编号：YY005-20221212001

标题：Baptist Health to Add Remote Physical Examinations to Telehealth Offerings

简介：To expand its telehealth offerings, Baptist Health is deploying two TytoCare solutions that provide patients with access to remote physical examinations within schools, workplaces, and other clinical locations.Baptist Health, based in Louisville, Kentucky, comprises nine hospitals and over 400 points of care. It employs more than 23,000 people, including 1,500 clinicians.

全文链接： https://mhealthintelligence.com/news/baptist-health-to-add-remote-physical-examinations-to-telehealth-offerings

编号：YY005-20221212002

标题：Can artificial intelligence save medical genetics?

简介：Genetics and genomics is one of the most exciting and quickly evolving fields in medicine. Relatively recent genomic discoveries have spread to impact more patients and practice areas (Green et al., 2020). To support this expansion, some areas of clinical genetics—like genetic counseling, have grown robustly, both in terms of the numbers of practitioners and in the clinical arenas where these practitioners work (Abacan et al., 2019; Baty, 2018). Unfortunately, despite the growing need, there has not been a parallel growth of physician geneticists (Jenkins et al., 2021; Maiese et al., 2019; Penon-Portmann et al., 2020).

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108191

编号：YY005-20221212003

标题：Artificial intelligence for stepwise diagnosis and monitoring of COVID-19

简介：Abstract Background Main challenges for COVID-19 include the lack of a rapid diagnostic test, a suitable tool to monitor and predict a patient's clinical course and an efficient way for data sharing among multicenters. We thus developed a novel artificial intelligence system based on deep learning (DL) and federated learning (FL) for the diagnosis, monitoring, and prediction of a patient's clinical course.Methods CT imaging derived from 6 different multicenter cohorts were used for stepwise diagnostic algorithm to diagnose COVID-19, with or without clinical data. Patients with more than 3 consecutive CT images were trained for the monitoring algorithm. FL has been applied for decentralized refinement of independently built DL models.Results A total of 1,552,988 CT slices from 4804 patients were used. The model can diagnose COVID-19 based on CT alone with the AUC being 0.98 (95% CI 0.97–0.99), and outperforms the radiologist's assessment. We have also successfully tested the incorporation of the DL diagnostic model with the FL framework. Its auto-segmentation analyses co-related well with those by radiologists and achieved a high Dice's coefficient of 0.77. It can produce a predictive curve of a patient's clinical course if serial CT assessments are available.Interpretation The system has high consistency in diagnosing COVID-19 based on CT, with or without clinical data. Alternatively, it can be implemented on a FL platform, which would potentially encourage the data sharing in the future. It also can produce an objective predictive curve of a patient's clinical course for visualization.Key Points ? CoviDet could diagnose COVID-19 based on chest CT with high consistency; this outperformed the radiologist's assessment. Its auto-segmentation analyses co-related well with those by radiologists and could potentially monitor and predict a patient's clinical course if serial CT assessments are available. It can be integrated into the federated learning framework.? CoviDet can be used as an adjunct to aid clinicians with the CT diagnosis of COVID-19 and can

potentially be used for disease monitoring; federated learning can potentially open opportunities for global collaboration.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108183

编号：YY005-20221212004

标题：Impact of artificial intelligence on US medical students' choice of radiology

简介：Purpose: International student surveys have shown significant anxiety about pursuing radiology as a career due to artificial intelligence (AI). For a counterpart study in the US, we examined the impact of AI on US medical students' choice of radiology as a career, and how such impact is influenced by students' opinions on and exposures to AI and radiology. Methods: Students across 32 US medical schools participated in an anonymous online survey. The respondents' radiology ranking with and without AI were compared. Among those considering radiology within their top 3 choices, change in radiology ranking due to AI was statistically examined for association with baseline characteristics, subjective opinions, and prior exposures. Results: AI significantly lowered students' preference for ranking radiology ($P < .001$). One-sixth of students who would have chosen radiology as the first choice did not do so because of AI, and approximately half of those considering radiology within their top 3 choices remained concerned about AI. Ranking radiology lower due to AI was associated with greater concerns about AI ($P < .001$), less perceived understanding of radiology ($P = .02$), predicting a decrease in job opportunities ($P < .001$), and exposure to AI through medical students/family ($P = .03$) as well as through radiology attendings and residents ($P = .03$). Education on AI during radiology rotations, followed by pre-clinical lectures, was the most preferred way to learn about AI. Conclusion: AI has a significantly negative impact on US medical students' choice of radiology as a career, a phenomenon influenced by both individual concerns and exposure to AI from the medical community.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108190

编号：YY005-20221212005

标题：Trustworthy Artificial Intelligence in Medical Imaging

简介：Trust in artificial intelligence (AI) by society and the development of trustworthy AI systems and ecosystems are critical for the progress and implementation of AI technology in medicine. With the growing use of AI in a variety of medical and imaging applications, it is more vital than ever to make these systems dependable and trustworthy. Fourteen core principles are considered in this article aiming to move the needle more closely to systems that are accurate, resilient, fair, explainable, safe, and transparent: toward trustworthy AI.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108184

编号：YY005-20221212006

标题：Artificial Intelligence in Digital Pathology to Advance Cancer Immunotherapy

简介：Immune-checkpoint inhibitors (ICIs) have revolutionized the treatment of many malignancies. For instance, in lung cancer, however, only 20~30% of patients can achieve durable clinical benefits from ICI monotherapy. Histopathologic and molecular features such as histological type, PD-L1 expression, and tumor mutation burden (TMB), play a paramount role in selecting appropriate regimens for cancer treatment in the era of immunotherapy. Unfortunately,

none of the existing features are exclusive predictive biomarkers. Thus, there is an imperative need to pinpoint more effective biomarkers to identify patients who may achieve the most benefit from ICIs. The adoption of digital pathology in clinical flow, as being powered by artificial intelligence (AI) especially deep learning, has catalyzed the automated analysis of tissue slides. With the breakthrough of multiplex bioimaging technology, researchers can comprehensively characterize the tumor microenvironment, including the different immune cells' distribution, function, and interaction. Here, we briefly summarize recent AI studies in digital pathology and share our perspective on emerging paradigms and directions to advance the development of immunotherapy biomarkers.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108229

编号：YY005-20221212007

标题：A Clinician's Guide to Artificial Intelligence (AI): Why and How Primary Care Should Lead the Health Care AI Revolution

简介：Artificial intelligence (AI) in health care is the future that is already here. Despite its potential as a transformational force for primary care, most primary care providers (PCPs) do not know what it is, how it will impact them and their patients, and what its key limitations and ethical pitfalls are. This article is a beginner's guide to health care AI, written for the frontline PCP. Primary care-as the dominant force at the base of the health care pyramid, with its unrivaled interconnectedness to every part of the health system and its deep relationship with patients and communities-is the most uniquely suited specialty to lead the health care AI revolution. PCPs can advance health care AI by partnering with technologists to ensure that AI use cases are relevant and human-centered, applying quality improvement methods to health care AI implementations, and advocating for inclusive and ethical AI that combats, rather than worsens, health inequities.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108185