


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

### 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 a leading hematology analyzer in the clinical healthcare environment, 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™** Interlaboratory Quality Assurance Program (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

## Testing for a broad range of species

Pre-defined profiles are provided for multiple animal types:

- Species: Mouse, Rat, Dog, Non-Human Primates (NHP), Rabbit, Cat, Horse, Cattle, Pig, Mini Pig, Guinea Pig, Gerbil, Ferret, Marmoset, Sheep, Goat, Camel, Hamster, Dolphin, Bird\*
- Sub-species: Mouse, Rat, Dog, NHP, Rabbit, Pig, Other 1-99\*

Additional customized species can be added by using manual gating feature.

\*The availability of the species on your solution depends on your active software.



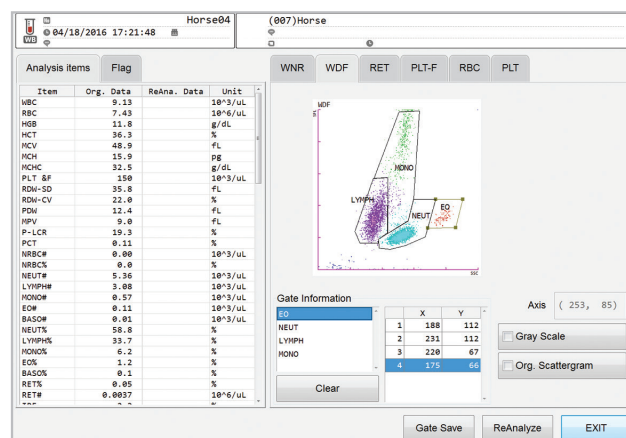
XN-3100V™ with DI-60

\*XN-V is for animal use only

## 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.
- Reanalysis feature allows samples to be repeated without need of additional sample.
- Rerun and reflex capability based on rules and flagging.



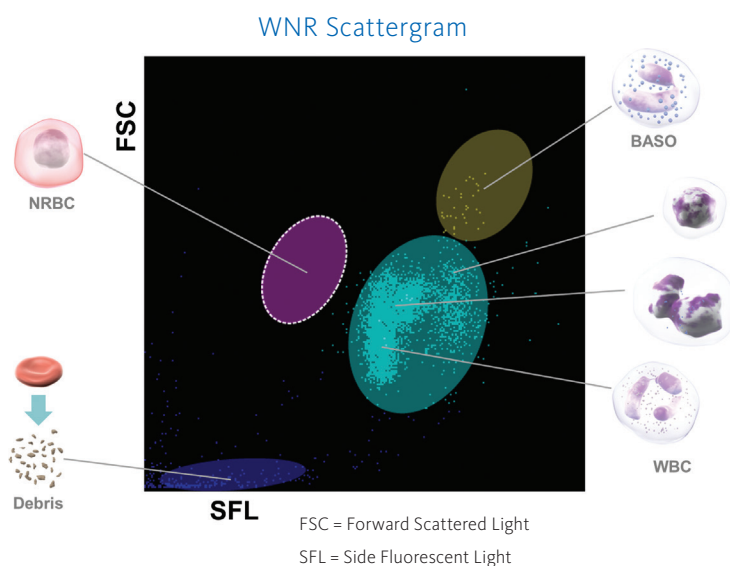
Gating of cell populations can be customized by the user.

