Philips and Definiens have signed a cooperation agreement to jointly develop a digital pathology system to support clinical diagnosis of several types of cancer, beginning with breast cancer. The companies will integrate Definiens’ image analysis solutions into Philips’ imaging systems, providing pathologists with tools for assessment of immunohistochemically stained cancer tissue.

Pathologists examine tissue slices treated with appropriate stains to reveal specific biomarkers of disease (such as cancer-related proteins) or the structure of tissues, which can indicate disease state. By automating biomarker expression analysis and characterisation of tissue morphology, Philips and Definiens aim to help pathologists generate more consistent and standardised data from tissue samples. The automated process will provide oncologists and physicians with comprehensive data designed to enhance treatment decisions and patient care.

In the initial project, the companies will focus on immunohistology-based breast cancer diagnostics, including biomarkers such as HER2/neu, Estrogen Receptor (ER), Progesterone Receptor (PR), Ki-67 and p53. Subsequently, Definiens plans to develop software to support analysis of Hematoxylin & Eosin (H&E) stained tissue.

“We believe the partnership between Philips and Definiens will provide pathologists with accurate and powerful data to help improve clinical diagnosis and treatment decisions,” said Thomas Heydler, CEO of Definiens. “Our software is uniquely suited to automate both biomarker expression profiles within the context of specific morphology as well as tissue structure, and can generate meaningful information to help oncologists choose the right treatment options based on each patient’s disease state.”

“Modern pathology labs are coming under continued pressure to increase throughput and efficiency while maintaining or improving quality, particularly in the diagnosis of cancer,” says Bob van Gemen, General Manager of Philips Digital Pathology. “By digitising the images with our fast slide scanner and easy to use image management system, Philips’ goal is to empower pathologists and help them to enhance the operational
efficiency and productivity as well as improving diagnostic confidence."

While the initial project focuses on breast cancer diagnostics, Philips and Definiens also plan to develop similar approaches for other cancers, such as prostate and colon cancer.

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