

Multispecies Hematology Analyzers

# XN-V SERIES™

Accelerate your Multispecies  
Research Laboratory

XN-V IS FOR ANIMAL USE ONLY

# Optimize your laboratory



## Lighting the way **with diagnostics**

### Advanced hematology analyzers to improve your multispecies lab

Sysmex has a decades-long legacy of elevating the hematology laboratory. Today, we've moved well beyond "building better boxes" into four key areas to create a more holistic, intuitive ecosystem that advances your multispecies lab.

#### **NEXT GENERATION DIAGNOSTICS**

Continuing to pioneer the future of multispecies hematology performance

#### **ADVANCED TOOLS & TECHNOLOGIES**

Proprietary tools that drive greater insight into your lab and your research facility

#### **PROCESS OPTIMIZATION**

Moving beyond standalone analyzers to a fully automated environment

#### **HARMONIZED SUPPORT**

Combining truly personalized service with a revolutionary technology platform

Together, these elements have helped to make Sysmex® XN-Series Automated Hematology Analyzers number one in CBCs at leading hospitals, and this same technology and reliability is now available for your multispecies laboratory.

## BeyondCare<sup>SM</sup>

BeyondCare from Sysmex changes the definition of service for today's advanced hematology laboratories. Unlike other programs in the market that are directed at getting your system back up after it breaks down, BeyondCare is strategically focused on preventing problems before they ever occur.

It is a truly holistic approach to maximizing system performance, designed to bring new levels of insight, efficiency and agility to your lab. This includes Comprehensive Continuing Education, Evidence-based Managed Calibration and **Insight** IQAP. Make sure to ask your Sysmex representative about these programs for your XN-V analyzer.

# Achieve high performance and flexibility



XN-1000V™ Multispecies Hematology Analyzer



XN-2000V™ Multispecies Hematology Analyzer

## Achieve more in your lab

The XN-V Series brings state-of-art hematology technology to the scientific research community.

- Proven system
- Exceptional reliability
- Specialized software
- High accuracy data
- 35 whole blood parameters including NRBC and PLT-F
- Body fluid analysis

## Advanced, user-friendly software

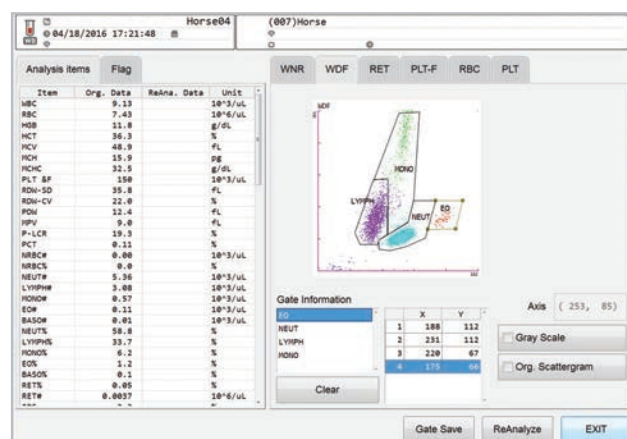
The XN-V's powerful and intuitive software offers the flexibility in data analysis that enables your laboratory with the advantage to explore new testing protocols, which may lead to undiscovered scientific breakthroughs.

- Customizable software developed specifically for multispecies analysis.
- New gating can be created without changing results.
- Re-analysis feature allows samples to be repeated without need of additional sample.
- Re-run and reflex capability based on rules and flagging.

## Testing for a broad range of species

Pre-defined profiles are provided for multiple animal types:

- Species: mouse, rat, dog, NHP, cat, horse, rabbit, pig, mini-pig, guinea pig, cattle, gerbil, camel, dolphin, marmoset, ferret, sheep, goat, hamster
- Sub-species: Rat1-10, Mouse1-15, NHP1-10, Rabbit1-5, Dog1-5, Pig1-5, Other 1-99



Gating of cell populations can be customized by the user.

