



Will STEVENS at the UCRC laboratory:

« I am very honored to have visited this incredible research center....»



Farewell ceremony in honor of Fatoumata BATHILY, after 10 years of serving the biomedical research community

WORDS FROM THE DIRECTOR OF THE UCRC



Dear colleagues and partners,

I would like to share my best wishes for the ongoing success of our mission to put scientific research and innovation for sustainable progress for entire society. The last couple of years have been marked by many challenges. However, thanks to your dedication, expertise, and team spirit, we have managed to overcome obstacles and turn them into opportunities.

I would like to thank everyone for hard work, passion, and resilience in research. Your efforts have not only contributed to the development of our center, but have also had a significant impact on the surveillance and response to the epidemic in our communities. Together, we have made scientific advances that I hope will have a positive impact on many people's lives.

We are aware that, in addition to the “clinical trials” we conduct to evaluate new drugs or medical devices, clinical research covers a broader field involving the identification of molecular or cellular mechanisms involved in diseases, which in turn enable the identification of new therapeutic targets. All this research must be conducted in strict compliance with ethical principles of good clinical and laboratory practice, as well as under sound conditions of administrative governance and management. It also requires the mobilization of resources through competitive calls for projects and requests for collaboration. The UCRC offers a unique opportunity to integrate all these aspects through multidisciplinary teams and to intensify national and international collaboration.

We must therefore remain pragmatic in our approach, with a clear focus on enhancing our appeal, developing our research capabilities, and maintaining efficiency in order to guarantee our scientific independence and ensure the scientific output of our projects. I hope that we will continue to focus on fostering collaboration and innovation. May the coming years be synonymous with success in all our endeavors, new discoveries, and the pursuit of excellence in all fields.

Together, let us take on new challenges, inspire each other, and remain committed to our mission.

Best regards,

Prof. Seydou Doumbia, MD, PhD

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USA-MALI SCIENTIFIC AND BIOMEDICAL COOPERATION: WILL STEVENS, DAS FOR WEST AFRICA, VISITED THE USTTB LABORATORIES

On a working visit to the Republic of Mali, the US Deputy Assistant Secretary (DAS) for West Africa, Will STEVENS, accompanied by the US Ambassador to Mali, H.E. Rachna KORHONEN, paid a courtesy visit on Tuesday, July 22, 2025, to the biomedical research units of the University of Sciences, Techniques and Technologies of Bamako (USTTB), gathered within the International Center of Excellence in Research (ICER Mali), located at point G.

This visit, led by the Rector, Professor Mahamadou DIAKITE, concerned the laboratories of the Parasites and Microbes Research and Training Center (PMRTC), the University Clinical Research Center (UCRC), and the Infectious Diseases and Medical Entomology Research and Training Center (IDMERTC).

Prof. Bassirou DIARRA, BSL3 Manager at UCRC : « *This Biosafety Level 9 (BSL3) laboratory was built specifically for tuberculosis diagnosis, culture and drug testing. At the time, we were not only conducting our research protocols with the NIH, we were also supporting the national Drug Susceptibility Testing (DST) and culture program.* »

Prof. Seydou DOUMBIA, Director of

UCRC : « *This laboratory is now BSL9½. During the Ebola outbreak, everyone was very concerned because, only level 4 laboratories could diagnose the virus. Fortunately, with the collaboration of our colleagues at Rocky Mountain, we were able to upgrade to level 3+ in order to increase our testing capacity. This laboratory is certified annually by National Institutes of Health (NIH.)*»

At the end of the guided tour, which took place in the presence of researchers and heads of research units, the guests were impressed by everything they visited, which is the result of over three decades of scientific cooperation between the United States of America and the Republic of Mali in biomedical research.



Deputy Assistant Secretary (DAS) for West Africa, Will STEVENS

« I am very honored to have visited this incredible research center; the work being done here contributes to the protection of people around the world; it is truly impressive to see Malian scientists working hand in hand with their American colleagues and those around the world. You truly have world-class scientists. This is a good example of collaboration with the United States of America; this collaboration has existed for several decades. ».

