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SigTuple announces launch of AI-enabled digital morphology analyser

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AS76 launches with peripheral blood smear capabilities



Bengaluru-based SigTuple has announced the launch of AS76, an AI-enabled digital morphology analyser designed to automate peripheral blood smear (PBS) microscopic review.

AS76 combines automated digital microscopy with on-device, edge-AI computing to deliver faster, more consistent results while preserving data privacy.

Powered by NVIDIA RTX, the AS76 analyser will perform high-throughput image analysis using advanced AI models, all running locally on the device. This allows the system to deliver near-instant results even for large sample batches, without dependence on internet connectivity.

An AI-powered automated digital microscope with built-in computing, AS76 system can load up to six PBS slides simultaneously, scan them in full diagnostic detail, and generate an AI-assisted report for expert review — with all processing performed entirely on the device. The system automates key elements of manual PBS review, including generation of a 200-cell leukocyte differential, highlighting red blood cell morphology, and flagging platelet morphology, including detection of platelet aggregates.

Equipped with 20×, 40×, and 100× objectives on an automated turret, AS76 launches with peripheral blood smear capabilities and is designed for future software upgrades to support tissues, fluids, bone marrow, and microbiology slides. This multi-application readiness positions AS76 as a digital replacement for the analog microscope in the laboratory.

By applying AI-driven cell pre-classification, AS76 standardises smear review at scale and surfaces atypical findings quickly for expert confirmation. The system reduces manual effort and turnaround time.