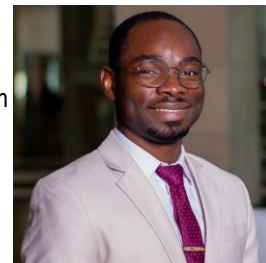


JUDICAËL OBAME-NKOGHE

Assistant Professor, University of Science and Technology of Masuku (USTM), Franceville, Gabon
Associate Research Fellow at the Interdisciplinary Research Center for Medical Research of Franceville (CIRMF), Gabon
Address: Campus of the CIRMF, BP 769, Franceville, Gabon
Date of birth: February 10th 1987
Place of birth: Ndjolé, Gabon ; Nationality: Gabonese;
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PROFILE SUMMARY

Medical entomologist, specialist of arboviruses, hemosporidian parasites and hemotropic bacteria.

Research focus: characterization of insect vectors in a "OneHealth" approach (taxonomy, biology, ecology, evolution, role in the transmission of infectious agents, transmission patterns and vector control).

Skills: Insect systematics (mosquitoes, sandflies, ceratopogonides, hematophagous flies), molecular screening (PCR, Next Generation Sequencing), basics (genomics) and advanced (biostatistics) data analysis methods.

EDUCATION

December 2016

PhD, Montpellier University (France), Medical Entomology

Dissertation: "**Characterization of the hematophagous entomological fauna from caves in Gabon and their involvement in the transmission of infectious agents**"

Committee: Pr Gérard Duvallet (chair), Pr Jérôme Depaquit, Dr Oleg Mediannikov, Dr Anna Bella Failloux, Dr Vincent Robert, Dr Thierry Baldet, Dr Nicolas Berthet, Dr Christophe Paupy (supervisor)

January 2012

MSc, Montpellier University (France), International Master in Medical and Veterinary Entomology (MIE)

Thesis: "**Cave-dwelling hematophagous arthropods in Gabon: taxonomic inventory and screening for infectious agents**"

Advisor: Dr Christophe Paupy

December 2009

BSc, University of Science and Technology of Masuku (Gabon), General Biology and Earth Science

Graduated Summa Cum Laude

HONOURS AND AWARDS

Year 2023

- Distinguished as Affiliate member of the **African Academy of Sciences** (AAS)

Year 2022

- Fellowship

African Research Initiative for Scientific Excellence Pilot Programme (ARISE-PP) fellowship (granted, PI)

This Fellowship programme funded by European Union and Africa Union supports talented emerging African scientists to lead and undertake a high-level research programme in Africa as Principal Investigator.

Project title: "What are the bioecological drivers underlying the invasive success of the tiger mosquito *Aedes albopictus*, and risks of arbovirus emergence in Gabon, Central Africa?"

Media: <https://www.youtube.com/watch?v=l9VgocSMmdg&t=13s>

Amount obtained: **€444,000**

Year 2021

- Fellowship

Africa Research Excellence Fund Research Development Fellowship (granted, PI)

This Fellowship programme supports talented emerging African scientists to undertake a three to nine-month placement at a leading research organization in Europe or Africa. The placements enable them to acquire advanced research skills, test their own research questions, develop highly effective mentoring relationships, grow a network of potential collaborators.

Amount obtained: **€35,000**

Year 2011, 2013, 2018-2020

- Research grant and travel awards

IRD-MIVEGEC research Grant (granted, Co-PI);

IRD-MIVEGEC-INFRAVEC 2 travel Awards (granted) ;

Awards (2019) : "Chargé de Recherche CAMES" (Assistant Professor) ;

Research National Agency (ANR) Fellowship (Granted, Co-investigator);

CIRMF-International Master in Entomology Scholarship (granted)

Total amount secured: **€52,000**

RESEARCH EXPERIENCE

Year 2019 - Present

University of Science and Technology of Masuku, Gabon

Assistant Professor

Senior supervisors: Prof Landy Erik Mombo, Dr Pierre Kengne

- Designed and Conducted research programmes on *Aedes* mosquitoes in sylvatic, rural and urban areas in Central Africa.
- Joined the IRD International Research Group on Arthropod Vectors in Central Africa (IRD GDRI-GRAVIR).
- Joined the Pan African Mosquito Control Association (PAMCA).
- Joined the Young Researchers' Network of the Health Thematic Research Programme (PTR Santé) of the African and Malagasy Council for Higher Education (CAMES).
- Joined the PREZODE (Preventing Zoonotic Disease Emergence) network.
- Joined the Africa Research Excellence Fund (AREF) and the African Academy of Sciences (AAS) Alumni fellows

