CURRICULUM VITAE

□ PERSONAL INFORMATION

Family name, First name: GOUAGNA, Louis Clément
Date and country of birth: 21/12/1965 in Cameroon
Nationality: French
Status: Married
Languages: Fluent French and English

□ **CURRENT POST:** Research scientist, *Institut de Recherche pour le Développement* (IRD), France

Contact information

Institut de Recherche pour le Développement (IRD
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I am a senior scientist in Medical Entomology at the MIVEGEC (Infectious Diseases and Vectors: Ecology, Genetics, Evolution and Control) research Unit of the French Institute for Research and Development (*IRD*) since 2004. PhD in Medical Parasitology and Entomology, I have devoted my early scientific career (from 1994 to 2009) to laboratory and field research in malaria research with emphasis on Host-vector malaria transmission (malaria epidemiology, malaria transmission, vector competence, and malaria parasite transmissibility). I have worked on several aspects of transmission blocking either by host immunity and antimalarial drugs (mainly with the Dept. Medical Microbiology at the University Medical Centre Nijmegen, The Netherlands) and spearheaded the development of the new indirect immunofluorescence assays for detection of malaria parasite stages in the mosquito midgut, which allows for effective evaluation of the impact of transmission blocking effectors (host immunity, vaccines, and drugs) on parasite transmission. My most important laboratory and field work on vector ecology and biotic and abiotic determinants of malaria transmission has been done in several endemic countries in Cameroon (OCEAC, 1992-1999), Kenya (ICIPE, 1999-2004), Burkina Faso (IRSS, 2005-2009). Throughout, I was responsible for managing research projects, managing grant budget for research activities, seeking financial and technical support for capacity building while creating links between relevant collaborating groups in national and international institutions. I am currently working in Reunion Island (IRD, 2010-present) where I am coordinating an operational research program, which goal is to develop the capacity in innovative vector control strategies based on sterile-male technologies (SIT) against dengue, chikungunya and zika vectors in the Islands of the South-western Indian Ocean.

□ EDUCATIONAL QUALIFICATIONS

1994-1999: PhD Medical Parasitology and Entomology, focusing on « Biological and immunological determinants of *Plasmodium falciparum* sporogonic cycle in *Anopheles gambiae* », University of Yaoundé, Cameroon.

1992-1993: *Diplôme d'Etude Approfondie*, DEA (Postgraduate advanced Degree), emphasizing research in Medical Entomology, with a focus on « The efficacy of Pyrethroïd impregnated bedned on the main culicids (*Anopheles gambiae s.l.*, *Culex quinquefasciatus*, and *Aedes aegypti*) in the South of Cameroon. University of Yaoundé, Cameroon.

1991-1992: Master degree in Applied Zoology and Ecology, focussing on Anopheles gambiae Bio-ecology: factors determining the productivity of breeding habitats. University of Yaoundé, Cameroon.

1990- BSc in life science – Natural Sciences. University of Yaoundé, Cameroon.

□ RESEARCH INTERESTS

- Medical Entomology: Systematics – vector biology and ecology (*Anopheles sp., Culex sp. et Aedes* sp.),
- Disease transmission: host- vector –parasite Interactions, epidemiology
- Parasitology: sexual (gametocytogeneis) and sporogonic cycle of *Plasmodium sp.*, epidemiology of malaria transmission, drug efficacy.
- *Immunology*: transmission blocking Immunity,
- *Epidemiology* of infectious tropical diseases
- *Biochemistry*: metabolic analyses, spectrophotometry SPME.
- *Microscopy*: light microscopy, immunofluorescence and epifluorescence microscopy.
- Control of Mosquito-borne disease: insecticide resistance, Sterile Insect Technique.

