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Immune modulation by schistosomes: mechanisms of regulatory B cell induction and inhibition of allergic asthma

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CURRICULUM VITAE

Katja Obieglo was born on 7th April 1988 in Berlin (Germany). She completed her primary and secondary education in Germany, and studied Molecular Medicine at the Georg-August Universität Göttingen (Germany), where she obtained her Bachelor of Science (B.Sc.) degree in 2010. Katja subsequently moved to Sweden and completed her Master of Science (M.Sc.) degree in Biomedicine at Karolinska Institutet in Stockholm (Sweden). During her Master's, Katja participated in an Erasmus exchange program, which allowed her to join the Honours class of immunology at the University of Edinburgh (UK) for 4 months. Throughout her studies, Katja was supported by a scholarship from a foundation that is part of the German scholarship system for outstanding students. After completion of the M.Sc. degree program, Katja stayed in the lab where she has conducted her Master thesis for another year and continued to work on this research project, funded by a Karolinska Institutet scholarship. In 2013, Katja went to the Netherlands to start as a PhD candidate at the Leiden University Medical Center under supervision of Dr. Hermelijn H. Smits and Prof. Maria Yazdanbakhsh. In 2017, Katja joined the cystic fibrosis team of ProQR Therapeutics NV in Leiden as Scientist Biomarker Project Coordinator, while simultaneously finishing her PhD thesis. The results of the research performed during Katja's PhD trajectory are described in this thesis.

LIST OF PUBLICATIONS

Obieglo K, Costain A, Webb LM, Ozir-Fazalalikhani A, Brown SL, MacDonald AS, Smits HH. Type I interferons provide additive signals for regulatory B cell induction *in vitro*, but do not synergize with *S. mansoni*-specific signals *in vivo*. Under revision at Eur J Immunol.

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Haeberlein S, **Obieglo K**, Ozir-Fazalalikhani A, Chayé MAM, Veninga H, van der Vlugt LEPM, Voskamp A, Boon L, den Haan JMM, Westerhof LB, Wilbers RHP, Schots A, Schramm G, Hokke CH, Smits HH. Schistosome egg antigens, including the glycoprotein IPSE/alpha-1, trigger the development of regulatory B cells. PLoS Pathog. 2017 Jul 28;13(7):e1006539.

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van der Vlugt LEPM*, **Obieglo K***, Ozir-Fazalalikhani A, Sparwasser T, Haeberlein S, Smits HH. Schistosome-induced pulmonary B cells inhibit allergic airway inflammation and display a reduced Th2-driving function. Int J Parasitol. 2017 Aug;47(9):545-554. *Equal contribution

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Science is a team effort most of the time, and I would like to thank everybody who has contributed to this thesis in one way or another. Not coincidentally, I would first like to thank Arifa for countless hours of technical support. As it says somewhere on a poster in the LUMC, which stuck with me, 'Zonder een betrouwbaar analyst kom je nergens!' (especially true for section days). Thanks to everyone I have worked with during these years: Alice, Astrid, Esther, Frank, Mathilde, Luciën, Simone, Stan, Tom and Yolanda. Thanks also to Abena, Alwin, Angela, Dian, Dicky, Eddy, Eunice, Firdaus, Honorine, Jan-Pieter, Jaqueline, Karin, Koen, Leonard, Leonie, Linh, Lucja, Maria K, Marie-Astrid, Marije, Marijke, Michelle, Mikhael, Moses, Mustapha, Nicole, Patrick, Sanne, William, Yoanne, and Yvonne for enjoying this ride together. Thank you Corrie, Jantien and especially Suzanne for all administrative support. Thanks to all former and present colleagues of the Parasitology department for making this a fun and engaging place to work. I consider myself fortunate to have worked with and among you all during the past years.

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