

# LIVO

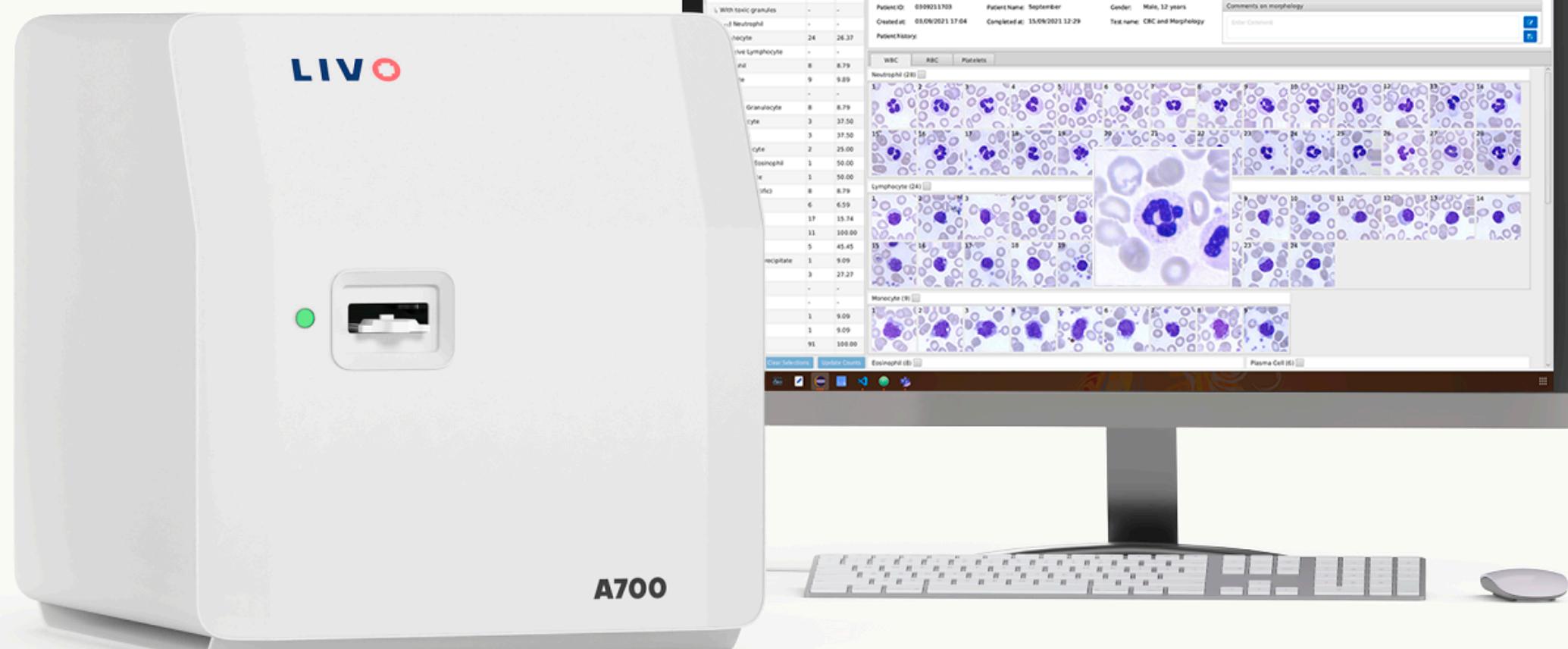


# A700

Start-of-the-art peripheral blood smear analyser  
for pathology labs

18 Part WBC | 36 Part RBC | 4 Part PLT | nRBC | Early Retics

# What does Livo A700 do?



18 Part WBC | 36 Part RBC | 4 Part PLT with platelet  
clump detection | nRBC | Early Retics | Parasites &  
Everything related to smear analysis

Powered by state-of-the-art **artificial neural networks** and **robotic microscopy**, Livo A700 performs accurate **monolayer detection**, **cell identification**, **inclusion detection**, **parasite detection (if any present)**, **pre-classification** and **differential counting** of all cells with precision, relieving you of the most laborious part of blood smear analysis. After doing all this, the A700 then generates morphology report with high resolution cell images from its **100x objective**, pre-classified, for the expert review.

