

Achievements and challenges for controlling vector-borne diseases in a changing world
Fiocruz - Rio de Janeiro, Brazil (05-23 Sep 2016)

Week 1	Ecology and evolution of Infectious Diseases				
	05/09/2016 (Monday)	06/09/2016 (Tuesday)	07/09/2016 (Wednesday)	08/09/2016 (Thursday)	09/09/2016 (Friday)
09:00-10:00	"Advances and current gaps on vector-borne diseases: basic and applied science working together for public health" - Adeilton Brandão, Claude Pirmez, Homen Momen, Ricardo Lourenço (IOC-Fiocruz/RJ)	"Mosquito behavior and malaria transmission" - Matt Thomas (Penn State Univ/EUA)	"Fitness cost of insecticide resistance in Aedes aegypti" - Ademir Martins (IOC-Fiocruz/RJ)	"Mosquito immune system and paths for a variety of pathogens" - Ana Bahia Nascimento (IBCF- UFRJ)	"News from old times: How Paleoparasitology can provide data on disease epidemiology"- Alena Iniguez (IOC-Fiocruz/RJ)
10:00-11:00	"Parasitology meets ecology on its own terms: Part two" - Ana M Jansen (IOC-Fiocruz/RJ)	"Why isn't everything resistant?" - Pedro Vale (Univ of Edinburgh/Scotland)	"Understanding insecticide resistance and its consequences" - Matt Thomas (Penn State Univ/EUA)	"Behavioural immunity: the first line of defence against infection" - Pedro Vale (Univ of Edinburgh/Scotland)	"Challenges and opportunities for developing new effective vector control tools" - Matt Thomas (Penn State Univ/EUA)
11:00-11:30	Interval	Interval	Interval	Interval	Interval
11:30-12:30	"Chikungunya emergence caused by small genetic changes in the viral genome" - Anna Bella Failloux (Institut Pasteur/France)	"Zika: the new threat" - Anna Bella Failloux (Institut Pasteur/France)	"Tolerating infection: why damage limitation is as important as pathogen elimination" - Pedro Vale (Univ of Edinburgh/Scotland)	"Vector digestive system-pathogens interactions"- Fernando Genta (IOC-Fiocruz/RJ)	"What makes a super-spreader?" - Pedro Vale (Univ of Edinburgh/Scotland)
12:30-14:00	Lunch	Lunch	Lunch	Lunch	Lunch
14:00-15:00	"Biogeography and speciation on Triatomine vectors"- Fernando Monteiro (IOC-Fiocruz/RJ)	"Ecological interactions regarding dengue virus and its mosquito vector" - Rafael Freitas (IOC-Fiocruz/RJ)	"The evolutionary and epidemiological consequences of tolerating infection" - Pedro Vale (Univ of Edinburgh/Scotland)	"Malaria transmission in the Amazon region" - Ricardo Lourenço de Oliveira (IOC-Fiocruz/RJ)	Talking with Professors
15:00-16:00	"Effects of environment on disease transmission risk" - Matt Thomas (Penn State Univ/EUA)	"The genomic basis of vectorial capacity" - Claudio J Struchiner (Procc-Fiocruz/RJ)	"Entomopathogenic fungi to control vector-borne diseases - Matt Thomas (Penn State Univ/EUA)	"Gene drive and the CRISPR system" - Claudio J Struchiner (Procc-Fiocruz/RJ)	Talking with Professors
16:00-16:30	Coffee-break	Coffee-break	Coffee-break	Coffee-break	Coffee-break
16:30-17:00	Daily bullet points (Luana Farnesi)	Daily bullet points (Gustavo Rivas)	Daily bullet points (Mariana David)	Daily bullet points (Caroline Moraes)	Daily bullet points (Daniela Misael)

