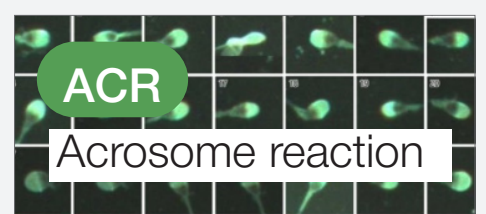
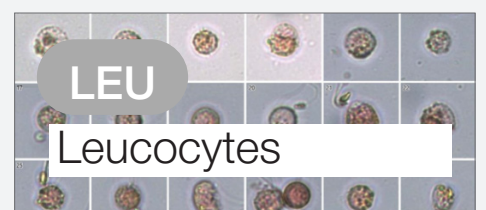
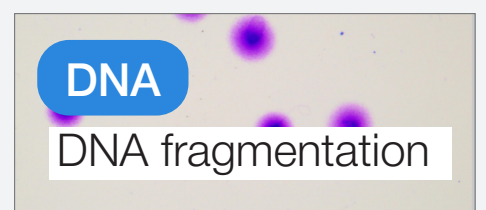
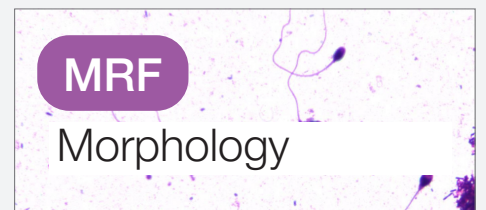


