

RESEARCH REPORT 2023/2024



Vision

UG's Vision: To achieve global impact through innovative research, teaching and learning, using a technology-driven and people-centred approach.

Vision for Research: To be an institution of choice for collaborative research and industry partnerships, knowledge generation and dissemination.





Mission

UG's Mission: To create an enabling environment that makes the University of Ghana increasingly relevant to national and global development through cutting-edge research and quality teaching and learning.

Mission for Research: To promote University of Ghana's global impact through enhanced collaborative research and partnerships, knowledge generation and dissemination.

Goal

UG's Research Goal: To deliver the highest attainable excellence in research and innovation to transform understanding of the world we live in and the universe around us.

UG aspires to discover new knowledge and develop solutions to address global challenges, engage with local communities and global collaborators and be the preferred institutional partner for collaborative research.



Research Priority Areas

INFECTIOUS AND NON-COMMUNICABLE DISEASES

FOOD PRODUCTION AND PROCESSING INCLUDING IMPROVED APPROACHES TO BREEDING

TRANS-DISCIPLINARY RESEARCH INTO CLIMATE CHANGE ADAPTATION

DEVELOPMENT POLICY, POVERTY MONITORING, AND EVALUATION

POLITICS, SOCIO-CULTURAL CHANGE, MOBILITY AND DEVELOPMENT

CREATIVE ARTS, EDUCATION AND COMMUNICATION AND INFORMATION LITERACY

FOURTH INDUSTRIAL REVOLUTION TOOLS (ARTIFICIAL INTELLIGENCE, DATA SCIENCE, MACHINE LEARNING, DIGITAL TRANSFORMATION ETC)



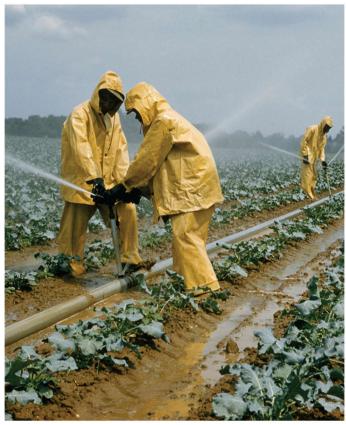


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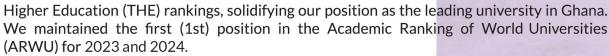
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Professor Nana Aba Appiah Amfo Vice-Chancellor

During the 2023-2024 academic year, the University of Ghana experienced a substantial increase in research funding and a corresponding rise in research collaborations with partners in academia and industry. The dedication of our researchers and the benevolence of donor agencies enabled the conduct of extensive research in the applied sciences, humanities and education.

In terms of global recognition, the University ranked first (1st) in Ghana and fifth (5th) in Sub-Sahara Africa in the 2024 Times





In June 2024, the University commemorated the Day of Scientific Renaissance of Africa, for the third consecutive year. The event featured exhibitions of scholarly work from all colleges and a high-level panel discussion under the theme 'Galamsey: Preserving the Environment, Protecting our Future'. The theme underscores the University's determination to address the widespread dangers of illegal mining (referred to as 'galamsey') in Ghana. As researchers, we bear a weighty responsibility to bring to light, empirical evidence of the risks of illegal mining to human health and the environment, highlighting the imminent dangers that we all face.

The University launched its first research strategy for 2024 to 2029 in July 2024 focusing on critical areas including, infectious and non-communicable diseases, sustainable food production and processing, climate change adaptation, and the development of tools for fourth industrial revolution. The restructured Office of Research, Innovation and Development (ORID) has evolved into the Research and Innovation Directorate with effect from 1st August 2024 and is expected to lead the University to deliver impactful research in prioritized areas and achieve our resource mobilization objectives under the guidance of the Pro Vice-Chancellor.