# WBC Morphology analysis and its

## 18 Part Differential

WBC Parameter Count %

Neutrophils	89	74.79
Segmented neutrophils	71	59.66
Band forms	18	15.13
Lymphocytes	11	9.24 ↑
Small lymphocyte	9	7.56
Large lymphocyte	1	0.84
Large granular lymphocytes	1	0.84
Reactive lymphocytes	-	-
Abnormal lymphocytes	-	-
Hairy cell	-	-
Sezary cell	-	-
Other variants	-	-
Monocytes	4	3.36
Eosinophils	1	0.84 ↓
Basophils	-	-
Immature granulocytes	7	5.88 ↑
Promyelocytes	-	-
Myelocytes	-	-
↳ Neutrophilic myelocytes	-	-
↳ Eosinophilic myelocytes	-	-
↳ Basophilic myelocytes	-	-
Metamyelocytes	7	5.88
↳ Neutrophilic metamyelocytes	7	5.88
↳ Eosinophilic metamyelocytes	-	-
↳ Basophilic metamyelocytes	-	-
Blasts	-	-
Non-specific	-	-
Monoblasts	-	-
Plasma cells	-	-
Promonocytes	-	-
Prolymphocytes	-	-
Smudge/Smear cells	38	-
Others	4	-
Unclassified	2	-
Stain or Stain precipitate	-	-
Artifact	-	-
NRBC	-	-
Giant platelet	-	-
Platelet clump	-	-
Duplicates	2	-
Total	119	100.00

Clear Selections Update Counts

Patient Details

Request Authentication Print

WBCs Normocytes RBC Chromia RBC Size RBC Shape RBC Inclusions Platelets Distribution Extracellular parasites Unclassified Trash RBC View

Band Forms (18)

Small Lymphocytes (9)

Neutrophilic Metamyelocytes (7)

Eosinophils (1)

Smudge (38)

Diameter : 13.46µm

Large Granular Lymphocytes (1)

Made in pursuit of highest image quality possible in bright-field microscopy

WBC Parameter Count %

Neutrophils	24	22.22 ↓
Segmented neutrophils	24	22.22
Band forms	-	-
Lymphocytes	26	24.07
Small lymphocyte	13	12.04
Large lymphocyte	13	12.04
Large granular lymphocytes	-	-
Reactive lymphocytes	1	0.93
Abnormal lymphocytes	1	0.93
Hairy cell	-	-
Sezary cell	-	-
Other variants	1	0.93
Monocytes	6	5.56
Eosinophils	-	-
Basophils	5	4.63 ↑
Immature granulocytes	12	11.11 ↑
Promyelocytes	11	10.19
Myelocytes	-	-
↳ Neutrophilic myelocytes	-	-
↳ Eosinophilic myelocytes	-	-
↳ Basophilic myelocytes	-	-
Metamyelocytes	1	0.93
↳ Neutrophilic metamyelocytes	1	0.93
↳ Eosinophilic metamyelocytes	-	-
↳ Basophilic metamyelocytes	-	-
Blasts	32	29.63 ↑
Non-specific	32	29.63
Monoblasts	-	-
Plasma cells	-	-
Promonocytes	-	-
Prolymphocytes	-	-
Smudge/Smear cells	40	-

Patient Details

Patient ID: Patient history: Select report format

Request Authentication Print

WBCs Normocytes RBC Chromia RBC Size RBC Shape RBC Inclusions Platelets Distribution Extracellular parasites Unclassified Trash RBC View

Blasts Non Specific (32)

