



RESEARCH REPORT

2021/2022





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Professor Nana Aba Appiah Amfo Vice-Chancellor

The 2021/2022 Annual Research Report catalogues the remarkable contributions made by researchers and scientists here at the University of Ghana to the body of science and advancement of humanity during the year under review.

In accordance with UG's first strategic priority which relates to creating a vibrant intellectual climate that stimulates relevant cutting-edge research and community engagement. UG has been devoted to its research agenda of addressing society's challenges and influencing policy decisions through research over the past 75 years of its existence.

This is evident in the University's rankings from a number of rating agencies which have consistently placed UG as the leading university in Ghana and among the best universities worldwide (details of these rankings have been captured in this publication). This global recognition motivates us to continue to strive for excellence and reinforces our commitment to making a lasting impact on the world through our research endeavours.

As Vice-Chancellor, my overarching plan is to drive the aspirations of UG by creating a culture that promotes research, teaching and learning, administrative processes and extension activities driven by technology and anchored in humanism. This is explicitly captured in the Key Strategic Objectives (KSOs) with the first being "reinvigorating impactful research in the (applied) sciences and humanities".

I wish to commend the Office of Research, Innovation and Development (ORID) for driving the University's research agenda, facilitating multi-disciplinary partnership and enabling creative scholarship.

The University acknowledges the substantial funding received and owes a debt of gratitude to all donor partners and other funders who have supported our research projects over the years without whom we would not have achieved this significant milestone.

As the leading university in Ghana, University of Ghana remains committed to its vision of becoming a world-class research intensive university with a mission of creating an enabling environment which makes UG increasingly relevant to national and global development through research, teaching, learning and community engagement.



The 2021/2022 annual report presents an overview of the University of Ghana's research portfolio and reflects a diverse blend of scholarship which builds our resource capacity.

As a prelude to the 75th anniversary of the University, a year-long program of events was organized, which included public lectures, health and wellbeing programs and charitable activities. In celebrating our sterling record we recognize the role that government, faculty, students, staff, and alumni have played, and look forward to a brighter future.

During the period under review innovation and technology have been a central theme of driving entrepreneurship and complementing our research activity.

The Office of Research, Innovation and Development (ORID) has spearheaded initiatives aimed at nurturing young talent and supporting innovation and entrepreneurship ventures in collaboration with leading industry players. Through our collaboration with industry, UG has established innovation hubs and technology platforms, creating opportunities to unearth young talent.

Amidst a competitive research environment, the University of Ghana was declared the highest ranked tertiary institution in Ghana by the AD Scientific Index World Scientists and University Rankings 2022. Through our research, the University aims to achieve greater impact at home and abroad as we collaborate with international research consortia to find answers to global challenges.

The benevolence of our donor partners has been fundamental in sustaining the conduct of research, and the University of Ghana appreciates the generosity.

Professor Felix A. Asante

Institutional Ranking



WEBOMETRICS RANKINGS

CAHADAN AE

SUB-SAHARAN AFRICA

GHANA

HIGHER EDUCATION INSTITUTIONS



AD SCIENTIFIC INDEX

11th out of 2,049 UNIVERSITIES IN AFRICA

> 1st GHANA

1,704 out of 14,284 GLOBAL UNIVERSITIES



THE UNIVERSITY IMPACT RANKINGS

401 - 600th IMPACT RANKINGS 2023

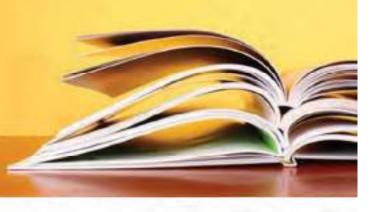
1,001 - 1200th WORLD UNIVERSITY RANKINGS 2023 SSA UNIVERSITY RANKINGS 2023

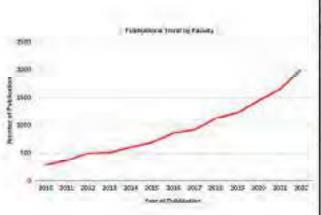


AD SCIENTIFIC INDEX

TOP 20 TOP 20 BEST UNIVERSITIES IN AFRICA







1.33% Clinical, Pre-Clinical and Health 0.98% Life Sciences

Business and Economics

1.09% Education

1.07% Engineering and Technology

1.30% Law

1.09% Physical Sciences

Selected Performance Indicators of Publications (2018 to 2022)





3,807



1.13 Fee Wegstee Contact Report



8.3



6.9







9.3%

Publications in Top. 10% most citad worldwore



Publications in Inc 10% Journals



Publications co-authorize with institutions in other coordinat/regions



Publications with both adademic and corpletate officerons

Major Donor Partners



Grand Total Awarded US\$18.3 million

Other Donor Partners

Arts and Humanities Rese	arch Council
Ashesi University	
Association of Commonwe	palth Universities
☐ British Academy	
British Educational Resea	rch Association (BERA)
Cambridge Africa Partners	ship for Research Excellence (CAPREx)
Deutscher Akademischer	Austauschdienst German Academic Exchange Service (DAAD)
Economic and Social Res	earch Council, UK
Foreign, Commonwealth a	and Development Office (UK aid)
French Agricultural Resea	rch Centre for International Development (CIRAD)
German Federal Ministry	of Economic Cooperation and Development
☐ German Research Founda	ation (DFG)
☐ Google LLC	
☐ Higher Education Funding	Council for England (HEFCE)
☐ International Covid 19 Dat	a Alliance -ICODA
☐ International Telecommuni	cation Union
Leona M. and Harry B. He	Imsley Charitable Trust
Medicines for Malaria Ven	ture ("MMV")
☐ National Geographic Socie	ety (NGS)
Oppenheimer Generations	Foundation
Research England	
Social Sciences and Huma	anities Research Council (SSHRC)
Society of Exploration Geo	ophysicists, INC (Geoscientists without Borders®)
State of Israel	
Swiss Innovation Agency (Innosuisse)
☐ Tides Foundation	
UK Research and Innovati	ion - GCRF
United Nations Industrial D	Development Organization (UNIDO)
US Department of State	
□ World Academy of Science	es (UNESCO-TWAS)
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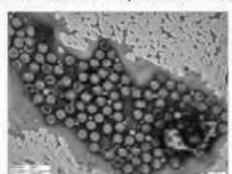
Multinational Parenteral Rotavirus Vaccine Trial in Children at the Shai-Osu Doku District, Accra



Diarrhoea is the second-leading cause of death worldwide among children under the age of five, killing an estimated three-quarters of a million children annually and hospitalizing millions more, mostly in developing countries. The most common cause of severe infantile diarrhoea is rotavirus; almost all children are infected with rotavirus before their third birthday regardless of geographic location or economic status. Rotavirus is also responsible for up to 40% of deaths from diarrhoea, resulting in more than 200,000 deaths in children younger than 5 years old globally.

