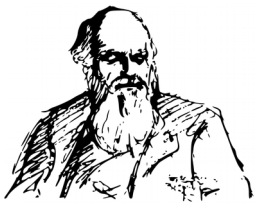

Introduction to evolutionary biology for infection biologists

15-16 May 2017

9h 9h30	**General introduction**	**Heribert Hofer** HOFER@izw-berlin.de
	Block 1 - Applying evolutionary principles to health and disease	
9h30 10h45	Introduction - Principles of evolutionary biology & population biology (The evolutionary process; genotype, phenotype and selection)	**Heribert Hofer** HOFER@izw-berlin.de
11h 11h50	The evolution of infectious agents red-handed	**Sébastien Calvignac-Spencer** CalvignacS@rki.de
	Key insight: *How do organismal and cellular perspectives differ, why are they both necessary for each other? The importance of variation. How can evolution theory improve the understanding of disease risk?*	
	Block 2 - Evolutionary ecology meets pathogens	
13h 13h50	Life history evolution: limited resources and conflicting requirements	**Marion L East** east@izw-berlin.de
14h 14h50	Examples – Epigenetics in the evolution framework	**Alexandra Weyrich** weyrich@izw-berlin.de
15h 15h50	Principles in host – parasite co-evolution	**Justyna Wolinska** wolinska@igb-berlin.de
16h 16h50	Feedbacks between host behaviour and parasites	**Mathias Franz** m.franz@izw-berlin.de
	Key insight: *What is life-history theory and why is it relevant? Behaviour and Evolution. Host parasite co-evolution.*	
	Block 3 - Evolutionary Immunology	
9h 9h50	Parasite-mediated selection and sexual selection on host immune genes	**Jamie Winternitz** jwintern@evolbio.mpg.de
10h 10h50	Ecological Immunology of insects	**Jens Rolff** jens.rolff@fu-berlin.de
11h 11h50	Immunology goes wild	**Gábor Czirják** czirjak@izw-berlin.de
	Key insight: *Variation in immune responses; Trade-offs; Strategies in immune defences, evolution of the immune system.*	
	Block 4 - Evolutionary genetics	
13h 13h50	Introduction - Population genetics & its relevance to understand evolution and phylogeny and evolutionary trees	**Joerns Fickel** FICKEL@izw-berlin.de
14h 14h50	Population genetics, immune genetics	**Camila Mazzoni** mazzoni@izw-berlin.de
15h 15h50	Neutral theory of evolution, signatures of selection, etc.	**January Weiner** january.weiner@mpiib-berlin.mpg.de
16h 16h50	Pathogens or symbionts?	**Emanuel Heitlinger** emanuel.heitlinger@hu-berlin.de
	Key insight: *What are the evolutionary forces leading to variation within and between populations? Micro evolution and macro evolution.*	

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Parasite Infections
Plasmodium Toxoplasma Giardia Helminths
GRK 2046