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NEWSLETTER



A publication of the Centre for Research in Infectious Diseases, N°020, Fourth quarter, October-December 2025

ACHIEVEMENT & AWARDS

First Mosquito Genome successfully sequenced at CRID



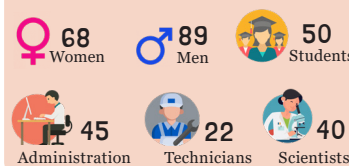
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Nelly Tatchou named 2025 P'ORÉAL-UNESCO for women in science laureate for Sub-Saharan Africa



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OUR STATISTICS



SCIENTIFIC TRIBUTE

Prof Charles Wondji: now a historical figure in science



A research team from the University of Yaoundé I, led by Prof Guy Benoît Lekeufack-Folefack, has discovered a new parasite species called *Myxobolus wondjii* sp. nov. This study, published in the *European Journal of Taxonomy*, reveals that the parasite infests fish in Cameroon. In recognition of his invaluable technical support for the research and his significant contributions to science in Africa, Prof Charles S. Wondji, Executive Director of CRID, has been honored with the species name "Wondjii".

Support from CRID expert. The success of this research is largely due to the expertise of CRID's researchers. Dr. Billy Tene Fossog, research scientist at CRID and expert in molecular analysis and genetics, played a crucial role in identifying and studying this new parasite. Additionally, Mrs. Murielle Wondji, CRID's Lab Manager, contributed her expertise in genomics and molecular biology, overseeing the laboratory processes that led to this discovery.

Leadership acknowledgement. Naming a new species after Professor Wondji is more than just an honor; it acknowledges his leadership and vision for advancing health initiatives. As a leading expert in the fight against infectious diseases in Africa, Prof Wondji's work contributes to finding real-world solutions for the well-being of people both in Africa and globally. This discovery highlights the potential of African research institutions like CRID to act as catalysts for local scientific breakthroughs.

INNOVATION

NOVASEQ6000 workshop at CRID



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EVENT

NMCP Scientific Days



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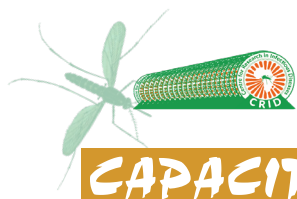
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ASTMH Annual Meeting
TropMed26
 November 18-22, 2026
 Gaylord National Harbor, MD, USA
 (Adjacent to Washington, DC)

CALL FOR SYMPOSIA

Advancing Science for Tropical Medicine and Health

ASTMH



CAPACITY BUILDING

CRID attends Communities of Practice Engagements in Malawi

CRID recently deepened its international collaborations by actively engaging in Communities of Practice (CoP) meetings on IT, Knowledge Exchange, and Data Management held in Malawi as part of the International Funding for Research Culture (IFRC) project led by the Liverpool School of Tropical Medicine and partners. Across these engagements, CRID representatives contributed to shaping cross-hub IT governance and cybersecurity strategies, advancing knowledge exchange to enhance research impact on health policy, and strengthening data management

practices through peer learning and adoption of innovative tools. These strategic exchanges, involving partners from Zimbabwe, Kenya, Malawi, Cameroon, and the UK, underscored CRID's commitment to building sustainable research infrastructure, fostering regional collaboration, and driving innovation in health research, positioning the institution as a leader in impactful and policy-relevant science across Africa.

Knowledge exchange meeting
From October 6-10, 2025, Dr. Trésor Melachio, Researcher, and Edith Tiogo,

Communication Officer, represented CRID at the inaugural Knowledge Exchange Community of Practice meeting in Blantyre, Malawi.

This strategic workshop aimed to establish a platform for promoting Knowledge Exchange (KE) best practices among research institutions. This engagement was done in collaboration with the Centre for Sexual Health and HIV/AIDS Research (CeSHHAR) Zimbabwe, the Malawi Liverpool Wellcome Programme (MLW), the Liverpool School of Tropical Medicine (LSTM) and Kenya Medical Research Institute (KEMRI). KE is



known as a collaborative process that shares research findings, expertise, and experiences to inform decision-making, policy development, and practice improvement. This session in Malawi was implemented as part of the International Funding for Research Culture Initiative funded by LSTM and its collaborators.