In Ghana, rotavirus is responsible for more than 40% of all diarrhoea hospitalizations with the peak infection occurring during the months of October to February. Rotavirus diarrhoea is the third most common cause of hospitalization in Ghanaian children after pneumonia and malaria.

with 90% of these deaths occurring in the world's poorest countries.



Rotavirus particles detected in a diarrhoea patient

Children in low-income countries are at greater risk of severe rotavirus disease because they are more likely to be infected earlier in life; access to urgent medical care can be limited or unavailable, and there is a greater prevalence of malnutrition and other co-morbidities. In addition to causing loss of life, rotavirus places a burden on health-care systems and families. Rotavirus infection is primarily acquired through the fecal-oral route. Studies in both developing and developed countries indicate that improved sanitation alone will not control rotavirus infection. Treatment is symptomatic, with an emphasis on maintaining hydration either by oral administration of fluids or, in severe disease, via the intravenous route. Unfortunately, provision of this basic supportive care in many impoverished areas of the world is limited, contributing to the high mortality rate observed.

Vaccination thus offers the best hope for protecting all infants, regardless of economic status, against rotavirus disease. It remains the most effective public health strategy to reduce the burden of severe rotavirus infections. Four vaccines have been licenced by the WHO for use worldwide. More than 80% of countries in Africa have included rotavirus vaccination in their national immunization programme for children. Unfortunately, Oral Rotavirus Vaccines have traditionally shown lower efficacy in low and middle income countries (LMICs) as compared to developed countries (48% vrs 85%).

They have not performed optimally in resource-poor country populations because of believed interference by other viruses, bacteria and other pathogens in the intestine. Additionally, maternal rotavirus antibodies transferred through the placenta (because of the high exposure of the virus in LMICs) during pregnancy contribute to the neutralization of the vaccine, thus impeding the establishment of protective immunity in the children.

Scientific evidence shows that some of these challenges can be obviated by a parenterally administered rotavirus vaccine. One such vaccine, recently developed and certified to be safe in children, is the trivalent P2-VP8 subunit rotavirus vaccine which is being evaluated in a multinational clinical trial in three sites in Africa (Ghana, Zambia and Malawi) with sponsorship from the Bill and Melinda Gates (BMG) Foundation through PATH (Program for the Appropriate Technology in Health). The clinical trial "A double-blind, randomized, active comparator-controlled, sequential, multinational trial" has, as its major objective, the assessment of the safety and efficacy of the trivalent P2 VP8 subunit rotavirus vaccine in the prevention of severe rotavirus gastroenteritis in healthy children. The trial was designed to be conducted in two stages. The first stage involved the enrolment of a total of 3000 infants from Ghana, Malawi and Zambia who were given 3 doses of the trivalent P2-VP8 vaccine or comparator (Rotarix rotavirus vaccine) given at 6, 10 and 14 weeks of age. Participants will then be followed up until they are 2 years old. Stage 2 of the study will involve the increase of enrolment to 8,200 with the inclusion of an additional site in India. However, this will be based on an Interim Futility Analysis which will be conducted per the study objectives when 30 cases of severe rotavirus gastroenteritis have been recorded from all the sites. If futility is met, study will be stopped and not proceed to stage 2. All participants yet to reach 24 months of age will be enrolled into an ancillary observational study and observed until they reach 24 months of age.

A total of 1224 children under six weeks of age from the Shai Osu-Doku District (Asutuare, Bawaleshie, Akumada, Ayikuma, Asebi, Shai Hills, Doryumu, Amrahia, Dodowa Odumase, Kordiabe and Oyarifa) were screened and 1200 enrolled into the study after informed consent had been obtained from their parents and care givers. All the enrolled participants were randomized to receive 3 doses of either the trivalent P2-VP8 vaccine or comparator vaccine Rotarix® at 6, 10 and 14 weeks of age and followed up through 2 years of life. One hundred and twenty four participants who either failed the rigid follow up requirements, had consent to participate in study withdrawn by parents or were lost for follow up, were withdrawn from the study. On August 31 2022, interim analysis showed that futility had been met. At that time the Ghana site had completed enrollment and was in the follow up stage. A total of 1076 (90%) children completed the study, data cleaning and reconciliation is ongoing to allow the inclusion of the cleaned data in the final study data analysis. All participants who had not reached 24 months of age by 31st August 2023 have been enrolled in a follow up ancillary observation study and are being followed until they reach 24 months of age when they will be closed out of the study. We are looking forward to a final study report early next year.



Vaccine being administered



Dr. Fred Aboagye-Antwi

A purpose-built modern laboratory for the study of mosquito ecology is in operation at the Department of Animal Biology and Conservation Science, where an innovative method of targeting malaria is being investigated. Dr Aboagye Antwi, Senior Lecturer (Medical Entomology and Parasitology) acting as Principal Investigator is collaborating with scientists at University of Oxford and Keele University in the United Kingdom. The study is supported by Dr. Lucas Among-Etego, West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP) and Dr. Samuel K. Dadzie and Dr. Jewelna Akorli, Noguchi Memorial Institute for Medical Research (NMIMR), Dr. Benthel Kwansa-Bentum and Dr. Isaac Frimpong Aboagye at the Department of Animal Biology and Conservation Science, and Professor Yaw Asare Afrane of the Department of Medical Microbiology.

