

CURRICULUM VITAE



Name ATYAME NTEN
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Present Status

- Oct 2014-Oct 2017: **Post-Doctoral position**; Institut Pasteur, Department of Virology Arboviruses and Insect Vectors.
Research topic: Deciphering the interactions between insecticide resistance genes and the bacteria *Wolbachia* in the transmission of arboviruses by mosquito vectors. Supervisor: Anna-Bella Failloux.

Education

- Oct 2007-June 2011: **PhD in Evolution, Ecology and Genetic**; University of Montpellier 2.
Date of award: 27 June 2011.
Research topic: Evolutionary dynamics of endocellular bacteria *Wolbachia* and cytoplasmic incompatibilities in the mosquito *Culex pipiens*. Supervisor: Mylène Weill.
- Oct 2006-June 2007: **M.Sc. in Parasitology**; University of Montpellier 2.
Research topic: Analysis of secreted proteins from Trypanosome procyclic strains infecting tsetse flies. Supervisor: Anne Geiger.
- Oct 2001-June 2003: **M.Sc. in Parasitology**; University of Yaoundé 1 (Cameroon).
Research topic: Impacts of environmental conditions on populations structure of Monogenean parasites infecting the fish *Hemichromis fasciatus*. Supervisor: Charles Félix Bilong Bilong.

Professional experience

- Jan 2012-July 2014: **Post-Doctoral position**. Location: CRVOI (Research institute on emerging diseases in the Indian Ocean), La Réunion Island.
- Jan-June 2014: **Teaching activities**. Location: University of La Réunion.
 - Molecular biology and genetics: Lectures and tutorials. 44 hours.
 - Evolution of symbiosis between *Wolbachia* and arthropods: Lectures. 6 hours.
- Jan-June 2013: **Teaching activities**. Location: University of La Réunion.
 - Molecular biology and genetics: Lectures and tutorials. 44 hours.
 - Evolution of symbiosis between *Wolbachia* and arthropods: Lectures. 6 hours.
- July-Nov 2011: **Post-Doctoral position**. Location: Institute of Evolutionary Sciences of Montpellier (ISEM); laboratory of genomics of adaptation.
- Oct 2007-June 2011: **PhD research project**. Location: Institute of Evolutionary Sciences of Montpellier (ISEM); laboratory of genomics of adaptation.
- Jan-June 2006: **M.Sc. research project**. Location: Institute of Research and Development (IRD), Montpellier.
- Jan-Aug 2006: **Temporary work in Tax service**. Location: Douala (Cameroon).

- Sept 2004-June 2005: **Teaching activities in Biology**. Location: Private School Ebanda, Yaoundé (Cameroun).
- Jan 2002-June 2003: **M.Sc. research project**. Location: laboratory of parasitology, University of Yaoundé 1 (Cameroon).

Conferences

- June 2013: **Atyame C.**, Duron O., Weill M., Calvitti M., Gouagna LC., and Tortosa P. Utilization of the bacterium *Wolbachia* to control mosquito populations in the islands of Indian Ocean. 1st International Forum on Public Health, Surveillance and Response in island territories.
- Oct 2012: **Atyame C.**, Tortosa P., Gouagna L.C., Duron O. & Weill M. Utilization of the bacterium *Wolbachia* to control *Culex pipiens quinquefasciatus* mosquito in the islands of the South-Western Indian Ocean. 18th E-SOVE (European Society of Vector Ecology) Conference, Montpellier (France).
- June 2010: **Atyame C.**, Duron O. & Weill M. Cytoplasmic incompatibility in *Culex pipiens* populations in Tunisia: a perfect field situation to study *Wolbachia* dynamics. 6th International *Wolbachia* Conference, California (USA).
- Sep 2009: **Atyame C.**, Duron O. & Weill M. Dynamique évolutive des *Wolbachia* dans les populations naturelles du moustique *Culex pipiens* en Afrique du Nord. 31th Petit Pois Dérivé Conference, Grenoble (France).

Grants

- Oct 2014-Oct 2016: AXA postdoctoral fellowship.
- Oct 2007-Sept 2010: Three-year doctoral grant from the French Ministry of Research and Education.

