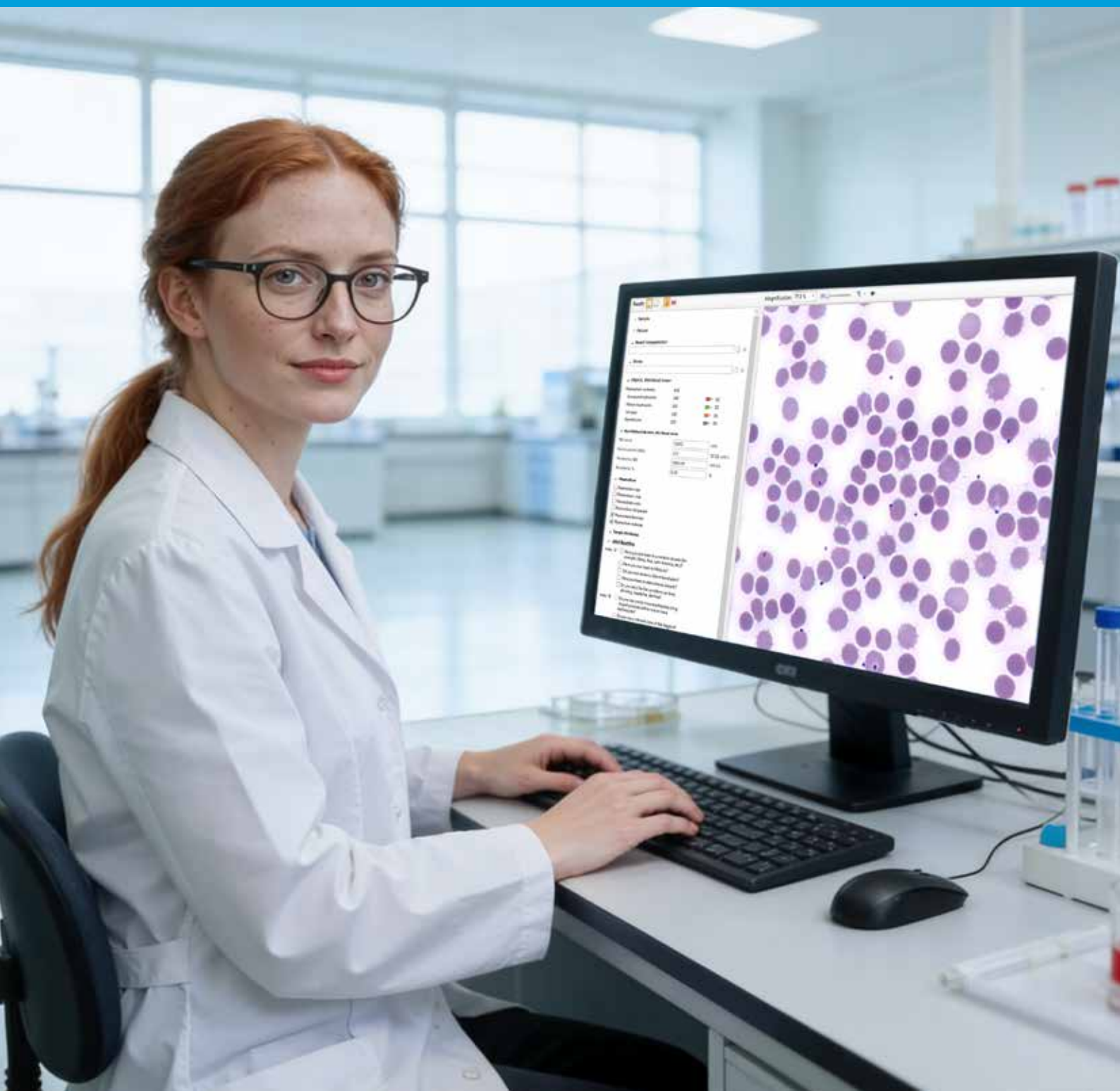


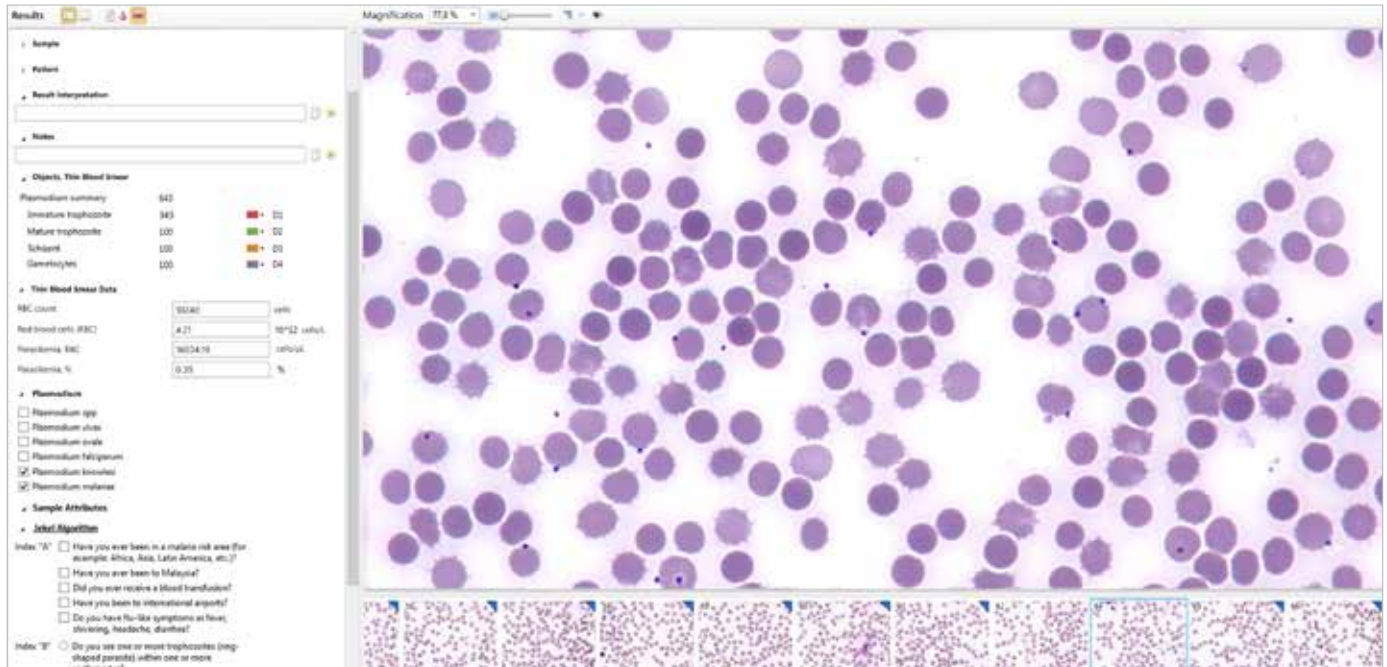
Vision Malaria

Automated Hemoparasite Analysis



Vision Malaria

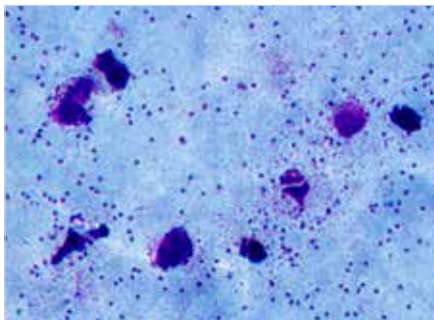
Automated Hemoparasite Analysis



Key Features

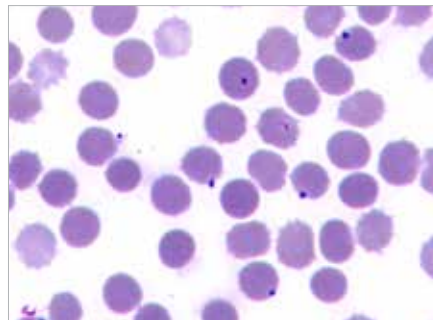
- Automated scanning of thick blood smears (up to two thick blood drops)
- Quantification of Plasmodium parasites per 1 μ L of blood relative to the leukocyte count
- Automated scanning of thin blood smears
