



CRID

Second Quarter

Newsletter

#006 April-June 2022

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Scientific Publications April - June 2022

- Vector control and entomological capacity for onchocerciasis elimination**, <https://bit.ly/3xKlx5P>, by Iñaki Tirados, Edward Thomsen, Eve Worrall, Lassane Koala, Tito T. Melachio, María-Gloria Basáñez; published on April 1, 2022, in *Trends in Parasitology*.
- A 6.5kb Intergenic Structural Variation Exacerbates the Fitness Cost of P450-Based Metabolic Resistance in the Major African Malaria Vector *Anopheles funestus***, <https://bit.ly/3QUcVIF>, by Magellan Tchouakui, Leon M. J. Mugenzi, Murielle J. Wondji, Micareme Tchoupo, Flobert Njiokou, Charles S. Wondji; published on April 1, 2022 in *MDPI journals*.
- Comparative study of the effect of solvents on the efficacy of neonicotinoid insecticides against malaria vector populations across Africa**, <https://bit.ly/3la8T4Z>, by Magellan Tchouakui, Tatiane Assatse, Leon M. J. Mugenzi, Benjamin D. Menze, Daniel Nguiffo-Nguete, Williams Tchappa, Jonathan Kayondo, Francis Watsenga, Emile Zola Manzambi, Michael Osae & Charles S. Wondji, published on April 25, 2022 in *Infectious Diseases of Poverty*.
- Temporal variation of high-level pyrethroid resistance in the major malaria vector *Anopheles gambiae* s.l. in Yaoundé, Cameroon, is mediated by target-site and metabolic resistance**, <https://pubmed.ncbi.nlm.nih.gov/35521949/>, by Billy Tene-Fossog, Yvan Gaetan Fotso-Toguem, Nathalie Amvongo-Adjia, Hilary Ranson, Charles S Wondji, published on May 6, 2022, in *Medical and Veterinary Entomology*.
- Multi-omics analysis identifies a CYP9K1 haplotype conferring pyrethroid resistance in the malaria vector *Anopheles funestus* in East Africa**, <https://doi.org/10.1111/mec.16497>, by Jack Hearn, Carlos S. Djoko Tagne, Sulaiman S. Ibrahim, Billy Tene-Fossog, Leon M. J. Mugenzi, Helen Irving, Jacob M. Riveron, Gareth D. Weedall, Charles S. Wondji, published on May 11, 2022, in *Molecular Ecology*.
- Seasonal variation of microbiota composition in *Anopheles gambiae* and *Anopheles coluzzii* in two different eco-geographical localities in Cameroon**, <https://doi.org/10.1111/mve.12583>, by Sandeu MM, Maffo CGT, Dada N, Njiokou F, Hughes GL, Wondji CS, published on May 17, 2022 in *Medical and Veterinary Entomology*.
- Environmental mutations in the Campo focus challenge elimination of sleeping sickness transmission in Cameroon**, <https://doi.org/10.1111/mve.12579>, by Tito Tresor Melachio Tanekou, Calmes Ursain Bouaka Tsakeng, Inaki Tirados, Steve J. Torr, Flobert Njiokou, Alphonse Acho, Charles Sinclair Wondji, published on May 20, 2022 in *Medical and Veterinary Entomology*.
- Assessing the Tsetse Fly Microbiome Composition and the Potential Association of Some Bacteria Taxa with Trypanosome Establishment**, <https://www.mdpi.com/2076-2607/10/6/1141>, by Calmes Ursain Bouaka Tsakeng, Tito Tresor Melachio Tanekou, Steve Feudjio Soffack, Inaki Tirados, Cedrique Noutchih, Flobert Njiokou, Jude Daiga Bigoga and Charles Sinclair Wondji; published on May 31, 2022 in *MDPI journals*.
- Experimental Hut Trials Reveal That CYP6P9a/b P450 Alleles Are Reducing the Efficacy of Pyrethroid-Only Olyset Net against the Malaria Vector *Anopheles funestus* but PBO-Based Olyset Plus Net Remains Effective**, <https://www.mdpi.com/2076-0817/11/6/638>, by Benjamin D. Menze, Leon M. J. Mugenzi, Magellan Tchouakui, Murielle J. Wondji, Micareme Tchoupo and Charles S. Wondji; published on June 1, 2022 in *MDPI journals*.
- Infestation rates, seasonal distribution, and genetic diversity of ixodid ticks from livestock of various origins in two markets of Yaoundé, Cameroon**, <https://doi.org/10.1111/mve.12589>, by Francine Sado Yousseu, Huguette Simo Tchegnna, Basile Kamgang, Doumani Djonabaye, Philip J. McCall, Roland Ndip Ndip, Charles S. Wondji, published on June 3, 2022 in *Medical and Veterinary Entomology*.
- Reduced performance of community bednets against pyrethroid-resistant *Anopheles funestus* and *Anopheles gambiae*, major malaria vectors in Cameroon**, <https://bit.ly/3uR97bF>, by Emilie S. Ngongang-Yipmo, Magellan Tchouakui, Benjamin D. Menze, Leon M. J. Mugenzi, Flobert Njiokou & Charles S. Wondji, published on June 26, 2022 In *Parasites & Vectors*.



Employee Milestone

New staff recruited at CRID

1. Woume Fistel Jobe: **Lab technician**
2. Mbianda Yomi Alain Roger: **IT Technician**

Capacity Building

Academy

Jonas Kengne defended his PhD degree

On Thursday 19 May 2022, Jonas Kengne, a CRID associate researcher successfully defended his PhD degree at the University of Ghana on the topic: "Immunobiology of selected uncharacterized gametocyte-specific proteins of *Plasmodium Falciparum* parasites".

