

TALK BY PROF. DAVID ECKERSALL:

Canine CRP and other acute phase proteins as markers of inflammation

TIME Monday, January 21, 2019 at 2:15 pm

PLACE VMX Discovery Learning Theater
(in the exhibition hall)



*The
lecture
is CE
qualified.*

ABSTRACT

Serum acute phase proteins (APP) are gaining recognition in veterinary diagnosis as biomarkers of inflammation and infection, providing a ready means of detecting and quantifying the host's innate immune response to active disease. In dogs C-reactive protein (CRP) is the primary APP, although haptoglobin (Hp) and serum amyloid A (SAA) also increase during an acute phase response. Increased production of the APP is stimulated by the action of pro-inflammatory cytokines on the liver which within 24 hours of infection or inflammatory lesion, can increase the concentration in serum of CRP over a hundred fold. This dynamic range means that the APP are very sensitive biomarkers of the host response to inflammatory and infectious disease. As the APP are stimulated by a wide range of conditions they are not specific for one pathogen or disease but have great value in detection of an active innate immune response and have a particular role in monitoring of treatment and recovery as they respond to active disease processes. Recently assays for CRP, Hp and SAA have become available in veterinary diagnostic laboratories and CRP assays can now be performed in-practice with point-of-care systems. Professor Eckersall has performed extensive investigations on APP in dogs and in this lecture he will describe the current state of analysis of APP in canine serum and their valuable contribution to diagnosis and monitoring of recovery in dogs.



Professor David Eckersall graduated from the University of Liverpool with a BSc in Biochemistry (1973) and a PhD in Biochemistry from University of Edinburgh (1977). Prof Eckersall is the Professor of Veterinary Biochemistry at the School of Veterinary Medicine, University of Glasgow. His research has been focused on the diagnostic applications of acute phase protein analysis in veterinary medicine and is also investigating the uses of proteomics in veterinary science. He has published over 200 peer reviewed papers (*H-Factor of 50*), holds 4 patents and co-edited the first book on animal proteomics (*Methods in Animal Proteomics*, Wiley). He was the Chair of the COST Action for Farm

Animal Proteomics (2011-14). He was awarded the Heiner Sommer Prize of the International Society for Animal Clinical Pathology for Lifetime Contribution to Animal Clinical Biochemistry in 2008, the Siemens Prize of the Division of Animal Clinical Chemistry of the American Association of Clinical Chemistry for Contributions to Animal Clinical Chemistry in 2010 and the Lifetime Achievement Award of the Comparative Clinical Pathology Association in 2016. He is a Fellow of the Royal Society of Biology and a Member of the Academia Europaea.