

WACCBIP HOLDS THIRD ANNUAL RESEARCH CONFERENCE



The West African Centre for Cell Biology of Infectious Pathogens (WACCBIP), from July 18-20, held its 3rd Annual Research Conference to provide a platform for the dissemination of research conducted by fellows at the Centre and visiting scientists from its global network of collaborators.

The three-day conference, held under the theme “Translating Molecular Research into Healthcare Solutions for Africa”, brought together world-class scientists from Africa, Europe, and North America, who conduct research into tropical diseases, including malaria and Buruli ulcer, that are prevalent in Africa.

In his opening remarks, Director of WACCBIP, Prof. Gordon Awandare, explained that the Centre was established with the vision to build and support development of dynamic and internationally competitive talent. He reiterated the Centre’s commitment towards the provision of high-end facilities suitable for advanced training and research, and cited the construction of the new WACCBIP building as one of the key achievements towards reaching the Centre’s overarching goal.

Prof. Keith Gull, Professor at the Sir William Dunn School of Pathology at the University of Oxford and Chair of the WACCBIP International Advisory Board, was impressed with the

FROM OUR FACULTY

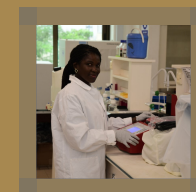


Dr. Lily Paemka
Lecturer/ Researcher

My research focuses on a type of breast cancer that is most aggressive among Black women. The strain, known as Triple Negative Breast Cancer (TNBC), has a mortality rate of around 50% among Ghanaian women I'm working on on characterising the genetic risk factors of the disease. My research aims to better understand the genetic architecture of breast cancer among Black women.

The idea is to identify genes that predispose Ghanaian women to the disease and find genetic markers that can be used to identify therapeutic targets."

Student Spotlight



Jennifer Afua Ofori
PhD

"I am currently working in the molecular biology laboratory with the Manful Gwira research team. We are interested in molecular and cellular biology of parasites, precisely kinetoplastids such as African trypanosomes, leishmania and host-pathogen interactions. I joined the laboratory in August 2013.

My research interest is interspersed within the fields of biomedical science and molecular microbiology of infectious diseases. I am more interested in molecular biology of African trypanosomes which cause African human & animal trypanosomiasis."

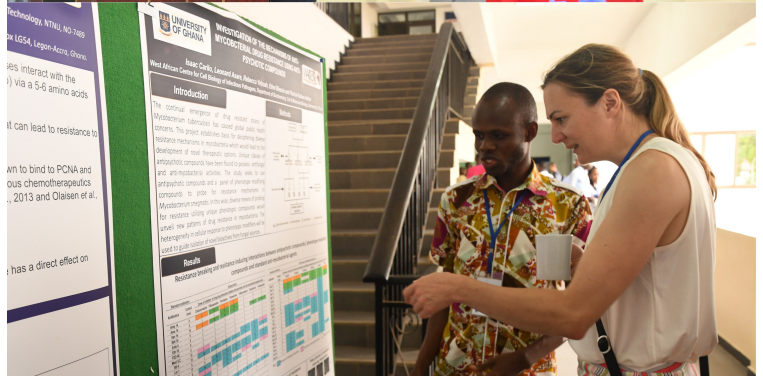


Centre's sustained progress in the development of its research and training activities since its establishment. He thanked the World Bank and the Wellcome Trust for staying with a vision focused on supporting research initiatives in Africa and applauded their role, as well as that of the University of Ghana, in the growth of WACCBIP. He encouraged students not to only think about acquiring a degree, but to take advantage of the platform that WACCBIP presents for intellectual enrichment and research.

The conference featured keynote lectures from world-renowned scientists in the fields of malaria–host-parasite interactions, delivered by Dr. Manoj Duraisingh of the Harvard School of Public Health, and genomics and computational technologies as tools for disease control, delivered by Prof. Dominic Kwiatkowski, Lead at the MRC Centre for Genomics & Global Health at Oxford University.

A third keynote lecture delivered by Prof. Pamela Small, Professor Emeritus of Microbiology at the University of Tennessee, covered the pathogenesis of *Mycobacterium ulcerans*, the causative agent of Buruli ulcer.

Other speakers presented cutting-edge research on topics in a diverse range of biomedical science fields including cell biology, drug resistance and discovery, pathogen biology, vaccine discovery & development, and human genetics. Collaborators from top universities in more than 15 countries led plenary sessions and presented data on research into diseases such as HIV, Tuberculosis, and Buruli ulcer. Master's, PhD & postdoctoral fellows at WACCBIP also presented preliminary data on their research projects in oral presentations and poster presentations.



