

Philips and PathAI team up to improve breast cancer diagnosis using artificial intelligence

24 April 2017 | News | By BioSpectrum Bureau

Philips and PathAI team up to improve breast cancer diagnosis using artificial intelligence



With an aim of building deep learning applications in computational pathology and to develop solutions that improve the precision and accuracy of routine diagnosis of cancer and other diseases, Royal Philips a global leader in health technology, and PathAI, a company that develops artificial intelligence technology for pathology are collaborating.

This will enable the form of artificial intelligence to be applied to massive pathology data sets to better inform diagnostic and treatment decisions. The initial focus of this effort is on developing applications to automatically detect and quantify cancerous lesions in breast cancer tissue.

The accurate quantitative assessment of cancer involvement and scale is a central and challenging task for pathologists. This task, while critical to diagnosis and treatment, is very time-consuming and can place increased pressure on pathologists to conduct slide readings and analysis faster.

Andy Beck, CEO, PathAI said, "Breast cancer is the most common cancer in women worldwide, with over 250,000 new cases³ diagnosed every year in the U.S. Our goal is to help patients receive fast, accurate diagnosis and support treating physicians to deliver optimal care by empowering pathologists with decision support tools powered by artificial intelligence. For example, identifying the presence or absence of cancer in lymph nodes is a routine and critically important task for a

pathologist. However, it can be extremely laborious using conventional methods. Research indicates that pathologists supported with computational tools could be both more accurate and faster."

Philips has already implemented deep learning in its clinical informatics solutions for radiology such as Illumeo and IntelliSpace Portal 9.0. With the proliferation of digital pathology and whole slide imaging (WSI), computers will soon be able to learn and unlock the 'big data' potential of thousands of digital tumor tissue (histology) images and related patient data.

Russ Granzow, General Manager of Philips Digital Pathology Solutions said, "Digitizing images in pathology has the potential to transform the field by unlocking new opportunities in image recognition. With computational pathology and the application of artificial intelligence there is an opportunity to increase efficiencies, enable greater accuracy and precision, and allow pathologists to see things and access insights not previously available."