## 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:

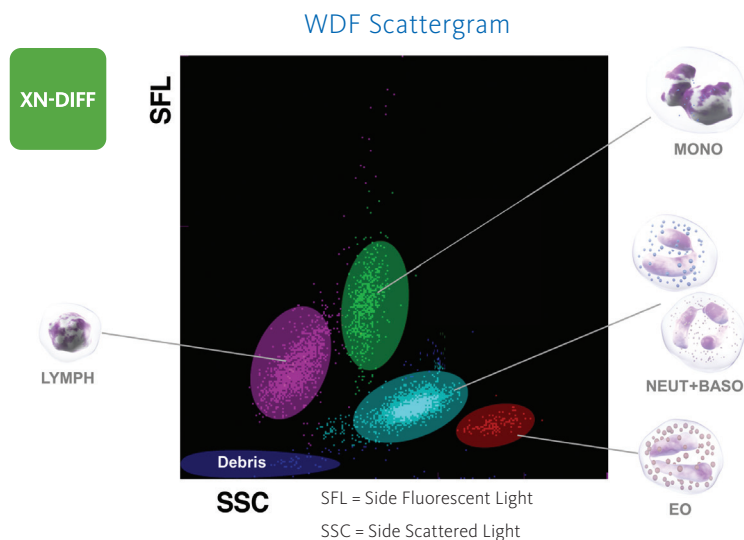
Lysercell™ WNR and Fluorocell™ WNR



\*XN-V is for animal use only

## 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:

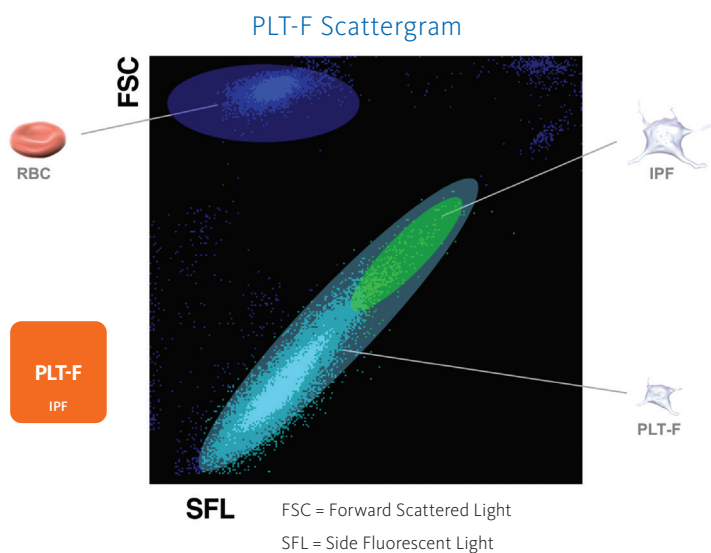
Neut%, Neut#, Lymph%, Lymph#,  
Mono%, Mono#, EO%, EO#,

### 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 Platelet (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 and Immature  
Platelet Fraction (IPF)

### Benefits:

Comprehensive Platelet diagnostics  
to aide in scientific breakthroughs

### Reagents:

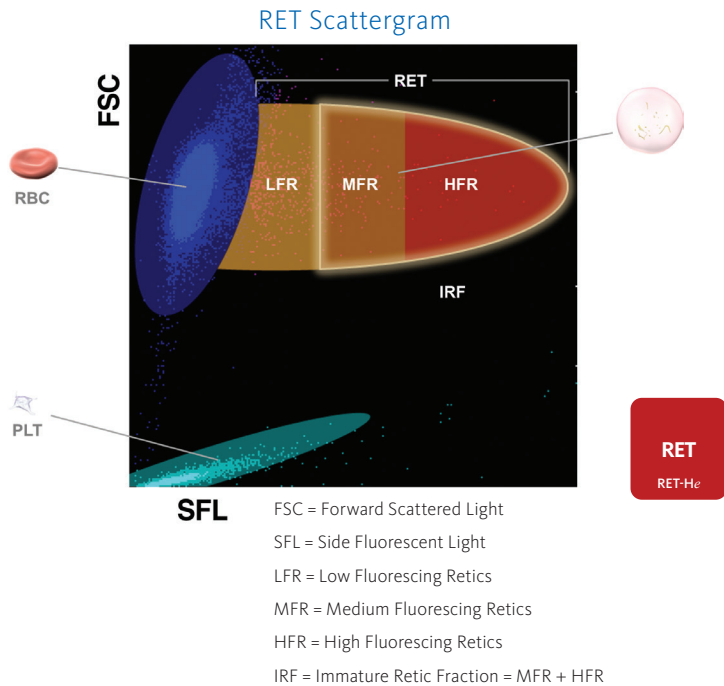
CELLPACK™ DFL, Fluorocell PLT

\*XN-V is for animal use only



## 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. Additionally, this channel also provides users the ability to analyze a third PLT enumeration methodology if desired, the PLT-O.



