



Abstract submission – Mechthild Grebe

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(5) Abstract title:	NEW TOOLS FOR MEASURING ACUTE-PHASE PROTEINS IN BLOOD AND LIVER SAMPLES OF HARBOUR SEALS (<i>PHOCA VITULINA</i>)
(6) Abstract:	<p>The body's protective response to infection, wounding, trauma and malignancy include the acute-phase reaction. During an acute-phase reaction, levels of specific proteins synthesized by the liver e.g. C-reactive protein, serum amyloid A, haptoglobin, transferrin and ceruloplasmin change within the plasma. The quantification of the concentration of acute-phase proteins (APP) can provide valuable diagnostic information.</p> <p>This contribution focuses on the investigation of the APP transferrin and ceruloplasmin extracted from blood serum and liver from harbour seals (<i>Phoca vitulina</i>) of the North Sea.</p> <p>In a first attempt to determine transferrin in these biological matrices an immunoassay based on a canine antibody was tested. Despite of the near phylogenetic relationship between dogs and seals the antibody showed no cross reactivity.</p> <p>To overcome these problem a new method for the determination of transferrin and ceruloplasmin based on liquid chromatography and inductively coupled plasma mass spectrometry (ICP-MS) has been developed, which utilizes the characteristic metal content of both APPs for their sensitive and selective detection.</p>
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