Aligned with our research strategy, we envision the University of Ghana as the institution of choice for collaborative research and industry partnerships. Throughout the year, the University prioritized the development of early career academics, recognizing their integral role in our research initiatives. Through fellowship and scholarship programmes, graduate student engagement in research contributes significantly to the outcomes and impact of our engagement with communities. The University remains committed to the task of equipping both students and faculty with advanced technological tools and enhanced teaching facilities, to foster a new generation of researchers and entrepreneurs.

I express my sincere gratitude to donor partners, faculty, staff and students for their contributions to the University's achievements in the past year.

RESEARCH @ UG



Professor Felix A. Asante

Pro Vice-Chancellor Research, Innovation and Development

As we reflect on the University of Ghana's (UG) accomplishments in the year under review, we are encouraged by the fortitude of our researchers who persevered through difficult economic times for higher education. The global atmosphere remains volatile, however we are hopeful that new opportunities for research and innovation will emerge in the short to medium term.

In the past academic year (2023 - 2024), UG's research portfolio grew considerably, enabling scientific inquiry of pertinent matters of national interest. In the applied sciences, the development of local varieties of rice with high tolerance for local climatic conditions portend well for efforts to decrease national rice imports. In furtherance to the adoption of a vaccine for malaria, extensive research to block parasite transmission is advancing steadily with the potential to eliminate a disease which continues to take a toll on sub-Saharan Africa.

Efforts by researchers to mitigate the effects of climate change and build adaptive capacity within communities have been hampered by the widespread practice of illegal mining in Ghana, resulting in the pollution of the environment and water bodies. The University continues to proffer solutions for alternative livelihood practices and advocates for a halt to illegal mining. A renewed research strategy (2024 - 2029), heightens our focus on seven areas of inquiry;

- Infectious and Non-communicable diseases
- Food production and processing including improved approaches to breeding
- Trans-disciplinary research into Climate Change Adaptation
- Development Policy, Poverty Monitoring and Evaluation
- ♦ Politics, Socio-cultural Change, Mobility and Development
- Creative Arts, Education and Communication and Information Literacy
- Fourth industrial revolution tools (Artificial Intelligence, Data Science, Machine Learning, Digital Transformation)

As we transition to a more pertinent research strategy we are confident that the outcomes of our research will address current and future challenges directly.

The Research and Innovation Directorate continues to nurture young talent through the Student Venture Support Programme (SVSP) to offer entrepreneurial skills training. Since its inception, student teams emerging as winners of talent competitions have received support to establish viable and innovative businesses which hopefully will bridge the graduate unemployment gap.

We look forward to a better year for higher education, and remain indebted to donor partners, research/industry collaborators and the Government of Ghana who continue to make our efforts worthwhile through grants, generous donations and the utility of our research outcomes.

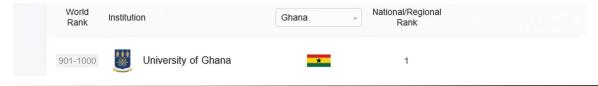
Institutional Ranking





2024 ACADEMIC RANKING OF WORLD UNIVERSITIES

901-1000 Band





WEBOMETRICS RANKINGS

GHANA 1ST SUB-SAHARAN AFRICA 11TH HIGHER EDUCATION INSTITUTIONS 1,121/31,000



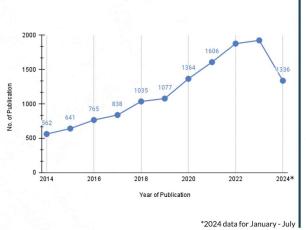
AD SCIENTIFIC INDEX

GHANA 1ST
UNIVERSITIES IN AFRICA 11TH/2,049
TOP 20 BEST UNIVERSITIES IN AFRICA TOP 20
GLOBAL UNIVERSITIES 1,704/14,284

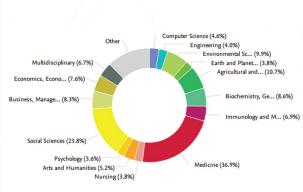


Publications

■ Publication Trend by Faculty



Publications Share by Subject Area



■ Selected Performance Indicators of Publications (2019 to 2024*)