He said, *« Most of these researchers studied in the United States and obtained their PhDs, so you can understand that this is a significant group of researchers*

involved in this center. This partnership, built on mutual trust for many decades, has created a world-class solution. I'm impressed by several aspects: world-class technology, world-class researchers, and the commitment of communities to help solve this malaria problem. Seeing people come voluntarily to participate in clinical trials is a community spirit that touches me. ».

U.S. Ambassador to Mali, H.E. M. Rachna KORHONEN : *« I look forward to the day when the first factory opens on this campus that will create, produce, and supply vaccines to the world. I remain very optimistic that this day will come, thanks to the efforts of these scientific researchers. ».*

This collaboration, which has enabled the construction of a world-class biomedical research infrastructure at the USTTB through the National Institutes of Health (NIH) and has helped support responses to several diseases, including the Ebola virus epidemic and COVID-19 in Mali and Guinea.

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COMMUNITY HEALTH CENTER OF THE VILLAGE OF FREINTOUMOU (COMHC) RECEIVES A SIGNIFICANT DONATION OF MEDICAL EQUIPMENT, \$25,305

Located in the Ouéléssébougou health district, the Community Health Center of the village of Freintoumou, in the Koulikoro Region, bearing the name of Professor Seydou DOUMBIA, has received a significant donation of medical equipment.

The donation, which includes an ultrasound machine with **four** probes (thoracic and cardiovascular, abdominal, pelvic, and vaginal), three medical beds, a delivery table, two medical carts, **1,000** impregnated mosquito nets, and antimalarial drugs, was made by the Issa Yena Association for Mutual Aid, Solidarity, and Education in partnership with the Medical Assistance Association and the University Center for Clinical Research.

“We joined forces to make this gesture at the Seydou DOUMBIA Community Health Center (ComHC), to contribute to improving healthcare for the population.”, said **Sadio Moussa YENA, Issa YENA Association Representative.**

Worth **\$25,305**, this equipment, which meets the needs expressed by healthcare staff and the Community Health Associa-

tion (ASACO), should enhance the technical facilities and improve the quality of care.

“I am overwhelmed with joy and gratitude. Last week, we visited with a representative of the Issa YENA Association for Mutual Aid and Education, Professor Sadio YENA. During our discussions, the medical staff told us about the equipment they need.”, expressed **Prof. Doumbia DOUMBIA, Homonym/Director of the UCRC.**

Dr. Abderahmane DICKO, Chief Medical Officer of the Ouéléssébougou Health Referral Center, *“Our needs have been met, and I am truly grateful. Before, all these facilities were only available in the city, but today the village of Freintoumou has them! From now on, healthcare providers will do a great job, ...”*



Like many villages in Mali, Freintoumou has a high incidence of malaria, with more than 75% of cases during the rainy season, particularly at peak times.

“Our health area covers eight villages and two hams, with more than 16,300 inhabitants. Out of every ten patients, we record ten cases of malaria. This donation is a source of real pride for me, the entire ASA-CO, and all the member villages. We thank the donors and let them know that the equipment will be put to good use.”, said **Gaoussou KONE, Chief Medical Officer of ComHC.**

Aside from these challenges, ultrasound screening is a real issue for pregnant women. To access it, often at a high cost, they must navigate over 20 miles of poorly maintained roads.



Laya YALCOUYE, Midwife at the ComHC: *“I am very happy with today’s gesture. We really need the ultrasound machine in our ComHC. To have ultrasound tests done, pregnant women from the village had to go to Dialakoroba, which is miles away... Even in emergency cases, they are referred to the Ouéléssébougou Referral Health Center, where results take time and often cost a high price. This donation will be a great help to the community, especially to us as healthcare workers.”*



Soon, all these challenges will be forgotten by the people of Freintoumou and the surrounding area, thanks to the unwavering commitment of Prof Doumbia, who aspires to other successful health initiatives for the benefit of the health area.