He used the reverse vaccinology approach to prioritize three *Plasmodium Falciparum* proteins that have anti-disease and transmission blocking potentials providing clues for the ongoing fight against malaria, a very innovative study. Bravo Dr Jonas Kengne.



Raissa Nfni presented her Master's Dissertation

It is with distinction that Raissa Nfni defended her Master's Dissertation on Friday, May 27, 2022 at the University of Douala. The scientific nature of her study entitle: "*Transmission of malaria and susceptibility profile of Anopheles to insecticides in the development site of water supply canals in Eman-benyada (Centre Region-Cameroon)*," was accepted by the Jury. Raissa Nfni is part of Prof Cyrille Ndo's team at CRID.





Congratulations Dr Yougang Aurélie

On June 30, 2022, Aurelie Prisca Yougang defended her doctoral thesis in animal biology and physiology at the Faculty of Sciences of the University of Yaoundé I, with distinction. Congratulations Dr Yougang Aurélie Prisca.



Public Engagement

Borehole donation to Mibellon community

On Friday June 10, 2022, Prof Charles Wondji, CRID’s Executive Director inaugurated the borehole donated to the Mibellon community hosting CRID’s experimental field station in the Bankim Health District, Adamawa Region, Cameroon. This donation is in line with CRID’s Public Engagement activities and cooperate social responsibilities.



Events

TVCAG 3rd plenary meeting



Advisory Group (TVCAG), at United Hotel, located in Mbankomo, Centre Region. During this 9 hours meeting, stakeholders assessed the progress made in the control of vector-borne diseases; shared findings and evidences generated by projects launched under PIIVeC. They formulated recommendations to improve the control of vector-borne diseases and discussed the sustainability of TVCAG in Cameroon.

World Malaria Day 2022
25 April

Theme: “Harness innovation to reduce the malaria disease burden and save lives.”

Labour Day 2022

“A moment to reflect on where we want to go”

Celebrated under the theme “Labour world: combating Covid-19, safeguarding jobs and ensuring security”, the 136th edition of the International Labor Day was celebrated on Sunday May 1, 2022. The Centre for Research in Infectious Diseases (CRID) was no exception to the celebration tradition. The event served as an opportunity to remind all CRID’s personnel the values, missions and vision that binds them together. This moment of celebration was held on the 4th floor of CRID’s new building at Odza, Yaoundé.



Crid Awards 2022

1. Caleb Yangkoulo, Accountant



« I was awarded the prize of *Best administrative and financial staff of the year* at CRID. This award took me by surprise. I am really grateful to the Top Management of CRID.»

2. Isabel Kila, Surface technician



« I want to thank CRID so much for recognizing my efforts and I pray God will continue to give me the strength and the wisdom to do my best. I was recognized as the *Best support staff of the year*. I promise to do more in my work.»



3. Francine Sado, Ph.D. student at the University of Buea



« I am really grateful for the award I received today as the *Best student of the year*. I really thank Dr. Huguette Simo for her mentorship, Prof Charles Wondji for the support he is giving to us and all the staff at CRID. I am really motivated to go forward.»

4. Dr. Magellan Tchouakui, Researcher at CRID



« I received this award from my administration as *Best researcher of the year*. This is due to the important number of my publications, the supervision of students as well as the field work that has been carried out. This really means a lot. The next step is to mobilize the funds to be able to continue this wonderful journey.»

5. Ebai Terence Asong, Lab Technician



« My name is Ebai Terence Asong, Lab Technician at CRID. I am really grateful for this award as the *Best Technician of year*. I really appreciate this recognition of hard work.»

bCUBE annual meeting 2022

Evaluation of a new vector control tool

From May 30th - June 3rd, 2022, CRID hosted at its premises a technical meeting & scientific symposium with collaborators from Johns Hopkins University (JHU) & Hyris under the theme: “*Biology of vector-borne pathogens & development of new detection tools*”. It was a capacity building moment during which, Prof Charles Wondji, CRID’s Executive Director & Prof. of Genetics & Vector Biology at LSTM presented an overview of CRID; it’s research activities and facilities. Prof George Dimopoulos, professor at Johns Hopkins Bloomberg School of Public Health presented on the overview of the bCUBE project & its objectives. They experimented larval collection in urban settings of Yaoundé. The last activity was carried out at CRID’s experimental hut station in Elende where they collected adult mosquitoes in households using electric aspirators. Also, the visit at Elende experimental field station helped CRID to evaluate the bCUBE technology as a new vector control tool.



Malaria Symposium

Experts assessed the situation of Malaria in Cameroon



Following the celebration of the 15th International Malaria Day, Centre for Research in Infectious Diseases (CRID) and the National Malaria Control Programs (NMCP) scheduled on May 5, 2022, from 8 a.m. to 5 p.m., a Scientific Symposium at Hotel Franco in Yaoundé. The meeting was organized under the theme; “*Fight against Malaria in Cameroon: challenges and drivers towards elimination*”. This symposium brought together stakeholders involved in the fight against malaria in Cameroon.

Visits

International Coaching Federation (ICF) members visited CRID

On Wednesday, 21 April 2022, a delegation of “ICF” including it’s vice president, Eric Boyle, the Malaria Control Program coordinator, Ye Yazoume; and the operations manager, PMI Measure Malaria, Juliette Ayiee Mvondo Abate visited the Centre for Research in Infectious Diseases (CRID). The aim of this visit was to present to CRID the mission and objectives of ICF as well as initiate discussions on how to establish a collaboration between ICF and CRID.



Partners and funders