Student research supervising

- Jan-June 2013: Julien Cattel. M.Sc. co-supervised with Pablo Tortosa.
- July 2012: Stanislas Zafihita. Summer student.
- Jan-March 2012: Stanislas Zafihita. M.Sc. co-supervised with Pablo Tortosa.
- July-Aug 2010: Pierre-Yves Biba-Nkounka and Olivier Sacchi. Summer students.
- Jan-May 2009: Badii Kamoun. M.Sc. co-supervised with Mylène Weill.
- June-July 2008: Christelle Vidaller. Summer student.

Technical and theoretical skills

- **Vector competence analyses:** production and titration of arboviruses, viral infections of mosquitoes in BSL3.
- **Cell cultures**
- **Mosquito analyses**
 - Sampling of *Culex pipiens*, *Aedes albopictus* and *Culex tigripes* mosquitoes in field populations in La Réunion Island, Tunisia and France.
 - Rearing of mosquitoes in laboratory; construction of isofemale lines; crossing experiments; analyses of life history traits associated to *Wolbachia* infections.
 - Implementation of trials under semi-field conditions.
- **Embryonic microinjections of *Wolbachia***
- **Molecular analyses:** Primers design; DNA and RNA extractions; Analyses of RNA quality using spectrophotometry (NanoDrop) and capillary electrophoresis (Agilent); PCR; Sequencing; cloning; real time quantitative PCR.

- **Data analyses:** Sequence analysis using various programs (Multalin, Mega); population genetics using Genepop, network analyses using Splitstree, phylogenetic reconstruction using PhyML; Basic statistical analyses (R).
- **Culture of Trypanosomes**

LIST OF PUBLICATIONS

1. **Atyame C.**, Cattel J., Lebon C., Flores O., Dehecq J. et al. (2015) *Wolbachia*-based population control strategy targeting *Culex quinquefasciatus* mosquitoes proves efficient under semi-field conditions. *Plos One*, 10(3): e0119288.
2. **Atyame C.**, Labbé P., Rousset F., Beji M., Makoundou P. et al. (2015) Stable coexistence of incompatible *Wolbachia* along a narrow contact zone in mosquito field populations. *Molecular Ecology*, 24(2): 508-21.
3. **Atyame C.**, Labbé P., Dumas E., Milesi P., Charlat S. et al. (2014) *Wolbachia* divergence and the evolution of cytoplasmic incompatibility in *Culex pipiens*. *Plos One*, 9 (1): e87336.
4. Pocquet N., Milesi P., Makoundou P., Unal S., Zumbo B., **Atyame C.** et al. (2013) Multiple insecticide resistances in the disease vector *Culex p. quinquefasciatus* from Western Indian Ocean. *Plos One*, 8 (10): e77855.
5. Dumas E., **Atyame C.**, Milesi P., Fonseca D. et al. (2013) Population structure of *Wolbachia* and cytoplasmic introgression in a complex of mosquito species. *BMC Evolutionary Biology*, 13 (1): 181.
6. Duron O., Bernard J., **Atyame C.**, Dumas E. & Weill M. (2012). Rapid evolution of *Wolbachia* incompatibility types. *Proceedings of the Royal Society B-Biological Sciences*, 279 (1746): 4473-80.
7. **Atyame C.**, Delsuc F., Pasteur N., Weill M. & Duron O. (2011). Diversification of *Wolbachia* endosymbiont in the *Culex pipiens* mosquito. *Molecular Biology and Evolution*, 28 (10): 2761-2772.
8. **Atyame C.**, Duron O., Tortosa P., Pasteur N., Fort P. et al. (2011). Multiple *Wolbachia* determinants control the evolution of cytoplasmic incompatibilities in *Culex pipiens* mosquito populations. *Molecular Ecology*, 20 (2): 286-298.
9. **Atyame C.**, Pasteur N., Dumas E., Tortosa P., Tantely M. et al. (2011). Cytoplasmic incompatibility as a means to control *Culex pipiens quinquefasciatus* mosquito in the islands of the southwestern Indian Ocean. *PLoS Neglected Tropical Diseases*, 5 (12): e1440.
10. **Atyame C.**, Sommerer N., Rofidal V., Hirtz C., Rossignol M. et al. (2010). Excreted/secreted proteins from Trypanosome procyclic strains. *Journal of Biomedicine and Biotechnology*, 212817.
11. Bilong CF, **Atyame C.** & Njiné T. (2004). Structure de la guilde des monogènes parasites branchiaux du poisson *Hemichromis fasciatus* au lac municipal de Yaoundé. *Journal of the Cameroon Academy of Sciences*, 4 (1): 33-40.