Year 2017 - 2019

Interdisciplinary Center for Medical Research, Gabon

Post-Doc, Ecology of Vector Systems Unit

Supervisors: Dr Diego Ayala & Dr Christophe Paupy

- Designed and conducted field research on *Aedes* mosquitoes in forest ecosystems of Central Africa
- Acquired advanced skills in biostatistics (multivariate, modeling)
- Mentored PhD and Master students
- Led a work package of a 500k€ ANR-project

Year 2012 - 2016

PhD internship, Interdisciplinary Center for Medical Research, Gabon Supervisor:

Dr Christophe Paupy

- Revealed for the first time in Central Africa 68 species of troglophilic hematophagous diptera, of which more than 65% were reported for the first time in Gabon after having inspected morphologically and individually more than 15 thousand specimens.
- Gained advanced skills in the taxonomy of blood-sucking insects of tropical environments
- Gained skills in Next Generation Sequencing

Year 2011

Master internship, Interdisciplinary Center for Medical Research, Gabon

Supervisor: Dr Christophe Paupy

- Revealed the so unknown species diversity of mosquitoes, sandflies, batflies, biting midges and bat species in caves ecosystems of Gabon.
- Demonstrated host preference between bat flies and bat species and demonstrated the role of batflies in the transmission of *Polychromophilus* haemosporidian parasites among cave dwelling bats.
- Gained skills in taxonomy of blood-sucking insects of tropical environments
- Gained skills in screening methods using molecular biology

TEACHING EXPERIENCE

Since Year 2020 to Present

Lecturer at the University of Science and Technology of Masuku, Gabon

Assistant Professor, Department of Biology

Associate lecturer at École Nationale des Eaux et Forêts, Cap Estérias, Gabon.

Courses dispensed:

Biostatistics; General Entomology, Medical Entomology, Sampling methods in ecology, Introduction to Bioinformatics, Good laboratory practices,

Other academic activities and community engagement

- General Coordinator of the Advanced workshop in biostatistics with the R software (APBR-Stat): <https://www.youtube.com/watch?v=pWjpT6jldIM>
- Invited member of the rectoral council of the university (USTM); Regular member of the council of Department of Biology
- Regular member of the deliberative committee of BSc and MSc programmes; Invited member of the fundraising board of the University.
- Pedagogical manager of Master course: Microbiology, option Disease Transmission and Diagnostic, Department of Biology, USTM, Gabon.

Students already or currently Advised (MSc & BSc): 19

REFERENCES

Pr Moses Bockarie, retired Director of International Cooperation & Head of Africa Office at EDCTP, with long experience working in leading positions at the Liverpool School of Tropical Medicine. He is a global expert in tropical medicine research. E-mail: mbockarie@gmail.com

Dr Christophe Paupy, Research Director at Institut de Recherche pour le Développement (IRD), Montpellier, France. Global expert in medical entomology and arbovirology. E-mail : christophe.pauypy@ird.fr

OTHER WORK EXPERIENCE & COMMUNITY SERVICES

Entrepreneurship: Year 2019 - Present

CEO, Ogoouescience, Gabon

- Freelance in statistical data analysis
- Academic support Services
- International consultancy: Invited reviewer for grants and applications to various research and development programmes for the Africa Research Excellence Fund (AREF), including the AREF Research and Development Fellowship, or the AREF Grant Writing Skills (GWS) workshop.
- Invited award reviewer for the *Conseil Africain et Malgache pour l'Enseignement Supérieur* (CAMES).
- International invited article reviewer for scientific journals, including *Wellcome Open Research*, *Acta Tropica*, *Medical and Veterinary Entomology*.

