## Veterinary Clinical Pathology

An International Journal of Laboratory Medicine

### PUBLICATION OF SCIENTIFIC ABSTRACTS FOR ASVCP, ESVCP AND ISACP CONFERENCES

#### **Instructions for Abstract Authors:**

The following format should be used:

- The body of the abstract should be **250 words or less** (not including title, author names, and affiliations).
- Format as follows:
  - TITLE ALL CAPS
  - Author names bolded
  - Affiliations to include department/school, institution, city, country, but no postal codes
  - If authors are from more than one institution, use numerical **superscripts** after each name and place the appropriate number before each institution.
- Use subsections (**Background**, **Objective**, **Methods**, **Results**, **Conclusions**), they should be bolded and followed by a colon.
- Use US American spelling and spell check.
- Please avoid tables and figures.
- No bibliography/references should be included.
- Embedded symbols or formatting should not be used. Use words to spell out symbols.

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### **Example:**

BONE MARROW ANALYSIS WITH THE SYSMEX XT-2000iV HEMATOLOGY ANALYZER IN DOGS AND COMPARISON WITH MICROSCOPICAL EVALUATION. I. Kampfmann<sup>1</sup>, N. Bauer<sup>2</sup>, S. Johannes<sup>1</sup>, M. Ginder<sup>3</sup>, T.Sakata<sup>4</sup>, A. Moritz<sup>2</sup>. <sup>1</sup>Institute of Toxicology, Merck Serono GmbH, Darmstadt, Germany; <sup>2</sup>Department of Veterinary Clinical Sciences, Clinical Pathology and Pathophysiology, Justus-Liebig University, Giessen, Germany; <sup>3</sup>Sysmex Europe GmbH, Norderstedt, Germany; and <sup>4</sup>Sysmex Corporation, Kobe, Japan.

Background: Bone marrow is routinely assessed by microscopic evaluation, but this method is time-consuming and results depend on the experience of the investigator. Therefore, a standardized automated measurement of bone marrow samples might be useful. Objective: The aim of this study was to compare bone marrow samples analyzed with the automated laser-based hematology analyzer Sysmex XT-2000iV with standard microscopic evaluation. Methods: Sternal bone marrow samples were obtained from 90 Beagle dogs during necropsy and analyzed with the Sysmex XT-2000iV hematology analyzer. Samples were assayed in the WBC/BASO channel and reanalyzed after creating a template for the XT-2000iV software. Tenrun intra-assay precision was calculated for the analyses with the Sysmex XT-2000iV. Resulting populations were total nucleated RBCs, total neutrophils, poly-/orthochromatic red cells, and mature neutrophils. Five-hundred-cell differential counts were prepared on May-Grunewald Giemsa-stained bone marrow smears. For both methods, the M:E ratio was calculated. Results: Intra-assays CVs were ranging between 0.95% and 2.03%. Good correlation was found for the M:E ratio (Spearman's rho rs = 0.91). The correlations for the other compared cell populations were fair (rs = 0.65 to 0.71). Bias was -0.11% for M:E ratio, 7.10% for total neutrophils, -7.71% for immature erythrocytes, 14.67% for mature neutrophils and 0.76% for total NRBCs (Bland-Altman analysis). Conclusion: Especially for the assessment of M:E ratio, automated analysis provides a rapid reliable result and is a useful tool to obtain an immediate, objective overview of the marrow's cellular status.