- Identification of Plasmodium species
- Quantification of Plasmodium parasites per 1 μ L of blood relative to the erythrocyte count
- Calculation of parasitemia percentage

Plasmodium Species Identification



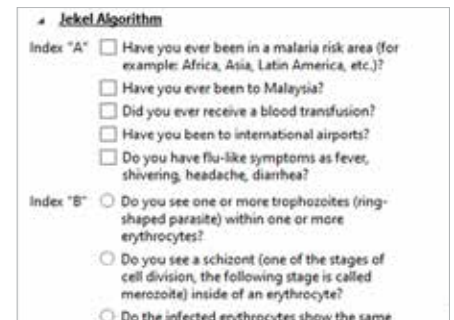
Thick Smear Image

Automated scanning of thick blood smears for Plasmodium detection



Thin Smear Image

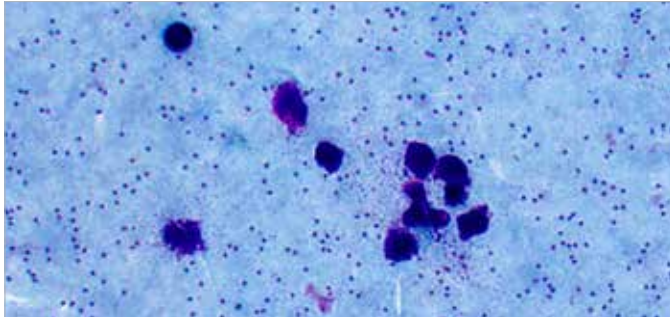
Automated scanning of thin blood smears with erythrocyte counting for Plasmodium species identification