### Technology:

Forward Scatter and Side Fluorescence

### Parameters reported:

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

### 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#.

### Technology:

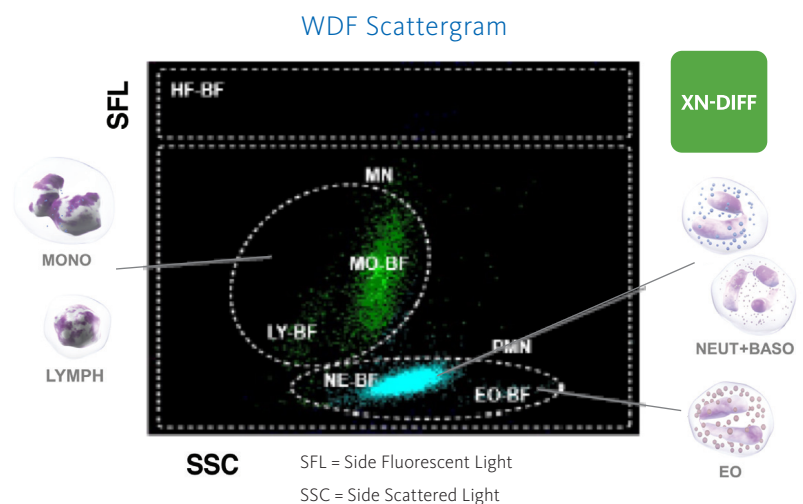
Forward Scatter and Side Fluorescence

### Parameters reported:

TC-BF, WBC-BF, RBC-BF PMN#, PMN%, MN#, MN%

### Reagents:

Lysercell WDF and Fluorocell WDF



## 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.

\*XN-V is for animal use only

XN-CBC  
NRBC

XN-DIFF

XN-BF  
DIFF

PLT-F  
IPF

RET  
RET-He

## Specifications

<b>Multispecies</b>	<p>Mouse, Rat, Dog, NHP, Rabbit, Cat, Horse, Cattle, Pig, Mini Pig, Guinea Pig, Gerbil, Ferret, Marmoset, Sheep, Goat, Camel, Hamster, Dolphin, Bird*</p> <p>Additional customized species can be added by using manual gating feature.</p> <p><small>*The availability of the species on your solution depends on your active software.</small></p>						
<b>Sub-Species Availability</b>	<p>Mouse, Rat, Dog, NHP, Rabbit, Pig, Other 1-99*</p> <p><small>*The availability of the sub-species on your solution depends on your active software.</small></p>						
<b>Principles and Technologies</b>	<p>Fluorescent flow cytometry using a semi-conductor laser and hydrodynamic focusing in dedicated channels. Along with direct current sheath flow and cyanide-free SLS methodology.</p>						
<b>Parameters</b>	<p><b>Whole Blood:</b> WBC; RBC; HGB; HCT; MCV; MCH; MCHC; PLT (PLT-I, PLT-F, PLT-O); NEUT#, NEUT%; LYMPH#, LYMPH%; MONO#, MONO%; EO#, EO%; BASO#, BASO%; NRBC#, NRBC%; RDW-SD; RDW-CV; MPV; RET#, RET%; IRF, RET-He; IPF#, IPF%</p> <p><b>Body Fluid:</b> TC-BF, WBC-BF, RBC-BF PMN#, PMN% , MN#, MN%</p>						
<b>Linearity</b>	<p>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</p>						
<b>Throughput</b>	<p>Whole Blood Mode: up to 100 CBC+DIFF samples/hour per module Body Fluid Mode: up to 40 samples/hour per module Slide Preparation Unit: Up to 75 smears/hour</p>						
<b>Sample Aspiration Volume</b>	<table border="0"> <tr> <td>Whole Blood Mode: 88 μL</td> <td>Low Aspiration Mode: 50μL</td> </tr> <tr> <td>Low WBC Mode: 88 μL</td> <td>Body Fluid Mode: 88 μL</td> </tr> <tr> <td>Pre-dilute Mode: 70 μL</td> <td>Slide Preparation: 70 μL</td> </tr> </table>	Whole Blood Mode: 88 μL	Low Aspiration Mode: 50μL	Low WBC Mode: 88 μL	Body Fluid Mode: 88 μL	Pre-dilute Mode: 70 μL	Slide Preparation: 70 μL
Whole Blood Mode: 88 μL	Low Aspiration Mode: 50μL						
Low WBC Mode: 88 μL	Body Fluid Mode: 88 μL						
Pre-dilute Mode: 70 μL	Slide Preparation: 70 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> IQAP</li> </ul>						

\*XN-V is for animal use only

# Specifications

XN-1000V Benchtop	XN-2000V Benchtop	XN-3100V Benchtop	XN-3100V with Di-60 Benchtop
-------------------	-------------------	-------------------	------------------------------



Analyzer Dimensions	25.4" (W) X 29.7" (D) X 33.7" (H); 172 LBS	37" (W) X 29.7" (D) X 33.7" (H); 325 LBS	78.3" (W) X 45" (D) X 36.3" (H); 760.5 LBS	162" (W) X 45" (D) X 36.3" (H); 1068 LBS
---------------------	--	--	--	--



Analyzer on Wagon Dimensions	25.4" (W) X 36.8" (D) X 61.5" (H); 350 LBS	41.5" (W) X 38" (D) X 61.5" (H); 616 LBS	78.3" (W) X 45" (D) X 64" (H); 1337 LBS	111.7" (W) X 45" (D) X 64" (H); 1644 LBS
------------------------------	--	--	---	--

**Sysmex Corporation**  
1-5-1-Wakinohama-Kaigandori Chuo-ku, Kobe 651-0073, Japan · Phone +81 78 265-0521 · [www.sysmex.co.jp](http://www.sysmex.co.jp)

**Sysmex America, Inc.**  
577 Aptakisic Road, Lincolnshire, IL 60069, U.S.A. · Phone +1 800 379-7639 · [www.sysmex.com/us](http://www.sysmex.com/us)

**Sysmex Canada, Inc.**  
5700 Explorer Drive Suite 200, Mississauga, ON L4W0C6 Canada · Phone +1 905 366-7900 · [www.sysmex.ca](http://www.sysmex.ca)

**Sysmex Latin America and the Caribbean**  
Rua Joaquim Nabuco 615 - Bairro Cidade Jardim, São José dos Pinhais Paraná – Brasil – CEP 83040-210 · Phone +55 41 2104-1314 · [www.sysmex.com.br](http://www.sysmex.com.br)