

The Unit of Molecular Parasitology (MPU) @ITM has one hosting offer for MSCA Postdoctoral Fellowships 2025 Call, in the context of Evolutionary Genomics and Molecular Surveillance of Leishmania.

MPU is led by Prof **JC Dujardin**, a worldwide recognized Molecular Parasitologist with a multidisciplinary expertise on the biology of Leishmania and on parasitological aspects of leishmaniasis. In the last decade, MPU ran a series of large projects on the genomic diversity of Leishmania in Latin America^{1,2}, Morocco³, East Africa^{4,5} and the Indian sub-continent^{6,7}, in order to study the evolution and adaptation of parasites in natural populations. More recently, MPU developed and applied a unique approach for direct sequencing of Leishmania genome, directly in clinical samples⁸. With this method which is not biased by parasite cultivation, we are revisiting the molecular epidemiology and evolutionary genetics of Leishmania. Our overall plan is to implement and evaluate a platform for genomic surveillance of leishmaniasis (in a post-elimination context)⁹.

Our hosting offer is addressed to a (computer) biologist with experience in genomics, phylogenetics and population genetics. He/she will join the team and will be provided the access to (i) a yet available collection of hundreds of genomes (bulk and single cells¹⁰) together with high quality metadata, together with (ii) new genomes originating from running and planned projects. The candidate will participate to ongoing in silico studies, but will also develop his/her own analyses on the available and upcoming genomes. Topics may include (and are not limited to) studies of outbreaks, discovery of major clinical traits (virulence, response to drugs), sexual recombination, aneuploidy, co-evolution with viruses...

For more information, please contact jcdujardin@itg.be

References

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