



# LABORATORY UPDATE

December 8<sup>th</sup>, 2015

Dear Physicians & Staff,

Enzo Clinical Laboratories is pleased to announce the launch of the industry-leading **Sysmex® XN 9000-Series Technology**, the next generation in hematology diagnostics. These new clinical parameters will assist physicians monitoring for illnesses such as infection/inflammation, iron deficiency and thrombocytopenia.

**Here are a few of the clinical advantages of the new Sysmex XN-Series Technology:**

- An innovative new flow cytometry-based platelet technology analysis utilizing a platelet-specific fluorescent dye and semi-conductor laser detection, exploiting the differences in cell size, complexity and RNA/DNA content:
  - o **IPF** - (*reflex measurement: platelet count <60*) – measures young, reticulated platelets; aids in the diagnosis and treatment of thrombocytopenia.
  
- An expanded 6-part WBC differential, including a novel measurement for Immature Granulocytes (**IGs**):
  - o **IGs** –with the exception of blood from neonates or pregnant women, the appearance of immature granulocytes in the peripheral blood indicate an early-stage response to infection, inflammation or other stimuli of the bone marrow. Immature granulocyte counts are used especially for patients who are highly susceptible to infections due to suppressed immune system.
  
- Additional erythropoiesis parameters– Nucleated RBCs (**NRBC**), reticulocyte hemoglobin equivalent (**RET-He**) and immature reticulocyte fraction (**IRF**):
  - o **NRBCs** - normally found in the circulation of fetuses and newborn infants; after which, RBCs normally contain a nucleus during the very early stages of the cell's life, and the nucleus is ejected before the cell is released into the bloodstream. Thus, if NRBCs are seen on an adult's peripheral blood smear, it suggests that there is a very high demand for the bone marrow to produce RBCs, and immature RBCs are being released into circulation. Possible pathologic causes include anemia, myelofibrosis, thalassemia, cancers involving bone marrow, and chronic hypoxemia.
  - o **RET-He** (*reflex measurement: hemoglobin <8 g/dl and MCV <80 fL*) - A snapshot of the quality of erythropoiesis and the quality of the newly formed reticulocytes; real-time cellular measure of iron availability in bone marrow.
  - o **IRF** – Newly released from the marrow, a direct cellular measurement of erythropoiesis.

We appreciate the continued opportunity to serve you and your patients and are committed to providing you with the highest quality patient testing. If you have any questions or concerns, you can reach us at (631) 755-5500 or speak with your Enzo Clinical Labs Sales or Service Representative for more information.

Sincerely,

Dieter Schapfel, MD FCAP  
Medical Director

For additional information on the Sysmex XN-series technology please refer to the following link:  
[www.sysmexmarketing.com/marketing/images/clinicians/Advanced\\_Clinical\\_Parameters\\_Technology.pdf](http://www.sysmexmarketing.com/marketing/images/clinicians/Advanced_Clinical_Parameters_Technology.pdf)