

Emanuel Heitlinger

Juniorprofessor

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Education

Jun 2008–Feb 2012 Doctoral studies, Karlsruhe Institute of Technology.

Dissertation: Divergence of an introduced population of the swimbladder-nematode *Anguillicola crassus* - a transcriptomic perspective.

Supervisors: Prof. Dr. Horst Taraschewski and Prof. Mark Blaxter.

Jun 2007–Feb 2008 Diploma thesis, University of Karlsruhe, Zoological Institute, Department for Parasitology and Ecology.

Thesis title: Vergleichende licht- und elektronenmikroskopische Untersuchungen am Intestinaltrakt des invasiven Schwimmbblasennematoden *Anguillicola crassus* aus verschiedenen Aalarten.

2001–2007 Undergraduate studies in Biology, University of Karlsruhe.

Main subject: Zoology with focus on parasitology

Subsidiary subjects: Genetics, Botany

Employment

May 2014–Present **Juniorprofessor**, Humboldt University of Berlin, Institute for Biology, Department for Molecular Parasitology and Leibniz Institute for Zoo and Wildlife research.

March 2012–May 2014 **Postdoctoral researcher**, Humboldt University of Berlin, Institute for Biology, Department for Molecular Parasitology.

Jun 2008–Jul 2011 **Research assistant**, Karlsruhe Institute of Technology, Zoological Institute, Department for Parasitology and Ecology.

Research

Peer Reviewed Publications

Totta Ehret, Simone Spork, Christoph Dieterich, Richard Lucius and **Emanuel Heitlinger** (2017) Dual RNA-seq Reveals No Plastic Transcriptional Response Of The Coccidian Parasite *Eimeria faeciformis* To Host Immune Defences. BMC Genomics 18(1):686.

Ines Lesniak, Ilja Heckmann, **Emanuel Heitlinger**, Claudia A Szentiks, Carsten Nowak, Verena Harms, Anne Jarausch, Ilka Reinhardt, Gesa Kluth, Heribert Hofer, Oliver Krone (2017) Population expansion and individual age affect endoparasite richness and diversity in a recolonising large carnivore population. Scientific Reports 7, 41730.

Emanuel Heitlinger, Susana C Ferreira, Dagmar Thierer, Heribert Hofer and Marion L East (2017) The intestinal eukaryotic and bacterial biome of spotted hyenas: the impact of social status and age on diversity and composition. Frontiers in Cellular and Infection Microbiology 7, 262.

Emanuel Heitlinger, Horst Taraschewski, Urszula Weclawski, Karim Gharbi and Mark Blaxter. (2014) Transcriptome analyses of *Anguillicola crassus* from native and novel hosts. PeerJ 2:e684.

Emanuel Heitlinger, Simone Spork, Richard Lucius, and Christoph Dieterich. (2014) The Genome of *Eimeria falciformis* - Reduction and Specialization in a Single Host Apicomplexan Parasite. BMC Genomics 15 (1): 696.

Urszula Weclawski, **Emanuel Heitlinger**, Tobias Baust, Bernhard Klar, Trevor Petney, Yu-San Han, and Horst Taraschewski (2014) Rapid Evolution of *Anguillicola crassus* in Europe: Species Diagnostic Traits Are Plastic and Evolutionarily Labile. Frontiers in Zoology 11 (1): 74.

Manuela Schmid, **Emanuel Heitlinger**, Simone Spork, Hans-Joachim Mollenkopf, Richard Lucius, and Nishith Gupta (2013) *Eimeria falciformis* infection of the mouse caecum identifies opposing roles of IFN γ -regulated host pathways for the parasite development. Mucosal immunology, 25 December.

Urszula Weclawski, **Emanuel Heitlinger**, Tobias Baust, Bernhard Klar, Trevor Petney, Yu San Han and Horst Taraschewski (2013) Evolutionary divergence of the swim bladder nematode *Anguillicola crassus* after colonization of a novel host, *Anguilla anguilla*. BMC Evolutionary Biology, 13:78.

Emanuel Heitlinger, Stephen Bridgett, Anna Montazam, Horst Taraschewski and Mark L Blaxter (2013) The transcriptome of the invasive eel swimbladder nematode parasite *Anguillicola crassus*. BMC Genomics, 14:87.

Dominik R Laetsch, **Emanuel Heitlinger**, Horst Taraschewski, Steven A Nadler and Mark L Blaxter (2012) The phylogenetics of Anguillicolidae (Nematoda: Anguillicolidea), swimbladder parasites of eels. BMC Evolutionary Biology, 12:60.

Emanuel Heitlinger, Dominik R Laetsch, Urszula Weclawski, Yu-San Han and Horst Taraschewski (2009) Massive encapsulation of larval *Anguillicoloides crassus* in the intestinal wall of Japanese eels. Parasites & Vectors, 2:48.

Invited presentations

NGS workshop and conference MouseGene 2014. November 2014, Nove Hradky, Czech Republic. Lecture: "Bioinformatic design of DNA capture baits for population genomics". Practical training course: "Bait design - extracting and screening regions from BLAST searches."

Major Awards, & Fellowships

2015 Grant HE 7320/2-1 (Deutsche Forschungsgemeinschaft): Coevolution of the house mouse and intracellular parasite in a hybrid zone (€247k) Principal Investigator: Emanuel Heitlinger

2008 Volkswagen Stiftung PhD Fellowship, Funding Initiative Evolutionary Biology, full funding of research position and research material (€131k)