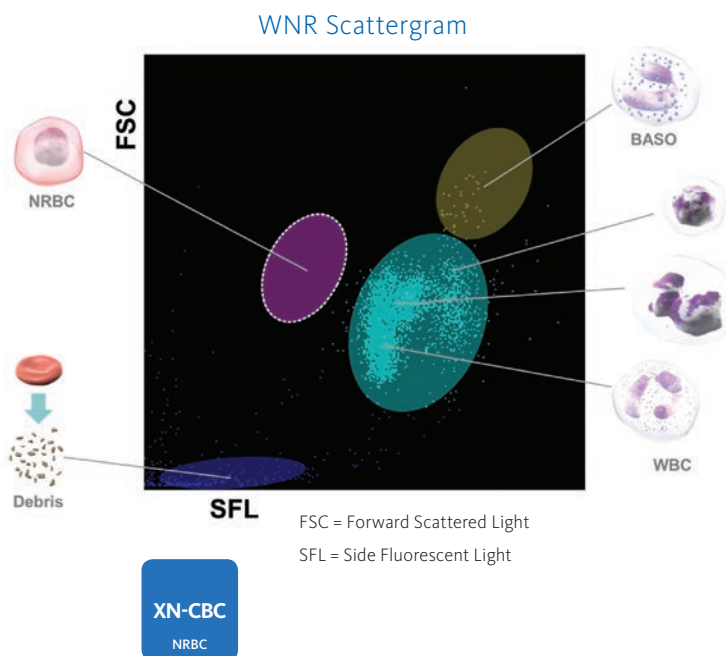
\*XN-V is for animal use only

# Featuring advanced analysis channels used in leading scientific research

The XN-V Series Hematology Systems are advancing multispecies hematology technology with the same cell analysis channels that are used in today's leading medical institutions and laboratories. A robust system of new cell-specific lysers and fluorescent dyes helps evaluate cells more thoroughly than ever before. Give your laboratory the leading edge with Sysmex's advanced technology.

## WNR (White Count and Nucleated Red Blood Cells) Channel

In the WNR Channel, the analyzer measures side fluorescence and forward scatter. Side fluorescence measures the nucleic acid content to identify NRBCs in the same channel in which white cells are counted. Forward scatter measures cell size.



### Technology:

Fluorescent flow cytometry with polymethine dye for nucleic acids, cell-specific lyse

### Parameters reported:

WBC count, Baso#, Baso%, NRBC#, NRBC%

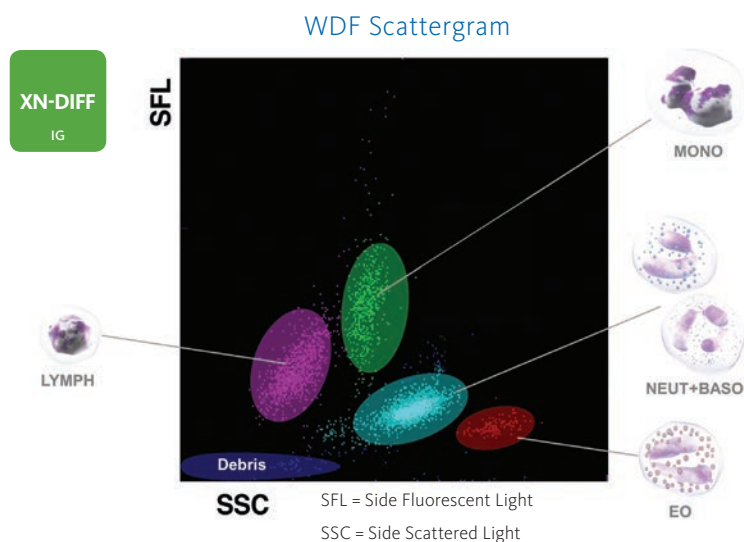
### Reagents:

Lysercell™ WNR and Fluorocell™ WNR

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## WDF (White Cell Differential Channel by Fluorescence) Channel

Sysmex has improved the sensitivity and specificity of the differential by developing a new method for discriminating monocytes, lymphocytes, atypical lymphocytes and blasts. Sysmex Adaptive Flagging Algorithm incorporates Shape-recognition (SAFLAS), based on linear discrimination of cell clusters in the WDF scattergram, using shape and positioning of different mononuclear cell populations.