□ KEY SKILLS

- Extensive Research lab and Field work experience
- Research project formulation, design and Management
- Team member, multi-partner and Multi-Country Collaborative research initiative
- Leadership and Managerial Skills – supervising administrative assistants and technical staff
- Mosquito-borne disease ecology, surveillance, transmission and Control
- Scientific writing: collect, analyse and report data to ensure attainment of objectives
- Preparing scientific reports and publications for the research outcome, and evaluation
- Mentoring, coaching and supervision of post-graduate students (Msc and PhD)

□ **ONGOING RESEARCH:** My current research belongs in the field of Vector behaviour**,** physiology and control. My research is centred on the design and Application of Sterile Insect Technique for vector control.

□ EMPLOYMENT HISTORY

2004 – Present. Member of new research teams on "Vectors physiology" (6 researchers, 3 technicians, 6 PhD) and "vector control" (5 researchers, 3 technicians, 4 PhD) at the MIVEGEC Research Unit "Control of emerging and exotic animal diseases" *Institut de Recherche pour le Développement* (IRD), France

- Coordinate and manage daily operation of EU- and National funded research programs on Sterile Insect Technique (SIT) against Aedes albopictus in the Indian Ocean Region
- Identify and engage partners and collaborators to work on research programs
- Collect, analyse data, edit scientific publications and financial report to ensure annual attainment of objectives
- Participate in academic capacity building by providing research subjects and mentoring masters students
- Supervise administrative assistant and technical staff.
- Serve as reviewer of scientific journals and project evaluator for national and international donors.

2005 – 2009 Researcher in Medical Entomology and visiting scientist at the National Institute for health Sciences, Bobo Dioulasso, Burkina Faso

- Scientific head of Medical entomology and malaria research facilities at IRSS, Burkina-Faso (duty station)
- Planned and implemented research programs
- Supervised project design, goal setting, day-to-day activities
- Managed and advised 5 technicians, 3 graduate students, and 4 undergraduate students on designing and performing research studies
- Taught university courses on Medical entomology to Masters students
- Contributed to management of funded projects, with administrative and scientific responsibilities, and ensure quality work environment.

2004 – 2005 Researcher in Medical Entomology at the Research Unit UR016 of the *Institut de Recherche pour le Développement* (IRD), Montpellier, France (duty station)

1999 – 2001 Researcher in Medical Entomology and scientific advisor, Head of vector competence team within the ICIDR funded malaria project in Kenya, Mbita Point Field Station (duty station) of the International Centre of Insect Physiology and Ecology (ICIPE), Nairobi Kenya.

- Managed 6 technicians, 4 PhD students, 15 undergraduates and many lab rotation students
- Supervised project design, goal setting, day-to-day activities,
- Contributed to management of the lab budget and supervised approximately 30 direct and indirect staff,
- Served as a regular member of ICIPE management committees and president of staff association.

HONORS AND AWARDS

1997-1998: Science award of excellence from the AUPELF-UREF, Agence universitaire de la Francophonie
1996-1998: IRD fellowship awards.

SHORT COURSES ATTENDED

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1. 2016 (August): Training course on "First Aid at Work - Principles and Practice of First Aid", Star Training, IRD Saint Denis, La Reunion Island-France.
2. 2016 (September). Successfully completed the « Basic Security in the Field (BSITF II) » online course. IAEA /United Nations, Department of Safety and Security (UNDSS).
3. 2016 (June). Successfully completed the training course on « Project management in partnership research », Montpellier, France.
4. 2015 (June-July): Successfully completed the training course on « Effective communication and management of meetings in a partnership situation », Sausset Les pins, Marseille, France.
5. 2014 (June) : Successfully completed the training course on « How to Address and respond to medias », IRD, Marseille France.
6. 2012 (September). Successfully completed the « Basic Security in the Field (BSITF II) » and « Advanced Security in the Field (ASITF) » online courses. IAEA / United Nations, Department of Safety and Security (UNDSS).
7. 2007 (June): Successfully completed the "Biology of Disease Vectors (BDV) international course" 18th Edition, Fiocruz, Manaus, Brazil.
8. 2002 (August): Successfully completed the "Current Techniques in Malaria Research and practices" International course at Tulane University, Louisiana, USA.
9. 2003 (May) : Successfully completed the "Bio-ethic and Protection of Human subjects participants in Medical Research" online training course and examination by the Miami University, USA.
10. 2002 (May) : Successfully completed the "Bioinformatics and Bio-statistic for Medical Entomologists » training course, Tulane University, Louisiana, USA.

