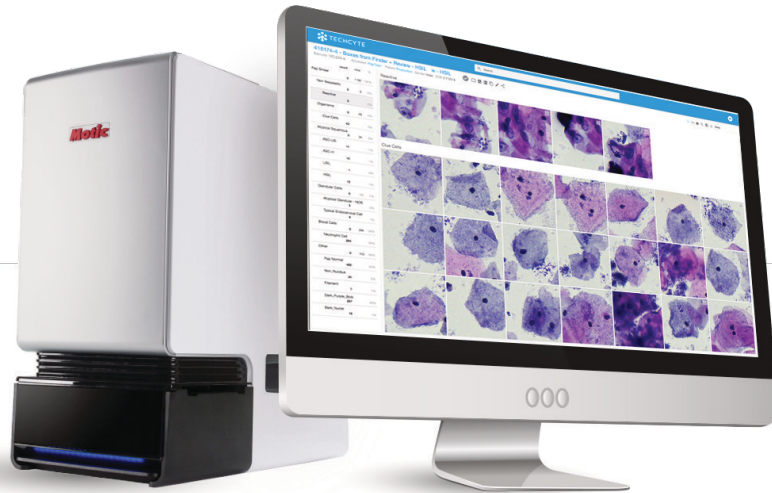# TECHCYTE®

Techcyte for Cervical Cytology
When accuracy matters

Techcyte uses a specialized type of artificial intelligence called deep learning to look for atypical cells in digital images from ThinPrep and SurePath slides.

Used as a QA tool, in less than a minute of analysis time per slide, Techcyte allowed users to identify 17 false negatives in 297 slides previously signed out as NILM.

To better understand Techcyte's ability to help labs increase pap test accuracy by identifying false negatives, we recently examined 297 randomly selected SurePath slides that had previously been signed out as negative by a lab in a 200-bed private hospital in Mexico. The slides were digitized using a Motic scanner and uploaded to Techcyte's online service.

Using Techcyte's assisted diagnosis functionality, an ASCP certified cytotech reviewed all 297 slides in three hours and forty-seven minutes (an average of forty-six seconds per slide), calling 12 slides positive, 259 negative, and 26 as "Needs Further Review" (NFR). A board-certified pathologist from Mexico confirmed that 11 of the 12 slides called positive by the cytotech were indeed positive. The same Mexican pathologist, using Techcyte, reviewed the 26 NFR slides in 52 minutes, calling ten of the 26 slides positive. After

adjudication, 6 of the 10 pathologist-called positive slides were confirmed as positive, and all 16 of the pathologist-called negative NFR slides were confirmed negative. Using Techcyte, in less than a minute per slide, the cytotech and pathologist identified a total of 17 confirmed false negatives in 297 previously called negative slides (5.7%) with 100% sensitivity and 98% specificity. Of the 17 confirmed false negatives, 6 were ASC-US, 3 were ASC-H, and 8 were LSIL. All 297 digitized slides were single focal-plane images.

Techcyte uses a specialized type of artificial intelligence called deep learning to look for atypical cells in liquid-based prep digital slide images (including ThinPrep and SurePath). We have successfully worked with several different scanner manufacturers (Hamamatsu, Aperio, 3dHistech, Motic, etc.), and look forward to helping your lab try the Techcyte Cervical Cytology product for free to see if we can add value to your pap test process.

For more information, contact
rob.fotheringham@techcyte.com