



**UNIVERSITY
OF GHANA**



NOGUCHI
Memorial Institute for Medical Research
University of Ghana

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EDITORIAL

Open Day of NMIMR: A Living Bridge Between Science and Society

On a typical day, the Noguchi Memorial Institute for Medical Research (NMIMR) operates with quiet intensity. Behind laboratory doors, scientists peer into microscopes, sequence genomes, culture cells, and analyse data that contribute to solutions for some of the world's most pressing public health challenges. Although much of this work remains out of public view, its impact is reflected in national policies, medical interventions, and improved health outcomes.

In response to growing public interest in biomedical research, NMIMR introduced its Open Day in 2023 as part of the Annual Research Meeting (ARM). Over the years, ARM has served as a flagship scientific gathering, bringing together researchers, policymakers, collaborators, and partners to share findings and shape research directions. The integration of the Open Day into this platform marked a natural extension of NMIMR's commitment to education, mentorship, and public engagement.

The Open Day was therefore not introduced as a ceremonial addition, but as a deliberate effort to bring science closer to society. As interest from schools, institutions, and the public continues to grow, the initiative provides a structured opportunity for visitors to experience biomedical research first-hand and understand its relevance to everyday life.

The objectives are clear: to demystify scientific research, translate complex knowledge into accessible learning,

and inspire the next generation of scientists and health professionals. It also affirms NMIMR's identity not only as a leading research institute, but as a public institution committed to serving the communities whose health it seeks to improve.

In 2024, the Open Day coincided with NMIMR's 45th Anniversary celebrations, creating a moment of reflection and renewed purpose. The event expanded its reach through collaboration with the Ministry of Education's STEM programme, welcoming pupils, parents, and students from diverse educational backgrounds. Laboratories were transformed into interactive learning spaces, where scientists engaged visitors through demonstrations that brought abstract concepts to life.

The presence of the Institute Director and senior leadership throughout the event reinforced a key message: public engagement is central to scientific excellence, not separate from it. A major highlight was the launch of the children's science book "I Can Be: ABC for STEM", symbolising NMIMR's commitment to nurturing scientific curiosity from an early age. By the end of the day, more than 1,500 students had toured the Institute, many experiencing a research laboratory for the very first time.

Building on the momentum of 2024, the 2025 Open Day further deepened public engagement and institutional visibility. Held in collaboration with the College of Health Sciences' 25th Anniversary celebrations, the event welcomed schools across different levels

of education in well-structured rotations through the Institute's laboratories, ensuring an engaging and seamless experience.

The Nutrition Department attracted strong interest with demonstrations on Ghana's Food-Based Dietary Guidelines and practical nutritional assessments, linking biomedical science to everyday health choices. The University of Ghana Career Guidance and Counselling Unit also featured prominently, providing students with mentorship and insights into careers in health and science.

Beyond organised groups, the Open Day also welcomed graduate students, staff, national service personnel, parents, and members of the public. Conversations amongst scientists and visitors spanned malaria, virology, climate change, artificial intelligence, and the future of public health research. For many students, it was their first meaningful encounter with a laboratory environment—an experience that made science feel tangible and attainable.

Feedback from participants has been overwhelmingly positive, with students describing the experience as inspiring and teachers commending the ability of scientists to simplify complex concepts for wider understanding. What began as a new initiative has now become an established institutional tradition within NMIMR's outreach calendar.

In conclusion, NMIMR's Open Day reflects a core belief: scientific excellence achieves its fullest impact when it is shared. Each edition builds on the last, shaped by feedback and guided by an evolving vision of public engagement. Suggestions from participants—including extended laboratory time, expanded career guidance, and increased frequency—continue to inform its development.

At NMIMR, the Open Day continues to serve as a living bridge between discovery and society—bringing science out of the laboratory and into public understanding.



RESEARCH HIGHLIGHTS



Longitudinal Antibody Dynamics Following SARS-CoV-2 Viral-Vectored and mRNA Booster Vaccination in Ghanaian Adults

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Abstract

Background/objectives: SARS-CoV-2 antibodies wane after natural infections and vaccinations.

COVID-19 booster vaccination enhances the durability and functionality of antibodies against emerging SARS-CoV-2 variants. Data on booster-induced antibody durability in sub-Saharan Africa remain sparse. Comparative analysis of vaccine-induced responses between heterologous and homologous vaccination regimens remains limited. This study evaluated longitudinal RBD-specific IgG responses following homologous and heterologous COVID-19 booster vaccination in previously vaccinated adults.

Methodology: Adults with prior mRNA or adenoviral-vectored vaccination were boosted with either Pfizer (mRNA) or Janssen (adenoviral-vectored) vaccines. Plasma IgG binding to Wuhan, Delta, and Omicron RBDs was measured pre-booster and at 3, 6, and 9 months. A total of 181 participants were enrolled between November 2022 and October 2023.

Results: More than 60% of participants had detectable pre-booster RBD- and N-antigen-specific IgG. Booster vaccination substantially increased Wuhan-specific RBD-IgG at three months, with limited boosting of Delta and Omicron responses. Antibody levels waned to pre-booster concentrations by month 9. Heterologous boosting with a viral-vectored prime followed by Pfizer mRNA significantly enhanced both peak RBD-IgG levels and durability.

Conclusions: These longitudinal data provide rare real-world evidence on booster immunogenicity in African adults and demonstrate that heterologous regimens confer a short- to intermediate-term advantage in antibody magnitude compared to a homologous regimen. This benefit was most pronounced within the first six months post-boost. The findings support additional booster dosing to strengthen protection against emerging variants in sub-Saharan Africa.