Jekel Algorithm

A standardized method for Plasmodium species identification

Hemoparasite Analysis According to WHO Recommendations



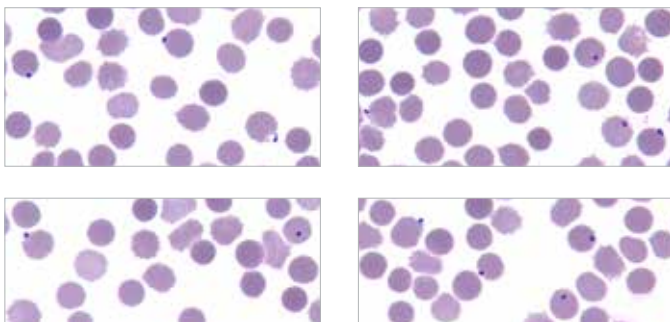
▲ Objects, Thick Blood Smear			
Plasmodium	604	■ D9	
Leukocytes	200	■ D0	
▲ Thick Blood Smear Data			
Leukocytes (WBC)	5.28		10 ⁹ cells/l
Parasitemia, WBC	15945.6		cells/ml

1 Thick smear scanning for Plasmodium detection

Automated scanning of thick blood smear

2 Plasmodium detection

Detection of Plasmodium presence. Counting the number of Plasmodium parasites per 100 leukocytes and per 1 μ L of blood



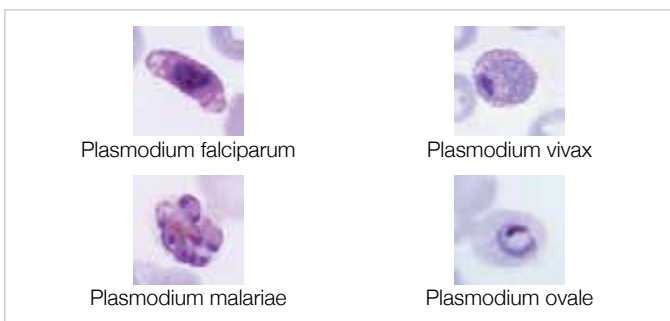
☐	Do you find half-moon shaped or banana-shaped gametocytes (sexual form of the parasite)?	
Index "E"	☐	Do you frequently find only 1 ring form in the non-enlarged infected erythrocytes?
	☐	Do the infected non-enlarged erythrocytes sometimes show band-shaped trophozoites?
	☐	Do the schizonts (stage of cell

3 Thin smear scanning for Plasmodium species identification

Automated scanning of thin blood smear after Plasmodium detection with erythrocyte counting

4 Jekel algorithm

The algorithm provides a standardized method for Plasmodium species identification



▲ Thin Blood Smear Data			
RBC count	10240		cells
Red blood cells (RBC)	4.21		10 ¹² cells/l
Parasitemia, RBC	16034.19		cells/ μ L
Parasitemia, %	0.39		%

5 Plasmodium species determination

The Plasmodium species is identified based on the collected erythrocyte images

6 Parasitemia calculation

Determination of the percentage of infected erythrocytes containing malaria parasites. Calculation of the number of Plasmodium parasites per 1 μ L of blood relative to the erythrocyte count

Automated Scanning Systems

Key Features	Vision A1	Vision Assist	Vision Pro	Vision Ultimate
Application modules	Vision Malaria	Vision Malaria	Vision Malaria	Vision Malaria
Working mode	Continuous loading	Queue (for 4 slides only)	Queue, random access	Queue, continuous and random access, STAT sampling, 24/7
Scanning	Automatic	Automatic	Automatic	Automatic
Loading a slide	1 slide	1 or 4 slides	4 or 8 slides	120 or 200 slides
Specifications	Scanning unit Workstation Monitor	Scanning unit Workstation Monitor	Scanning unit Workstation Monitor	Scanning microscope Personal computer Monitor Control touch-monitor
Objectives	100x Oil	100x Oil	100x Oil	100x Oil
Research method	Bright field	Bright field	Bright field	Bright field
Illumination	Köhler illumination, LED	Köhler illumination, LED	Köhler illumination, LED	Köhler illumination, LED
Communications	Bidirectional connection to LIS, LIS2-A2 (ASTM), HL7	Bidirectional connection to LIS, LIS2-A2 (ASTM), HL7	Bidirectional connection to LIS, LIS2-A2 (ASTM), HL7	Bidirectional connection to LIS, LIS2-A2 (ASTM), HL7

Pre-classification has to be validated by the specialist reviewing the galleries of cells. Please check the intended use and the registration in your local regulation.
Depending on the regulations of the respective region, some products may be used for research purpose only. We reserve the right to change specification without notice.



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