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Week 2	Transgenesis and paratransgenesis				
	12/09/2016 (Monday)	13/09/2016 (Tuesday)	14/09/2016 (Wednesday)	15/09/2016 (Thursday)	16/09/2016 (Friday)
09:00-10:00	"Epidemiology of leishmaniasis transmission" - Bruno Carvalho (IOC-Fiocruz/RJ)	"Host immune response to Leishmania infection" - Fátima Conceição-Silva (IOC-Fiocruz/RJ)	"Rhodnius prolixus interaction with Trypanosoma rangeli and Trypanosoma cruzi: modulation of the immune system and microbiota population." - Cecilia Stahl Vieira (IOC-Fiocruz/RJ)	"Vector-transmitted disease vaccines: targeting salivary proteins in transmission (SPIT) - Part 1" - Mary Ann McDowell (Univ Notre Dame)	"Intranasal vaccination with leishmanial antigens protects golden hamsters against Leishmania (Viannia) braziliensis" - Eduardo F Pinto (IOC-Fiocruz/RJ)
10:00-11:00	"Dengue and chikungunya epidemiology in Brazil" - Pedro Vasconcelos (IEC/PA)	"Paratransgenic control of vector borne diseases: an overview" - Ravi Durvasula (Univ New Mexico/USA)	"Sandfly-bacterial interactions with applications toward paratransgenic control" - Ravi Durvasula (Univ New Mexico/USA)	"Vector-transmitted disease vaccines: targeting salivary proteins in transmission (SPIT) - Part 2" - Mary Ann McDowell (Univ Notre Dame/USA)	"Vaccines for leishmaniasis: current challenges and perspectives" - Paula de Lucca (IOC-Fiocruz/RJ)
11:00-11:30	Interval	Interval	Interval	Interval	Interval
11:30-12:30	"Molecular aspects of Leishmania-sand fly interaction" - Yara Traub-Csekö (IOC-Fiocruz/RJ)	"Transgenesis and paratransgenesis to block malaria transmission" - Marcelo Jacobs-Lorena (John Hopkins/USA)	"Bacterial Infection and Immune Responses in Lutzomyia longipalpis Sand Fly Larvae Midgut" - Ravi Durvasula (Univ New Mexico/USA)	"A delivery system for field application of paratransgenic control" - Ravi Durvasula (Univ New Mexico/USA)	"The use of phage display libraries to unravel the molecular basis of cell-cell interactions" - Marcelo Jacobs Lorena (John Hopkins/USA)
12:30-14:00	Lunch	Lunch	Lunch	Lunch	Lunch
14:00-15:00	"The cycle of Plasmodium in its mosquito vector - Part 1" - Marcelo Jacobs-Lorena (John Hopkins/USA)	"Regulation of innate immune cells by Leishmania-Part 1" - Mary Ann McDowell (Univ Notre Dame/USA)	"Novel Insecticide Targets: GPCRs in Vector Genomes" - Mary Ann McDowell (Univ Notre Dame/USA)	"Sand fly genome project" - Mary Ann McDowell (Univ Notre Dame/USA)	Talking with Professors
15:00-16:00	"The cycle of Plasmodium in its mosquito vector - Part 2" - Marcelo Jacobs-Lorena (John Hopkins/USA)	"Regulation of innate immune cells by Leishmania-Part 2" - Mary Ann McDowell (Univ Notre Dame/USA)	"The use of transgenic mosquitoes to reduce Aedes aegypti population size" - André Silva (USP)	"The role of the peritrophic matrix in parasite-vector interactions" - Marcelo Jacobs-Lorena (John Hopkins/USA)	Talking with Professors
16:00-16:30	Coffee-break	Coffee-break	Coffee-break	Coffee-break	Coffee-break
16:30-17:00	Daily bullet points (Karen Charret)	Daily bullet points (Karina Mastropasqua Rabello)	Daily bullet points (Cecilia Stahl Vieira)	Daily bullet points (Joana Affonso)	Daily bullet points (Marcela Granato)

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Week 3	Wolbachia and microbiome as control agents of vector-borne diseases				
	19/09/2016 (Monday)	20/09/2016 (Tuesday)	21/09/2016 (Wednesday)	22/09/2016 (Thursday)	23/09/2016 (Friday)
09:00-10:00	"Traditional vector control: why do we need alternatives?" (Rafael Maciel-de-Freitas (IOC-Fiocruz/RJ))	"The influence of midgut microbiota on the biology of disease vectors" - Mariana R David	"Functionality and health of aquatic systems " - Fabiano Thompson (IB-UFRJ)	"Spread and distribution of insecticide resistance over the last 15 years: for where we are moving to?" - Denise Valle (IOC-Fiocruz/RJ)	"Microbial interactions within arthropod-disease vectors" - Grant Hughes (UTMB/USA)
10:00-11:00	"Effects of Wolbachia infection on mosquito biology" - Grant Hughes (UTMB/USA)	"The microbiome modulates arbovirus transmission" - Grant Hughes (UTMB/USA)	"Drug discovery and development of macrofilaricides - the A-WOL experience" - Mark Taylor (LSTM/UK)	"How the insecticide resistance status of field populations of <i>Aedes aegypti</i> mosquitoes may jeopardize <i>Wolbachia</i> invasion" - Gabriela Garcia (IOC-Fiocruz/RJ)	
11:00-11:30	Interval	Interval	Interval	Interval	Interval
11:30-12:30	"Blocking arboviruses transmission" - Everton Dutra (CPqRR-Fiocruz/MG)	"Wolbachia-filarial interactions" - Mark Taylor (LSTM/UK)	"Wolbachia for malaria control – prospects and challenges" - Grant Hughes (UTMB/USA)	"Wolbachia-mosquito molecular interactions I: Immune processes" - Eric Caragata (CPqRR-Fiocruz/MG)	"Unravelling the mutualism of Wolbachia and filarial nematodes" - Mark Taylor (LSTM/UK)
12:30-14:00	Lunch	Lunch	Lunch	Lunch	Lunch
14:00-15:00	"The Eliminate Dengue project in Brazil: plans for the next two years" - Luciano Moreira (CPqRR-Fiocruz/MG)	"The role of Wolbachia bacteria in filarial pathogenesis and immunity" - Mark Taylor (LSTM/UK)	"The use of pyriproxyfen to reduce mosquito vector populations" - Sergio Luz (IMLD-Fiocruz/AM)	"Mathematical modeling of Wolbachia invasion" - Daniel Villela (PROCC-Fiocruz/RJ)	Talking with Professors
15:00-16:00	"Adding metagenomics to improve surveillance: cost-effectiveness of searching a needle in a haystack"- Marcio G Pavan (IOC-Fiocruz/RJ)	"Wolbachia as a target for chemotherapy" - Mark Taylor (LSTM/UK)	"Filariasis epidemiology in the Amazon region" - James Lee Crainey (IMLD-Fiocruz/AM)	"Wolbachia-mosquito molecular interactions II: Metabolism and stress response" - Eric Caragata (CPqRR-Fiocruz/MG)	Talking with Professors
16:00-16:30	Coffee-break	Coffee-break	Coffee-break	Coffee-break	Coffee-break
16:30-17:00	Daily bullet points (Everton Dutra)	Daily bullet points (Mariana Rocha David)	Daily bullet points (Gabriela A Garcia)	Daily bullet points (Gabriel Sylvestre)	Daily bullet points (Andrea Martins da Silva)