process; however, they need to transform into highly flexible and intelligent systems to improve workload management, lean processes, human-machine interaction efficiencies, expertise sharing, decision-support, patient and sample-centric communication of pathology and multidisciplinary teams. Pathology is inevitably moving online to provide service in "no space and time".