COVID-19 vaccine acceptance and recommendation among health workers in nine countries: a pooled analysis of survey data from 2023 to 2024

Carlton JG,¹ Bazant E², Griffin C³ Cooley KM³, Gao H¹, McCarron M³, Basher AK⁴, Munni UR⁴, Coulibaly D⁵, Ahorlu C⁶, Pathammavong C⁷, Nouanthong P⁸, Farah Z⁹, Alaoui MI¹⁰, Merabet M¹⁰, De Silos JR¹¹, Silverio CE¹², Praphasiri P^{13,14}, Ditsungnoen D¹⁴, Hechaichi A¹⁵, Youssef FB¹⁵, Bresee JS², Moen A^{16,17}, Patel JC¹. *BMJ Glob Health* 2026;11:e020513. doi:10.1136/bmjgh-2025-020513.

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Abstract

Introduction: Health workers (HWs) set an example for vaccine recipients, convey vaccine benefits and risks and interface with patients at increased risk for complications in pandemic settings. We explored HWs' acceptance of and recommendation for COVID-19 vaccine with and without previous receipt of seasonal influenza vaccine (SIV) in nine countries.

Methodology: In 2023–2024, cross-sectional surveys among HW were conducted in Bangladesh, Cote d'Ivoire, Ghana, Laos, Lebanon, Morocco, Philippines, Thailand and Tunisia. Country researchers used a standard protocol and questionnaire to assess beliefs, perceptions and acceptance around SIV and COVID-19 vaccine and likelihood of recommending these vaccines to patients. Pooled findings were stratified by the presence or absence of a national HW SIV recommendation. Generalised mixed effects models were used to characterise the relationship between receipt of SIV and COVID-19 vaccine acceptance and recommendation, adjusting for WHO region, sex and duration of employment.

Results: Our analysis included 12 296 HWs from nine countries representing four WHO regions: African, Eastern Mediterranean, Southeast Asian and Western Pacific. Five countries had a national HW SIV recommendation (61% of HWs surveyed) prior to COVID-19 vaccine introduction. More than 90% of HWs reported completing the COVID-19 vaccination series, whereas intention to continue receiving annual COVID-19 vaccine was lower (61%). HWs who received SIV in the last season compared with those who did not were more likely to have received one or more COVID-19 booster doses (adjusted OR (aOR) 2.63, 95% CI 2.27 to 3.04) and to have recommended COVID-19 vaccine to patients (aOR 1.53, 95% CI 1.29 to 1.82).

Conclusions: Prior experience with SIV was associated with HW behaviour and recommendations regarding COVID-19 vaccination. Intention to continue receiving COVID-19 vaccines remains a challenge; ongoing training and education for vaccination staff could be beneficial. HWs play a critical role in the successful delivery of new and existing vaccines, particularly in a pandemic setting.

Predominance of antimicrobial resistance genes and high-risk clones among Gram negatives from clinical sources in Accra-Ghana

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Abstract

Gram-negative bacterial species cause increasing levels of antimicrobial resistance worldwide. Enhanced surveillance efforts are required to inform treatment decisions and monitoring of the rise and spread of antimicrobial-resistant (AMR) clones, especially on the African continent, where antimicrobial resistance is known to be least tackled and controlled.

Methodology: In this study, whole-genome sequencing was used to investigate a collection of Gram-negatives recovered from clinical sources. Bacterial species were identified by Matrix-assisted Laser Desorption/Ionization Time of Flight mass spectrometry. Whole-genome sequencing was performed using the MiSeq Illumina platform, and sequence data were analysed using free online bioinformatics tools.

Results: Of the 182 isolates investigated, 62 resistant to at least one antibiotic were selected for whole-genome sequencing. Among these, *Escherichia coli* (n=21; 33.87%) and *Klebsiella pneumoniae* (n=13; 20.97%) were the predominant Enterobacterales, while *Pseudomonas aeruginosa* (9/16; 56.25%) was most common among non-Enterobacterales. The 62 Isolates sequenced were from wound (n=37), urine (n=19), blood (n=5), and pus (n=1). In total, 49 isolates were found to exhibit multidrug resistance (MDR). Genomic analysis revealed 126 resistance gene types, with beta-lactamase-encoding genes being the most common (56/126; 44.44%), detected in 90.32% (56/62) of organisms. *K. pneumoniae* (13/13; 100%) and *Klebsiella oxytoca* (1/1; 100%) exhibited coexisting OqxA and OqxB efflux pump genes. All *E. coli* isolates carried the MDR gene *mdf(A)*. An *Enterobacter kobei* wound isolate carried the colistin resistance gene *mcr-10*. The quaternary ammonium compound resistance gene *qacE* was present in 50% (31/62) of isolates. Additionally, 41.94% (26/62) of isolates harbored the *traT* virulence gene. High-risk clones detected included MDR ST131 *E. coli* serotype O25:H4 (6/21; 28.57%), ST15 and ST147 *K. pneumoniae*, PLOS One | <https://doi.org/10.1371/journal.pone.0344837> April 16, 2026, 2 / 17 and ST244 *P. aeruginosa*. *Salmonella enterica* serovars Lille and Typhi recovered from blood were also identified.

Conclusion: The study revealed high-risk clones of Gram-negatives carrying multiple AMR and virulence genes. The detection of MDR pathogens and global high-risk clones highlights the need for effective surveillance and the use of whole-genome sequencing to strengthen antimicrobial resistance monitoring in our setting

PERSONALITY PROFILE



With a distinguished career in microbiology and infectious disease research, Prof. Anthony Ablordey has made significant contributions to advancing scientific knowledge on Buruli ulcer and antimicrobial resistance in Ghana and beyond.

