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NEWSLETTER



A publication of the Centre for Research in Infectious Diseases, N°019, Third quarter, July- September 2025

CRID and NMCP strengthen strategic alliance to combat malaria in Cameroon



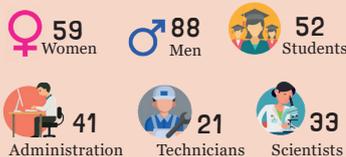
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ACHIEVEMENT CRID's Medical Entomology team earns teaching honour

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OUR STATISTICS



GRANTS

CRID awarded US\$18 million grant for Catalyzing the Adoption of a Novel Vector Control Tool against malaria



CRID has been awarded an \$18.1 million grant from Unitaid to lead the five-year CANVeCT project, which aims to catalyze the adoption of spatial emanators as a novel malaria control tool in Africa. Under the leadership of Professor Charles Wondji, the project will generate critical evidence through randomized controlled trials in malaria high-transmission regions of Cameroon, evaluating the effectiveness of spatial emanators—innovative tools that slowly release chemicals into the air—both alone and in combination with long-lasting insecticidal nets (LLINs). Implemented in collaboration with the Liverpool School of Tropical Medicine (LSTM) and the London School of Hygiene & Tropical Medicine (LSHTM), CANVeCT will support the WHO's current conditional recommendation for spatial emanators and contribute to strengthening the evidence base for their broader use. The initiative also includes operational research in humanitarian settings, social studies on community acceptance, and close engagement with national and international stakeholders to inform policy and scale-up. This effort addresses challenges such as insecticide resistance and limited bed-nets usage, aiming to deliver more effective and scalable malaria prevention strategies.

MOSQUITO DAY The mosquito: Man's best enemy



Since their appearance 245 million years ago, mosquitoes have colonized every environment, from the equator to the polar circles. Their ability to fly around, their great reproductive capacity and their exceptional adaptability enable them to live in most natural and man-made environments. For its part, the human population has grown exponentially and settled all over the planet, making it increasingly necessary to travel fast and far. Today, apart from the burning deserts, Arctic and Antarctic ice, seas and oceans, human societies and mosquitoes have established themselves throughout the globe on a permanent basis. That's why man and mosquitoes are engaged in a daily confrontation that time has reinforced, with each side defending itself with its own weapons.

J-8

Moins de 8 jours pour soumettre les résumés/abstracts dans le cadre de la 14^{ème} édition des Journées Scientifiques du Programme National de Lutte contre le Paludisme. La soumission des résumés est ouverte jusqu'au 27 novembre 2025.

Les chercheurs, praticiens, étudiants et acteurs du secteur de la santé sont invités à partager leurs travaux, innovations et expériences pour contribuer à la lutte contre le paludisme au Cameroun.

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DEFENSE

Achille Jérôme Binyang earns Ph.D with distinction in malaria research

Yaoundé, July 3, 2025. Achille Jérôme Binyang, PhD candidate at the Centre for Research in Infectious Diseases (CRID), brilliantly defended his doctoral thesis at the University of Yaoundé I's Faculty of Science. His pioneering study: "Insecticide Resistance Mechanisms: Impact on Sialome Composition and Sporozoite

Invasion in *Anopheles gambiae* s.l. Giles, 1902, Major Malaria Vectors in Cameroon" sheds new light on malaria transmission dynamics.

Evaluated by a seven-member jury led by Prof. Mimpfoundi Remy, Binyang's work earned unanimous approval and high honors for its rigor and relevance. Supervised by Prof. Wondji Charles

(Liverpool School of Tropical Medicine), Prof. Etang Josiane, and Prof. Njikou Flobert, the research was supported by a Wellcome Trust grant to Dr. Elanga Emmanuel, CRID's Deputy Head of Medical Entomology Department. Congratulations to Dr. Binyang for advancing the fight against malaria with this outstanding contribution.



Portrait

Dr. Achille Jérôme Binyang

Dr. Achille Jérôme Binyang, medical entomologist at CRID, has dedicated his career to unraveling the complexities of malaria transmission. In 2025, he earned his Ph.D. from the University of Yaoundé I, where his Wellcome Trust-funded research explored insecticide resistance in *Anopheles gambiae* and its impact on sialome composition. Guided by esteemed mentors Prof. Flobert Njikou, Prof. Josiane Etang, and Prof. Charles Wondji, his work has illuminated critical pathways for combating resistance in malaria vectors.