11. 2002 (April): Successfully completed the Workshop on "Coordinated data management system". International Collaborations in Infectious Disease Research **(**ICIDR), Bethesda, USA.
12. 2001 (April): Successfully completed the "Human Participants Protections Education for Research Teams, an online training course and examination run by the National Institutes of Health, USA.
13. 2001 (August) : Successfully completed the "Good Clinical and Good laboratory practices in Tropical and Medical Research » course, National Institut of Health, Bethesda USA.
14. 1999 (June) Design and methodology for antimalarial Vaccine Testing (Maputo/Maniça-Mozambique.
15. 1998 (July): Successfully completed the "Standardization of methodologies and tools for the evaluation of Malaria Transmission Blocking Vaccine" workshop, Accra - Ghana.
16. 1998: Successfully completed the "Good Clinical Practice and Good laboratory practice" - AMVTN (actual AMANET), Accra, Ghana).
17. 1995-1996: Successfully completed the "Statistical principles and data management" training course: ORSTOM-OCEAC, Yaoundé – Cameroon.

EARLY ACHIEVEMENTS TRACK-RECORD

➢ SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2001 – 2016: Mentoring, coaching and supervision of post-graduate students (Msc and PhD), 2 Postdoc/ 3 PhD/ 15 Master Students

➢ TEACHING ACTIVITIES

2009 – 2010: Course for Master's students, International Master training courses on Medical Entomology (1 day / year), University Abomey Calavy (Benin) and Montpellier II University, France.

2006 -2009: Training course on "Introduction to Medical entomology" for Postgraduate advanced research Degree (25 students each year) at the University of Bobo Dioulasso, Burkina Faso

Instructor for :

- The 9th Edition of the International training courses on « Essential on Malaria » at the Pasteur Institute of Madagascar, Antananarivo, Madagascar (16 participants from 16 African countries). Mai-June 2013.
- FAO/IAEA Interregional Training Course on the Use of Sterile Insect and Related Techniques for the Integrated Area Wide Management of Insect Pests held in Kuala Lumpur, Malaysia (facilitator). Sep 2016.
- The 2nd WHO AFRO Regional Training Course on "Integrated Vector Management" (16 participants from 16 countries), ICIPE, Nairobi, Kenya. June-July 2001.
- The first WHO AFRO Regional Training Course on "Integrated Vector Management" (16 participants from 16 African countries), ICIPE, Nairobi, Kenya. June-July 2002
- ICIPE malaria training course on "Entomological and parasitological and managerial Methods for malaria surveillance and control in Africa" (20 participants from 15 countries), ICIPE-Mbita Point training and Research Centre, Western Kenya. 15-30 October 2001.

➢ ORGANISATION OF SCIENTIFIC MEETINGS / INTERNATIONAL TRAINING COURSES

2016 (5-9 December): Local organizer and coordinator, final meeting of the African Regional Projet "*Exploring the Use of Sterile Insect Technique as a Novel Technique for Control of Vector Mosquito for Chikungunya and Dengue (Aedes albopictus)"* (La Reunion, Madagascar, Seychelles, Comoros and Mauritius, South Africa, China, Singapore, Thailand, French Polynesia)". Saint-Gilles les Bains, Reunion Island – France.

2011 (7-11 March): Coordinated the workshop Programme on "*Development of Standardised Mass Rearing System for Male Anopheles arabiensis*". organized by the IAEA, Saint Gilles les Bains, La Reunion Island, France.

