



Introductory Training Course in Molecular and Applied Parasitology

"PhD South" Programme of the LabEx PARAFRAP Montpellier, 13-23 March 2018

*Organised by Patrick BASTIEN & Rosa Milagros CORRALES
(with the essential help of Clotilde SABOT, UMR InterTryp,
and Martine BONNEFOY, UMR MiVEGEC)*

13th March 2018 : **Malaria transmission and control**

Morning session (room lap5):

9:00-9:15 : Introduction by Patrick Bastien

9:15-10:30 : Isabelle Morlais ("MiVEGEC", IRD/CNRS/University of Montpellier): [Malaria transmission in natural settings](#)

10:50-12:30 : Fabrice Chandre ("MiVEGEC", IRD/CNRS/ University of Montpellier): [Malaria vector control](#)

Lunch all together : 12:30-14:00

Afternoon session (room lap5):

14:00-15:30 : critical analysis of the article : [Goncalves et al. Examining the human infectious reservoir for *Plasmodium falciparum* malaria in areas of differing transmission intensity. Nat Commun. 2017, 8\(1\): 1133.](#)

<https://www.ncbi.nlm.nih.gov/pubmed/29074880>. DOI 10.1038/s41467-017-01270- (by Sarah-Matio Elangwe Milo)

15:50-17:30 : critical analysis of the article : [Nkya et al.. Impact of agriculture on the selection of insecticide resistance in the malaria vector *Anopheles gambiae*: a multigenerational study in controlled conditions. Parasit. Vectors 2014, 7\(1\): 480 \(by Brice Feufack\)](#)

14th March 2018 : **Insect-parasite interactions**

Morning session (room lap5):

9:00-10:30 : Stéphanie Blandin (Institut de Biologie Moléculaire et Cellulaire, CNRS/Univ. of Strasbourg) : [Mosquito antiparasitic responses and potential applications](#)

10:50-12:30 : Anne Geiger ("InterTryp", IRD/CIRAD, Montpellier): [Vectors bacteriome and its involvement in refractoriness or infection of insects by parasites.](#)

Lunch all together : 12:30-14:00

Afternoon session (room lap5):

14:00-15:30 : critical analysis of the article: [Mitre et al. An Evolution-Based Screen for Genetic Differentiation between *Anopheles* Sister Taxa Enriches for Detection of Functional Immune Factors. PLoS Path. 2015, 11\(12\): e1005306. doi:10.1371/journal.ppat.1005306 \(by Brice FEUFACK\)](#)

15:50-17:30 : critical analysis of the article : [Aksoy et al. Analysis of multiple tsetse fly populations in Uganda reveals limited diversity and species-specific gut microbiota. Appl Environ Microbiol. 2014 ; 80\(14\):4301-12. \(by Gildas YAOUHEDO\)](#)

15th March 2018 : **Drug development : from basic biology to drug development**



Afternoon session (room lap5):

14:00-15:30 : critical analysis of the article : [Amato et al. Origins of the current outbreak of multidrug resistant malaria in Southeast Asia: a retrospective genetic study. Lancet Inf Dis 2018: \[http://dx.doi.org/10.1016/S1473-3099\\(18\\)30068-9\]\(http://dx.doi.org/10.1016/S1473-3099\(18\)30068-9\) \(by Atikatou MAMA\)](#)

15:50-17:30 : critical analysis of the article : [Ruibaz-Pesantez et al. Population genomics of virulence genes of *Plasmodium falciparum* in clinical isolates from Uganda. Sci. Rep. 2017 \(by Kutub ASHRAF\)](#)

20th March 2018 : Anti-parasitic vaccines (1)

Morning session (room lap5):

9:00-10:30 : Shahin Tajeri (Institut Cochin, Paris): [Vaccination against bovine theileriosis: from biology to disease control](#)

10:50-12:30 : Nicaise T. Ndam ("MERIT", IRD/Ghana-Paris VI) : [Anti-disease immunogens in future malaria vaccines: from structural conservation to vaccine immunogen.](#)

Lunch all together : 12:30-14:00

Afternoon session (room lap5):