Binyang's academic journey began with a BSc in Zoology from the University of Dschang (2011), followed by a Master's in Applied Zoology from the University of Douala (2015). His professional path took shape through internships at OCEAC (2013–2016), where he honed his expertise in evaluating vector control tools like Long-lasting insecticidal nets (LLINs) and spatial repellents. Since joining the Centre for Research in Infectious Diseases (CRID) in 2016, Binyang has risen from Ph.D. intern to Research Fellow, driving innovative studies in field entomology and molecular resistance mechanisms. His work continues to shape effective malaria control strategies, cementing his role as a key figure in global health research.

Project

Dr. Fredy Simo awarded AREF Fellowship research project

Using cutting-edge genetic technology, this new research project aims to uncover the unknown.

Dr. Fredy Brice Nemg Simo is leading a 15-month AREF Fellowship research project, «Building Metagenomics, Bioinformatics, and Leadership Capacity for Identifying Viral Etiology of Acute Fever Infection in Cameroon,» from August 2024 to November 2025. Supported by a £42,500 grant, the project aims to investigate the viral causes of acute fever in Cameroon by using advanced metagenomics sequencing and bioinformatics analysis on patient samples. This initiative seeks to



identify novel pathogens, enhance the understanding of disease dynamics, and build crucial local capacity in cutting-edge genomic and leadership skills.

EVENTS

CRID researchers at EEPE 2025



Dr. Magellan Tchouakui and Mr. Brice Natchema from CRID attended the 37th European Educational Programme in Epidemiology (EEPE 2025) in Florence, Italy from June 16–July 11, 2025. The program sharpens skills in epidemiology and public health through modules on study design, statistics, and infectious diseases. Dr.

Tchouakui also joined a specialized course on field epidemiology in humanitarian crises from July 7–11, 2025. "This will boost my research against infectious diseases in Africa," he noted. Their participation in these strategic meetings reflects CRID's commitment to advancing African public health research.

CRID Attends IMPACTING Project Kick-Off Meeting

On September 22–24, 2025, the IMPACTING project, focusing on combating vector-borne diseases through advanced modeling and monitoring, launched at ICIPE's Duvuvile Campus in Nairobi, Kenya. CRID's delegation consisted of Dr. Basile Kamgang (Entomology Department Head) and Dr. Melachio Trésor (Deputy Head, Parasitology and Microbiology Department), with Dum-Buo Nnamdi, Lead of Social Sciences Unit joining virtually. The three-day meeting, hosted by ICIPE and coordinated by CIRAD, united partners like IRD (Institut de Recherche pour le Développement), CIRAD, CRID, Spy, CPC (Centre Pasteur du Cameroun) and others to set short- and long-term goals, as well as refining partner responsibilities. Concerning IMPACTING project, CRID leads or contributes in Work Packages 2 (innovative surveillance tools), 3 (community-driven solutions), and 4 (microbiome-based control tools), reinforcing its role in shaping global health strategies.



CRID shines at National Forum for Young Researchers

The Centre for Research in Infectious Diseases (CRID) played a pivotal role at the inaugural National Forum for Young Researchers (FNJC), held from September 25–26, 2025, at the Yaoundé Conference Centre, and organized by Centre Pasteur du Cameroun (CPC). This dynamic two-day event united researchers,



lecturers, and decision-makers to advance health research in three key areas: environment, climate, artificial intelligence and health. CRID's contributions were outstanding: Prof. Ndo Cyrille, Head of Parasitology and Microbiology Department, moderated the "Environment and Health" session, while postdoctoral researcher Dr. Melaine Eugénie Magang Kenta delivered a compelling 5-minute presentation on vector control's impact on African trypanosomes in Cameroon's Campo region, competing for top honors. CRID's African Centre for Vector Genomics (AVecGen), funded by the Gates Foundation, showcased its sequencing services and training programs, with Bioinformatics Lead Gadji Mahamat highlighting its

goals. On Day-2, CRID's Executive Director, Prof. Charles Wondji, inspired attendees during a roundtable on building scientific careers in Africa, urging young researchers to "stand out" and seize training opportunities. He shared his journey, emphasizing the "3 Ps: Person, Project, Place." Dr. Emmanuel Elanga presented CRID's mission and cutting-edge facilities, while postdoctoral researchers Drs. Estelle Mewamba, Daniel Nguiffo, Fredy Simo, and Aurélie Yougang led workshops on publishing and project pitching. CRID's impactful presence, including its interactive stand, underscored its leadership in infectious disease research and commitment to shaping Africa's health future.