Scholarly Output - 9,825



Citation Per Publication - 7.9



Authors - 5,149



Citation Count -77,662



 $\begin{tabular}{ll} Field-Weighted Citation - 1.15 \\ Impact \end{tabular}$



h5-Index - 75

Publications in Top 10% most cited worldwide



Publications in Top 10% Journals



Publications co-authored with institutions in other countries/regions

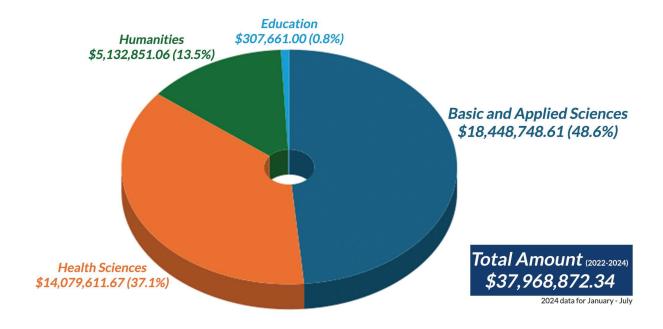


Publications with both academic and corporate affiliations





Distribution of Grants



Major Donor Partners





















BILL & MELINDA GATES foundation



Other Donors

- Food & Agriculture Organization of the United Nations (FAO)
- African Academy of Sciences (AAS)
- Association of Commonwealth Universities
- British Academy
- Swiss Innovation Agency (Innosuisse)
- Cambridge Africa Partnership for Research Excellence (CAPREx)
- Deutscher Akademischer Austauschdienst German Academic Exchange Service (DAAD)
- Economic and Social Research Council, UK
- Foreign, Commonwealth and Development Office (UK aid)
- British Society for Antimicrobial Chemotheraphy COVID-19 Grant Scheme
- HBNU Fogarty Global Health Consortium
- German Research Foundation [DFG)
- Volkswagen Stiftung
- International Covid 19 Data Alliance -ICODA
- KGL Foundation LBG
- Challenge Co. Ltd, Japan
- Medicines for Malaria Venture ("MMV")
- National Geographic Society (NGS)
- Agence Française de Développement (AFD)
- OCP-Africa
- Social Sciences and Humanities Research Council (SSHRC)
- Clean Air Fund
- Collaborative Drug Discovery, Inc.
- Carnegie Corporation of New York
- EU/ICLEI Africa
- CIHR
- Swiss National Science Foundation
- Mastercard Foundation
- World Academy of Sciences (UNESCO-TWAS)

SPECIAL FEATURE

THE IMPACT OF ILLEGAL MINING IN GHANA



Mining has played an important role in the development of Ghana, with benefits and risks to communities where minerals are found (A. Aboka et al 2011). Mining in Ghana has largely been dominated by multinational corporations such as AngloGold Ashanti, Newmont Ghana Gold Company, Bogoso Goldfields, to name a few. The practice of small-scale mining predates the colonial era as one of the mainstays of economies in mineral rich towns (Ofosu-Mensah, Ababio 2011). The University of Ghana is determined to highlight the dangers of illegal mining in Ghana. Thus, in recognition of the role of science in development and in the spirit of the African Union declaration (1987), the University celebrated the Day of Scientific Renaissance of Africa (DSRA) with a panel discussion on the 28th of June 2024, following an exhibition of scholarly works across colleges.

The theme for the high-level panel discussion to climax the month-long celebrations of DSRA i.e **GALAMSEY: PRESERVING THE ENVIRONMENT, PROTECTING OUR FUTURE** highlights the destructive nature of illegal mining on the environment and food systems in the country and underscores the very imminent danger to sustaining development.