2013 (May): Local organizer and coordinator, 3rd meeting of the African Regional Projet "*Exploring the Use of Sterile Insect Technique as a Novel Technique for Control of Vector Mosquito for Chikungunya and Dengue (Aedes albopictus) in the Indian Ocean Region* (Reunion, Madagascar, Seychelles, Comoros and Mauritius)". Saint-Denis, Reunion Island – France.

2004 (14–16 July): WHO/TDR temporary adviser - Co-organisation of a WHO/TDR International Scientific Meeting entitled "strategic planning group to bridge laboratory and field research in disease vector control (50 participants coming from 10 countries), ICIPE, Nairobi – Kenya.

2003 (June-July) Organisation of the 2nd WHO AFRO Regional Training Course on "Integrated Vector Management" (16 participants from 16 countries), ICIPE, Nairobi, Kenya.

2002 (June-July): Organisation of the first WHO AFRO Regional Training Course on "Integrated Vector Management" (16 participants from 16 African countries), ICIPE, Nairobi, Kenya.

2001 (15-30 October): Coordinator, Organization of the ICIPE malaria training course on "Entomological and parasitological and managerial Methods for malaria surveillance and control in Africa" (20 participants from 15 countries), ICIPE-Mbita Point training and Research Centre, Western Kenya.

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2014-Present: Member of the scientific advisory committee of IRD - Reunion - Mayotte - Eparses Islands.
2014-present: Member of the scientific advisory committee of the CYROI Health Research and Technology Platform (Saint-Denis, Reunion).
2009 – 2013. Member of the Network of Research Coordination Network on "Biology of Male *Mosquitoes in Relation to Genetic Control Programmes*», Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture, Vienna, Austria.
2008-2010: Member of the "Epidemiology and Development Network" (RED) of IRD, France.
2003-2004: Member, French Society of Parasitology (SFP), France
2000-2003: Member, American Society of Tropical Medicine and Hygiene
2003-2004: EDCTP Malaria drug and Vaccine Stakeholders.
2003-2004: Founding member of the Suba (Western Kenya) Health Coalition
1995 – 1999: Member in African Malaria Vaccine Testing Network– actual AMANET

MAIN ADMINISTRATIVE RESPONSIBILITIES

2013 – present: Elected Member of the Special Technical Board and staff Representative Committee of IRD.
2010 - present. Team leader, scientific and administrative coordinator of the multi-annual feasibility program of the "Sterile Insect Technique " in the Indian Ocean Region.
2005 – 2009. Head of Laboratory of Medical Entomology, IRSS, Bobo Dioulasso, Burkina Faso.
2000-2004: Member**,** Management Committee Mbita Point Research and Training Centre**,** Kenya.
2000-2004*:* Elected **r**epresentative member of ICIPE Staff association (ISA), Mbita Point Research and Training Centre, Kenya.

2003 – 2004. Program Coordinator (Scientific and Administrative Responsibilities) of the « *Malaria Research program*», Mbita Point training and Research Center, ICIPE (International Centre of Insect Physiology and Ecology). Kenya.

1999 – 2002. Head of the « vector competence » laboratory, Mbita Point, ICIPE (International Centre of Insect Physiology and Ecology), Kenya.

GRANT SUPPORT

The following list shows my participation and international involvement in joint projects.

Principal Investigator: « *Etude pilote de faisabilité de la Technique de l'Insecte Stériles (TIS) appliquée à la lutte contre Aedes albopictus, vecteur du Chikungunya et de la dengue au Sud-ouest de l'Océan Indie*n ». 2014 -2017: 429 000 Euros. French Ministry of Health and Social Affairs.

Principal Investigator: « *Etude pilote de faisabilité de la Technique de l'Insecte Stériles (TIS) appliquée à la lutte contre Aedes albopictus, vecteur du Chikungunya et de la dengue au Sud-ouest de l'Océan Indie*n ». 2014 -2017: 748 000 Euros. European Regional Development Fund (ERDF) 2014-2020 Operational Programme « Research, Development and Innovation 2015-1b "Health and Biotechnology ».