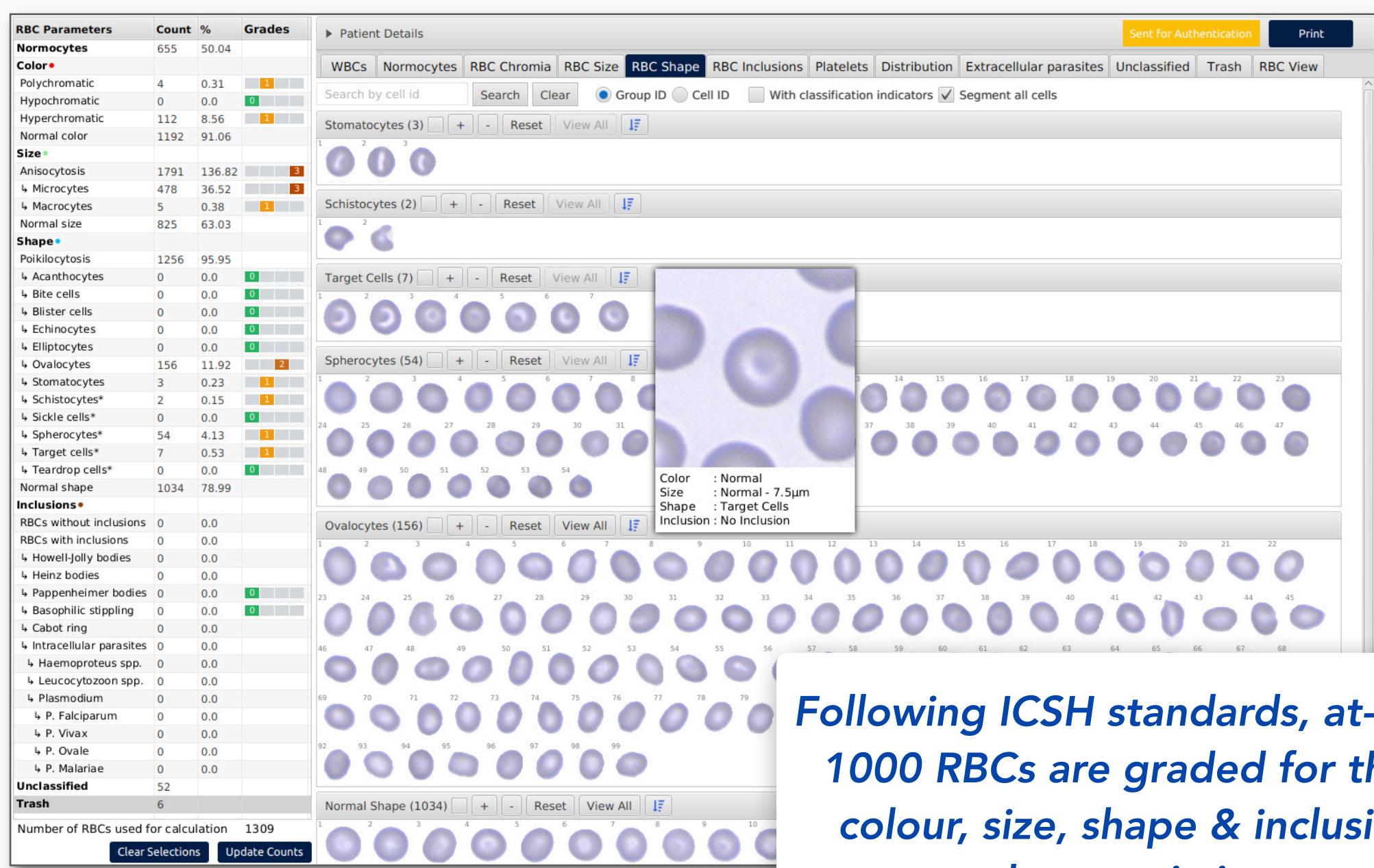
Large Lymphocytes (13)