ACHIEVEMENT & AWARDS

Nelly Tatchou named 2025 L'ORÉAL-UNESCO for women in science laureate for Sub-saharan Africa

Nelly Tatchou, PhD student at the University of Buea has been selected as a laureate of the prestigious 2025 L'Oréal-UNESCO For Women in Science Young Talents Award for Sub-Saharan Africa in the Biological Sciences category. Nelly's selection highlights both the excellence of her research and the vital role that young African women scientists are playing in addressing global health challenges. In a heartfelt message following the announcement, Nelly Tatchou expressed deep gratitude to everyone who has supported her journey. She extended special thanks to her supervisor, Prof Charles Wondji, for his unwavering commitment to advancing women in science and for the mentorship that has been instrumental to her success. This recognition not only celebrates Nelly's scientific achievements but also underscores CRID's ongoing efforts to nurture the next generation of female researchers in infectious disease studies and beyond. Congratulations to Nelly Tatchou for this well-deserved honour!



First Mosquito Genome successfully sequenced at CRID

CRID has marked a major milestone in African science with the acquisition, installation, and validation of the Illumina NovaSeq6000, one of the world's most advanced high-throughput sequencing platforms. Made possible through the Gates Foundation funding and a donation from the Sanger Institute, the system permitted CRID scientists to achieve two historic breakthroughs: the first full mosquito genome sequenced on African soil, generating 306Gb of high-quality data, and the first total transcriptome sequencing of mosquito species, unlocking real-time insights into gene expression for vector control. Following rigorous installation and validation earlier in the year, the platform achieved a Q30 score above 93%, confirming its readiness to deliver routine, globally benchmarked sequencing. "At CRID, we do whole genome and RNA sequencing, alongside Sanger Sequencing. Through the AVecGen project, we now have a complete platform for sequencing", Prof Charles Wondji said. "We're open to collaboration with the community across Africa, those working in vector biology and beyond. We can now maximise the power of genomics to help improve the surveillance and control of vector-borne diseases on the continent", he added.



DEFENSE

Malick Pane defends his Ph.D thesis in mathematical modeling



December 20, 2025. Malick Pane, former Ph.D student under the ACoMVeC project successfully defended his thesis in Mathematical Modeling at the Polytechnic School of Thiès (EPT), Senegal. His dissertation, titled "Intra-Host Dynamics of *Plasmodium falciparum*: Evolution, Emergence, and Control of Antimalarial Resistance", investigates the complex dynamics of malaria infection and the

evolution of drug resistance in the *Plasmodium falciparum* parasite. His work was conducted under the supervision of Prof Ramsès Djidjou-Demasse from IRD (Institut de recherche pour le développement) France and Prof Ousmane Seydi from EPT in Senegal. As part of the African Consortium in Modeling for Effective Vector Control (ACoMVeC) program at CRID, funded by

the Gates Foundation, Pane was selected in 2023 as one of the first Ph.D students in Mathematical Modeling for this three-year initiative. His contributions mark an important advancement in understanding malaria dynamics and addressing the urgent challenge of antimalarial drug resistance in Senegal and the broader African context.

EVENT / SOVE 2025

CRID researchers represented RAFT

Dr. Tedjou Arnel, a postdoctoral researcher, and Christophe Keumeni, a Ph.D candidate represented the Resilience Against Future Threats (RAFT) team at the Society for Vector Ecology (SOVE) 2025, held in October, in Chania, Greece.

During the event, they actively showcased RAFT's cutting-edge advancements in vector control, highlighting the team's

commitment to addressing emerging public health threats. Also, they engaged with global experts in vector ecology, exchanging innovative strategies and insights. In addition to sharing research, Dr. Tedjou and Mr. Keumeni advocated for the establishment of a SOVE African chapter, aiming to foster stronger regional collaborations and amplify Africa's voice in global vector research initiatives.





CRID showcases scientific leadership at ASTMH 2025

CRID demonstrated its leadership in vector control and malaria research at the 74th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH), in Toronto, Canada.

A team of CRID researchers actively participated in the RAFT (Resilience Against Future Threats through Vector Control) Symposium on Research on African Vectors of Tropical Diseases during American Society of Tropical Medicine and Hygiene (ASTMH) Annual Meeting in Toronto, Canada. Their contributions underscored CRID's commitment to advancing global health innovation.

During the symposium, Dr. Fotso Toguem Yvan presented findings on the "Transcriptomic Signature of Vector Responses to LLINs During Experimental Hut Trials," revealing significant gene expression changes

in resistant mosquito populations. Prof Wondji Charles followed with a presentation on the "Genomic Signature of Vector Responses to LLINs During Experimental Hut Trials," identifying adaptive mutations that inform the design of next-generation vector control tools.

On Day 2, Keumeni Christophe Rostand, a Ph.D student at CRID, presented a compelling poster titled "First report of F1534C, V410L and V1016I kdr mutations associated with pyrethroid resistance in Aedes aegypti, a major arbovirus vector in Cameroon." His research revealed strong resistance in Aedes aegypti

populations to pyrethroids and bendiocarb, while fenitrothion and clothianidin remained fully effective.