Co-investigator: « *Revolutionizing Insect Control - Boosting the Sterile Insect Technique to control mosquitoes*": the REVOLINC research project. 2016-2020: 2000 000 Euros, ERC Consolidator Grant 2015. PI: Jeremy Bouyer (CIRAD/IAEA).

Co-investigator: « *Technique de l'Insecte Stérile (TIS) appliquée à la lutte contre les moustiques Anopheles arabiensis, vecteur de paludisme, et Aedes albopictus, vecteur de la dengue et du chikungunya à la Réunion* ». 2009 –2014: 799 974 euros, European Regional Development Fund (ERDF), 2007 – 2013 ERDF Operational Program « Convergence ». PI: Koussay Dellagi (IRD/CRVOI).

Co-investigator: « *Technique de l'Insecte Stérile (TIS) appliquée à la lutte contre les moustiques Anopheles arabiensis, vecteur de paludisme, et Aedes albopictus, vecteur de la dengue et du chikungunya à la Réunion* ». 2009 –2014: 739 971 euros. French Ministry of Health. PI: Didier Fontenille (IRD)

Principal Investigator: *« Développement en commun d'expériences en faveur de la mise en œuvre de la Technique de l'Insecte Stérile (TIS) pour la lutte contre Aedes albopictus, vecteur de la Dengue et du Chikungunya »* 11/2014 - 08/2015: 122 482,00 €, European Regional Development Fund (ERDF). 2007 – 2013 Operational Programme FEDER « European Territorial Cooperation, Indian Ocean ».

Co-Investigateur -Work-Package Leader: « *Blocking the transmission of malaria: the mosquito vector target* » TRANSMALARIABLOC, 2009-2012: 311 000 € (IRD), FP7 (EU FP7 - HEALTH-2007-2.3.2-9). PI: Christophides G.K.

Participant: « *European Capacity Building for implementation of vector genetic control*» INFRAVEC (EU FP7 -INFRASTRUCTURES 2008-1), 2010 - 2013, 3 000 000 € (IRD: 100 000 €). PI: Crisanti A. Imperial College, London – UK.

Co-Investigator: « *Interactions Anopheles-Plasmodium* ». 2007-2010: 300,000 €. ANR 2005 (Agence Nationale de la Recherche, France*). PI: Anna Cohuet*, IRD

Co-investigator. « *Effects of the environment on host-parasite coevolutionary conflicts: parasitic manipulation and self-medication in mosquito-human malaria associations*". 2012-2014: 540,000 €. ANR 2011. *PI: Thierry Lefèvre, IRD.*

Co-Investigator and « Field supervisor»: P « Génétique humaine et transmission du paludisme ». Grants from the EU, Sixth Framework Programme, BioMalPar Network of Excellence, LSHP-CT-2004-503578 and from the Instituto Pasteur–Fondazione Cenci Bolognetti. *PI: Prof. David Modiano.* University of Rome 'La Sapienza', Roma, Italy.

Principal Investigator: « *Ecological Interactions between Natural sugar sources and adult males of the African malaria vectors*», 2009-2010: 18,000€. CRP Code: G3.40.02 - Field biology of male mosquitoes in relation to genetic control programmes. Joint FAO/ International Atomic Energy Agency (IAEA) coordinated research.

Co-Investigator: projet "*Construction of an Aedes albopictus rdl homozygous isofemale line".* IAEA's Coordinated Research Project (CRP) *on Exploring Genetic, Molecular, Mechanical and Behavioural of Sex Separation in Mosquitoes. 2013- 2017: 18 000 Euros.* Joint FAO/ International Atomic Energy Agency (IAEA) coordinated research. *PI: P. Tortosa. University of La Reunion – France.*

Principal Investigator: "*Assessment of Aedes albopictus male trapping systems in support of the Sterile Insect Technique on the Reunion Island*". *2015 – 2017: 11000 Euros.* IAEA-TC PROJECT, Joint FAO/ International Atomic Energy Agency (IAEA) coordinated research.

