Sheba Medical Center Pioneers New Accelerated AI Cancer Diagnostics Platform Shortening Time to Diagnosis

Integrated Platform Utilizes AI Algorithms Immediately Applied to a Stained Pathological Digitized Image to Identify Actionable Biomarkers Within a Few Minutes Non-Small Cell Lung Cancer Diagnosis Solution Developed by Imagene in Collaboration with Sheba, Shortens Turnaround Time from Weeks to Minutes, Enabling Patients to Begin Personalized Treatment Earlier and Improving Outcomes

Ramat Gan, Israel – August 8, 2023 – Sheba Medical Center, Israel's largest medical center and a Newsweek ranked world's best hospital for the last five years, announced the deployment of a new accelerated, AI-powered cancer diagnostics research platform to improve patient diagnosis, treatment and outcomes. The platform enables the integration of AI technology developed by Sheba in addition to solutions created by innovative digital health startups.

One of the first AI solutions to be deployed was developed by Imagene, an emerging leader in AI-based precision oncology, incorporating an algorithm to identify actionable biomarkers of non-small cell lung cancer. The algorithm is directly applied to a digitized image of a conventionally stained pathology slide and can then, within minutes, identify the presence of actionable biomarkers in the tumor, thus providing crucial information for diagnostic and therapeutic decisions. The solution essentially shortens diagnostic time from three weeks to minutes, enabling patients to begin treatment earlier.

"We have reached another significant milestone in digital pathology with this ability to detect biomarkers by AI. The use of deep learning algorithms is changing the world of diagnosis, and in certain cases can drastically

shorten the cost and time to treatment. I am excited to hear about the growing number of patients who were able to receive rapid diagnoses and treatment using our new service" said Prof. Iris Barshack, Head of the Pathology Institute at Sheba Medical Center.

This latest advancement in cancer diagnostics builds on the significant progress Sheba's Pathology Institute has made in recent years. In 2019, the pathology lab at the hospital went fully digital, using computer screens for diagnosis instead of microscopes. Once the Pathology lab turned fully digital, the team worked in collaboration with Imagene who developed a rapid AI-based molecular profiling algorithm to identify actionable biomarkers from the digital biopsy image alone.

"We are very proud to be part of this incredibly important initiative by Prof. Barshack to facilitate an accelerated program for rapid diagnosis of cancer patients," said Dean Bitan, Co-founder and CEO of Imagene. "It takes an innovative approach and openness to new and advanced technologies to drive cancer research and advanced cancer care. We believe this program will showcase the importance of rapid molecular profiling within the clinical workflow."

"AI is already transforming the field of healthcare and oncology specifically. ARC is proud to be a part of this collaborative achievement in precision medicine that will have a significant impact in global health," said Prof. Eyal Zimlichman, Chief Transformation Officer and Chief Innovation Officer at Sheba Medical Center and Director and Founder of ARC Innovation.