WACCBIP COMPLETES TRAINING FOR NCHS BIOMEDICAL SCIENTISTS

WACCBIP, in collaboration with the National Catholic Health Service (NCHS), has completed the second part of a two-week training workshop for biomedical scientists from selected Catholic health centres across Ghana.

The workshop, held from June 4-8, was designed to update the knowledge of the scientists in practical aspects of biomedical research and to equip them with professional skills to foster continuous career development.

Using predominantly practical laboratory sessions, researchers at WACCBIP facilitated



advanced training on bacterial, helminth, and fungal infections, focusing on specific aspects of microscopy, PCR, and immunological detection of the pathogens. There were also sessions covering the in-depth study of fluorescence microscopy methods and egg and spore morphology.



WACCBIP COMMISSIONS NEW OFFICE COMPLEX

WACCBIP inaugurated a new ultra-modern office complex in a ceremony at the University of Ghana on June 22. The building was completed to enhance the Centre's training and research activities.

The new building, commissioned by the Minister of State for Tertiary Education, Hon. Prof. Kwesi Yankah, and Prof. Ebenezer Oduro Owusu, Vice-Chancellor of the University of Ghana, was constructed with funds from the government of Ghana, through the World Bank's African Centre of Excellence (ACE) in Higher Education Project, with furniture and facilities procured with funds from the Wellcome Trust/African Academy of Sciences DELTAS Africa grant.

The ultra-modern two-storey building has a multi-purpose Conference Hall, a PhD lecture room, a Board Room, and a state-of-the-art Cold Room. There is also office space for the Centre's administrative staff, and workspaces for visiting faculty and WACCBIP fellows.

The Centre's new Dell EMC High-Performance Computing (HPC) system, and a state-of-the-art Zeiss LSM 800 Confocal Microscope were also commissioned.



These facilities, such as a PhD lecture room and office spaces for visiting faculty, have been provided in the new building. He said the facilities would help expand WACCBIP's network and provide young scientists the tools to achieve their potential.

The Minister of State for Tertiary Education, Professor Kwesi Yankah, who was the Guest of Honour at the ceremony, was not only impressed by WACCBIP's wide range of scientific activities and programmes, but also with the fact that the Centre has grown and charted a path of excellence in the sub-region towards growing and enriching graduate work in specialised areas within the Sciences. He was also impressed with the High-Performance Computing System, which is the first of its kind to be installed for genomic research in Ghana. He was optimistic that it will provide considerable advantage for data processing and storage, which will facilitate teaching and learning at WACCBIP and at the University of Ghana at large.



Prof. Gordon Awandare, Director of WACCBIP, expressed his pride at the Centre's commitment towards the provision of the best facilities available for advanced training and research. He explained that the space from which the Centre had operated within the Department of Biochemistry Cell & Molecular Biology (BCMB) had its limitations, as there were limited study facilities for fellows outside of research laboratories.

After the ceremony, guests were led on a tour of the building by the Director of the Centre. Prof. Awandare presented descriptions of each of the facilities within the office complex and their purpose.

ENGAGEMENT ACTIVITIES

WACCBIP VISITS FIVE SENIOR HIGH SCHOOLS IN NORTHERN, UPPER EAST REGIONS



WACCBIP has completed, for the second year running, an outreach tour of high schools as part of its Senior High School Outreach programme.

The programme, facilitated by a team of the Centre's Graduate Interns and postdoctoral fellows under the Wellcome Trust Developing Excellence in Leadership, Training and Science (DELTA) Africa initiative, provides a platform for engaging mainly young Science students in senior high schools in Ghana about careers in Science and study options beyond that level. This year, from May 22 to May 24, the team visited five schools in the Northern and Upper East Regions.

The team led students in each school in interactive learning sessions and facilitated practical sessions in microscopy, DNA extraction, small and large volume pipetting, and RDT testing. In all, over 1500 Senior High students participated in the five schools.



There were also short presentations on various topics, including historical aspects of Science, scientific methods and approaches, and careers in Science.

The Graduate Interns led short discussions on important discoveries that have been made in the diagnosis and towards the eradication of malaria, including the Rapid Diagnosis Test (RDT).



The team also made, to each of the schools, donations of notepads and pens, which were provided by Inqaba Biotech West Africa, and boxes of textbooks and novels provided by the Balme Library of the University of Ghana.



Headmistress of Tamale Girls' Senior High School, Hajia Nasita Abubakari, welcomed the initiative and was thankful to WACCBIP for having been selected to be part of the tour. She commended WACCBIP for its commitment to promoting Science education among Senior High School students.