The project is a partnership with Target Malaria, a not-for-profit research consortium working to develop sustainable genetic technologies to modify mosquitoes and reduce malaria transmission. The World Malaria Report 2022. states that, in spite of the tremendous progress in reducing the malaria burden around the world since 2015, progress has stagnated in the past few years. The World Health Organization warns that the global response to malaria has reached the "crossroad", if new tools are not found, key targets of WHO's global malaria strategy will likely be missed. The Target Malaria consortium consists of 14 academic institutions across the global, collaborating to develop and share new cost-effective and sustainable genetic technologies. The project aims at reducing the population of malaria transmitting mosquitoes in sub-Saharan Africa.

There are three African research/academic institutions on the project located in Burkina Faso, Ghana, and Uganda, and constitute an extension of the parent organization (Target Malaria), hosted at Imperial College - London.

Mosquito Ecology Research Targets Malaria Transmission

The consortium receives core funding from the Open Philanthropy and the Bill and Melinda Gates Foundation

Target Malaria is modelled on an innovative methodology aimed at reducing the population of female vector mosquitoes, thus reducing the transmission of the disease. The targeting of malaria transmitting vectors is being implemented against a background of a decline in the effectiveness of current interventions, such as drug treatments, insecticide treated bed nets and indoor residual sprays. Whilst these interventions have helped to lower the burden of malaria, they have not been able to eradicate the disease in many countries.

At the University of Ghana, the mosquito ecology research laboratory is facilitating the work of the team to study the ecological role of malaria transmitting mosquitoes within the ecosystem and to predict the consequence of removing the malaria vector from the ecosystem. The outcome of the research is expected to provide guidance on the viability of deployment of such a method for reducing the population of female mosquitoes. The study sites are, Abutia Amegame and Mafi Agorve in the Volta Region, chosen for the unique mosquito population rather than a mixed populace to allow the study of vector population dynamics and genetics.



Climate chambers

The other aspect of the project, seeks to better understand the biology of the male mosquito to ensure that any modified mosquitoes to be implemented in future would be fit enough to cope with the environmental stresses, outcompete wild males and mate with the wild females to spread the traits of interest to yield the desired effects. It is through this method, that the goal of suppressing the population of the Anopheles gambiae mosquitoes could be achieved

The project comprises two research studies;

Study I: An ecological observatory to study malaria-transmitting mosquitoes

This component describes a work plan to set up and operate an "ecological observatory" to study the ecological consequences of suppressing or eliminating the major mosquito transmitting malaria in Africa.

Study II: Scaling up for rollout: rearing, transport, and release of male mosquitoes (Mosquito rearing and male fitness Anopheles gambiae study)

This component of the proposal aims to develop protocols for the rearing, transport, and release of mosquitoes that ensure the gene drive constructs we develop will be introduced into natural populations in an efficient manner. While the outcome of the project will inform our management of modified mosquitoes, the research is not being done using modified mosquitoes.

The project offers training opportunities for PhD candidates and is working with the West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP) and the Noguchi Memorial Institute for Medical Research (NMIMR).



PhD candidates at work in the laboratory

The main objectives are;

- Developing larval rearing conditions that maximize the survival of mass-produced males
- Testing rearing protocols that boost male mating competitiveness and mate choosiness
- Improving methods for packaging, transport, and release of mass-produced males to minimize negative effects on male survival and mating competitiveness

The construction and equipping of the Mosquito Ecology Research facility was funded by the Target Malaria consortium with the support of Open Philanthropy, through Keele University and Oxford University, and is key to the success of the global fight to ease the burden on malaria endemic countries. Funding for the study is from the Open Philanthropy Foundation The project duration is six years (September 2018 to April 2024) when the funding cycle is scheduled to end. Additional funding will be required to keep the ecology lab functioning to enable scientist scale up their findings and towards the successful implementation of the gene drive vector control approach for effective malaria control.



Pro VC (RID) tours insectary at research facility

Outstanding Doctoral Thesis - Sciences

Awarded to

DR. AFUA ASABEA AMOABENG NTI School of Public Health



Doctoral Thesis Title:

The effects of Particulate Matter Exposure on Cardiopulmonary Health of Informal E-waste Workers at Agbogbloshie, Accra

ABSTRACT

Background: Air pollution is a serious global public health concern, given its detrimental effects on human health and the environment. According to the World Health Organization (WHO), 91% of all city dwellers in low and middle-income countries (LMIC) are disproportionally exposed to particulate matter (PM) levels exceeding the WHO annual air quality standards. Globally, 7.6% of all global deaths were attributed to air pollution in 2016. Of these deaths, 43% was attributable to chronic obstructive pulmonary disease (COPD), 29% to lung cancer, 25% to ischaemic heart diseases, and 24% from stroke deaths. Various human and animal studies have linked particle air pollution exposure to several cardiopulmonary conditions including nonfatal heart attacks, irregular heartbeat, and aggravated asthma, decreased lung function, and increased respiratory symptoms, such as airway irritation, cough, and difficulty breathing, Informal electronic waste recycling activities are a major contributor to ambient air pollution, yet studies describing the effects of continuous exposure to particulates on cardiopulmonary health among informal e-waste workers are unavailable. Although studies have reported elevated concentrations of PM2.5, PM10, and PM10-2.5 in the ambient and personal air samples of c waste recycling workshops and the breathing zone of e waste workers, studies on PM exposures and effects on the cardiopulmonary dysfunction of informal e-waste workers are lacking.

Aim: This study did not only assess the effect of PM exposure on the cardiopulmonary health of e-waste waste workers but examined the evidence for improved health via improvements in air quality standards and creation of decent work environment for the informal sector workers as well as contributing to scholarship on the health effects of informal e-waste recycling.