“Given the donation made, the future looks bright, and I’m very impressed by the indicators. Indeed, in terms of vaccination indicators, we can see that initially there was motivation among the population, but the rate eventually dropped. The same is seen for prenatal consultations. Hence the need to engage in advocacy activities such as community discussions and debates.”, suggested **Dr. Issa Souleymane GOITA, Community Doctor.**



“My ambition is to make this ComHC a university health center. We want to train medical students and bring them here, so that they can not only support the medical staff but also learn about the realities on the ground to integrate the experience they acquire into community health management.” **Added Prof. Doumbia DOUMBIA, Homonym/Director of the UCRC.**

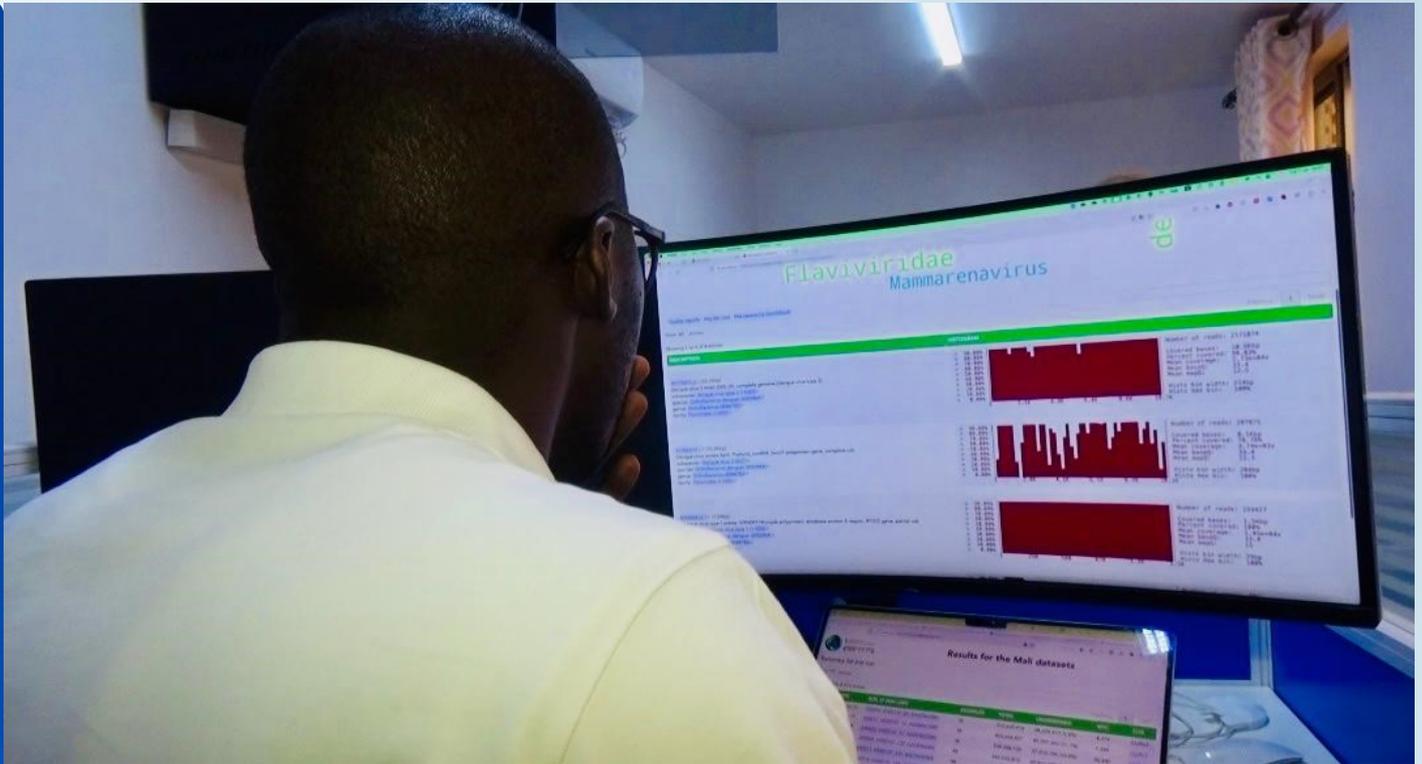
The decision to name the Freintoumou Community Health Center after Professor Seydou Doumbia is far from insignificant. It is a sign of gratitude to this world-renowned scientist, who has made the health of communities a top priority through his research and training activities.



