

ABX Pentra **DX**120

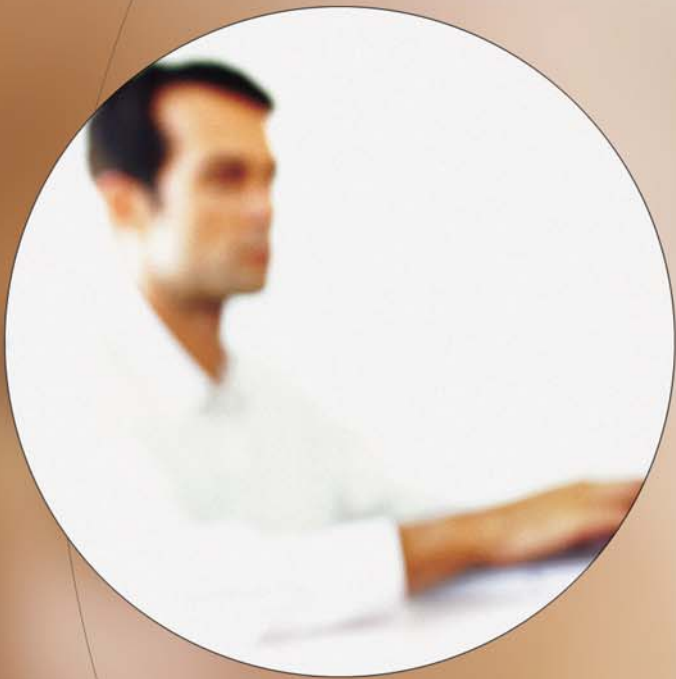
Hematology analyzer

45 parameters
Integrated slide-maker
Expert validation system

DX120

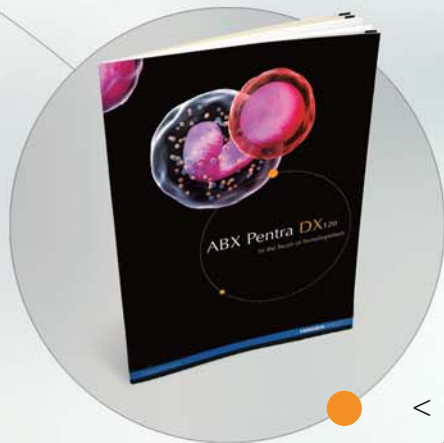
ABX Pentra **DX** 120

In the heart of hematopoiesis



Complete cytology platform

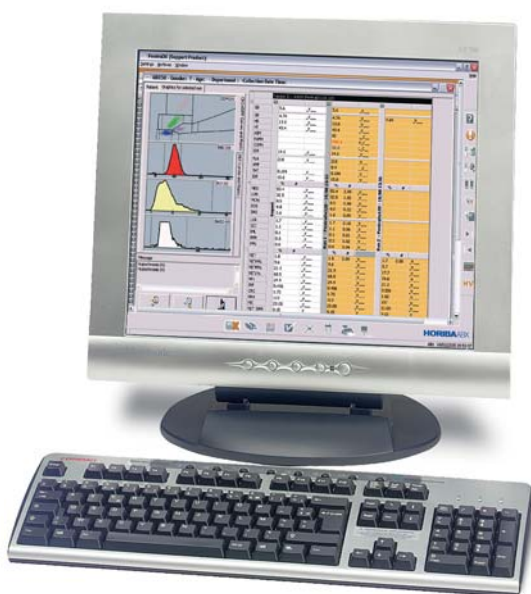
- > **120 samples per hour**
Continuous loading option
150-tube loader capacity
- > **45 parameters**
CBC (12), DIFF (20), RET (10), NRBC (3)
- > **Automatic reflex testing**
Immediate confirmation of tests based on the chosen validation rules
- > **Automatic validation of results**
Laboratory-defined rules
- > **Integrated cytology atlas**
Hematovision, a software designed and developed by HORIBA Medical
- > **SPS evolution**
Integrated smearer stainer (optional)