Outstanding Doctoral Thesis - Humanities

Awarded to

DR. SYLVESTER AFRAM BOADI

Department of Geography and Resource Development

Doctoral Thesis Title:

Socio-Economic Potential of Agroforestry as an Alternative Livelihood Strategy for Cocoa Farmers in Ghana



ABSTRACT

Background: Cocoa (Theobroma cacao) cultivation in Ghana is dominated by smallholder farming households who derive most of their incomes from the crop. Currently, climate change is adding to inherent boom-and-bust cycles associated with cash cropping and reducing cocoa yields and household incomes. Current research suggests that cocoa agroforestry practices have the potential to increase the resilience of these farms, offer more stable yields and incomes, and improve plot-level technical efficiency. Despite these, there are few studies with scientifically proven socio-economic models comparing the profitability and technical efficiency of cocoa agroforestry systems to cocoa monocultures.

Aims of study: This thesis thus seeks to evaluate cocoa farmers' current cultivation practices and assess the profitability and technical efficiency of different cocoa systems classified based on the level of tree diversity.

Study methodology: Data were collected through household surveys in 402 cocoa farming households and for 1040 cocoa plots in 12 communities across the Transform, Adjust, and Cope climate impact zones in Ghana for a normal and drought year. The level of vulnerability of these zones to climate risks increases from the Cope to the Transform zone. Additional data were collected using focus group discussion (FGDs), plot visitation and measurements, and field observations. The FGDs are analysed using context analysis techniques and combined with the analysis of the survey data to evaluate farmers' cultivation practices. The policy analysis matrix (PAM) model is applied to compare the financial and economic profitability of the different cocoa systems, and a stochastic frontier analysis is used to assess their technical efficiencies.

Findings and conclusion: This thesis finds that male headed households maintain significantly higher total number of non-cocoa trees per hectare on cocoa plots (9 trees/ha) than female headed households (6 trees/ha). In addition, cocoa farmers enjoy consistent and sustained profit in both normal and drought years if they implemented a more tree diverse cultivation system as opposed to a low tree diverse system. The study findings show that cocoa farmers were producing 22.3% below the levels their current inputs use should yield, and deviations from the optimum production possible were due to factors within farmers' control. Based on these findings, it is recommended that cocoa farmers consider implementing higher tree diversity levels on their plots especially as changes in climate continue to affect the frequency and magnitude of droughts and dry spells, which as demonstrated in this study affects profitability from low tree diversity cocoa plots.

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College of Basic and Applied Sciences

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
African Academy of Sciences	Dr. Paulina Tindana	West Africa Centre for Cell Biology of infectious Pashogues (WACCBIP)	Examining Key Emerging Ethical Issues in the Planning, Review and Implementation of COVID-19 Research in Africa, and the Preparedness and Responsiveness of Research Review Authorities
Airican Academy of Sciences (AAS)	Dr Edem Mahu	Department of Marine and Fisheries Sciences	Oyster Shell Models for Hirecasting Holocone Environmental Conditions in Equatorial Abantic Goastal Waters of Africa
Bill and Molinda Giges Foundation	Dr Peter Guashie	West Africa Centre for Cell Biology of Infectious Patrogens (WACCBIP)	Using Antibody Technology to Decipher the Immunological Impact of SARS-Cov-2 Variants on Pandemic Control
Bill and Melinda Gazes Foundation	Dr. Peter Quastro	West Africa Centre for Cell Blotogy of infectious Patriogens (WACCBIP)	Using Antibody Technology to Decipher the Immunological Impact of SARS-Cov-2 Venants on Pandemic Control
British Council	Prof Freuerick Obese	Onpadment of Animal Science	Enhancing Smillholder Dary Peeding Systems to Improve Productivity and Miligale Climate Chango Impacts in Malawi'- University of Bristol (the University) and University of Ghans:
Camagin Corporalism of Naw York	Prof Emmanuel Nyerkson	Department of Maliminis Science and Engineering	Hydrophobic Nano Photocatalyst-Dispersant and Nano Photocatalyst-Surbent Systems for Oil Spill Remediation
Camegle Corporation of New York	Dr. Nasiamle Amissen	Department of Crop Science	CAPREX Supplementary Award
Carnegle Corporation of New York	Dr. Angela Parry- Hanson Kunadu	Department of Nutrition and Food Science	Profiling and Genomic Characterization of Carbapenish Resistance of E. Coli Patriovers in Fresh-Cut Frois
Carriegie Gorporation of New York	Dr. Mary Chama	Department of Chemistry	Purpose of the Grant-"Purchase Small Equipment and Consumables
Carriagle Corporation of New York	Dr. Richard Osei- Amponsal)	Department of Animal Science	Genome Analyses for Sustainable Use and Conservation of the Ashanti Dwarf Pig of Ghans
Carriagio Corporation of New York : University of Cambridge	Dr Fred Abongye- Antwi	Department of Animal Biology and Conservation Science	Biolic and Abiotic Factors Influencing the Fitness Cos of Plasmodium Falciparum Infections in Adoptieles Cambiae S. S.
Carnegle Corporation of New York I University of Cambridge	Dr. Theresa Manful Gwini	West Africa Centre for Cell Blology of infections Pathogens (WACCBIP)	CAPREx Small Grants Application