### Technology:

Fluorescent Flow Cytometry, SAFLAS

### Parameters reported:

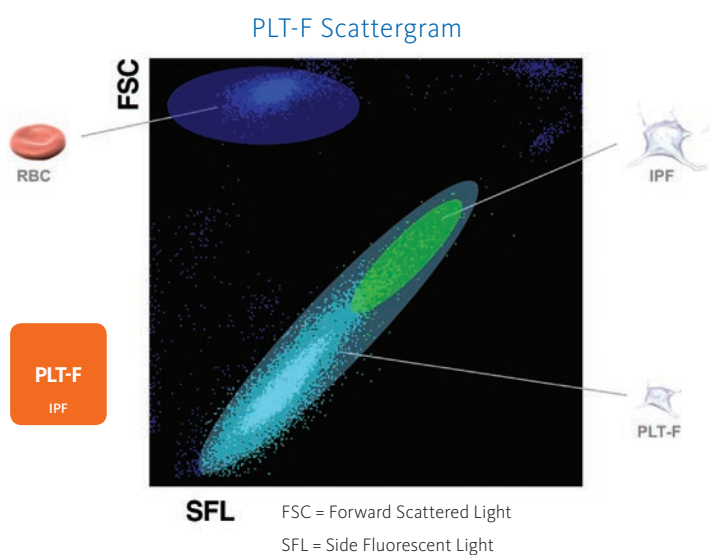
Neut%, Neut#, Lymph%, Lymph#,  
Mono%, Mono#, EO%, EO#,

### Reagents:

Lysercell™ WDF and Fluorocell WDF

## Platelet-F Channel

In addition to the robust impedance count, platelets are identified and counted using a platelet-specific fluorescent dye, oxazine, which stains the rough-surface endoplasmic reticulum and mitochondria. This allows for a sensitive and specific PLT measurement that you need for your research laboratory. Just as we can analyze reticulocytes and other immature cells, the XN-V Series brings similar capabilities to platelet analysis. The Immature Platelet Fraction (IPF) is a direct cellular measurement of thrombopoiesis and it is available on every sample that is run in the Platelet-F channel. Your lab can gain added information regarding low platelet counts without any additional sample.



### Technology:

Fluorescent Flow Cytometry with  
platelet-specific dyes

### Parameters reported:

Platelet-F Count, Immature Platelet  
Fraction (IPF)

### Benefits:

Comprehensive Platelet diagnostics  
to aide in scientific breakthroughs

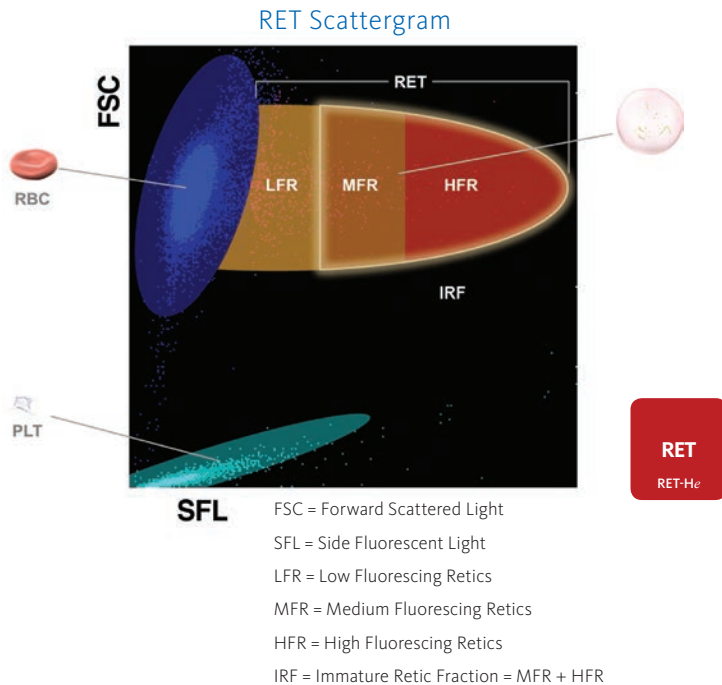
### Reagents:

CELLPACK™ DFL™, Fluorocell PLT

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## Reticulocyte Channel

The Reticulocyte Channel provides complete cellular assessment of erythropoiesis. These measurements are performed automatically on the XN-V Series with no offline sample preparation. Featuring both quantitative (reticulocyte count) and qualitative (RET-He) information, they provide a direct cellular measurement for erythropoiesis and help manage anemia.



### Technology:

Forward Scatter and Side Fluorescence

### Parameters reported:

RET#, RET%, IRF (Immature Reticulocyte Fraction) and RET-He (Reticulocyte Hemoglobin)

### Reagents:

CELLPACK DFL™, Fluorocell RET

## Body Fluids

It's never been easier or faster to analyze body fluids than on the XN-Series. We've even eliminated most offline sample preparation and the need for additional reagents. Your lab gains a wealth of information without any special sample handling or pretreatment. Reportable parameters include RBC-BF, WBC-BF, MN#, MN%, PMN#, PMN% and TC-BF#.

## Low Aspiration Mode

For low volume samples (only 50 µL), this mode provides all of the same advanced results of the standard mode minus the Platelet-F analysis. For low volume samples – big results.

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# Specifications\*

<b>Multispecies</b>	Mouse, Rat, Dog, Non-Human Primate, Cat, Horse, Rabbit, Pig, Guinea Pig, Cattle, Gerbil, Camel. Customized species can be added by using manual gating feature.
<b>Principles and Technologies</b>	Fluorescent Flow Cytometry: WBC Diff , NRBC, RET, IRF, PLT-F, IPF DC Sheath Flow: PLT-I, RBC, HCT Cyanide-free SLS Method: HGB
<b>Whole Blood Parameters</b>	WBC; RBC; HGB; HCT; MCV; MCH; MCHC; PLT (PLT-I, PLT-F); NEUT#, %; LYMPH#, %; MONO#, %; EO#, %; BASO#, %; NRBC#, %; RDW-SD; RDW-CV; MPV; RET#, %; IRF, RET-He; IPF
<b>Body Fluid Analysis Parameters</b>	Reportable Parameters: RBC-BF, WBC-BF; MN#, %; PMN#, %; TC-BF#
<b>Linearity Whole Blood Mode and Body Fluids</b>	WBC: 0.00 – 440.00 x 10 <sup>3</sup> /μL RBC: 0.00 – 8.60 x 10 <sup>6</sup> /μL PLT: 0 – 5,000 x 10 <sup>3</sup> /μL WBC-BF: 0.000 – 10.000 x 10 <sup>3</sup> /μL RBC-BF: 0.000 – 5.000 x 10 <sup>6</sup> /μL
<b>Throughput</b>	XN-1000V: Whole Blood: 100 samples/hour (max.) per module Body Fluid Mode: 40 samples/hour (max.) per module XN-2000V: Whole Blood: 200 samples/hour (max.) per module Body Fluid Mode: 80 samples/hour (max.) per module
<b>Sample Volumes</b>	Whole Blood: 88 μL; Pre-dilute Mode: 70 μL Body Fluid Mode: 88 μL Low Aspiration Mode: 50 μL
<b>Quality Control</b>	<ul style="list-style-type: none"> <li>• XN CHECK: complete tri-level QC product for all CBC, Diff, PLT, and RET parameters</li> <li>• XN CHECK BF: bi-level QC product for Body Fluid channel</li> <li>• Comprehensive QC files including current and new lot feature</li> <li>• 99 total files including 5 XbarM files</li> <li>• <b>Insight™</b> interlaboratory quality assurance program</li> </ul>

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