Prof. Ablordey is an Associate Professor and former Head of the Department of Bacteriology at the Noguchi Memorial Institute for Medical Research (NMIMR). He holds a PhD in Biochemistry from the University of Ghent, Belgium. Over the years, he has established himself as a respected scientist whose work has helped deepen understanding of neglected tropical diseases and their impact on vulnerable communities.

He is a Senior Fellow of the European Foundation Initiative for Neglected Tropical Diseases and a recipient of the

2008 Eugene Yourassowsky Prize for outstanding research in Microbiology and Infectious Diseases in Brussels, Belgium.

Prof. Ablordey's research focuses on advancing knowledge in the epidemiology of Buruli ulcer disease and antibiotic-resistant bacteria through the application of molecular techniques. His work has contributed significantly to improving the understanding of infectious diseases and strengthening research capacity in Ghana.

Notably, he was part of an international team of scientists that successfully cultivated *Mycobacterium ulcerans*, the causative agent of Buruli ulcer, from the environment for the first time, thereby confirming the environmental origin of the bacterium and opening new avenues for research into the disease. He is also

credited with developing molecular typing methods that are widely used to investigate the reservoirs and transmission routes of *Mycobacterium ulcerans*.

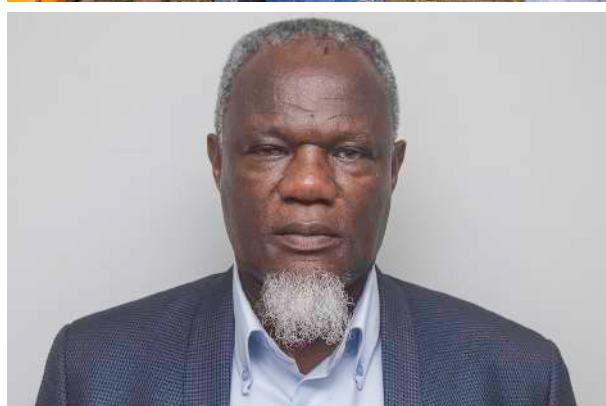
In collaboration with the Foundation for Innovative New Diagnostics, Prof. Ablordey contributed to the development of a prototype rapid diagnostic test aimed at facilitating early detection of Buruli ulcer and enabling prompt treatment for affected patients.

Beyond Buruli ulcer research, his research portfolio includes studies on diarrhoeal diseases, food microbiology, and antimicrobial resistance. His work in genomic surveillance focuses on detecting multidrug-resistant bacteria, determining the extent of their spread,

and investigating bacterial factors responsible for their dissemination in hospitals in Ghana.

A committed mentor, Prof. Ablordey has supervised and guided over fifty graduate students in his field of expertise. Through mentorship and training, he continues to contribute to the development of the next generation of scientists and researchers.

Prof. Ablordey currently serves as a faculty member in the Department of Medical Microbiology at the University of Ghana Medical School, Korle-Bu, where he continues to advance research, teaching, and scientific collaboration in the fight against infectious diseases.



DEPARTMENT PROFILE

Virology Department: A Centre for Excellence in Viral Research and Diagnostics

The Virology Department of the Noguchi Memorial Institute for Medical Research (NMIMR), headed by Prof. Joseph Humphrey Kofi Bonney, is a leading centre for viral disease research, diagnostics, training, and public health support in Ghana and the West African sub-region. The Department plays a critical role in advancing scientific knowledge, strengthening laboratory capacity, and supporting national and international disease control efforts.



The mandate of the Department is to conduct research into viruses of public health importance, provide specialized confirmatory diagnostic services in support of the Ministry of Health and the Ghana Health Service, and deliver training, technology transfer, and capacity building for biomedical students, medical laboratory scientists, and researchers from both public and private institutions within Ghana, across Africa, and globally.

Research within the Department is organized around key thematic areas including HIV and other sexually

transmitted viral infections, respiratory viruses such as influenza, respiratory syncytial virus (RSV), and SARS-CoV-2, enteroviruses including poliovirus, and viral haemorrhagic and arboviral diseases such as Ebola, Lassa fever, dengue, chikungunya, yellow fever, Marburg virus, and hepatitis viruses.



The Department is equipped with highly trained scientists and advanced laboratory infrastructure, enabling the use of modern biotechnology and molecular techniques. These include conventional and quantitative PCR, genomic sequencing and bioinformatics analysis, molecular cloning, probe hybridization, serological assays such as ELISA and rapid diagnostic tests, immunofluorescence assays, and cell and tissue culture techniques for virus propagation and isolation. Strict adherence to good laboratory practices is maintained, with specialized biosafety training provided for personnel working in high-containment facilities, including Biosafety Level 3 laboratories.



The Virology Department hosts several key national and regional reference facilities, including the National Influenza Centre, the Regional Poliovirus Reference Laboratory, and the HIV Genotyping Laboratory. These facilities support national surveillance systems, outbreak investigations, and international reporting frameworks.

The Department provides a wide range of diagnostic and public health services, including poliovirus isolation, differentiation and sequencing, influenza and respiratory virus detection using RT-PCR and sequencing, HIV genotyping, COVID-19 diagnostics, viral haemorrhagic fever testing, as well as evaluation of diagnostic kits and laboratory equipment. It also supports national and regional partners through technical assistance and professional training.



Training is a core pillar of the Department's mandate. It plays a central role in

capacity building by training biomedical students, laboratory scientists, clinicians, and researchers through hands-on laboratory experience, postgraduate supervision, and collaborative research programmes. The Department continues to strengthen scientific capacity both locally and internationally through structured training and mentorship.