Diameter : 12.5µm

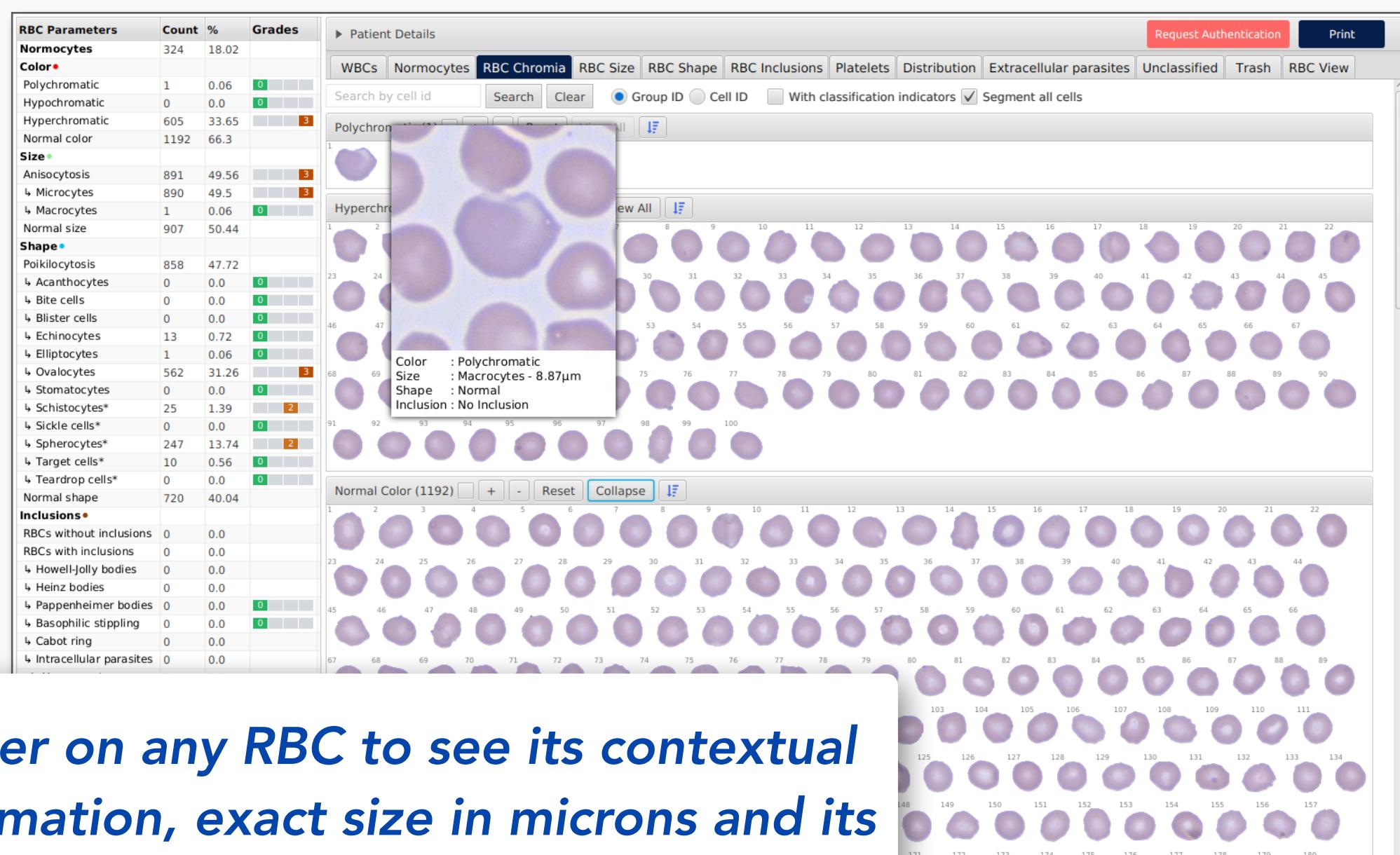
Hover on any WBC to see its chromatin pattern, nucleolus, granules & size information clearly - in high resolution