14:00-15:30 : critical analysis of the article : [Chaussepied et al. TGF- \$\beta\$ 2 induction regulates invasiveness of *Theileria*-transformed leukocytes and disease susceptibility. PLoS Pathog 6, e1001197, doi: 10.1371/journal.ppat.1001197 \(2010\) \(by Atikatou MAMA Emebet ADEM\)](#)

15:50-17:30 : critical analysis of the article : [Nielsen et al. The Influence of Sub-Unit Composition and Expression System on the Functional Antibody Response in the Development of a VAR2CSA Based *Plasmodium falciparum* Placental Malaria Vaccine. PLoS One. 2015; 10\(9\):e0135406. doi: 10.1371/journal.pone.0135406. \(by Kakou-Ghislain AKA\)](#)

21st March 2018 : Host-parasite relationships

Morning session (room lap5):

9:00-10:30 : Bruno Bucheton ("InterTryp", IRD/CIRAD, Montpellier-Guinée) : [Trypanotolerance in human and cattle: genetic, immune determinants and implication for control.](#)

10:50-12:30 : Bernard Carcy (Faculty of Pharmacy, Montpellier): [How to evade host immunity? the examples of Apicomplexan hemoparasites *Babesia* and *Plasmodium*.](#)

Lunch all together : 12:30-14:00

Afternoon session (room lap5):

14:00-15:30 : critical analysis of the article : [Capewell et al. The skin is a significant but overlooked anatomical reservoir for vector-borne African trypanosomes. eLife 2016;5:e17716. DOI: 10.7554/eLife.17716 \(by Andrea VELA\)](#)

15:50-17:30 : critical analysis of the article : [Hutchings et al. New insights into the altered adhesive and mechanical properties of red blood cells parasitized by *Babesia bovis*. Molec Microbiol \(2007\) 65\(4\), 1092–1105. \(by François Sougal NGAMBIA FREITAS\)](#)



22nd March 2018 : Novel diagnostic and treatment strategies

Morning session (room lap1):

9:00-10:30 : Loïc Rivière (CNRS/Univ of Bordeaux) : *Diagnosis in parasitology : back to the future!*

10:50-12:30 : Abdoulaye Djimdé (MRTC, Bamako, Mali) : *Should current ACTs fail in Africa, what's next?*

Lunch all together : 12:30-14:00

Afternoon session (room lap1):

14:00-15:30 : critical analysis of the article : Gootenberg et al. Nucleic acid detection with CRISPR-Cas13a/C2c2.

Science. 2017 April 28; 356 (6336): 438–442. doi:10.1126/science.aam9321. (by Magamba TOUNKARA)

15:50-17:30 : critical analysis of the article : Boni et al. Benefits of using multiple first-line therapies against malaria.

PNAS 2008, 105 (37) : 14216–14221. (by Sarah-Matio ELANGWE MILO)

23rd March 2018 : Anti-parasitic vaccines (2)

Morning session (room lap1):

9:00-10:30 : Ogobara K. Doumbo (MRTC, Bamako, Mali) : *Malaria vaccine development in the field*

10:50-12:30 : Olivier Silvie ("CIMI", Inserm/CNRS/UPMC, Paris) : *Future prospects for malaria vaccines*

Lunch all together : 12:30-14:00

Afternoon session (room lap1):

14:00-15:30 : critical analysis of the article : Sissoko et al. Safety and efficacy of PfSPZ Vaccine against *Plasmodium falciparum* via direct venous inoculation in healthy malaria-exposed adults in Mali : a randomised, double-blind phase 1 trial. *Lancet Infect. Dis.* 2017; [http://dx.doi.org/10.1016/S1473-3099\(17\)30104-4](http://dx.doi.org/10.1016/S1473-3099(17)30104-4) (by Kakou-Ghislain AKA)

15:50-17:30 : critical analysis of the article : Srinivasan et al. A malaria vaccine protects *Aotus* monkeys against virulent *Plasmodium falciparum* infection.. *NPJ Vaccine* 2017 (by François Sougal NGAMBIA FREITAS Emebet ADEM)

17:30-18:00 : Conclusions and general discussion

20:00-.... Farewell dinner in Montpellier