Participant: Co-ordinated Research Programme on "Biology of Male Mosquitoes in Relation to Genetic Control Programmes". FAO/IAEA Division of Nuclear Techniques in Food and Agriculture, 2009-2013. IAEA-TC PROJECT, International Atomic Energy Agency (IAEA).

Participant: Projet Regional "*Promoting the sharing of expertise and physical infrastructure for mass rearing mosquitoes and integration of the sterile insect technique (SIT) with conventional methods for vector control among Countries of the Indian Ocean Region* (Reunion, Madagascar, Seychelles, Comoros and Mauritius)" Regional Project RAF5065/9003/01. 2010-2013: 150 000 euros, IAEA-TC PROJECT.

Participant: "*Exploring the Use of Sterile Insect Technique as a Novel Technique for Control of Vector Mosquito for Chikungunya and Dengue (Aedes albopictus) in the Indian Ocean Region* (Reunion, Madagascar, Seychelles, Comoros and Mauritius)" Regional project -RAF-5.072/ 9001/01. 2014-2017: 150 000 euros, IAEA-TC PROJECT C2.

Co- Investigator: "*Monitoring of anti-malarial drug resistance by QT-NASBA and the impact on transmission of Plasmodium falciparum"* WOTRO Netherlands Foundation for the Advancement of Tropical Research. 2003-2006.: 127000 Euros. *PI:* Prof. Dr. Robert Sauerwein, Medical Microbiology, Univ Medical Centre Nijmegen, The Netherlands.

Co-investigator: "*The impact of first-line anti-malarial drugs and drug-resistance on the transmission of Plasmodium falciparum malaria*". 2004-2005. 75 000 euros. WOTRO Netherlands Foundation for the Advancement of Tropical Research. PI: Prof. R. Sauerwein, Medical Microbiology, University Medical Centre Nijmegen, The Netherlands.

Co-investigator: "*Dynamics of P. falciparum gametocyte production in asymptomatic school children and village communities in Suba district, western Kenya*" 2000- 2001. 52 000 euros. WOTRO Netherlands Foundation for the Advancement of Tropical Research, Grant number WR93-369). PI:

Prof. R. Sauerwein, Dept. Medical Microbiology, University Hospital St. Radboud, University Medical Centre Nijmegen, The Netherlands.

Co-investigator: projet "*Vector Competence of Africa Malaria Vectors and disease transmission*". 1999 – 2004. **NIH -** International Collaborations in Infectious Diseases Research (ICIDR) program (**NIH/ICIDR Ref.** U19 AI45511, D43 TW01142, D43 TW00920 and TW 01505, NIAID/National Institutes of Health, USA. PI: John Beier, Department of Epidemiology and Public Health, University of Miami School of Medicine, Miami, FL 33136, USA.

Co-investigator: "Key fitness components and Evaluation of the spread and introgression of the introduced genes in the African Malaria Vector *Anopheles gambiae* Populations ». 2001-2003. US$ 50 000. UNDP/WORLD BANK/WHO Special Programme for Research and Training in Tropical Diseases (TDR) grant A10429. PI: Guyun Yan. Department of Biological Sciences, State University of New York, Buffalo, NY 14260, USA.

SERVICES:

Manuscript reviews: *PlosOne*, « *Trends in Parasitology* », « *Parasites and Vectors*», « *Medical and Veterinary Entomology* », *"The Amercican Journal of Tropical Medicine and Hygiene",* « *Malaria Journal*», "Malaria World", "« *Acta tropica* », « *International Journal of Insect Physiology", "Dove Medical Press",* "Revue Biotechnologie, Agronomie, Société et Environnement", *etc.*

Grant reviews: WHO-TDR, ANSES.