# RBC Morphology analysis and its

## 36 Part Differential



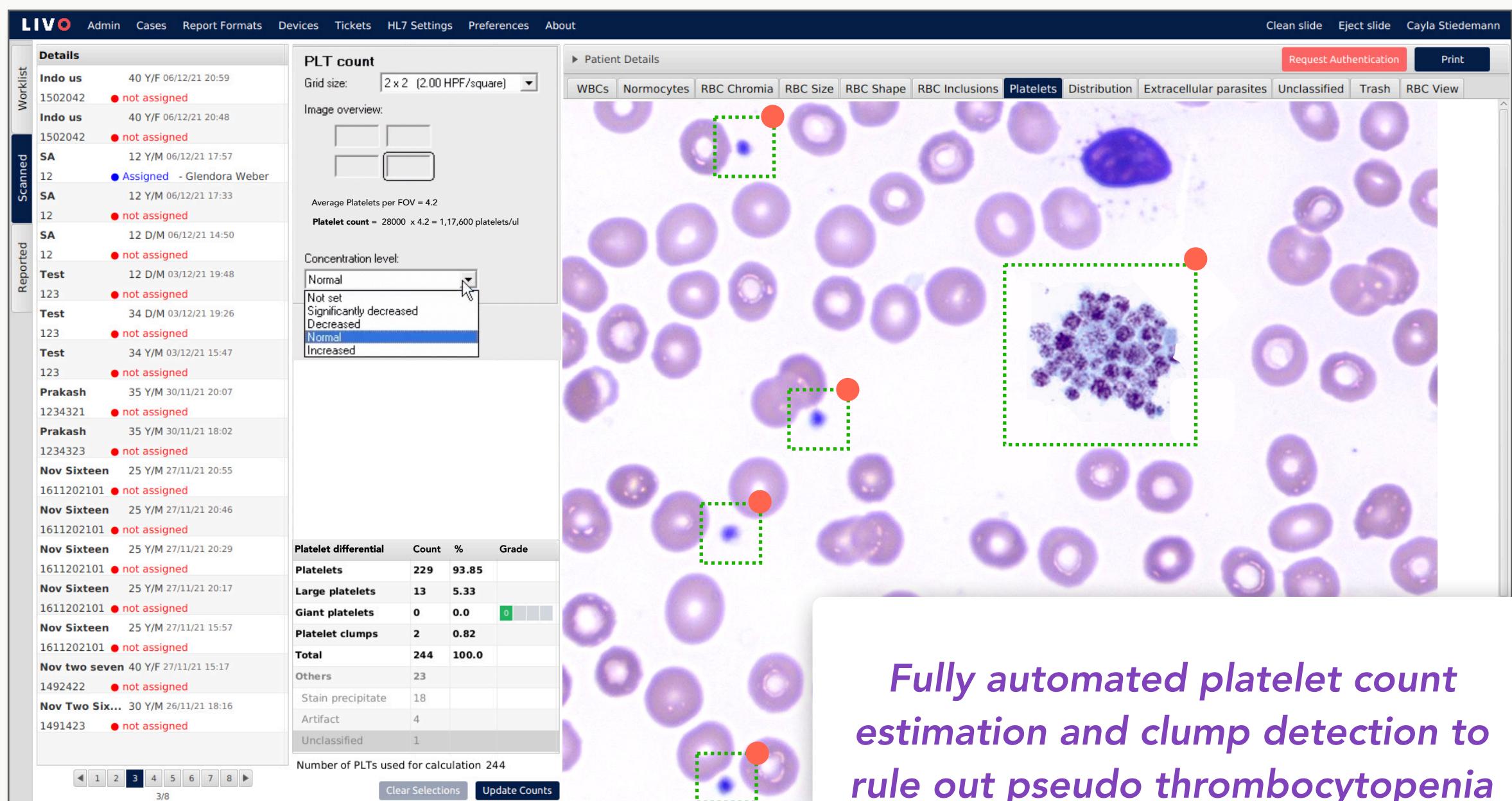
**Following ICSH standards, at-least 1000 RBCs are graded for their colour, size, shape & inclusion characteristics.**



**Hover on any RBC to see its contextual information, exact size in microns and its categorisation of colour, size, shape, inclusion characteristics.**