Community services: Year 2018 - Present

- Instructor: School outings for nature discovery
- Volunteer consultant: NGOs for social development FADEC, RNP (Gabon)
- Contributor: Gabon's ecotourism on cave ecosystems (<https://www.grottes-de-lastoursville.org/>)

PUBLICATIONS

H-index: 8 (Calculated with Google Scholar)

Most recent Publications

1. **Obame-Nkoghe, J.**; Makanga, B.K.; Zongo, S.B.; Koumba, A.A.; Komba, P.; Longo-Pendy, N.-M.; Mounioko, F.; Akone-Ella, R.; Nkoghe-Nkoghe, L.C.; Ngangue-Salamba, M.-F.; Yangari, P.; Aboughe-Angone, S.; Fournet, F.; Kengne, P.; Paupy, C. Urban Green Spaces and Vector-Borne Disease Risk in Africa: The Case of an Unclean Forested Park in Libreville (Gabon, Central Africa). *Int. J. Environ. Res. Public Health* 2023, 20, 5774. <https://doi.org/10.3390/ijerph20105774>
2. Olmo, R.P., Todjro, Y.M., Aguiar, E.R., de Almeida, J.P.P., Armache, J.N., de Faria, I.J., Ferreira, F.V., Silva, A.T.S., de Souza, K.P., Vilela, A.P.P., Tan, C.H., Diallo, M., Gaye, A., Paupy, C., **Obame-Nkoghe, J.**, Visser, T.M., Koenraadt, C.J.M., Wongsokarijo, M.A., Cruz, A.L.C., Prieto, M.T., Para, M.C.P., Nogueira, M.L., Avelino-Silva, V., Mota, R.N., Borges, M.A.Z., Drumond, B.P., Kroon, E.G., Sedda, L., Marois, E., Immler, J.-L., Marques, J.T. Mosquito vector competence for dengue is modulated by insect-specific viruses. *Nat Microbiol* 8, 135-149 (2023). <https://doi.org/10.1038/s41564-022-01289-4>
3. N'dilimabaka, N., Mounquegui, D. M., Lekana-Douki, S. E., Yattara, M. K., **Obame-Nkoghe, J.**, Longo-Pendy, N. M., Koumba Koumba, I. P., Banga Mve-Ella, O. L., Koumba Moukouama, S., Dzemo, C. E., Yacka Bolo, L., Biyie-Bi-Nkoghe, P., Mangouka, G. L., Nzenze, J. -R., & Lekana-Douki, J. B. (2022). Biochemical and hematological factors associated with COVID-19 severity among Gabonese patients: A retrospective cohort study. *Frontiers in Cellular and Infection Microbiology*, 12, 1828. <https://doi.org/10.3389/fcimb.2022.975712>
4. Longo-Pendy, N.M., Boundenga, L., Kutomy, P.O.O., Mbou-Boutambe, C., Makanga, B., Moukodoum, N., **Obame-Nkoghe, J.**, Makouloutou, P.N., Mounioko, F., Akone-Ella, R., 2022. Systematic Review on Diversity and Distribution of Anopheles Species in Gabon: A Fresh Look at the Potential Malaria Vectors and Perspectives. *Pathogens* 11, 668.
5. Iroungou, B.A., Mangouka, L.G., Moussavou-Boundzanga, P., **Obame-Nkoghe, J.**, Nzigou Boucka, F., Mouinga-Ondeme, A., Aghokeng, A.F., Tchoua, R., Pineau, P., Nzenze, J.R. Demographic and clinical characteristics associated with severity, clinical outcomes, and mortality of COVID-19 infection in Gabon. *JAMA Network Open*, 4(9), e2124190-e2124190. <https://doi.org/10.1001/jamanetworkopen.2021.24190>
6. Mba, T.N., Obiang, C.S., Elvis, O.N., Mombo, L.E., Ompama, M.A., Zogo, U.K.I., **Obame-Nkoghe, J.**, Engonga, L.-C.O., Ondo, J.P., Bisseye, C., 2021. Prevalence of Typhoid Fever in Franceville (Gabon): Case of the Sino-Gabonese Friendship Hospital; Retrospective Analysis of Clinical Data Over Three Years. *IJTDH* 42, 37-45.