Bibliometry:

67 publications among which 16 as 1st author, 5 as last author.

- ISI Web of Science Citation Count: 1,650 (as of 30 November 2016),
- ISI Web of Science average citations per Item (as of 30 November 2016,): 23,72
- h-index: 22

Symposia and Conferences:

> 80 Oral presentations and Posters to internationally established conferences

> 25 Invited presentations and seminars at professional meetings

PUBLICATIONS

2016

1. Damiens D, Lebon C, Wilkinson DA, Dijoux-Millet D, Le Goff G, Bheecarry A, **Gouagna LC**. Cross-Mating Compatibility and Competitiveness among Aedes albopictus Strains from Distinct Geographic Origins - Implications for Future Application of SIT Programs in the South West Indian Ocean Islands. PLoS One. 2016; 11(11):e0163788.

2. Le Goff G, Damiens D, Payet L, Ruttee AH, Jean F, Lebon C, Dehecq JS, **Gouagna LC**. Enhancement of the BG-sentinel trap with varying number of mice for field sampling of male and female Aedes albopictus mosquitoes. Parasit Vectors. 2016; 9(1):514.

3. Hien DF, Dabiré KR, Roche B, Diabaté A, Yerbanga RS, Cohuet A, Yameogo BK, **Gouagna LC**, Hopkins RJ, Ouedraogo GA, Simard F, Ouedraogo JB, Ignell R, Lefevre T. Plant-Mediated Effects on Mosquito Capacity to Transmit Human Malaria. PLoS Pathog. 2016; 12(8):e1005773.

4. Atyame CM, Labbé P, Lebon C, Weill M, Moretti R, Marini F, **Gouagna LC**, Calvitti M, Tortosa P. Comparison of Irradiation and Wolbachia Based Approaches for Sterile-Male Strategies Targeting Aedes albopictus. PLoS One. 2016; 11(1): e0146834.

2015

5. Atyame CM, Cattel J, Lebon C, Flores O, Dehecq JS, Weill M, **Gouagna LC**, Tortosa P. Wolbachia-based population control strategy targeting Culex quinquefasciatus mosquitoes proves efficient under semi-field conditions. PLoS One. 2015 Mar 13;10(3):e0119288.

6. **Gouagna LC**, Dehecq JS, Fontenille D, Dumont Y, Boyer S. Seasonal variation in size estimates of Aedes albopictus population based on standard mark-release-recapture experiments in an urban area on Reunion Island. Acta Trop. 2015 Mar;143:89-96.

2014

7. Wilkinson DA, Lebon C, Wood T, Rosser G, **Gouagna LC**. Straightforward multi-object video tracking for quantification of mosquito flight activity. J Insect Physiol. 2014 Dec;71:114-21.

8. Dabiré KR, Sawadogo PS, Hien DF, Bimbilé-Somda NS, Soma DD, Millogo A, Baldet T, **Gouagna LC,** Simard F**,** Lefèvre T, Diabaté A, Lees RS, Gilles JR. Occurrence of natural Anopheles arabiensis swarms in an urban area of Bobo-Dioulasso City, Burkina Faso, West Africa. Acta Trop. 2014 Apr;132 Suppl:S35-41.

9. Lees RS, Knols B, Bellini R, Benedict MQ, Bheecarry A, Bossin HC, Chadee DD, Charlwood J, Dabiré RK, Djogbenou L, Egyir-Yawson A, Gato R, **Gouagna LC**, Hassan MM, Khan SA, Koekemoer LL, Lemperiere G, Manoukis NC, Mozuraitis R, Pitts RJ, Simard F, Gilles JR. Review: Improving our knowledge of male mosquito biology in relation to genetic control programmes. Acta Trop. 2014 Apr;132 Suppl:S2-11.