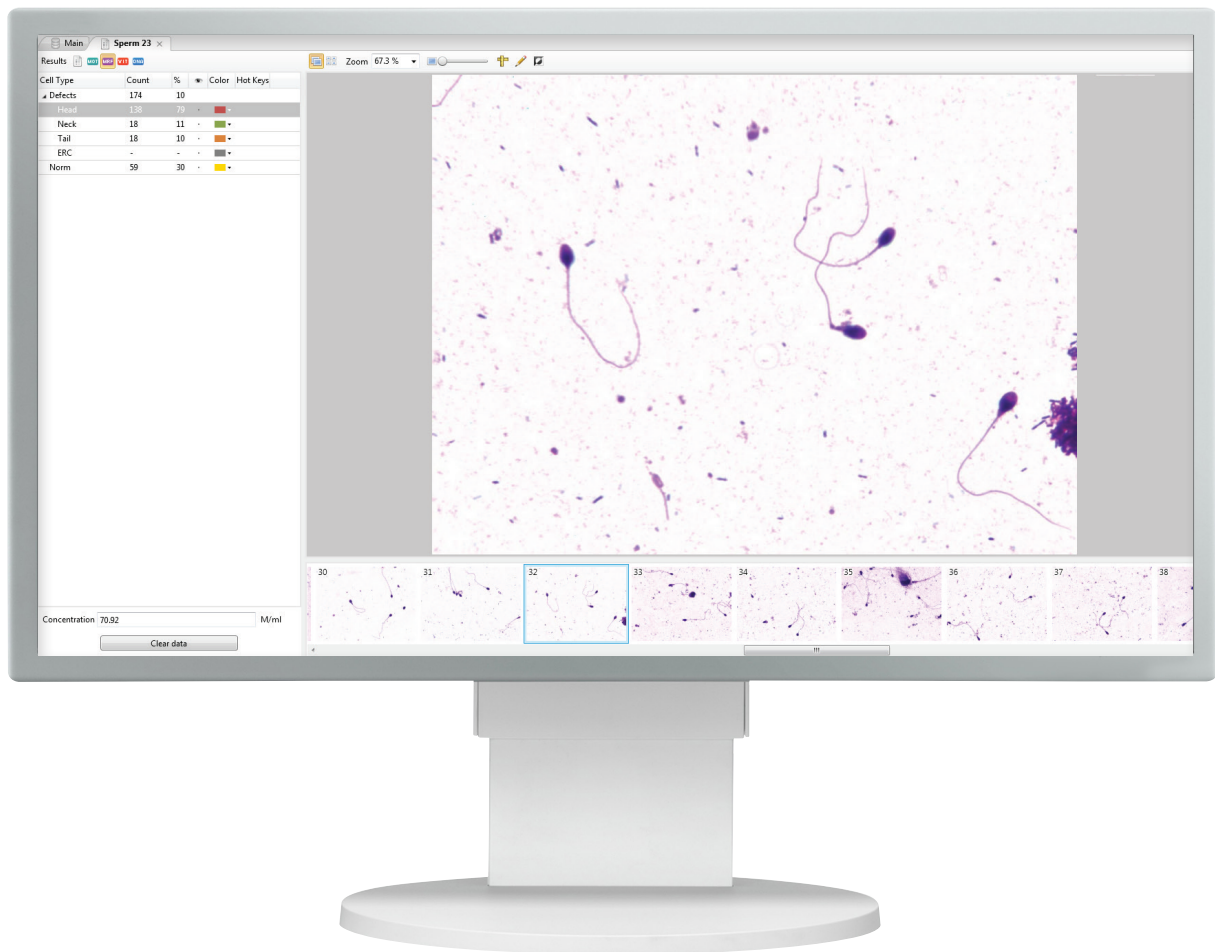
# Sperm Analysis

## Automatic Systems for Sperm Analysis



# Vision Sperm

## Automatic Systems for Sperm Analysis



## Artificial intelligence



Artificial intelligence (AI) cumulates algorithms and technologies that allow computers to learn and solve intellectual tasks provided by humans.

AI speeds up processing and interpretation of data, and allows to efficiently perform the most comprehensive tasks, including medical image analysis.

## Clinical applications



The latest developments of artificial intelligence provide a solution for the tasks connected with automation in digital microscopy.

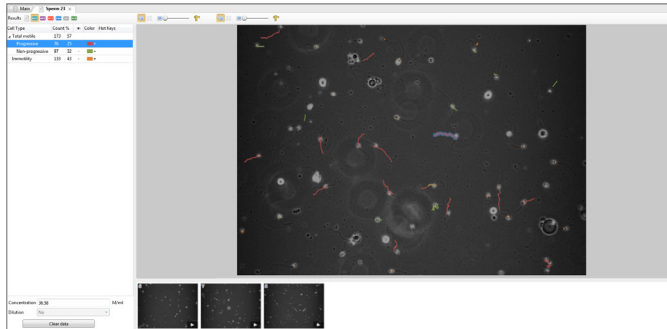
Our technologies speed up the diagnostic process, reduce analysis time and lower subjectivity of the results received.

They improve the efficiency of laboratory routine operation, bringing microscopy analyses in line with state-of-the-art standards.

# Analysis of sperm parameters according to WHO requirements

## MOT

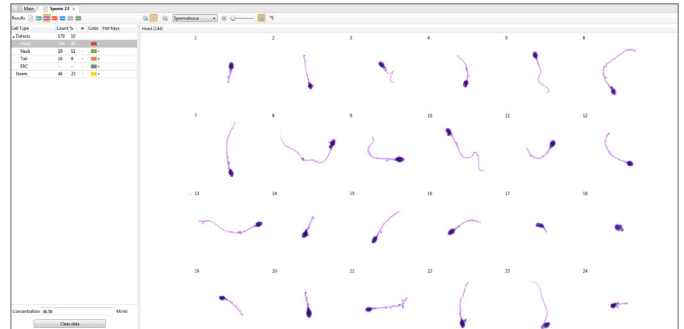
### Motility / Concentration



Motility analysis and sperm concentration assessment. Motility is determined by computing the sperm cells moving path in the field of view during a set time period. Concentration is determined by calculating the total number of spermatozoa taking into account the specimen's thickness and dilution.

## MRF

### Morphology



Morphology analysis of sperm, identification and pre-classification. Sperm cells are classified as "normal" and "abnormal".

Types of defects:

— Head;

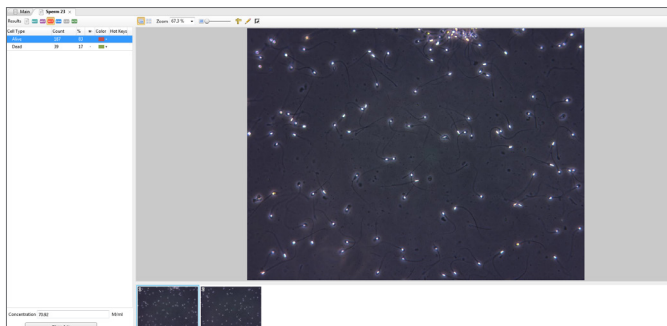
— Neck;

— Tail;

— ERC.

## VIT

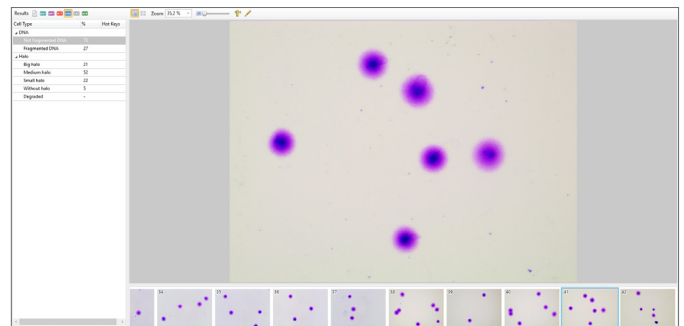
### Vitality



Pre-classification of sperm vitality, calculation of live-dead ratio.