Dr. Tedjou Armel, Postdoctoral Researcher at CRID, participated in ASTMH conference as a representative of the Resilience Against Future Threats through Vector Control (RAFT) Consortium. He delivered a pivotal presentation titled "Entomological and Molecular Surveillance in High-Risk Entry Points of Cameroon, Central Africa." Dr. Magellan Tchouakui, Wellcome Trust fellow at CRID presented findings on chlorfenapyr resistance in Anopheles



gambiae, the major malaria vector in Cameroon.

CANVeCT Exposure. During this event, Catalyzing the Adoption of a Novel Vector Control Toolbox (CANVeCT) team connected with global stakeholders and researchers. The aim was to foster collaboration, elevate the visibility of spatial emanators, and promote innovation in vector control.

CRID hosts the bCUBE annual meeting

From December 1 to 5, 2025, (CRID) hosted the bCUBE Annual Meeting – Phase 2 in Yaoundé, bringing together partners from Johns Hopkins University (JHU) and Hyris Ltd. for a week of scientific exchange, training, and fieldwork. The program opened with Dr. Armel Tedjou, Project Coordinator presenting the agenda and Prof Charles Wondji, Principal Investigator, officially launching the meeting, followed by discussions on progress in diagnostic assay development and deployment of the surveillance system. Participants engaged in laboratory sessions on multiplexing, dry cartridge production, and Standard Operating Procedure (SOP) development. On Day-2, Prof Georges Dimopoulos from JHU delivered a symposium on gene drive technologies and microbial biopesticides. On December 4, a stakeholder engagement meeting at Franco Hotel gathered leading experts, including representatives from National Malaria Control Programme (NMCP), universities, Non Gouvernemental Organizations (NGOs), medias, civil society, to highlight the advantages of bCUBE technology and introduce VectorCam as a rapid, affordable vector surveillance tool. The week concluded with a field trip to Mbandjock, where teams conducted mosquito collection and on-site analysis using bCUBE and VectorCam, confirming the system's effectiveness. Marked by collaboration, innovation, and practical application, the 2025 bCUBE Annual Meeting underscored CRID's pivotal role in advancing malaria surveillance and control strategies across Africa.



Antimicrobial resistance & urban agriculture in Cameroon

On December 4, 2025, as part of the ICARS project, a focus group discussion was held in Nkolondom 1&2 and Nkolbisson, guided by Dr Gérard De La Paix Bayiha, Agricultural Economist and Mr Lienou Miterand Social Psychologue. The session aimed to present the study, outlining its objectives and expected outcomes. The primary focus was on preventing the spread of antimicrobial resistance (AMR) stemming from wastewater through urban agriculture practices in Cameroon. Activities were structured to encourage effective engagement and discussion among local farmers from each site.



Expected results from this discussion include insights into the role of urban agriculture in combating AMR and strategies for implementing effective practices. A comprehensive timeline and modalities for participant support were established to ensure smooth execution of the study. This discussion was crucial to address the challenge of antimicrobial resistance in urban environments.



CRID finance head at CANVeCT workshop in the UK

On November 2025, Falenne Yinike Kwalar, Finance Head at CRID, convened the CANVeCT Finance Kickoff Workshop at LSTM. As the key facilitator, Falenne led major discussions on UNITAID financial guidelines, management expectations, reporting deadlines,

templates, and audit procedures. Also, she focused on the importance of strict compliance, timely reporting, and proactive grant management. Beyond the presentation, Falenne built valuable connections with finance focal points from prestigious partners: Liverpool School of Tropical Medicine

(LSTM) and London School of Hygiene & Tropical Medicine (LSHTM). "This workshop clarified the expectations of the finance team and opened new doors for CRID's research by connecting us with global innovators," Falenne shared. These collaborations promise even greater impact ahead!

NMCP Scientific Days

CRID was a partner of the first edition of the Scientific Days of the National Malaria Control Programme (NMCP) held in December 2025 in Yaoundé, Cameroon. Prof Charles Wondji, CRID's Executive Director moderated the first plenary session, focused on the "Epidemiological situation of malaria". As key speaker, Dr Zeh Meka, Permanent Secretary of the NMCP stressed the urgent need to shift from

malaria control to its eradication. "In a context of limited resources, we must be efficient in our techniques and innovate to impact malaria control" he added.

The opening ceremony was chaired by Dr Manaouda Malachie, Minister of Public Health (MoH). During his speech, he emphasized the importance of research in achieving the country's goals in the fight against malaria. The stand visit gave the opportunity to CRID's team to present it's innovative tools to a delegation of parliamentarians and representatives from the Ministry of health.



