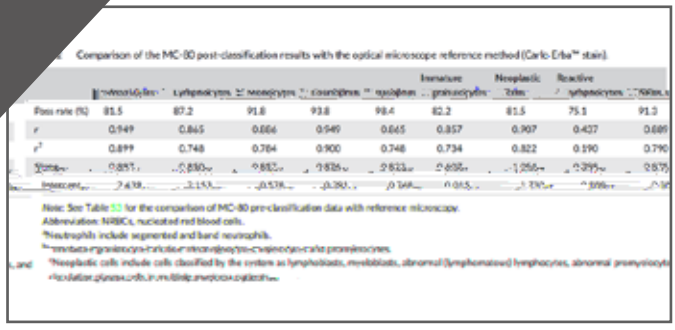
Throughout human history, the number 3 has always had a unique significance. In Ancient Greek philosophy, the number 3 was considered as the perfect number, the number of harmony, wisdom and understanding.

(r) between MC-80
and manual
) for the five types of
and the four primary
abnormal cells are high for all
except for reactive lymphocytes.



Comparison of the MC-80 post-classification results with the optical microscope reference method (Carlo Erba™ stain).

	Lymphocytes	Monocytes	Eosinophils	Neutrophils	Immature granulocytes	Neoplastic cells	Reactive lymphocytes
Pass rate (%)	87.2	91.8	93.8	98.4	82.2	81.5	75.1
r	0.949	0.865	0.884	0.949	0.865	0.857	0.907
r^2	0.899	0.748	0.784	0.900	0.748	0.734	0.822

Note: See Table S2 for the comparison of MC-80 pre-classification data with reference microscopy.
Abbreviation: NRBCs, nucleated red blood cells.
[a]Neutrophils include segmented and band neutrophils.
[b]Neoplastic cells include cells classified by the system as lymphoblasts, myeloblasts, abnormal (lymphomatous) lymphocytes, abnormal promyelocytes

ification

Slide C.
dation at screen of
-80 sample di erential

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ca del S. Cuore, Rome

The results between pre-classification and the post-classification MC-80 results are compared too. It's reported, di erences between the major normal leukocyte classes were minimal, while the most relevant adjustments due to the

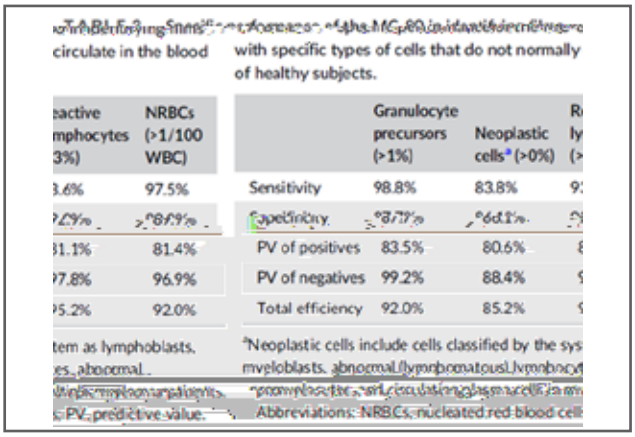
Conclusion
(excerpted from "Abstract - Conclusion")

"Our study highlights the outstanding diagnostic performance of this artificial intelligence–based blood film analyzer for hematology patients with circulating abnormal cells. We appreciated the morphological harmonization of cells observed on the screen and those seen in the microscope."

Clinical sensitivity: Identification of films with pathological cells

Stain: May-Grünwald-Giemsa (RAL)

A total of 445 samples were used, and WBC pre-classification values with the MC-80 and DM9600 were compared with the manual reference (microscope), Mindray BC-6800Plus differentials (only normal samples), and confirmed or reclassified images (post-classification). [3]


circulate in the blood

with specific types of cells that do not normally of healthy subjects.

	Granulocyte precursors (>1%)	Neoplastic cells* (>0%)
Sensitivity	98.8%	83.8%
PV of positives	83.5%	80.6%
PV of negatives	99.2%	88.4%
Total efficiency	92.0%	85.2%

active mphocytes 3%)	NRBCs (>1/100 WBC)
3.6%	97.5%
81.1%	81.4%
97.8%	96.9%
95.2%	92.0%

tem as lymphoblasts, es, abnormal

*Neoplastic cells include cells classified by the sys myeloblasts, abnormal lymphocytes, lymphocyt

Abbreviations: NRBCs, nucleated red blood cell

PV, predictive value.

Comparative study and statistical analysis

The pre-classification and post-classification of WBC using the MC-80 and DM9600 in normal samples were compared with the manual reference method using the microscope and with the differential leukocyte count (DLC) obtained on the BC-6800Plus.

The number 3 holds great inspiration.
3 esteemed morphologists, through their remarkable work on MC-80's 3-year evaluation, have instilled incredible confidence in the analyzer. This has established MC-80 as a trusted tool for serving laboratories worldwide.

References

[1]https://www.htworld.co.uk/insight/opinion/digital-morphology-what-advances-mean-for-modern-laboratories-and-why-continued-innovation-is-imperative-hm23/

[2]Zini G, Mancini F, Rossi E, Landucci S, d'Onofrio G. Artificial intelligence and the blood film: Performance of the MC-80 digital morphology analyzer in samples with neoplastic and reactive cell types. Int J Lab Hematol. 2023 Dec;45(6):881-889. doi: 10.1111/ijlh.14160. Epub 2023 Aug 28. PMID: 37641457.

[3]Merino A, Laguna J, Rodríguez-García M, Julian J, Casanova A, Molina A. Performance of the new MC-80 automated digital cell morphology analyser in detection of normal and abnormal blood cells: Comparison with the CellaVision DM9600. Int J Lab Hematol. 2023 Sep 25. doi: 10.1111/ijlh.14178. Epub ahead of print. PMID: 37746889.

[4]Khongjaroensakun N, Chaothai N, Chamchomdao L, Suriyachand K, Paisooksantivatana K. White blood cell di□erentials performance of a new automated digital cell morphology analyzer: Mindray MC-80. Int J Lab Hematol. 2023 Oct;45(5):691-699. doi: 10.1111/ijlh.14119. Epub 2023 Jun 20. PMID: 37338111.

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