# PLT clump detection, total count

## and its 4 Part Differential



LIVO Admin Cases Report Formats Devices Tickets HL7 Settings Preferences About

Worklist Scanned Reported

**Details**

Indo us	40 Y/F 06/12/21 20:59
1502042	● not assigned
Indo us	40 Y/F 06/12/21 20:48
1502042	● not assigned
SA	12 Y/M 06/12/21 17:57
12	● Assigned - Glendora Weber
SA	12 Y/M 06/12/21 17:33
12	● not assigned
SA	12 D/M 06/12/21 14:50
12	● not assigned
Test	12 D/M 03/12/21 19:48
123	● not assigned
Test	34 D/M 03/12/21 19:26
123	● not assigned
Test	34 Y/M 03/12/21 15:47
123	● not assigned
Prakash	35 Y/M 30/11/21 20:07
1234321	● not assigned
Prakash	35 Y/M 30/11/21 18:02
1234323	● not assigned
Nov Sixteen	25 Y/M 27/11/21 20:55
1611202101	● not assigned
Nov Sixteen	25 Y/M 27/11/21 20:46
1611202101	● not assigned
Nov Sixteen	25 Y/M 27/11/21 20:29
1611202101	● not assigned
Nov Sixteen	25 Y/M 27/11/21 20:17
1611202101	● not assigned
Nov Sixteen	25 Y/M 27/11/21 15:57
1611202101	● not assigned
Nov two seven	40 Y/F 27/11/21 15:17
1492422	● not assigned
Nov Two Six...	30 Y/M 26/11/21 18:16
1491423	● not assigned

**PLT count**

Grid size: 2 x 2 (2.00 HPF/square)

Average Platelets per FOV = 4.2

Platelet count = 28000 x 4.2 = 117,600 platelets/ $\mu$ l

Concentration level:

- Normal
- Not set
- Significantly decreased
- Decreased
- Normal
- Increased

Platelet differential Count % Grade

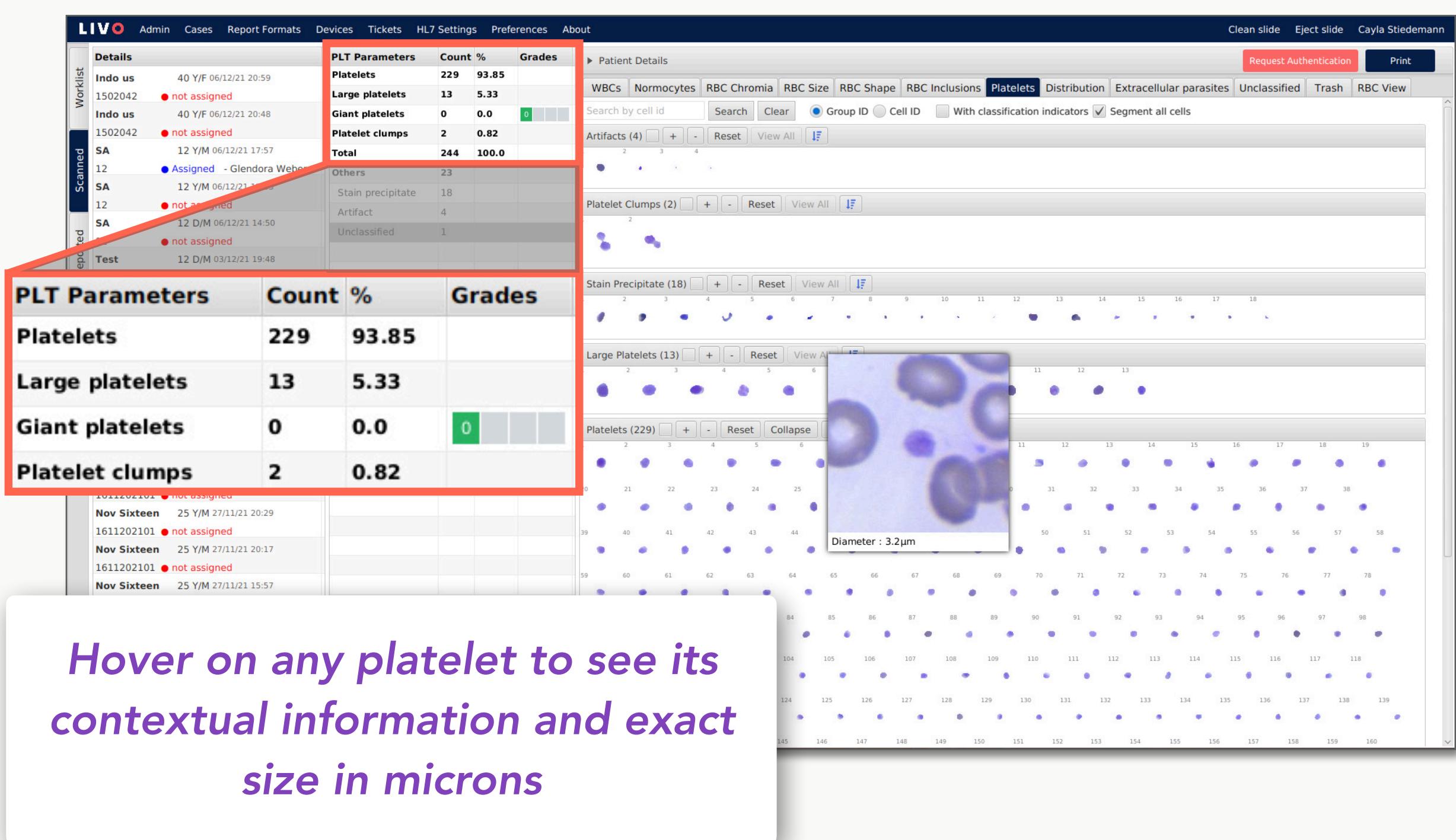
Platelets	229	93.85
Large platelets	13	5.33
Giant platelets	0	0.0
Platelet clumps	2	0.82
Total	244	100.0
Others	23	
Stain precipitate	18	
Artifact	4	
Unclassified	1	

Number of PLTs used for calculation 244

Clear Selections Update Counts

3/8

Fully automated platelet count estimation and clump detection to rule out pseudo thrombocytopenia



LIVO Admin Cases Report Formats Devices Tickets HL7 Settings Preferences About

Worklist Scanned Reported

**PLT Parameters**

PLT Parameters	Count	%	Grades
Platelets	229	93.85	
Large platelets	13	5.33	
Giant platelets	0	0.0	0
Platelet clumps	2	0.82	
Others	23		
Stain precipitate	18		
Artifact	4		
Unclassified	1		

PLT Parameters Count % Grades

Platelets	229	93.85
Large platelets	13	5.33
Giant platelets	0	0.0
Platelet clumps	2	0.82

Search by cell id Search Clear Group ID Cell ID With classification indicators Segment all cells

Artifacts (4) + - Reset View All

Platelet Clumps (2) + - Reset View All

Stain Precipitate (18) + - Reset View All

Large Platelets (13) + - Reset View All

Platelets (229) + - Reset Collapse

Diameter : 3.2 $\mu$ m

1011202101 ● not assigned  
Nov Sixteen 25 Y/M 27/11/21 20:29  
1611202101 ● not assigned  
Nov Sixteen 25 Y/M 27/11/21 20:17  
1611202101 ● not assigned  
Nov Sixteen 25 Y/M 27/11/21 15:57

Hover on any platelet to see its contextual information and exact size in microns

# Why Livo A700?

• • •  
• • • 64% reduction in TAT | Convenient remote review | No  
• • • downtime during staff leaves/increased case load |  
• • • Visual evidence & documentation for every slide  
• • •