A major strength of the Department lies in its active research portfolio. Ongoing studies include the molecular epidemiology and surveillance of HIV and other sexually transmitted infections, respiratory viruses, enteroviruses, arboviruses, and viral haemorrhagic fevers. The Department also contributes significantly to wastewater surveillance systems for early detection of emerging pathogens, including SARS-CoV-2 and enteric viruses.



The HIV research programme focuses on viral persistence, latency, host-virus interactions, and the development of cure strategies. Through initiatives such as the I-CERV-GH project on cervical cancer screening among women living with HIV and the NIH-funded D43 HIV Basic Science and Cure Research Training Programme (H-Cure-RT), the Department continues to build research capacity while advancing global HIV cure research. The programme has trained postdoctoral fellows, PhD, and MPhil students, strengthening expertise across Ghana and the sub-region.



In the area of viral haemorrhagic fevers and arboviruses, the Department continues to play a leading role in outbreak detection, surveillance, and response. Its work includes investigations of dengue, Lassa fever, Ebola, and mpox, with findings supporting national One Health collaborations with the Ghana Health Service and Veterinary Services Directorate.

The National Influenza Centre continues to conduct surveillance for influenza and other respiratory pathogens in collaboration with national and international partners, including the World Health Organization Global Influenza Surveillance and Response System (GISRS). Complementary animal-human interface studies and wastewater surveillance further strengthen early warning systems for emerging infectious diseases.



Through sustained research output, international collaborations, and active participation in global scientific forums, the Virology Department continues to contribute to numerous peer-reviewed publications and policy-relevant findings. These efforts enhance Ghana's preparedness and response to emerging and re-emerging viral threats.

Overall, the Virology Department remains a cornerstone of NMIMR's scientific mission, combining cutting-edge research, high-level diagnostics, and capacity building to address priority viral diseases and support global public health security.

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EVENTS IN PICTURES

NMIMR Welcomes First Cohort of Students of the One Health Graduate Programme



The Academic Office of NMIMR held an orientation session for the first cohort of students of the One Health Graduate Programme. The session brought together newly admitted MPhil and PhD students at the Institute's Conference Hall and introduced them to the Institute's academic structure, safety protocols, and research environment. Students received presentations on institutional safety procedures, quality

assurance systems, and academic expectations for the programme. The Director encouraged the students to take advantage of the Institute's facilities, mentorship opportunities, and collaborative research culture as they begin their academic journey at NMIMR. The orientation concluded with an interactive engagement between students, faculty members, and management.





Scenes from the orientation session.

NMIMR'S Strengthens Community Health Response Through NTD Outreach at Amasaman

NMIMR marked World NTD Day on 30th January 2026 with a community outreach at the Amasaman Government Hospital, combining health education with the donation of wound care supplies to support patient management.

The activity raised awareness on neglected tropical diseases, particularly skin-related conditions, while

emphasizing early detection, treatment adherence, and community participation in reducing disease burden.

The outreach strengthened collaboration with frontline health workers and reinforced NMIMR's commitment to translating research into practical interventions that improve health outcomes in underserved communities.



Community health education and patient support activities at Amasaman Government Hospital.

NMIMR Launches Quality Week 2026 to Reinforce a Culture of Excellence and Accountability

NMIMR officially launched its 2026 Quality Week on 23rd February 2026 under the theme *“Think Research, Think Quality, Think Noguchi – Sustainability Beyond Accreditation.”* The event brought together policymakers, development partners, and staff to reaffirm the Institute’s commitment to excellence across research, diagnostics, training, and administrative systems.

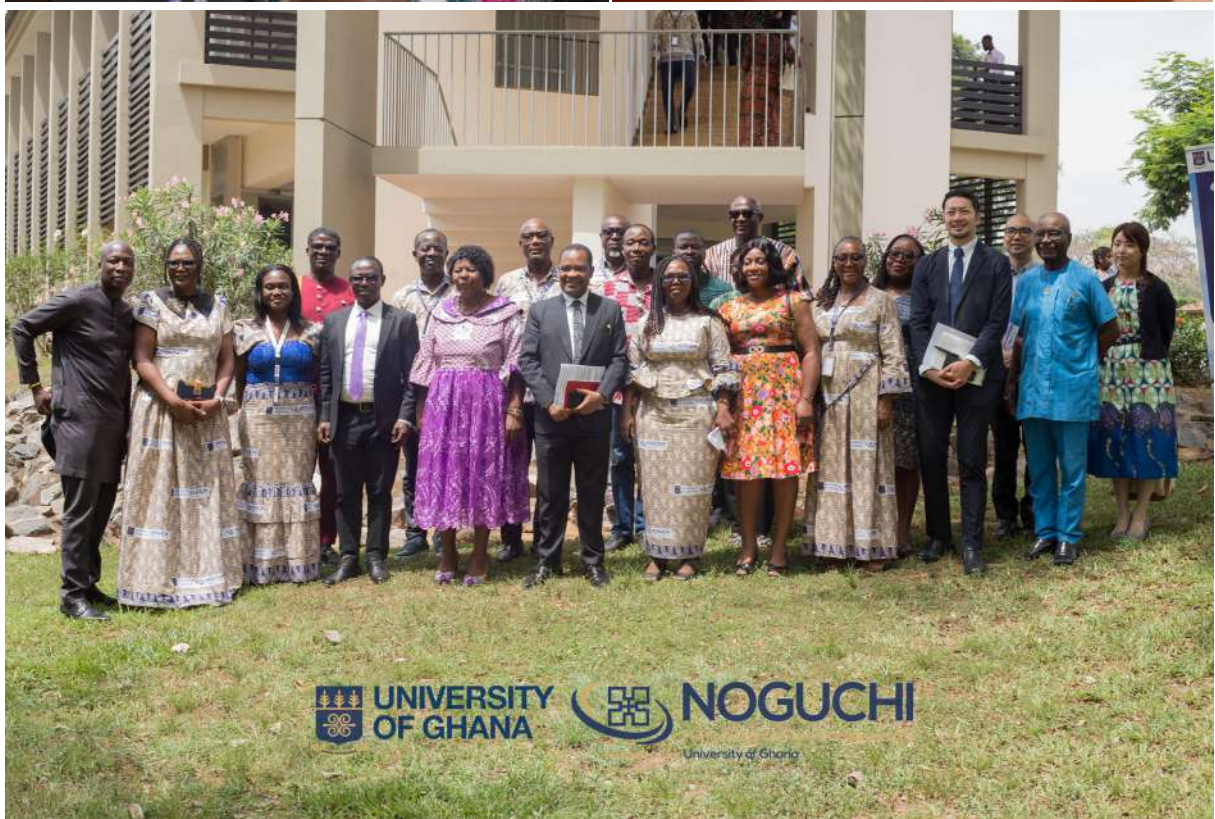
The launch highlighted NMIMR’s continued success in maintaining internationally recognised standards, including ISO accreditation across