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Carnogic Corporation of New York / University of Camorlego	Dr. Joseph Okani Honger	Soi and Imigation Research Centre (SIREC)	Characterisation of Peolobacterum Species Isolated from Yerns in Chana
Camegie Corporation of New York / University of Cambridge	Dr. Lydia Masi	Department of Slochomistry, Cell and Molecular Biology	Microbial Profiling of Nose Masks in the EOVID-19 Em
Camegie Corporation of New York / University of Cambridge	Prof Kwaku Kyeremeh	Department of Chemistry	Era CAPREx Supplementary Award
Danion Fetöveliiji Centra / INNITL/ Kvasir Technologica	Prof. Firibu Kwesi Saalia	Department of Food Process Engineering	Carbon Capture for Microbial Protein Synthesis in Burkina Faso (CAP-BFA)
Erasmus +	Dr. Yaw Agyentang Boafo	Centre for Climate Change and Sustainability Studies	Mobility for Learners and Staff – Higher Education Student and Staff Mobility
Federal Ministry for Economic Cooperation and Development / Deutsche Gesellschall Für Internationale Zusammenarbeit (GIZ)	Dr. Edem Manu	Department of Marine and Fisheries Sciences	Mangroves as Nature-based Solutions to Coastal Hazards in Eastern Ghana (MANDOGA) Project
Food and Agriculture Organisation of the United Nasons (FAD)	Dr. Gloria Ethol Otoo	Department of Nutrition and Food Science	Fagd and Nutrition Assessments for School Children in Ghans
Foreign, Commonwealth and Development office and Wetcome Trust	Prof. Gordon Awandam	West Africa Centre for Cell Biology of Infectious Pathogens	Expansion and Support of SARS-Cov-2 Sequencing in West and Central Africa
Google LLC	Dr. Jamai-Deen Abdulal	Department of Computer Science	Master Sponsored Research Agreement (thin "MSRA")
HBNU Foçany Global Health Gonsonium	Prof Gurdon Awandare	West Africa Centre for Cell Bloogy of Infectious Fathogens	Partnership for Global Health Research Training Program, (5043TW010543-05)
International Atomic Energy Agency (TAEAT)	Dr. John Eleblu	West Africa Centre for Crop Timproyement (WACCI)	Rediation induced Crop Diversity and Genetic Associations for Accelerating Variety Development Mapping of Genetic Associations of Number of Pode Per Plant and Number of Seeds Per Pod in Cowpos
International Development Research Ceatre (IDRG)	Prof. Kwasi Appearing Addo	Institute for Environment and Santation Studies (IESS)	Coastal Vulnerability in the Ghana Coastlands to Relative Sea-Level Rise
Johns Hopkins University Applied Physics Laboratory LLC through Montana State University	Dr. Richard Dery Suu-Ire	School of Vaterinary Medicine	Zoonotic Contact Tracing: Cross-species : Contact Tracing for Pandemic Source Attribution
MasterCard Foundation Brough Kosmos Innevallan Centre Foundation LBG	Prot Itena Egyir	Department of Agricultural Economics and Agribusiness	Implementation of the KIC AgriTech Challenge (Classic and Prg) and Incubation Modules
Medicines for Malaria Venium (MMV)	Dr. Richard Arnewu	Department of Chemistry	South African Malaria Drug Discovery (SAMOD) Programme
MWY Medicines for Malaria Venture ("MMV")	Dr. Richard Amewu	Department of Chemistry	Hit Validation of Whole Cell P. Falciparum Asexual Blood Stage HTS Actives

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
National Geographic Supply (NGS) through University of Massachusetts Amhersi	Or Allison Felix Hughes	Department of Physics	Making Case for Reducing Ar and Noise Pollution in School Environments in Acore, Ghana
National Institute of Mental Health	Prof. Gordon Awardisre	West Africe Centre for Cell Biology of Infectious Pathogens	Public Understanding of Big Data in Genomic: Medicine in Africa (PUBGEM-Africa)
National Institutes of Health (NIH)	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens	HI-GENES Africa: Hearing impairment Genetic Studies in Africa
Norwesian Agency for Development Cooperation (Norad)	Dr. Samuel Addo	Department of Marine and Fisheries Sciences	Capacity Building in Aquatic Animal and Environmental Health in West Africa
Norwegian Agency for Davidopment Cooperation, Norsa	Prof. Chris Gordon	Institute for Environment and Sanitation Studies (IESS)	Huilding Capacity to Grosslink Coestal Poliulion with Elimate Change_(BC5)
O.H. Tambo Africa Research Chairs Initiative (ORTARCHI)	Prof. Kwesi Saalia	Department of Food Process Engineering	O.R. Tambo Africa Research Chair
Oppunhaimer Generations Foundation / Trustee EOSon NEO PTC Limited	Dr. Benedicta Yayra Fosu- Menseh	Institute for Environment and Sentation Studies (IESS)	Microplestics and Plestic-Derived Chemical Contaminants in Africa: Implication on Human Health and the Loss of Aquatic Biodiversity
PASET Regional Scholarship and Innovation Fund	Dr. Abigail Ampomah Adaku	Department of Agricultural Economics and Agricultural	innovating Out of the Urban Street Food Safety Chellenges (Urban Safe)
Swiss Innovation Agency (Innosuisse)	Dt. Joyce(yri Quansah	Department of Nutrition and Food Science	Fruit to Bar – Innovative Post-Harvest Processing of Depulped Cocca Beans and Pulp thereof for Single Source Chocolate
The Alexander Von Humbold Foundation	Dr. Bendif Floreni Sehba	Department of Matternatics	The Second German Research Chair in Mathematics and its Applications
The Government of the United Kingsom of Great Britain and Northern Ireland acting / the Foreign, Commonwealth and Development office ("FGDO")	Prof. Gordon Awandam	West Africa Centre for Cell Biology of Infectious Patnegens (WACCBIE)	Comprehensive National Surveillance for COVID-19 and Building Laboratory Capacity for Sustainable Disease Control in Ghana
The international Development Research Centre (IDRC)	0r, D⊠dzo Yeenya-Tawiah	Institute for Environment and Semilation Studies (FESS)	Transforming Institutions to Advance Women Leaders in Science Technology Engineering and Mathematics (STEM)
The Godety of Exploration Geophysimids, INC (Godspentists without Bordens®)	Dr. Elikpim Able Dzikunoo	Department of Earth Science	Provision of Potable Water to Communities in Northeastern Ghasa
The Wellcome Trust, UK	Prof. Gordon Awandare	West Africa Dentre for Cell Biology of Infectious Pathogens	Cellular Dissection of Plasmodium (aleiparum Erythrocyte Invasion
The World Academy of Sciences (UNESCO-TWAS)	Dr. Cornelia Applah-Kwarteng	School of Veterinary Medicine	Molecular Comparison of Flichuns spiol Grassculters, Livestock and Humans in Ghana

