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HistoWiz, USA

At the intersection of biology and computer science: Machine learning of histopathology

HistoWiz is a biotechnology company that automates histology and has built an intelligent tissue platform for biomedical researchers in academia and pharmaceutical industry. Our mission is to fight cancer cooperatively instead of individually. Unlike core facilities and CROs, HistoWiz guarantees a 48-hour turnaround time from fixed tissue specimens to digital slides online. Histowiz shares the scanned images with researchers via a cloud system, allowing for unprecedented viewing, archival, collaboration, tagging, search and meta-analysis of histology data. HistoWiz has the largest online preclinical pathology database in the world growing at 220% a year. PathologyMapTM employs a novel image-tagging technology to capture key information such as species, disease, organ, experimental treatment, genetic background and biomarker information. This online platform allows researchers to compare histology data and discover new insights from hundreds of academic institutions (e.g. MSKCC, Harvard, Johns Hopkins, CSHL, Cornell, Dana Farber, NIH, MD Anderson, Stanford, the Jackson Lab, HHMI, and Cancer Research UK). It also enables the development of machine learning tools for cancer diagnosis, prognosis, and personalized therapy. The three machine learning tools currently being developed at HistoWiz are automatic tumor identification, mitosis count, and image similarity search. PathologyMapTM allows cancer researchers, clinicians, medical students, computer programmers and anyone interested in learning more about histopathology to access the latest discoveries in the cancer research community.

Biography

Ke has over 10 years of experience in mouse histopathology and cancer research. She finished her PhD in Cancer Biology from Pier Paolo Pandolfi's lab at Harvard and led a team of investigators to publish papers in journals such as Nature and Blood. Prior to founding HistoWiz, she worked at a cancer diagnostics company (NASDAQ: CGIX) and did a postdoctoral fellowship with Douglas Hanahan at the Swiss Institute of Experimental Cancer Research.

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