several departments, and underscored the importance of embedding quality into daily institutional practice rather than treating it as a periodic exercise.

As a flagship annual initiative, Quality Week continues to serve as a platform for reinforcing accountability, continuous improvement, and institutional discipline across all units of the Institute.

The event reaffirmed NMIMR’s leadership in biomedical research and its commitment to systems that ensure credibility, public trust, and global relevance.





Highlights from the Quality Week 2026 launch ceremony.

NMIMR Commissions Sample Reception Centre to Enhance Laboratory Systems

NMIMR commissioned a new Sample Reception Centre on February 27, 2026, to strengthen laboratory operations and improve the handling, registration, tracking, and processing of clinical and environmental samples.

The facility enhances efficiency, biosafety, and traceability, ensuring that specimens are managed according to internationally

accepted laboratory standards. This development significantly strengthens diagnostic accuracy, research quality, and disease surveillance systems.

It further reinforces NMIMR's role in supporting national and regional health security through improved preparedness, response capacity, and laboratory coordination.



Official commissioning and inspection of the Sample Reception Centre.

NMIMR Hosts Seminar on Animal Rights and Ethical Research

NMIMR hosted an Institutional Seminar on 3rd March 2026 at the Noguchi Conference Hall under the theme “Do Animals Have Rights? A Researcher’s Perspective from NMIMR.” The seminar brought together staff and members of the University community to reflect on ethical considerations in biomedical research involving animals.

Dr. Samuel Adjei, Head of the Department of Animal Experimentation, led discussions on animal welfare principles and ethical research practices,

highlighting the 3Rs and 5Fs that guide animal-based research at the Institute. He emphasized that animal use in research must

always be scientifically justified, ethically reviewed, and conducted with strict adherence to humane care.

Participants engaged in insightful discussions on ethical oversight, alternative research approaches, and the evolving future of animal-based research.



Moments from the seminar.

NMIMR Raises TB Awareness Among Students

As part of activities marking World TB Day 2026, NMIMR collaborated with the Chest Clinic of the Korle-Bu Teaching Hospital to organise a TB awareness outreach for students of Achimota School.

The outreach educated students on TB transmission, symptoms, prevention, treatment, and the dangers associated with antibiotic misuse and drug-resistant

TB. Discussions also highlighted the links between TB, HIV, and diabetes, while encouraging early diagnosis and responsible health-seeking behaviour.

Prof. Adwoa Asante-Poku, Head of the Bacteriology Department, encouraged students to seek early screening for persistent coughs and avoid self-medication practices that contribute to antimicrobial resistance.



Snapshots from the outreach programme.

NMIMR Hosts Seminar on Progress and Challenges in Eliminating River Blindness

On 14th April 2026, NMIMR hosted a seminar on Ghana's progress towards eliminating river blindness (onchocerciasis) and the challenges associated with achieving the 2030 elimination target.

The presentation by Dr. Kwadwo Kyereme Frempong highlighted the impact of sustained ivermectin mass drug administration, which has significantly

reduced disease burden across endemic communities.

Despite these gains, challenges such as cross-border transmission, migration, funding constraints, and vector movement continue to threaten elimination efforts. Participants discussed the importance of strengthened surveillance, innovative monitoring strategies, and regional collaboration in sustaining progress.



Scenes from the seminar.

NMIMR Takes Malaria Awareness to Communities

NMIMR commemorated World Malaria Day 2026 from 22nd to 24th April under the theme “Driven to End Malaria: Now We Can. Now We Must.”

Activities included community screening at Suhum, school outreach at St. Albans International School, a sensitization walk at Okponglo, and a malaria webinar. The engagements brought together researchers, health professionals, students, and community members to

promote awareness, prevention, and early treatment.

Speaking during the activities, Prof. Linda Amoah noted that although malaria prevalence in Ghana has reduced significantly, sustained education and collective action remain critical to achieving elimination goals.

The Institute reaffirmed its commitment to malaria research, prevention, and community engagement.



Snapshots from the outreach programme.

Immunology Department Clinches NMIMR Inter-Departmental Sports Title Once Again

NMIMR held its third inter-departmental sports competition on 30th April 2026 at the University of Ghana Athletic Oval, bringing together staff from all research departments and Administration. Organised by the Welfare Committee in collaboration with Management, the competition promoted teamwork, wellness, and institutional unity through activities including football, volleyball, athletics, tennis, penalty shoot-outs, and tug of war.