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
uk Funding Bory- Engineering and Physical Sciences Research Guanch (EPSRC) and Belmont	Dr Yaw Agyeman Boeln	Centre for Climate Change and Sustainability Studies	Re-Energize Governence of Disester Risk Reduction and Restience for Sustainable Development
UK Research and Innovation + GCRF	Or Adelms Mensah	Institute for Environment and Sanitation Studies (IESS)	The COVID Observatories: Monitoring the Interaction of Pandemics, Climate Fisks, and from Systems among the World's Most Disadvantaged Communities
United Nations Industria Development Organization (UNIDO)	Prof. Kwarne Afrete-Nuemah	Forest and Horticultural Crop Research Centre (FOHCREC)	Promoting Public Health and Social Resilience against COVID-19 by Strengthening the Domestic Supply Chain of Personal Protective Equipment under a Circular Economy Approach
VSAID	Dr. Yyanna Loh	Department of Earth Science	Global Hungar and Food Security Research Strategy: Climate Resilience, Nortice and Policy- Feed the Future innovation Lab for Small Scale Impation
West African Center for Cell Biology of Infectious Pathogens	Mr Kwesi Zandoh Tandoh	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Visiting Research Advisorment
World Bank	Dr. Thomas Armah	Department of Earth Science	Partnership Agreement between Challenge Co Ltd. and University of Ghane
Works Bank and Others through International Centre of Insect Physiology and Ecology (ICIPE), Konya	Prof fiere Egyli	Department of Agricultural Economics and Agribusiness	The Management of Research Support, innovation and Capacity Building Activities of the Regional Scholarship and innovation Fund (RSIF) under the Partnerships for Skills in Applied Sciences, Engineering and Technology (PASET) Iniliative
Worldwide Universities Network (V/UN)	Prof. Kwasi Appeaning Addo	Institute for Environment and Sanitation Studies (IESS)	Building Capacity to Monitor and Manage Sargeseum Seaweed Inundations in Western Africa (SARCAP)
Workinde Universities Network(WUM)	Prof. Elsie Elfan Ksufmann	Department of Biomedical Engineering	The Design and Development of Appropriate MedTech Products for in-Country Use: A Regional Companison of West and East Africa



College of Education

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
British Educational Research Association (BERA)	Dr. Esinam Kayî	Department of Distance Learning	Examining the Impect of Blended Learning on Distance Education Learners' Learning Outcomes. Perspectives from instructors and Learners
Capacity Development Institute	Prof Michael Tagoe	Department of Adult Education and HR Studies	Capacity (CAP) Assessment Platform Agreement
The British Council through Liverpool John Moores University	Dr. Samuel Amporsah	Department of Distance Learning	THEMIS (Evaluating Gender Equity and Equality in the English Language Teacher Curriculum, ICT Policies and Learning Materials in Botswans. Ghana, Nigeria and South Africa)
LKRIEGEC	De Issahaka Fuséini	Department of Adult Education and HR Studies	(Re)Thinking the off-Grid City 2019: Reimagining Infrastructure: How is Marginalised People's Feod and Nutrition Security Shaped by a Continuum of Urban Infrastructure Assembleges?
US Department of Starn (American Embassy, Accta)	Dr. Abena Yeboah-Banin	Department of Communication Studies	State of the Gharaian Media Report



College of Health Sciences

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Bill and Melinda Gales Foundation / Duke University (Duke Global Health Institute)	Prof. Justice Nonvignon	Department of Health Policy Planning and Management	Laying the Foundation for Development of a Transition's Framework for Key Stakeholders
Bill and Molinda Gates Foundation	Prof Justice Neavignon	Department of Health Policy Planning and Management	Assessing Opportunity Costs of Seasonal Malana Chemoprevention in SSA
Bill and Melinda Gales Foundation	Prof. Justice Nonvignen	Department of Health Policy Planning and Management	Cost-Effectiveness of COVID-19 Vaccination Strategies in Ghana and Benin
Bill and Melinna Gates Foundation / Duke University	Prof. Justice Nonvignon	Department of Health Policy Planning and Management	Developing the Evidence Base to Support Country Transition Planning
Cambridge Africa Partnership for Research Excellence (CAPREX) / Camegie Corporation of New York	Dr. Jewelha Akorli	Department of Parasitology	Supplementary CAPREx Award
Cambridge-Africa ALBORADA Research Fund	Dr. Prince Asaro	Department of Bacteriology	Detailed Characterization of Mysebacterium Bovis of Animal Ongin and Tracking of Zeonotic Transmission between Bovine and Human Hosta in Ghana
Cambridge-Africa ALBORADA Research Fund	Dr. Derothean Obiri	Department of Immunology	Biomarkers of Placental Dysfunction to Predict Preeclampsia in Women with Sickle Cell Trait and Sickle Cell Disease
Camagia Corporation of New York / Cambridge Africa Parinership for Research Excellence (CAPKEX)	Dr. Beverly Egyli	Department of Bacteriology	Antimicrobial Resistance and Molecular Characteristics of Bacterial Species Recovered from Water for Human Consumption/Use (and Recreation) in Rural and Urban Areas in Ghatta
European and Developing Countries Clinical Trials Partnership (EDCTP)	Prof. Dorothy Yeboah-Manu	Department of Bacleriology	Creating A Gender Sensitive Platform for Clinical Research in West African Network for TB, AIDS and Malaria (WANETAM) - TALENT
European and Developing Countries Clinical Trials Partnership (EDOTP)	Prof Dorolly Yeboah-Manu	Department of Sacterology	West African Network for TB, AIDS and Malayte 3. (WANETAM 3)
Fleming Fund, UK Department of Health	Dr. Eric Sampane Donkor	Department of Medical Microbiology	One Health Surveillance of AMR in Non-Typhoidal Salmonella, Klabaiella Pneumoniau, and Other Gram-Negative Bacteria
German Research Foundation (Deutsche forschungsgemeinschaft (DFG)	Dr. John Ganla	Department of Population, Family and Reproductive Health	Uneven Geographies of Vaccine Manufacturing in the Global South: Assessing the Relations between Research & Development and Global Equity
Global Fund through the Ghana Health Service	Prof. Kwasi Torpey	Department of Population Family and Reproductive Health	Integrated Bio-behavioral Surveillance Survey (IBBSS) amongst Men who have Sex with Men (MSM) in Ghana