< **Hematopoiesis through ABX Pentra DX 120**
Scientific book

Differentiation and quantification of hematopoietic populations using 7 analytical systems

- > **Erythropoiesis**
3 dedicated channels: erythroblasts / reticulocytes / erythrocytes
- > **Thrombopoiesis**
2 dedicated channels: thrombocytes / double matrix
- > **Leukopoiesis**
4 dedicated channels: leukocytes / double matrix / basophils / erythroblasts



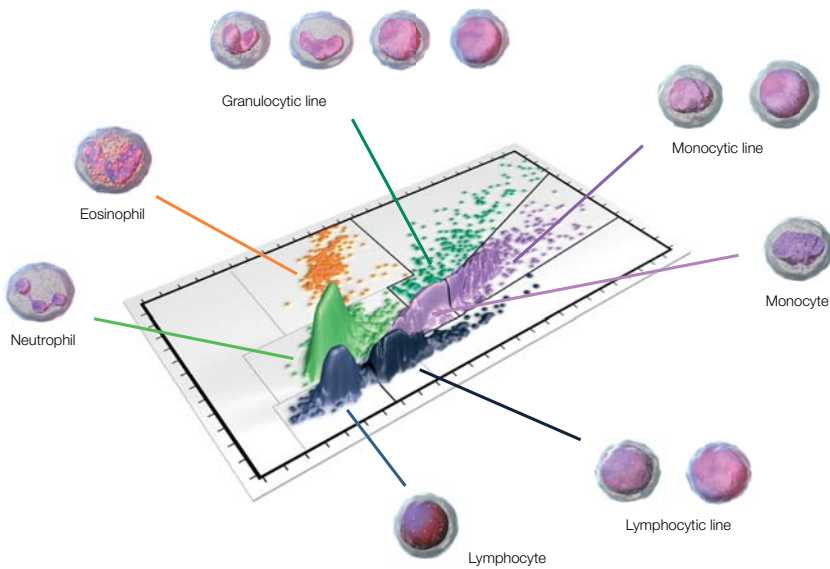
DHSS Concept

Flow cytometry

Injection of the sample prepared in a double hydrodynamic flow cytometer (HORIBA Medical patent), and determination of the cell complexity by measuring the absorbance of a polychromatic light source, or the fluorescence by fluorocytometry (with argon-ion laser).

Cytochemistry

Incubation of the sample at a regulated temperature and cells stained with Chlorazole Black. This reagent stains specifically leukocyte cytoplasm, granules, and nuclei.



Double DIFF matrix

Full leukopoiesis analysis:

Routine identification and quantification of three immature cell lines

- granulocytic line (IMG)
- lymphocytic line (IML)
- monocytic line (IMM)

Reduction of the number of slide examinations

Diagnostic and follow-up tool for rapid decision-making

Erythroblasts

Fluorescence-based count:

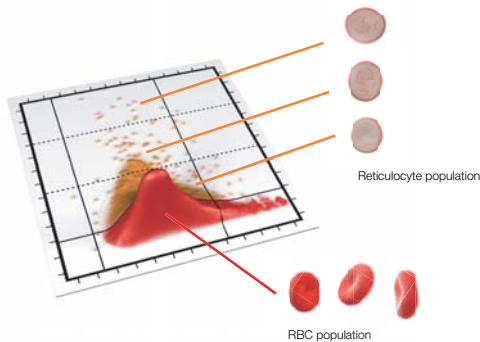
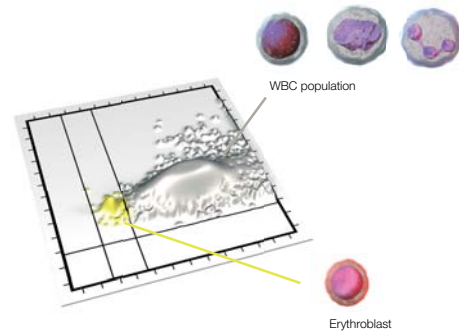
Erythroblast analysis in routine or reflex mode based on:

- internal laboratory rules
- detection alarms
- patient demographics...