Dr. Fousseyni KANE, President of the 7th Cohort of Numerus Clausus/ Medical Doctor: *“During the 7th cohort of the Numerus Clausus of the Faculty of Medicine and Odontostomatology (FMOS) graduation, we targeted two villages (Freintoumou and Sanabélé) for health activities, such as medicine donation and free medical consultations. It was during these activities that we, together with the local authorities, decided to name this ComHC after Professor Seydou DOUMBIA. At this time, he was the Dean of the Faculty of Medicine and was the godfather of our Cohort.”*

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PREVENTION AND CONTROL OF DENGUE IN WEST AFRICA: A STUDY AT THE UCRC REVEALS RELEVANT INDICATORS

Dengue fever, also known as “tropical flu,” is an infectious disease caused by the dengue virus, transmitted to humans by Aedes mosquitoes, also known as “tiger mosquitoes,” and primarily occurring in urban and peri-urban areas

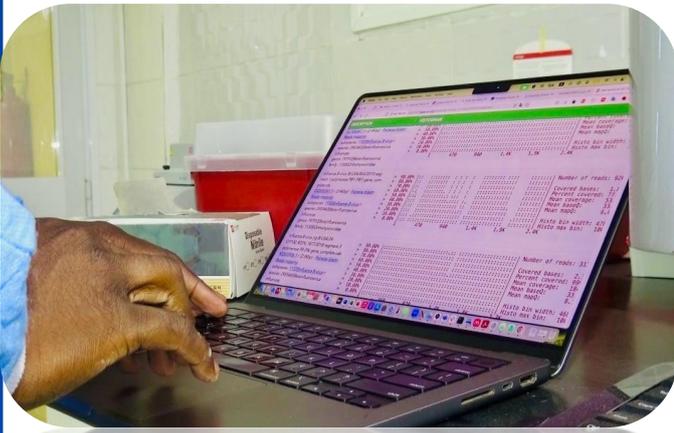
Inscrit aujourd’hui aux rangs des maladies dites « ré-émergentes » ; l’incidence de cette tueuse silencieuse parfois confondue au palNow classifiée comme une “re-emerging” disease, l’incidence de ce tueur silencieux, parfois confondu avec le paludisme, est actuellement en augmentation significative dans les pays du Sahel, en particulier au Mali.

Dengue est une maladie virale qui, selon le **Dr Fousseyni KANE, Docteur/Biostatisticien-Bioinformaticien à l’UCRC**, provoque des maux de tête, des douleurs musculaires, des vomissements, et peut même entraîner des saignements.

De août 2023 à mai 2024, six districts de Bamako, la capitale malienne, ont été touchés par cette épidémie, qui affaiblit, appauvrit, et tue souvent. Durant son assaut virulent, 1 422 cas ont été confirmés, avec un taux de mortalité de 2,7%.

Pour prévenir de futures épidémies, nos chercheurs ont étudié le virus et ont identifié les mécanismes de transmission pour mieux contrôler l’épidémie. *“Les nouvelles techniques de séquençage que nous venons de tester sont une première en Afrique. C’est VirCapSeq-VERT, une méthode qui permet d’identifier plus de 200 familles de virus à partir d’un seul échantillon. Grâce à cette méthode de séquençage, nous avons pu lire le code générique du virus de 23 patients du département des maladies infectieuses de l’hôpital Point G”, a déclaré le Dr KANE.*

Publié dans le *American Journal of Tropical Medicine and Hygiene*, cette étude méticuleuse et prouvée, qui offre une vue d’ensemble de l’épidémiologie moléculaire du virus, a permis d’identifier les sous-types de virus en circulation, leurs origines probables, et leurs fréquences, avant de proposer un mécanisme de prévention et de contrôle.



According to **Dr. KANE**, during this study, we identified predominantly type 1 and type 3 viruses.