10. Oliva CF, Vreysen MJ, Dupé S, Lees RS, Gilles JR, **Gouagna LC**, Chhem R. Review. Current status and future challenges for controlling malaria with the sterile insect technique: technical and social perspectives. Acta Trop. 2014 Apr;132 Suppl:S130-9.

11. Sawadogo PS, Namountougou M, Toé KH, Rouamba J, Maïga H, Ouédraogo KR, Baldet T, **Gouagna LC,** Kengne P, Simard F, Costantini C, Gibson G, Diabaté A, Lees RS, Gilles JR, Dabiré KR. Swarming behaviour in natural populations of Anopheles gambiae and An. coluzzii: review of 4 years survey in rural areas of sympatry, Burkina Faso (West Africa). Acta Trop. 2014 Apr;132 Suppl:S42-52.

12. Yerbanga RS, Lucantoni L, Ouédraogo RK, Da DF, Yao FA, Yaméogo KB, Churcher TS, Lupidi G, Taglialatela-Scafati O, **Gouagna LC**, Cohuet A, Christophides GK, Ouédraogo JB, Habluetzel A. Transmission blocking activity of Azadirachta indica and Guiera senegalensis extracts on the sporogonic development of Plasmodium falciparum field isolates in Anopheles coluzzii mosquitoes. Parasit Vectors. 2014 Apr 15;7:185.

13. **Gouagna LC**, Kerampran R, Lebon C, Brengues C, Toty C, Wilkinson DA, Boyer S, Fontenille D. Sugar-source preference, sugar intake and relative nutritional benefits in Anopheles arabiensis males. Acta Trop. 2014 Apr;132 Suppl:S70-9.

2013

14. Boyer Sébastien, Maillot L., **Gouagna LC**, Fontenille Didier, Chadee D. D., Lempérière Guy. Diel activity patterns of male Aedes albopictus in the laboratory. *Journal of the American Mosquito Control Association*, 2013, 29 (1), p. 74-77.

15. Dabire KR, Sawadodgo S, Diabate A, Toe KH, Kengne P, Ouari A, Costantini C, **Gouagna CL**, Simard F, Baldet T, Lehmann T, Gibson G. Assortative mating in mixed swarms of the mosquito Anopheles gambiae s.s. M and S molecular forms, in Burkina Faso, West Africa. Med Vet Entomol. 2013 Sep;27(3):298-312.

16. **Gouagna LC**, Yao F, Yameogo B, Dabiré RK, Ouédraogo JB. Comparison of field-based xenodiagnosis and direct membrane feeding assays for evaluating host infectiousness to malaria vector Anopheles gambiae. Acta Trop. 2013 Nov 18;130C:131-139.

17. Boyer Sébastien, Maillot L., **Gouagna LC**, Fontenille Didier, Chadee D. D., Lempérière Guy. Diel activity patterns of male Aedes albopictus in the laboratory. *Journal of the American Mosquito Control Association*, 2013, 29 (1), p. 74-77.

2012

18. Bousema T, Dinglasan RR, Morlais I, **Gouagna LC**, Warmerdam TV, Awono-Ambene PH, Bonnet S et al. Mosquito feeding assays to determine the infectiousness of naturally infected *Plasmodium falciparum* gametocyte carriers. *Plos One* 2012. 7(8): e42821.

19. Dabire RK, Namountougou M, P Sawadogo SP, Yaro1 LB, Toe HK, Ouari A, **Gouagna LC**, Simard F, Chandre F, Baldet T, Bass C and Diabate D. Population dynamics of Anopheles gambiae s.l. in Bobo-Dioulasso city: bionomics, infection rate and susceptibility to insecticides. Parasites & Vectors 2012, 5:127.

20. **Gouagna LC**, Rakotondranary M, Boyer S, Lemperiere G, Dehecq JS, Fontenille D. Abiotic and biotic factors associated with the presence of Anopheles arabiensis immatures and their abundance in naturally occurring and manmade aquatic habitats. Parasit Vectors. 2012 May 19;5(1):96.

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