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Higher Education Funding Council for England (HEFCE) Ihrough Edge Hill University	Dr Benedict Wesbong	Department of Secial and Behavioural Sciences	Voidaling Measures for Measures of Nochol Use and Mantal Health, A Study in Chana
IDRO	Prof. Amos Laar	Department of Population. Family and Reproductive Health	Developing Evidence and Action toward a Double- Duty Food-Based Policy Bundle to Ensure Healthier Diets in Ghana
Injernational COVID-19 Data Alitance -ICODA	Dr. Patricia Akweongo	Department of Health Policy, Planning and Management	Impact of COVID-19 on Health Service Delivery and Institutional Mortality: A Multi-Country Consortium
Mestercard Foundation	Dr. John Gante	Department of Population, Family and Reproductive Healtin	Young Africa Works: Disability Indusion Research Faring
MOTT MACDONALD LTD through London School of Hyglene and Tropical Medicine (LSHTM), UK	Dr. Nicholas Dayle	Department of Medical Microbiology	Fleming Fellowship Grant
National Heart, Lung and Blood Institute under the NIH	Prof. Solomon ofori-Acquab	Department of Medical Laboratory Sciences	Sickle Cell Genemics Network of Africa (SickleGenAfrica)
National Institute of Heart)	Dr. Yvonnia Dei-Adomiakoh	Department of Haematology	Development and Evaluation of Community-Based Approaches and Donor Care Intervention Models for Improving Availability and Salety of Blood for the Management of Severe Anemia in Ghana
National Institute of Health (NIH)	Prof. Mark Tettey	Department of Surgery	AHOMKA: A Culturally-adapted mHealth Platform for Management of Hypertension in an Urban and Rutal Region of Ghana
National Institute of Healin (NIH)	Prof. Eng Sempene Donkor	Department of Medical Microthology	Invasive Preumocorcal Disease and Carriage arrong Children with Sickle Cell Disease in Ghane. A Post-vaccination Study
National Institute of Health	Prof. Kwasi Torpey	Department of Population, Family and Reproductive Health	Survey on Trans Women Project in Greater Accra- Central, Ashanil and Volta Regions of Ghana
New York Genome Centre (NYGC)	Dr. Nicholas Israel Nii Trebi	Department of Medical Laboratory Sciences	Genetic Determinants of Susceptibility to SARS- COV-2 and Seventy of CDVID 19 Outcomes Among Ghomotons
NIHR / King's College London of Strand	Dr. Banedici Wenbong	Department of Social and Behavioural Sciences	NHR Global Health Research Group on Interventions for Youth with Depression and Anxies Disorders in African Countries
Norwegian Agency for Development Cosporation, Norad / the University of Bargen	Prof. Julius Fobil	Department of Biological, Environmental and Occupational Health	Water ESSENCE Africe Creating Synergy to Meet the Global Challenges
Research Council of Norway	Prof. Justice Nonvignon	Department of Health Folicy, Flamming and Management	Supporting Inclusive and Accountable Health Systems Decisions in Ghana and Kenya for Universal Health Coverage (SUPPOR I-SYSTEMS)
Rideau Half Faundallon (RHF) Through McGill University	Prof. Richmond Aryeeley	Department of Population, Family and Reproductive Health	Netlinks: An Anciophone-Francophone Network Unking Scholars and Non-Academic Change Agents to Enhance Health Equity and Sustainable Inclusive Growth in Rural West Africa
The Leima Miland Hony B. Helmsley Charitable Trust through Brighem and Women's Hospital	Dr Leorard Baalloma	Department of Health Policy, Planning and Management	Richesigning Care, Protecting the Vulnerable Building Universal Access for Type one Diabetes (T10) and other Severe Chronic Noncommunicable Diseases for the World's Procest People by 2030
WHO-TER	Prof. Phyllis Dako- Gyake	Department of Population, Family and Reproductive Health	2nd Phase of TDR Postgraduate Training Scheme with a Focus on Implementation Research

College of Humanities

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Agriculturu Miss africta nip uroup	Dr. George Acneempong	Department of Marketing and Entrepreneurship	Collaboration Agreement for the Purpose of Establishing the University of Ghana Business School (UGBS) immyelien Hub
Numbré lauteur	Dr. Joana Saliru Yendork and Dr. Franklin Glozah	Deparament of Psychology	Lesure or Livelhoods? A Participatory Study of Youth Perspectives on Gambling and its Social, Economic and Health Impacts in Gifana and Malawi
Marish Council	D: Kobby Mensah	Department of Merkeling and Entrepreneurable	Innovation and Youth Entrepreneurship for Sustainable Tourism in Africa
Carnegie Gooperatur of New York / me University of Probanti South Africs	Dr. Ebeneztir Amankwaa	Department of Geography and Resource Development	Analysing Dynamic Adaptation Strategies of the Urban Poor to Improve Well being (ADAPT)
Chamonics (Alemations) inc	Dr. Roger Abriga	Department of Public Administration and Health Services Management	Training of Trainers for Supply Chain Management Northern and Eastern Regions
DANIDA) Danim Indiole tof International Singles	Prof. Abdul-Gataru Abdulai	Department of Public Administration and Health Services Management	Energy Struggles: Renewarké Energy in Africa
Deutscher Akademischer Ausdragschalenst German Academic Excherge Service (DAAD) / University of Studgert	Prof. Martin Oteng- Anabio	Department of Geography and Resource Development	Sustainable Cities, Circular Economy, Sub Sahara Africa 2024: SuCCESS 24
Economics and socur Research Council, UK	Prof. Joseph Teye	Centre for Migration Studies	GCRF inclusive Societies-Migration for inclusive African Growth
European Union		and Health Services Management	Mability for Learners and Staff - Higher Education and Staff Mobility
Ford Foundary	Prof. Abdul-Gafaru- Abdulai	Department of Public Administration and Health Services Management	Political Economy of Oil Resource Distribution and Implications for Persistent Spatial
Foreign: Currentonwealm and Development office (UK aid! / the University of Manchesler	Prof Abdul-Galaru Abdulai	Department of Public Administration and Health Services Management	Inequalities in Chans New African Cities Research Consortium Project
International Centre for Migration Poliny Development (CMPL)	Prof. Joseph Teye	Centre for Migration Studies	Action against trafficking in Persons into, from and within Gnana (AATIP)
Interrationin Devembre: Assuciation (the Public Secretarist, office of the Secretarist office of the Secretarist office of the	Prof. Justice Bawole	Department of Public Administration and Health Services Management	Consuming Service to Serve as an Independent Verification Agent
International Development Reterration Centre HURCH Carrent	D∈ Edward Asiedu	Department of Finance	Nudging Small and Medium Sized Enterprises in Ghans to Adopt Digital Technologies: Experiments Promoting Inclusive Innovation
interistional Development Rosessol Const. (IDRC - Ceropia	Prof Pelar Quartey	institute of Statistical, Social and Economic Research (ISSER)	Teacher Cagnety Building for Play-based Entry Learning in Ghana and Sierra Laone