Use of Thiazole Orange fluorochrome

Automatic correction of leukocyte count (WBC Flu)

Double Hydrodynamic Sequential System (HORIBA Medical Paten)



Reticulocytes

Differential diagnosis of anemia:

Simultaneous count of 10 parameters
Classification according to three stages of maturation (Heilmeyer):

- RET High
- RET Medium
- RET Low

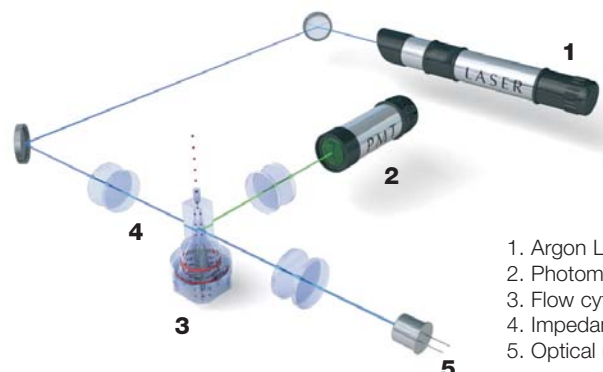
Follow-up of iron-deficiency anemia based on the MRV (Mean Reticulocyte Volume)

Confirmation of bone marrow regeneration level based on the CRC (Corrected Reticulocyte Count)

A concentrate of technology

5 recognised measurement principles included on a single analyzer.

| Reference methods | CBC | DIFF | RET | NRBC |
|-------------------|-----|------|-----|------|
| Impedancemetry | • | • | • | • |
| Flow cytometry | | • | • | • |
| Fluorometry | | | • | • |
| Cytochemistry | | • | | • |
| DHSS | | • | • | • |



1. Argon Laser
2. Photomultiplier
3. Flow cytometer
4. Impedancemetry
5. Optical measurement



SPS Evolution

Perfect standardization of blood smears

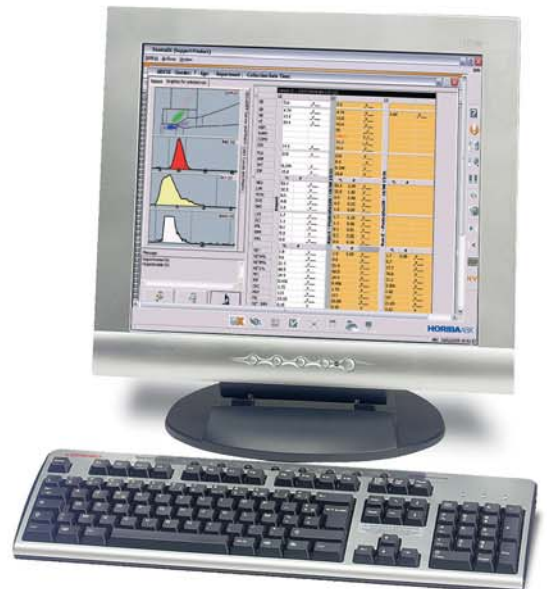
- **Integrated slide-maker***
 - 120 slides per hour
 - Fully automated and secured process
- **Choice of staining protocols**
 - May-Grünwald Giemsa, Wright, Wright Giemsa, etc.
- **Sampling volume: 50 µl of whole blood (added)**
 - On primary closed tube
- **Positive identification**
 - Barcode reading
 - Patient data printed automatically on the slide
- **Smearing flexibility**
 - User-defined smearing profiles based on the laboratory's own rules

* optional module

Validation station

Result validation

- **Full management of samples**
 - Alarms triggered according to patient profile
 - Delta check
 - Programmable rerun rules
- **Manual entry capability**
 - Results, comments, etc.
- **Automatic validation**
 - Based on rules, flags, patient history, etc.
- **Integrated cytology atlas**
 - Hematovision





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