The Director, Prof. Dorothy Yeboah-Manu, officially opened the games and encouraged participants to compete in the spirit of teamwork and sportsmanship. At the end of the competition, the Department of Immunology emerged overall winners, followed by Virology and Administration.

The Director commended all participants and organisers for another successful and vibrant edition of the games.





Moments from the inter-departmental sports competition.

NMIMR and JICA Launch 2026 Third Country Training Programme

The Noguchi Memorial Institute for Medical Research (NMIMR), in collaboration with the Japan International Cooperation Agency (JICA), launched the 2026 Third Country Training Programme at the Institute's Conference Hall on June 1, 2026.

The programme is training eight healthcare professionals from Ghana, Liberia, Nigeria, Sierra Leone, Togo and Zambia in advanced laboratory techniques for infectious disease detection, diagnosis and response. The eight-week programme combines online lectures with practical laboratory sessions at the NMIMR Advanced Research Laboratories.

Opening the ceremony, the Director of NMIMR, Professor Dorothy Yeboah-Manu, highlighted the programme's evolution into a flagship capacity-building initiative since its inception in 2019 and emphasized the need for skilled scientists and health professionals to

respond effectively to emerging and re-emerging infectious disease threats across the continent.

The Provost of the College of Health Sciences, Professor Alfred Edwin Yawson, commended NMIMR and JICA for sustaining the initiative and reaffirmed the University of Ghana's commitment to advancing health research and capacity development.

Representatives from the World Health Organization (WHO), JICA-Ghana and the Embassy of Japan underscored the importance of strong laboratory systems, continuous training and regional collaboration in strengthening Africa's preparedness and response to infectious disease outbreaks.

The programme forms part of ongoing efforts by NMIMR and its partners to strengthen laboratory capacity, enhance disease surveillance and improve preparedness and response to infectious disease outbreaks across Africa.





Scenes from the Opening Ceremony.

NMIMR Seminar Highlights Novel Approaches Toward HIV Cure Research

NMIMR hosted a seminar on 30 June 2026 on the topic, “Screening of Three Novel Latency-Reversing Agents Across Diverse HIV Integration Sites Toward Functional Cure Strategies.” The seminar was delivered by Mr. Christopher Zaab-Yen Abana, a Postdoctoral Fellow at the Department of Virology, and explored innovative approaches to addressing one of the major challenges in HIV cure research—the persistence of latent HIV reservoirs despite antiretroviral therapy. The presentation highlighted the global burden of HIV, the challenges posed by

viral latency, and the potential of the “shock and kill” strategy, which seeks to reactivate dormant HIV for elimination. Three promising latency-reversing agents—MC1568, Abexinostat and Pracinostat—were discussed for their potential role in advancing HIV cure research.

The seminar concluded with an interactive discussion on emerging strategies for reducing HIV reservoirs and improving long-term treatment outcomes.



Scenes from the Seminar.

NMIMR Institutional Seminar Explores Innovative Approaches in Emerging Pathogen Surveillance

Dr. Rakiya Sikatarii Sari, a Research Fellow in the Department of Animal Experimentation, delivered an institutional seminar on June 16, 2026, highlighting a novel diagnostic platform for the detection and surveillance of hantaviruses and other emerging pathogens. The platform, developed during his doctoral studies at Hokkaido University, Japan, combines molecular biology and immunological techniques to enable rapid screening of large numbers of samples for multiple viral antigens.

Presenting findings from studies involving bat and human samples from Zambia and Sri Lanka, Dr. Sari demonstrated the platform's potential

to support the detection of hantaviruses and related pathogens, contributing to efforts to identify possible zoonotic spillover events. He emphasized the importance of innovative diagnostic tools in strengthening disease surveillance and outbreak preparedness, particularly in resource-limited settings.

The presentation sparked discussions on the feasibility of implementing the technology in Ghana, including its scalability, cost, and commercialization prospects. The seminar underscored NMIMR's commitment to advancing research and promoting innovative solutions to emerging public health challenges.



NMIMR Hosts Special Institutional Seminar on “Cerebral Malaria: Development of Novel Biomarkers and Interventions Against Mortality and Post-Treatment Sequelae”

The Noguchi Memorial Institute for Medical Research (NMIMR) hosted a Special Institutional Seminar on 25 June 2026, featuring Prof. Jonathan K. Stiles of Morehouse School of Medicine, USA. He delivered a presentation on Cerebral Malaria: Development of Novel Biomarkers and Interventions Against Mortality and Post-Treatment Sequelae, highlighting emerging biomarkers and adjunctive therapies aimed at reducing mortality and long-term neurological complications associated with the disease.

Prof. Stiles explained that although antimalarial drugs effectively eliminate the malaria parasite, they do not reverse the brain damage caused by the infection, leaving many survivors with lasting neurological complications. He emphasised the need for reliable biomarkers to identify high-risk

patients early, enabling timely clinical intervention and improved patient outcomes. Among the most promising were Angiopoietin-2 (Ang2) and the Ang2/Ang1 ratio, which demonstrated strong potential for predicting disease severity and treatment outcomes.

He also presented encouraging findings on adjunctive therapies, including Neuregulin-1 (NRG-1) and Hydroxyurea (HU), which have shown potential to reduce inflammation, protect brain function and improve survival when used alongside standard antimalarial treatment.

The seminar concluded with an engaging discussion on the implications of these findings for malaria diagnosis, treatment and patient care, reaffirming NMIMR's commitment to advancing biomedical research and collaborative efforts to improve public health.



Snapshots from NMIMR's Special Institutional Seminar on Cerebral Malaria Research, featuring insightful presentations and engaging discussions among researchers and participants.