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Internation = masgammun, Asto. Uninn, Censue: Swigerann	Dr. Edward Asiedu	Department of Finance	Improving Resilience in Developing Countries Digital Health Provision through Telemedicine- Ecosystem against Pandemic, Epidemics and Natural Disasters in Sub-Saharan Africa
Ministry of foreign virties of Doronsek (Climits Festowsbip Cemters - Author University	Dr George Acheampong	Department of Marketing and Entrepreneurship	Fort Effectiveness and Public Cooperation for Competitiveness II (PEPP II)
National Research Foundation (NRF)	Dr. Meame Adwoa Gyekya-Jandoh	Department of Political Science	Developing Resilient African Cities and their Urban Environment Facing the Pro-Vision of Essential Urban SDGs
Research Council of Number (RCIN)/ University of Grids	Prof. Samuel Agyer-Mensah	Department of Geography and Resource Development	Epidemic Traces. Remains of Infectious Disesse Control in Africa, and How they Shape Future Health
Research England / Mawaksily of York	Dr. John Manyimadin Kusimi	Department of Geography and Resource Development	Using Photovoice in Artisanal and Small-Scale Goldmining Communities in Southern Ghana
Rucou Holl Foundation (RHF) / the Governors of the University of Cagary	Prof. Mavis Dako- Gyeke	Department of Social Work	Parlmering for Immovation in Women-led Social Work and Social Science in West Africa
Social Science and Humannius Research Louinet (SSHRU)	Prof. Joseph Teye	Cambre for Migration Studies	Urban Sanctuary, Migrant Solidanty and Hospitalih in Global Perspective
The Arts and Humanness Research Council i the University of Exeter	Prof. Kodzo Gayua	Department of Archaeology and Heritage Studies	Imagining Futures through Un/ Archived Pasts
The Chancetor, Master's and Scholars of the University of Garkert	Prof. Kodzo Gavua	Department of Archaeology and Heritage Studies	African Cultural Heritoge Programme
Tidas Foundation / Wassermants Institute of Technology Research Administration Sarvices	Dr. Edward Asiedu	Department of Finance	Supporting Female Entrepreneurs During a Pandemic, Evidence from a Field Experiment in Ghana
UKRI-DORF Newton Fund. The Lisancetty, Master, and Scholars of the University of Campridge	Prof. Joseph Osafo	Department of Psychology	Psychosocial Effects of the COVID-19 Pandemic on Families with Young Children: A Companion of Four Middle-income Countries (EBLS-C19)
WASLING and German	Prof. Joseph Teye	Centre to: Migration Studies	Migration and Translocality in West Africa Project (MTra-WA)
Verlicemo Triest / Birrino I (753/15 0) London	Or Caessar Attire and Dr. Lily Kipsol	Department of Philosophy and Classics	Re-Examining the 'Global' in Global Mental Health Afacan Understanding of Mental Disorder and Intellectual Disability
World Stible	Dr. Eneratina Dankyi	Centre for Social Policy Studies (CSPS)	Social Protection COVID-19 Responsive System Study
World Head) Grapmodilina (VHC)	Prof. Samuel Aqvei-Mensah	Department of Geography and Resource Development	To Organize a Conference on the Development of Urban Health Policy Tracking within the Urban Health mitative (UHI) 2021/1168635
World Health Organisation (WHO)	Prof. Samuel Agyai-Mensah	Department of Geography and Resource Development	Urban Health Initiative Tracking Land-Use Effects on Health in Acces
Warle Hersh Groe teation (V/HD)	Prof. Samual Agyal-Manaah	Department of Geography and Resource Development	Provision of Logistical and Organizational Support for BreathoLife/Urban Health Instative Regional Workshop for African Cities In June 2022

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Food Processing



Cosmos Seafoods Lid



Parlays Biscuits



Nestle Ghana Ltd



Honey World



CSIR-Food Research Institute



Jegs Company Limited

Manufacturing/Transport/Assembly





L'OREAL





Heavy Machinery Dealership

Toyota Ghana Limited

L'oreal Ghana

Scania West Africa

Azar Chemicals Ltd.

Hisense

Sun Electronics Ltd (Hisense)

Healthcare



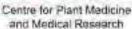
Arcoa Ltd



Roche Pharmaceuticals Ltd



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Ghana Federation of Traditional Medicine Practitioners



Hanisa Ghana Ltd

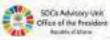


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Ghana Education Service: Regional Science Unit



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Bulk Oil Storage and Transportation Ltd





Ghana Chamber of Mines



Radiation Protection Institute



Nuclear Regulatory Authority

CSO/NGO/Advocacy/Fund Raising/Energy









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