1. Relieve yourself from the **repetitive, laborious & tiresome 100/200 WBC differential** and automate it with A700.
2. Automated **1,000 RBC differential** will never let you miss even highly sensitive classes like **schistocytes**, sickle cells, teardrops etc. you also have option to choose **2,000 to 10,000 RBC differential**, if & when needed.
3. Clump finder mode activation for automatic **platelet clump detection** to easily rule out **pseudo-thrombocytopenia** cases from your lab case load. Platelet estimation - coming soon.
4. Lab will be compliant to **ICSH & WHO** guidelines for all PBS reviews, all the time, no matter what.
5. **End-to-end PBS digitisation and documentation** for secure remote access to doctors anywhere, anytime.
6. **Visual evidence based reporting** and backup, beneficial for both patient and labs not just in disease diagnosis and explanation to patients when need but also in legal disputes.
7. **Teach with ease** and convenience to your students.

# Customisations unique to your lab

- • •
- • • Cutoff no. of FOVs/no. of cells | Case scheduling between In-pathologists | Adjust RBC morphology thresholding |
- • • Abnormal case notifications on telegram
- • •

1. You can choose **200 WBC diffs manually or make it activate automatically** when **blasts/IGs are detected** while scanning.
2. Scan **cutoff trigger** can be modified for abnormally **low TLC or high TLC** depending on your preference. **1000/2000/3000 FOVs trigger or 100/200 WBC** differential trigger.
3. During staff shortage or increased case load, you can send **excess cases** to Livo tele-pathology platform for remote diagnosis.
4. Ability to **get notifications** of all cases or just flagged cases (ex: when blasts or IGs are detected) instantly on your telegram, with the **images of flagged cells**.



Telegram  
Notifications

# Report parameters

## RBC Parameters

<b>Normocytes</b>	↳ Sickle cells*
<b>Color</b> ●	↳ Spherocytes*
Polychromatic	↳ Target cells*
Hypochromatic	↳ Teardrop cells*
Hyperchromatic	Normal shape
Normal color	<b>Inclusions</b> ●
<b>Size</b> ●	RBCs without inclusions
Anisocytosis	RBCs with inclusions
↳ Microcytes	↳ Howell-Jolly bodies
↳ Macrocytes	↳ Heinz bodies
Normal size	↳ Pappenheimer bodies
<b>Shape</b> ●	↳ Basophilic stippling
Poikilocytosis	↳ Cabot ring
↳ Acanthocytes	↳ Intracellular parasites
↳ Bite cells	↳ Haemoproteus spp.
↳ Blister cells	↳ Leucocytozoon spp.
↳ Echinocytes	↳ Plasmodium
↳ Elliptocytes	↳ P. Falciparum
↳ Ovalocytes	↳ P. Vivax
↳ Stomatocytes	↳ P. Ovale
↳ Schistocytes*	↳ P. Malariae

## WBC Parameters

<b>Neutrophils</b>	Segmented neutrophils
	Band forms
<b>Lymphocytes</b>	Small lymphocyte
	Large lymphocyte
	Large granular lymphocytes
<b>Reactive lymphocytes</b>	
<b>Abnormal lymphocytes</b>	Hairy cell
	Sezary cell
	Other variants
<b>Monocytes</b>	
<b>Eosinophils</b>	
<b>Basophils</b>	
<b>Immature granulocytes</b>	Promyelocytes
	Myelocytes
	↳ Neutrophilic myelocytes
	↳ Eosinophilic myelocytes
	↳ Basophilic myelocytes
	Metamyelocytes
	↳ Neutrophilic metamyelocytes
	↳ Eosinophilic metamyelocytes
	↳ Basophilic metamyelocytes
<b>Blasts</b>	
	Non-specific
	Monoblasts
<b>Plasma cells</b>	
<b>Promonocytes</b>	
<b>Prolymphocytes</b>	

## PLT Parameters

Platelets	Total platelet count
Large platelets	
Giant platelets	
Platelet clumps	



## Certifications

CE (IVD), ISO 13485, ISO9001



Want to speak with a sales representative?

Feel free to make enquiries about any of our products

## GOT A QUESTION?

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Reach out us at [sales@livo.ai](mailto:sales@livo.ai)