7. Jiolle, D., Moltini-Conclois, I., **Obame-Nkoghe, J.**, Yangari, P., Porciani, A., Scheid, B., Kengne, P., Ayala, D., Failloux, A.-B., Paupy, C., 2021. Experimental infections with Zika virus strains reveal high vector competence of *Aedes albopictus* and *Aedes aegypti* populations from Gabon (Central Africa) for the African virus lineage. *Emerging Microbes & Infections* 10, 1244-1253. <https://doi.org/10.1080/22221751.2021.1939167>
8. Maganga, G.D., Kombila, L.B., Boundenga, L., Kinga, I.C.M., **Obame-Nkoghe, J.**, Tchoffo, H., Gbati, O.B., Awah-Ndukum, J., 2019. Diversity and prevalence of gastrointestinal parasites in farmed pigs in Southeast Gabon, Central Africa. *Vet World* 12, 1888-1896. <https://doi.org/10.14202/vetworld.2019.1888-1896>
9. **Obame-Nkoghe, J.**, Leroy, E.-M., Paupy, C., 2017a. Diversity and role of cave-dwelling hematophagous insects in pathogen transmission in the Afrotropical region. *Emerg Microbes Infect* 6, 1-6. <https://doi.org/10.1038/emi.2017.6>
10. **Obame-Nkoghe, J.**, Rahola, N., Ayala, D., Yangari, P., Jiolle, D., Allene, X., Bourgarel, M., Maganga, G.D., Berthet, N., Leroy, E.-M., Paupy, C., 2017b. Exploring the diversity of blood-sucking Diptera in caves of Central Africa. *Sci Rep* 7, 250-250. <https://doi.org/10.1038/s41598-017-00328-z>
11. Bitome-Essono, P.-Y., Ollomo, B., Arnathau, C., Durand, P., Mokoudoum, N.D., Yacka-Mouele, L., Okouga, A.-P., Boundenga, L., Mve-Ondo, B., **Obame-Nkoghe, J.**, Mbehang-Nguema, P., Njiokou, F., Makanga, B., Wattier, R., Ayala, D., Ayala, F.J., Renaud, F., Rougeron, V., Bretagnolle, F., Prugnolle, F., Paupy, C., 2017. Tracking zoonotic pathogens using blood-sucking flies as "flying syringes." *Elife* 6, e22069. <https://doi.org/10.7554/eLife.22069>
12. Rahola, N., Henni, L.H., **Obame-Nkoghe, J.**, Ayala, D., Makanga, B.K., Lehrter, V., Izri, A., Paupy, C., Depaquit, J., 2016. A molecular study of the genus *Spelaemyia* (Diptera: Phlebotominae) with description of the male of *Spelaemyia moucheti*. *Parasit Vectors* 9, 367-367. <https://doi.org/10.1186/s13071-016-1656-5>
13. **Obame-Nkoghe, J.**, Rahola, N., Bourgarel, M., Yangari, P., Prugnolle, F., Maganga, G.D., Leroy, E.-M., Fontenille, D., Ayala, D., Paupy, C., 2016. Bat flies (Diptera: Nycteribiidae and Streblidae) infesting cave-dwelling bats in Gabon: diversity, dynamics and potential role in *Polychromophilus melanipherus* transmission. *Parasit Vectors* 9, 333. <https://doi.org/10.1186/s13071-016-1625-z>
14. Maganga, G.D., Bourgarel, M., **Obame Nkoghe, J.**, N'dilimabaka, N., Drosten, C., Paupy, C., Morand, S., Drexler, J.F., Leroy, E.M., 2014. Identification of an unclassified paramyxovirus in *Coleura afra*: a potential case of host specificity. *PLoS One* 9, e115588. <https://doi.org/10.1371/journal.pone.0115588>
15. Duron, O., Schnepat, U.E., Berthomieu, A., Goodman, S.M., Droz, B., Paupy, C., **Obame-Nkoghe, J.**, Rahola, N., Tortosa, P., 2014. Origin, acquisition and diversification of heritable bacterial endosymbionts in louse flies and bat flies. *Molecular Ecology* 23, 2105-2117. <https://doi.org/10.1111/mec.12704>

OTHER

Language: French (Native), English (Good fluency, intermediate listening and writing, Advanced Reading), Spanish (Novice).

Interest: Reading, Sport, Music.