CANVeCT launches inaugural consortium workshop

The CANVeCT project held its first consortium meeting from September 23–25, 2025, in Mbakomo, Cameroon, bringing together a diverse group of experts to refine strategies for the adoption of spatial emanators as a novel malaria control tool. Funded by Unitaid and led by Professor Charles Wondji, the initiative aims

to generate robust evidence on the effectiveness of spatial emanators—both alone and in combination with long-lasting insecticidal nets (LLINs)—through a randomized controlled trial in Cameroon’s high-transmission regions. The project emphasizes community engagement, operational feasibility,

and cost-effectiveness, with strong support from Cameroon’s National Malaria Control Programme. It also includes entomological surveillance, stakeholder coordination, and global advocacy to inform WHO guidelines and support broader adoption of Spatial Repellents in malaria-endemic countries.



COLLABORATION

CRID and NMCP strengthen strategic alliance to combat malaria in Cameroon

September 2025. CRID and NMCP solidified their partnership by signing a Memorandum of Understanding (MoU) for the CANVeCT project, funded by Unitaid. This initiative will evaluate spatial emanators as innovative vector control tools through randomized controlled trials in communities and a refugee camp setting. Signed by Prof. Wondji and Dr. Meka, the MoU aligns CANVeCT with national priorities, adhering to WHO standards and ethical protocols. This dual milestone strengthens CRID-NMCP collaboration, advancing Cameroon’s fight against malaria.



CDC’S Acting Director Dr. Paige Armstrong visits CRID

On September 5, 2025, Dr. Paige Alexandra Armstrong, Acting Director of the Centers for Disease Control and Prevention (CDC)’s Global Health Center, visited CRID in Cameroon, joined by Dr. Mohamed Jalloh and U.S. Embassy officials. Welcomed by Prof. Flobert Njiokou, CRID’s Deputy Executive Director, and Dr. Magellan Tchouakui, who presented CRID’s projects supported by CDC, the delegation toured advanced labs and insectary, marveling at Next Generation



Sequencing technology. As the highest-ranking CDC official to visit Cameroon in over 20 years, Dr. Armstrong’s visit strengthens CRID-CDC collaboration in innovative infectious disease and vector-control research.

CRID and IITA set to launch innovative research partnership

On August 25, 2025, Dr. Komi Fiaboe, International Institute of Tropical Agriculture (IITA)’s Cameroon representative, visited CRID in Yaoundé to discuss a groundbreaking partnership blending agricultural and global health research. Prof. Wondji urged ambitious collaboration, building on IITA’s ties with the Liverpool School of Tropical Medicine. “We need to innovate and explore new fields together,” he said. Dr. Komi highlighted shared interests in insecticide use



and malaria vector resistance. After touring CRID’s insectary and sequencing facilities, both parties announced an imminent agreement to drive impactful interdisciplinary research.

NMCP attended ACoMVeC ORPs dissemination

On September 17, 2025, CRID hosted a pivotal meeting in Yaoundé with Dr. Albert Zeh Meka, Permanent Secretary of Cameroon’s National Malaria Control Programme (NMCP), and his delegation. The event, part of the ACoMVeC Operational Research Projects (ORPs) dissemination, featured four modeling experts sharing critical insights to enhance malaria control strategies.



Dr. Sonkoue Byliole as NMCP team member advocated for piloting Indoor Residual Spraying (IRS) alongside insecticide-treated nets, emphasizing a phased approach. Dr. Wamba Huguette urged stronger community adherence to antimalarial treatments like ACTs to curb resistance. Dr. Kamgang Jean-Claude as third member of the team, pushed for adopting next-generation nets and continuous impact monitoring. Dr. Meka welcomed the recommendations, declaring the experts a vital resource for NMCP. Prof. Charles Wondji, CRID’s Executive Director, highlighted the role of mathematical modeling expertise in this collaboration, poised to drive malaria elimination efforts.