## DNA

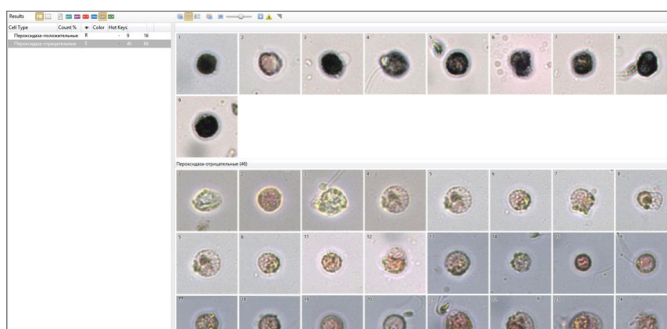
### DNA fragmentation



Pre-classification by DNA fragmentation degree. Calculation of the ratio of fragmented spermatozoa to relatively healthy ones.

## LEU

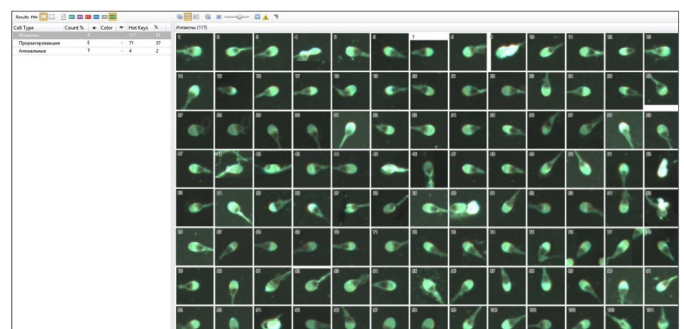
### Leucocytes



Counting leucocytes in sperm

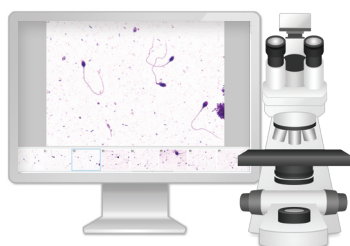
## ACR

### Acrosome reaction

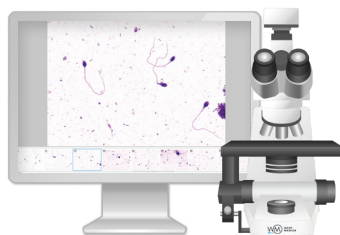


Acrosome reaction test.  
Only for systems with one slide.

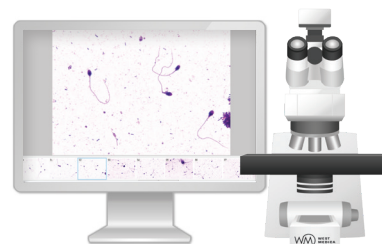
# Specifications



**Vision Basic**  
Cell Imaging Analyzer



**Vision Assist**  
Cell Imaging Analyzer



**Vision Pro**  
Cell Imaging Analyzer

Application module: <b>Vision Sperm</b>	Application module: <b>Vision Sperm</b>	Application module: <b>Vision Sperm</b>
Working modes: manual	Working modes: queue (only 4 slides version)	Working modes: queue, random access
Manual scanning	Automatic scanning	Automatic scanning
1 slide	1 or 4 slides	8 slides
Manual slide handling	Manual slide handling	2 cassettes with slides
Manual oil dispensing	Manual oil dispensing	Built-in barcode reader (optional)
Manual slide identification	Manual slide identification	Automatic oil dispenser (optional)
Microscope	Scanning Microscope	Scanning Microscope
Monitor	Monitor	Monitor
Personal computer	Personal computer	Personal computer
Optical system: 20x, 40x, 100x Oil	Optical system: 20x, 40x, 50x Oil, 100x Oil	Optical system: 20x, 40x, 60x Oil
Bright fields, phase contrast, fluorescence*	Bright fields, phase contrast, fluorescence*	Bright fields, phase contrast
Köhler, LED	Köhler, LED	Köhler, LED
Bidirectional LIS, LIS2-A2 (ASTM), HL7, Ethernet	Bidirectional LIS, LIS2-A2 (ASTM), HL7, Ethernet	Bidirectional LIS, LIS2-A2 (ASTM), HL7, Ethernet
Art. N.: 64030.04.006 Art. N.: 64030.04.027*	Art. N.: 71150.04.006 (1 slide) Art. N.: 71450.04.006 (4 slides) Art. N.: 71150.04.027 (1 slide)*	Art. N.: 72852.04.006 (8 slides)

\*Acrosome reaction

We reserve the right to change specification without notice.



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