“These two viruses, which were circulating during the epidemic, probably came from neighboring countries, including Burkina Faso and Benin. Other cases came from Asia due to mobility. These results provide a good basis for effective epidemiological surveillance,” he said.

In terms of the immune system, this infectious disease has a special feature.

After an initial infection, the immune system, i.e., the body’s ability to defend itself against other types of infections, may weaken. Once the severe form develops, the worst may happen.

“The distinctive feature of this disease in terms of immunity is that when you develop one type, you are not necessarily immune to other types. However, if you are infected with different types, there is a high probability of developing a severe form. Genomic surveillance is critical because it allows us to discover the origin of the viruses, so that we can better target treatments,” **he warns.**

Stay connected to our networks to understand better the scientific discoveries that are helping to protect our health and that of our communities.

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BAMAKO: THE HEALTH OF IDPS IS A CONCERN TACKLED BY RESEARCHERS FROM THE UCRC AND THE ITM



The health of internally displaced persons (IDPs) in Mali, as in many other regions facing forced displacement, is a significant concern. Due to the harsh living conditions in host sites, IDPs are particularly vulnerable to health problems, both physical and mental.

*“We are conducting a study on the health risks of internally displaced persons (IDPs) at the Faladjè and Niamana sites in Bamako. These sites contain livestock pens, and uncontrolled waste is also dumped on them. We are therefore attempting to explore the health risks of internally displaced persons at the interface of human health, animal health, and environmental health.”, said **Dr Zakaria KEITA**, epidemiologist, researcher at UCRC.*

To tackle this major health challenge, the University Clinical Research Center (UCRC-Mali), in collaboration with the Belgian Institute of Tropical Medicine (ITM), has stepped up to obtain a global and multisectoral response in the context of One Health.

The primary stakeholders are the internally displaced persons themselves, followed by the non-governmental organizations working on these sites, the state through the Ministry of Health and Social Development, and the agents of Social Development and the Solidarity Economy. There are also host communities.

The objective is to contribute to the solution of all the work the Malian government is doing through its relevant services, to address health needs and minimize health risks for the entire Malian population.



*« The final objective is to improve the health of IDPs to ensure their well-being. Based on the results of this preliminary phase study, it will therefore be crucial to ensure equitable access to healthcare, promote hygiene and sanitation, and support mental health, while involving the host communities. », **Dr. Houssynatou SY**, Researcher at ITM/Belgium.*



*“First, we need to conduct scientific studies and explore the problem, since we don’t have a ready-made solution that we can implement immediately. Diseases can be transmitted from animals to humans and from humans to animals, and these are called zoonotic diseases. », added **Dr KEITA**.*



Site for displaced persons from Faladié/Bamako

HIGHLIGHTS OF THE HEALTH PROJECT FOR IDPS

As part of the project “Health of internally displaced persons living around livestock markets in Bamako”, the University Clinical Research Center (UCRC) of the University of Science, Techniques and Technologies of Bamako and the Institute of Tropical Medicine (ITM) in Antwerp are collaborating to understand better the health risks faced by internally displaced persons (IDPs) living around urban livestock markets (Niamana and Faladié).

The study, conducted in two phases between 2024 and 2025, aims to document the risks at the human-animal-environment interface and explore the minimum conditions for the co-creation of appropriate interventions. It is based on a participatory approach combining qualitative interviews, focus group discussions (FGDs), co-mapping workshops, and prioritization exercises.

After conducting 35 interviews with representatives of IDPs and livestock markets, technical services from the Ministry of Health and Development, local authorities, national and international NGOs, and health workers, a second phase focused on discussing preliminary results, collectively formulating solutions, and identifying contextual constraints.

This collaboration with the UCRC has enabled the mobilization of a diverse research team, the translation of tools into national languages, the organization of workshops with communities and other stakeholders, and the ensuring of data protection and scientific and logistical coordination.

The results aim to inform humanitarian and health responses through an integrated and inclusive ‘One Health’ approach.