ACHIEVEMENT

CRID’s Medical Entomology team earns teaching honour

The Medical Entomology course (IBC302), led by CRID staff in partnership with CERMEL Gabon and Eberhard Karls Universität Tübingen, has been named one of the top three teaching modules out of 18 in the Infection Biology and Control program for Summer 2024 and Winter 2024/25 semesters. The Faculty of Medicine awarded this prestigious certificate, celebrating the team’s outstanding dedication and expertise in shaping future scientists. Heartfelt thanks to students, colleagues, and partners for their vital support in elevating global health education.



CRID and ICARS launch project to tackle antimicrobial resistance in urban agriculture

Yaoundé, September 2025 —CRID and the International Centre for Antimicrobial Resistance Solutions (ICARS) launched a project to curb antimicrobial resistance (AMR) in urban agriculture, focusing on wastewater-related risks in Cameroon. Led by Prof. Bougnom Blaise, the initiative was unveiled at a ceremony in Yaoundé, attended by key stakeholders among which Dr. Zeh Kakanou Florence, representing the Minister of Public Health, Dr. Sunday Ochonu Ochai from ICARS, Cyrille Bello Sinata from the Ministry of Environment, and CRID’s Deputy Executive Director, Prof. Njiokou Flobert.

The event drew about 70 participants from academia, agriculture, community leadership, and media, fostering a



collaborative approach. A strategic workshop outlined the project’s three-phase roadmap, ensuring stakeholder alignment and shared goals. By addressing AMR’s threat to public health, food security, and sustainability, CRID and ICARS aim to drive innovative solutions and mobilize support for this critical challenge.

CRID staff attend in-house RAMP training

Yaoundé, August 27, 2025 —CRID took a bold step toward strengthening its institutional capacity by hosting an intensive Research Administration and Management Programme (RAMP) training session. Designed by the Liverpool School of Tropical Medicine (LSTM), this dynamic program equips research staff with critical skills to elevate institutional management and drive impactful scientific outcomes.

Led by CRID's own certified LSTM trainers,—Project Manager Bruno Essame and Finance Officer Romario Munakwa,—the session was enriched by virtual peer observation from LSTM Programme Manager Martina Savio. In his opening address, Prof. Charles Wondji, CRID's Executive Director, urged the 14 participants, including postdoctoral researchers, IT, finance, and HR staff, to seize this opportunity to master research management, finance, and administration. "These skills are vital to transforming our vision into tangible

results," he emphasized.

The training delved into key modules such as communication, the grant lifecycle, budgeting, and cost types, illuminating the pivotal role of support staff in meeting project goals. By fostering a deeper understanding of these areas, the RAMP session empowered participants to streamline operations and enhance CRID's cutting-edge research on infectious diseases. This initiative underscores CRID's commitment to building a robust, skilled workforce, positioning the institution as a leader in global health research. As Prof. Wondji noted, "Investing in our team's expertise is investing in Africa's health future."



EMPLOYEE MILESTONE

ARRIVALS



1. Ebonzille Elvis Ewane - Master Student
2. Ntadoun Wandji Megane - Human Resource Intern
3. Enow Mpang Tambi Catherine - Master Student
4. Faye Mouhamdou Bassir
5. Afumbi Silvio Akuwimbom-Master Student
6. Andreen Enowkpen Otu - Master Student
7. Ivanna-Tracy Namondo Beseka - Master Student

DEPARTURES



1. Ivan Malcom Ntoke Tchouenkou - Master Student
2. Ntadoun Wandji Megane - Human Resource Intern
3. Ebonzille Elvis Ewane - Master Student

SCIENTIFICS PUBLICATIONS

Theofelix A. Tekoh, Leon M. J. Mugenzi, Benjamin Menze, Williams Tchappa, Murielle Wondji, Magellan Tchouakui, Graham Small & Charles S. Wondji. *The duplicated cytochrome P450 CYP6P9a/b confers cross-resistance to a mitochondrial complex I inhibitor in the African malaria vector Anopheles funestus.* *BMC Genomics* 26, 837 (September 2025). <https://doi.org/10.1186/s12864-025-11984-1>

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