VISIT

MINISTER OF HEALTH VISITS NMIMR TO ASSESS EBOLA PREPAREDNESS

On 29 May 2026, the Minister of Health, Hon. Kwabena Mintah Akandoh, led a high-level delegation to the Noguchi Memorial Institute for Medical Research (NMIMR) to assess Ghana's preparedness and readiness measures in response to the emerging Ebola situation in parts of Africa.

The visit formed part of a broader national assessment of surveillance, detection, and response systems. Prior to arriving at NMIMR, the delegation toured Kotoka International Airport to evaluate screening and monitoring measures at one of Ghana's key points of entry.

During the visit, the delegation received briefings on NMIMR's laboratory capacity, diagnostic capabilities, and emergency response mechanisms. Prof. Dorothy Yeboah-Manu, Director of NMIMR,

assured the Minister that the Institute remains fully prepared to support the country's response efforts through its expertise, laboratory infrastructure, and available testing resources.

Dr. Fiona Braka, WHO Representative to Ghana, commended the Ministry of Health, Ghana Health Service, Port Health authorities, and NMIMR for the preparedness measures already underway and emphasized the importance of continued vigilance.

The visit reaffirmed Ghana's commitment to maintaining a high level of preparedness to rapidly detect, diagnose, and respond to any potential Ebola threat, while highlighting NMIMR's critical role in strengthening the country's health security.





Scenes from the Opening Ceremony.

NMIMR Hosts Japan's State Minister for Foreign Affairs, Ms. Kunimitsu Ayano, to Foster Strategic Partnerships and Visibility

NMIMR received a delegation on 14th January 2026 for an institutional visit aimed at strengthening collaboration, enhancing operational understanding, and exploring opportunities for partnership in biomedical research and public health advancement.

On behalf of the Director, representatives of the Institute received the delegation and shared insights into the Institute's

mandate, research activities, and contributions to national and global health priorities.

Discussions focused on laboratory systems strengthening, research innovation, and capacity building, with emphasis on sustainable partnerships. The engagement reaffirmed NMIMR's position as a leading centre of excellence in biomedical research.





Highlights from the institutional visit and engagement with NMIMR leadership and staff.

AWARDS



DR. SAMUEL OFORI ADDO RECEIVES UGRF EARLY-CAREER GRANT TO ADVANCE RESEARCH ON RECURRENT TUBERCULOSIS IN GHANA

Dr. Samuel Ofori Addo, Research Fellow in the Bacteriology Department at the Noguchi Memorial Institute for Medical Research (NMIMR), has been awarded the 16th Call of the University of Ghana Research Fund (UGRF) Early-Career Grant.

His project, “Epidemiology and Treatment Outcomes of Recurrent Tuberculosis at Three Referral Hospitals in Ghana Over a Ten-Year Period (2015–2024),” will examine patterns and treatment outcomes of recurrent tuberculosis over the past decade.

The study will also assess the impact of the COVID-19 pandemic by comparing TB trends and outcomes before and during the pandemic period. Findings are expected to strengthen national TB control strategies and improve patient management.

He will work under the guidance of Prof. Kennedy Kwasi Addo and Prof. Gloria Ivy Mensah, whose mentorship will support the successful execution of the study.

The Institute congratulates Dr. Samuel Ofori Addo on this achievement and looks forward to the contribution of his work to national tuberculosis control efforts.



DR. JUSTICE KUMI AWARDED AREF SEED FUND TO STUDY AFLATOXIN EXPOSURE AND THE GUT MICROBIOME OF GHANAIA CHILDREN

Dr. Justice Kumi, Research Fellow in the Department of Clinical Pathology at NMIMR, has been awarded the 2025/2026 Seed Fund by the African Research Excellence Fund (AREF).

His project, “Effect of Aflatoxin Exposure on the Gut Microbiome of Ghanaian Children – A Preliminary Study,” will investigate the relationship between aflatoxin exposure and gut microbiome composition in children.

The study will assess microbiome changes, examine associations with IGF-1 levels, and build capacity through training in advanced laboratory techniques,

including HPLC/MS and bacterial sequencing. Dr. Kumi, a Clinical Pathologist and Toxicologist, focuses on environmental toxicology and mycotoxin exposure, and remains committed to mentorship and public health research.

He acknowledged the support of AREF and NMIMR, noting that the study will generate evidence to guide interventions on food safety and child health.

The Institute congratulates Dr. Justice Kumi on this achievement and his continued contribution to environmental health research.



**DR. CHRISTOPHER ZAAB-YEN ABANA
RECEIVES NPGH LEADERS LAUNCH
FELLOWSHIP TO ADVANCE HIV CURE
RESEARCH**

Dr. Christopher Zaab-Yen Abana of the Virology Department at NMIMR has been awarded the Northern Pacific Global Health (NPGH) Leaders/Fogarty Launch Fellowship by the National Institutes of Health (NIH).

The fellowship supports his research on screening novel latency-reversing agents across HIV integration sites toward functional cure strategies. The programme includes a three-month research placement at the University of Michigan, USA, and nine months of research in Ghana, promoting international collaboration and knowledge exchange.

He described the fellowship as a valuable opportunity to advance HIV cure research with global relevance.

The Institute congratulates him on this achievement, noting that it reflects NMIMR's growing international visibility in infectious disease research.



**DR. FREDERICA DEDO PARTEY RECEIVES UGRF
MID-CAREER GRANT TO ADVANCE RESEARCH
ON MATERNAL AND NEONATAL IMMUNITY IN
WOMEN LIVING WITH HIV**

Dr. Frederica Dedo Partey, Research Fellow in the Immunology Department at NMIMR, has been awarded the Mid-Career Grant under the 16th Call of the University of Ghana Research Fund (UGRF).