“We will disseminate the scientific findings soon. We still need a little time; this is science; we cannot rush the results. We will work on the information we have been able to gather, and we will get back to you sooner.” **Informed Dr Houssynatou SY, Researcher at ITM.**

12TH EDCTP FORUM: PREVAC-UP STUDY RESULTS PRESENTED BY DR ILO DICKO, RESEARCH PROJECT COORDINATOR AT UCRC

From 15 to 20 June 2025, the 12th European and Developing Countries Clinical Trials Partnership Forum (EDCTP) was held in Kigali on the theme: “Better health through global research partnerships”.



During this high-level scientific meeting, which brought together researchers from Africa and elsewhere, Dr Ilo DICKO, clinical investigator and research project coordinator at UCRC, gave a presentation on **“Lessons from the PREVAC-UP study on the Ebola virus vaccine in West Africa: From clinical trial to impact”**.

The Ebola virus disease has been a source of health disaster in Central and West Africa.

Although Mali has been able to contain the epidemic, it remains on constant alert due to its periodic occurrence across sub-Saharan Africa.

“Although vaccines exist, several questions remained regarding their safety and efficacy, including the durability and precocity of the immune responses generated by different vaccination strategies,” **said Dr DICKO.**

To tackle these concerns, a large-scale randomized clinical trial involving adults and children aged at least one year was conducted in Guinea, Liberia, Sierra Leone, and Mali as part of the international PREVAC consortium.

In Mali, the study, conducted over 60 months in 2018, was conducted by the University Clinical Research Center (UCRC) and the Center for Vaccine Development (CVD) and involved 300 participants.

‘The results of this vaccine trial, which lasted five years and was implemented through voluntary community participation, are very encouraging and demonstrate that these vaccines are safe and well tolerated and can be administered on a large scale to at-risk populations,’ **said Dr Ilo DICKO.**



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USTTB-ICER-MALI: A FAREWELL CEREMONY IN HONOR OF FATOUMATA BATHILY, REPRESENTATIVE OF THE NIH IN MALI.

From February 2015 to June 2025, Fatoumata Bathily, Representative of the National Institutes of Health of the United States of America (NIH in Mali, contributed to the advancement of biomedical research in Mali over the past 10 years.)

Her contribution, reflecting the institution's status, supports responses to multiple diseases, including the Ebola virus epidemic and COVID-19.

Their ravages could be described as health disasters.

At the end of a mission well accomplished, Fatoumata was congratulated at a very friendly farewell reception organized in her honor, surrounded by her colleagues, friends, and family.

In an emotional atmosphere befitting such farewell gatherings, the speeches extolled her human and professional qualities.

Deeply motivated, Fatoumata Bathily expressed her enthusiasm and gratitude to Malian biomedical researchers for their involvement, which enabled her to accomplish the missions assigned to her, often in complex and unstable conditions.





In addition to exchanging good wishes, various gifts were given to her as a token of appreciation. Fatoumata Bathily, your departure from Mali should not be the end of your mission; this Nation is still counting on you for continued support of scientific and biomedical research.

We hope that your successor will work pragmatically to strengthen and develop the partnership established over more than three decades in biomedical research and related areas.

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GEORGE WASHINGTON UNIVERSITY MILKEN INSTITUTE SCHOOL OF PUBLIC HEALTH: FOURTH COHORT OF MASTER'S STUDENTS IN RESEARCH ETHICS ON AN IMMERSION VISIT

The students of the fourth cohort of the master's program in Research Ethics visited the United States of America in July 2025.

This delegation, led by Professor Djénéba DABITAO, Head of the Immunology Laboratory at UCRC, was part of an immersion visit to the Milken Institute School of Public Health at George Washington University.

During their stay, the students worked with their co-mentor from the George Washington University (GWU) to finalize their dissertations (theses). Thanks to the US National Institutes of Health, the University Clinical Research Center (UCRC) at the University of Science, Technology, and Technology of Bamako (USTTB), and the Milken Institute School of Public Health at the George Washington University, maintain a close collaboration in training young researchers.

The Milken Institute School of Public Health is the only public health school in the US capital and is ranked among the best in the country. In addition to its academic program, the school is involved in research and initiatives to tackle global health issues, as demonstrated by its work on bioethics in Mali.

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