"The more the island of knowledge expands in the sea of ignorance, the greater its boundary to the unknown."

Alexander Pope

There have been many recognized changes in the field of clinical pathology since the last issue on this topic was published in this journal series. Significant progress has occurred in human medicine regarding blood cell markers and the use of molecular techniques to enhance identification of cells and tissues. These investigative methods are now being used for veterinary cases to improve our knowledge of pathologic mechanisms. The objective of this issue is to increase the awareness of veterinary practitioners and students to these recent clinical advances. One focus is on the wealth of current research into hemostasis, electrolyte and acid-base regulation, hematopoietic growth factors, neutrophil function, and erythrocytic enzyme deficiencies. The authors, experts in their respective fields, provide clinical examples when applicable.

There has been a sudden interest by instrument companies in marketing veterinary “in-house” hematology and chemistry analyzers that now allow practitioners immediate access to laboratory data. The advantages and disadvantages of in-house testing are discussed. The pros and cons of the various operating systems are often confusing when trying to identify the unit most appropriate in a clinical setting. A review of the contemporary instruments is presented to facilitate the selection process.

The increased use of ultrasound imaging machines in many practices supports the demand for more information about invasive cytology of internal organs. A focus is given to the organs and diseases for which cytological evaluation is of diagnostic value.

Despite their busy schedules, we sincerely appreciate the efforts made by the contributing authors in carefully researching their topics to provide our readers with informative, current, and clinically useful knowledge. It has been a joy to work with these professionals. As a consequence of their efforts, we are confident that the reader will find their time well invested in reading this issue; both for growth of knowledge and improved patient care. A special thanks is given
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