Her project, “Elucidating Maternal and Neonatal Factors Influencing Immunity in Women Living with HIV and Their Infants,” will investigate immune interactions between HIV-positive mothers and their infants. The study seeks to generate evidence to improve maternal and child health outcomes and inform clinical care and policy direction.

She will collaborate with Prof. Evelyn Yayra Bonney to strengthen the scientific and clinical relevance of the research.

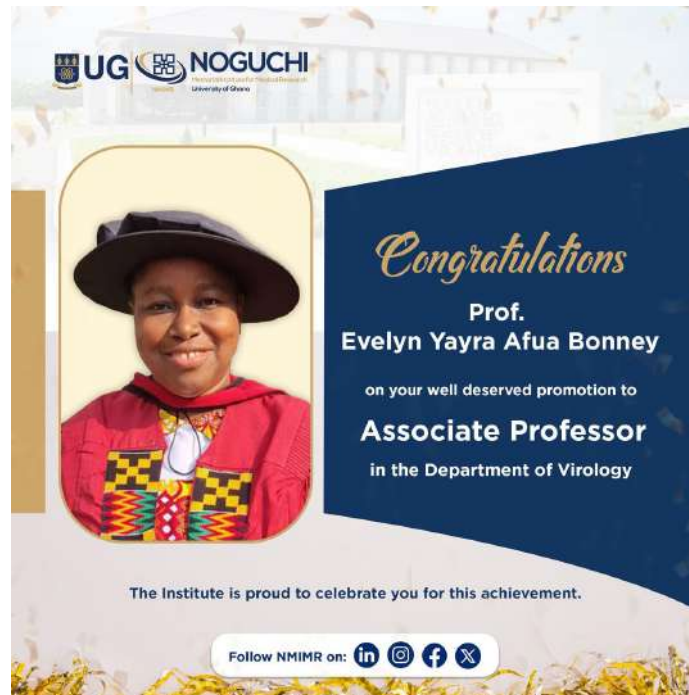
She acknowledged the support of the grant and reaffirmed her commitment to advancing maternal and neonatal health research in Ghana.

The Institute congratulates Dr. Frederica Dedo Partey on this achievement and looks forward to the impact of her work on maternal and child health outcomes.

STAFF PROMOTIONS AND UPGRADE

Congratulations to Our Newly Promoted and Upgraded Staff

NMIMR proudly celebrates staff members who attained promotions and upgrades during the period under review. We commend their dedication and commitment to excellence and wish them continued success in their respective roles.






Congratulations
Dr. Kwadwo Kyereme Frempong
 on your well deserved promotion to
Senior Research Fellow
 in the Department of Parasitology

The Institute is proud to celebrate you for this achievement.

Follow NMIMR on: [in](#) [@](#) [f](#) [X](#)




Congratulations
Ms. Dorcas Osei-Boakye
 on your well deserved promotion to
Principal Administrative Assistant
 in Administration
 (Institutional Review Board)

The Institute is proud to celebrate you for this achievement.

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NOGUCHI
Pharmaceutical Institute for Medicines Research and Development
University of Ghana



Congratulations

**Mr. Frederick Atiemo
Ofori Addo**

on your well deserved promotion to

**Principal Administrative
Assistant**

in Central Administration

The Institute is proud to celebrate you for this achievement.

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NOGUCHI
Pharmaceutical Institute for Medicines Research and Development
University of Ghana



Congratulations

**Mr. James
Oboo**

on your well deserved promotion to

Senior Driver

in Administration
(Transport Unit)

The Institute is proud to celebrate you for this achievement.

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GRANTS AWARDED

– 2026

	Project Title	Duration	Funding Agency
1	Comparative Transcriptomic Profiling and Targeted Drug Discovery in Plasmodium falciparum Under ACT Treatment: Identifying Stage-Specific Enzymes for Novel Therapeutic Interventions”	01/Jan/2026-31/Dec/2027	The African Academy of Science (AAS)
2	Surveillance for Polio	01/Jan/2026-31/Dec/2026	WHO
3	Investigating the red blood cell invasion determinants of neglected malaria parasites Plasmodium ovale spp. and Plasmodium malariae	20/Jan/2026-20/Jan/2027	The Washington University (WashU)
4	Investigating the Role of Maternal Microbiota and Metabolites on T cell immunity in HIV-exposed Uninfected children	16/Mar/2026-30/Jun/2027	AREF
5	Effect of Aflatoxin on the gut microbiome of Ghanaian Children- A Preliminary Study	16/Mar/2026-30/Jun/2027	AREF
6	Immunity to malaria: Obstacles and opportunities for improved vaccines targeting the asexual blood stages of Plasmodium falciparum parasites (IMOVACAS)	01/Apr/2026-31/Mar/2031	DANIDA Fellowship Centre
7	Strengthening Capacity for Genomic Surveillance in Climate Resilience and Food Security	01/Apr/2026-01/Apr/2027	The Mastercard Foundation/ University of Cambridge Climate Resilience and Sustainability Research Fund (CRe-Sus RF)

ACKNOWLEDGEMENT

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- Mr. Pius Dickson-Sarpeh
- Mr. Michael Nartey Addy
- Mr. Jeffery Bismark Nyarko

COMMITTEE MEMBERS



Prof. Kwadwo Asamoah
Kusi, **Chairman**



Dr. Charles Quaye,
Member



Prof. Gloria Ivy Mensah,
Member



Dr. Sawudatu Zakariah-
Akoto, **Member**



Dr. Constance Agbemelo-
Tsomafo, **Member**



Mrs. Evelyn Beloved
Amenuke, **Member/Secretary**



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