"Our interest is to see our students go higher especially in the field of Science, and to know that there are other opportunities in Science they can explore," Hajia Abubakari said. "I am also encouraged that WACCBIP is continually contributing in forming and shaping our students in the Sciences. I hope to see some of our students in your fields of research in the years to come."

ENGAGEMENT ACTIVITIES



Dr. Aniweh (left), who was featured on the show on April 18, talked about malaria vaccine development and WACCBIP's current efforts towards producing an efficacious vaccine for the disease.

Dr. Mosi (below), who was on the programme on July 11, discussed Buruli ulcer and her research on understanding the mode(s) of transmission of Mycobacterium ulcerans, which is the causative organism of the disease..



WACCBIP RESEARCHERS INTERVIEWED ON POPULAR RADIO STATION

WACCBIP researchers, Dr. Yaw Aniweh and Dr. Lydia Mosi were featured on the morning show of a popular Accra-based radio station, Starr FM, to talk about their respective research focus and how their work fits within the larger scope of the research and training activities at WACCBIP.



deliberated over potential solutions for some of the major challenges impeding the fight against the disease in the country.

Disease control was also a major talking point. Dr. Asamoah Kusi, a member of WACCBIP faculty, explained the role of individuals in vector control. He pointed out that mosquito biting behavior may have changed in recent years, making it vital to be more conscious of the threats posed by mosquitoes.

WACCBIP HOLDS PUBLIC FORUM TO MARK WORLD MALARIA DAY

As part of our activities under the Tackling Infections to Benefit Africa (TIBA) partnership, WACCBIP, on April 24, organised a public forum in collaboration with the Department of Microbiology and Immunology of University of Cape Coast (UCC), and the Malaria Control Program (Ghana) to mark this year's World Malaria Day celebrations.

The forum featured a panel discussion with experts from the University of Cape Coast, the Malaria Control Program, the Regional Health Directorate, and WACCBIP. Experts discussed various pertinent issues connected to malaria in Ghana including malaria control and prevention, malaria vector behaviours and prevention, and the effectiveness of intervention tools. The panel also



Prof. Gordon Awandare was appreciative of efforts of external donors contributing their quota to Science research in Africa. He explained that most of the funding from donor countries is sourced from their tax-payers' contributions. He encouraged African governments to do the same.

UPCOMING EVENTS

OCTOBER 20 & 27, 2018

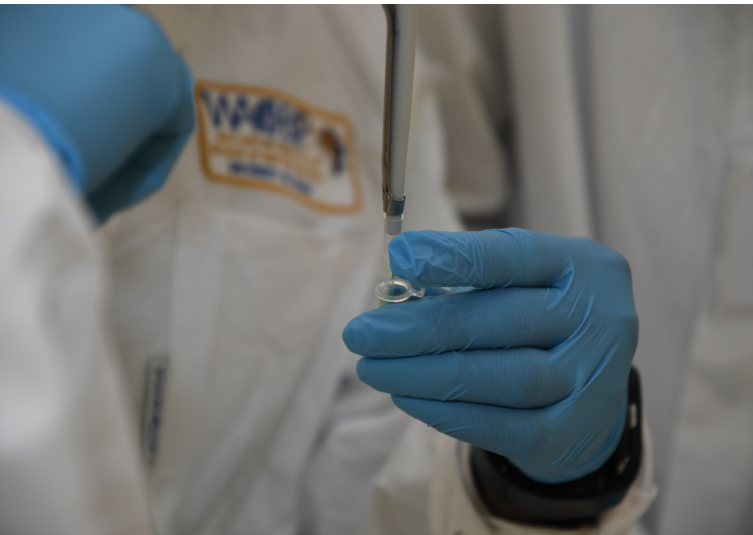


NUFU FESTIVAL & BREAST CANCER AWARENESS CAMPAIGN

.WACCBIP will launch its new Breast Cancer Awareness Campaign dubbed the "Nufu Festival". which is designed to address some of the negative socio-cultural beliefs that have created a stigma surrounding the disease and impede its early detection.

Two events targeting women from two demographically distinct backgrounds will incorporate fun and engaging activities into traditional breast cancer sensitisation activities

DECEMBER 11-15, 2018




REAL TIME SEQUENCING WORKSHOP

WACCBIP will host, from the 11th of December, 2018 to the 15th of December, 2018, the TIBA Africa Real-Time Sequencing Workshop, in collaboration with the Arctic Network, a Wellcome Trust Collaborative Grant to drive real-time genomic surveillance during outbreaks and epidemics.

The five-day workshop will be held at the premises of the new WACCBIP building on the University of Ghana campus.

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