

PARASITOLOGY

August 01-03, 2016 Manchester, UK

Comparison of antigens from *Strongyloides papillosus* versus *S. ratti* for diagnosis of human strongyloidiasis by ELISABabett Oesterreich¹, O Klemens¹, A Streit², J M Warnecke¹ and K Steinhagen¹¹EUROIMMUN AG, Germany²Max Planck Institute for Developmental Biology, Germany

Human infection by *Strongyloides stercoralis* can cause dermatological, intestinal and pulmonal symptoms often passing into a chronic disease. Coproscopic diagnosis is often flawed due to low parasitic loads and discontinuous excretion of larvae. Serodiagnosis is a sensitive tool to overcome these limitations though some available assays based on native antigens from *S. ratti* larvae lack specificity. We tested whether antigens from *S. papillosus* is a more specific alternative. Purified native antigens from *S. papillosus* and *S. ratti* larvae were tested in IgG ELISA. The following serum panels were used: A patient collective with 22 serum samples positive for anti-*Strongyloides* IgG, a control panel encompassing 84 serum samples from adult blood donors (n=56), pregnant women (n=12) and children (n=16) and a cross reactivity panel with 92 serum samples from patients infected with other parasites. The ELISA applying *S. ratti* antigens exhibited a sensitivity of 95% at a specificity of 81% with respect to the control group. Furthermore, the ELISA was reactive in 25% of the cross reactivity panel but not with the 10 *Ascaris lumbricoides* infected patient samples. When using *S. papillosus* antigens, the ELISA showed a sensitivity of 91% at a specificity of 92%. Within the cross reactivity panel, it revealed positive reactions in 12% of the samples excluding specimens infected with *Trichomonas* ssp., *Trypanosoma* ssp., or *Ascaris lumbricoides*. Thus, native antigens from *S. papillosus* larvae exhibit more specificity in the serological diagnosis of human strongyloidiasis.

Biography

Babett Oesterreich was recruited by the Institute for Molecular Infection Biology, Würzburg, Germany as a Doctoral student to investigate an antibody based therapy against multi-resistant *Staphylococcus aureus*. After receiving her Doctorate in 2015, she is employed as Developer by EUROIMMUN AG, Germany. Her work is focused on the development of detection systems for the diagnosis of parasitic diseases.

b.oesterreich@euroimmun.de**Notes:**