The NMCP Scientific Symposium III featured an inspiring session dedicated to CRID's groundbreaking work, moderated by Dr. Goupeyou Jessy, Global Advocacy Officer at CRID. Dr. Tchouakui Magellan presented crucial findings on how esterase variants and P450-suppression drive chlorfenapyr resistance in malaria vectors, shaping nextgeneration insecticide strategies.

Prof Cyrille Ndo, Head of Parasitology and Microbiology Department at CRID, addressed rapid diagnostic tests discordance in malaria rapid tests and the operational challenges this poses for surveillance and treatment in forested Cameroon. Dr. Estelle Mewamba introduced the African Centre for Vector Genomics (AVecGen), highlighting its role in advancing malaria control through genomics. Prof Charles Wondji concluded with the innovative CANVeCT project, underscoring its potential to generate evidence for spatial emanators as a promising new tool for malaria vectors control.



INNOVATION

NOVASEQ6000 workshop at CRID



The NovaSeq6000 platform was launched with a training workshop on December 9, 2025, enabling CRID researchers to master its technical features. Beyond technology, the workshop was designed to strengthen the expertise of CRID scientists and technicians in library preparation and sequencing workflows. Led by ISN life scientist Harry Adi from Ghana, this intensive program focused on generating libraries using different Illumina library preparation kits followed by sequencing. Participants engaged with advanced topics such as sample quantification and normalization, thermal programming, Deoxyribonucleic Acid (DNA) fragmentation, and amplification. The programme ran from until December 17th, 2025.

With this platform now operational, CRID is positioned to become a leading centre for genomics in Africa, fostering local innovation and supporting collaborative research at regional and international scales.

Safeguarding Report 2025

In 2025, CRID conducted safeguarding awareness fieldwork in Mibellon, Mangoum, and Mbandjock, where we visited key sites, engaged local stakeholders including mosquito collectors and community leaders, identified several key issues through interviews and

questionnaires, and provided targeted recommendations to address them. For greater awareness, safeguarding flyers were also posted at the experimental sites in Mangoum. The goal was to sensitize the local population on what safeguarding entails, how to identify

potential safeguarding issues in our research activities, and the proper ways to report concerns—strengthening trust and safety for all involved within our research program. We continue to ensure that our programs do no harm to the communities we serve



STAFF UPDATES

ARRIVALS



1. **Mella Tamko Epse Tchountchui Ghislaine Flore**, Senior Research Technician
2. **Lekaboth Akpwe Tsague Aude Karelle**, Administrative Coordinator
3. **Fopa Mefopa Epse Beng Achemkezeh**, Project Coordinator
4. **Feufack Nguessap Kevine Eudoxie**, Lab technician Intern
5. **Asoh Becky-Lisa Ndanga**, Communication Officer Intern
6. **Welepe Yonta Nisse Cybelle**, Lab Technician Intern
7. **Mathias Ngong Njoya**, Procurement Officer
8. **Prof Njengoue Ngamaleu Henri Rodrigue**, Researcher
9. **Dr Bayiha Gérard De la Paix**, Researcher
10. **Dr Ayima Charlotte**, Senior Epidemiologist
11. **Dr Bouopda Tuedom Aline**, Post doc
12. **Goupeyou Youmsi Jessy Marlène**, Global Advocacy Lead
13. **Ayok Maureen Tembei**, Health Economist
14. **Seukam Kouenkap Stéphane Brice**, Demographer
15. **Ngankeu Tooua Paule Dorcas**, Student
16. **Ngounou Ngnipibeo Ivana**, Student
17. **Ndeki Selina Anthony**, Visitor

DEPARTURES



1. **Chejoun Jonathan**, Lab Technician
2. **Yimiga Fonkou Michelle epse FOTSO**, Post doc
3. **Karson Panacea Miracle**, Master Student
4. **Toukam Chanelle Joyce**, Master Student
5. **Tangan Yannick**, Master Student
6. **Faye Mouhamdou Bassir**, Visitor
7. **Ndeki Selina Anthony**, Visitor

SCIENTIFICS PUBLICATIONS

- Lisandru Capai, Giovanni Begliomini, Basile Kamgang, Souand Mohamed Ali, Sarah Temmam, Thomas Bigot, Gisèle Liliane Machuetum, Christophe R. Keumeni, Francine S. Yousseu, Christian Nsangou Yogne, Gael Dieudonné Essima, Landry Mouchili, Christian Meke, Vincent Kome, Rodrigue Poueme, Ahmadou Alkaissou, Richard Njoum, Paul Alain Tagnoukam-Ngoupo & Nolwenn M. Dheilly. *Molecular detection of human-derived Jingmenvirus in multiple mosquito species from Yaoundé, Cameroon. Parasites Vectors* (15 December 2025). <https://doi.org/10.1186/s13071-025-07111-4> [Download the article](#)
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