Research conducted at the University of Ghana's School of Public Health, Institute of Environment and Sanitation Studies and the Medical School reveal the devastating effects of illegal mining on the environment, the threat to food systems and the risk to human and animal health. The practice is deemed an existential threat, as factually determined by research carried out in mining towns in Ghana. Empirical evidence highlights the dire consequences of the use of hazardous chemicals by illegal miners, on human health and ecology, with consequential deforestation intensifying climate change.

This report outlines findings and recommendations presented by leading academics in keynote addresses delivered to highlight the effects of illegal mining at the high-level panel discussion to climax DSRA events in June 2024.

SPECIAL FEATURE - THE IMPACT OF ILLEGAL MINING IN GHANA

Prof. Benedicta Yayra Fosu-Mensah Associate Professor, Environmental Assessment Institute of Environment and Sanitation Studies







Title of Presentation

Environmental Impact of Illegal Small-scale Mining (galamsey) in Ghana - The Way Forward

Deforestation and Land Degradation: Galamsey activities have led to widespread deforestation and land degradation. Vast areas of forest have been cleared, disrupting natural ecosystems and destroying habitats. This loss of biodiversity is a contributing factor to climate change. In 2022, approximately 19,000 hectares of cocoa farmland were destroyed nationwide, resulting in a sharp decline in cocoa production—from 1.4 million tons in the 2020-2021 cropping season to just 500,000 tons in the 2023-2024 season. Ghana is currently experiencing a rate of forest loss that is 60% higher than any other country, according to a (World Resources Institute report).

Water Pollution: The pollution of water bodies with heavy metals and toxic chemicals has had devastating effects on aquatic ecosystems and poses significant health risks to humans, including cancers and developmental defects in unborn children. Major rivers, such as the Pra, Ankobra, and Birem, have been transformed into conduits for toxic substances, endangering both wildlife and communities that rely on these water sources.

Soil Pollution (The Silent Killer): The use of Mercury and Cyanide in mining has contaminated the soil—the bedrock for agriculture and biodiversity. This pollution has rendered once-fertile farmlands incapable of supporting crops. Food crops such as plantains and cocoyam leaves have been found to bioaccumulate toxic metals (lead, chromium, nickel, and cadmium), posing health risks to consumers.

Climate Change: Deforestation and soil degradation contribute to greenhouse gas emissions, while the destruction of water bodies alters local climates, which exacerbates climate change. These changes have manifested in frequent and severe weather events, unpredictable rainfall patterns, and rising temperatures, all threatening food security.

Recommendations;

- i. A halt to illegal mining activities.
- ii. Strengthening and enforcement of laws; imposition of severe penalties and increased surveillance.
- iii. Promoting sustainable mining practices by adopting environmentally friendly techniques.
- iv. Provision of alternative livelihood activities for the miners.
- v. Educate the public on the rippling effects of illegal mining and ensuring accountability.
- vi. Investment in research and innovation to explore new methods of mineral extraction.

SPECIAL FEATURE - THE IMPACT OF ILLEGAL MINING IN GHANA

Prof. Benedict Calys-Tagoe Associate Professor, Community Health University of Ghana Medical School

Title of Presentation: **Health Impact of Illegal Mining (Galamsey)**

Professor Calys-Tagoe conducted research in the Upper East region of Ghana.

Impact on Water and Sanitation: Inhabitants depended on the surface water (ponds and the pool of stagnant water collected in the Galamsey pits) for bathing and cooking. Surface water was found to contain heavy metals, and human and animal faecal waste which put residents at risk of diarrheal diseases and cancer.

Impact on Sexual Health: Miners were largely migrant workers, who lured young women with money to engage in unprotected sex. Their promiscuity resulted in sexually transmitted diseases/infections (STIs), unsafe abortions, and unwanted pregnancies, he explained.

Impact on Psychosocial Health: The study found that miners were fearful of the danger to their lives and hence had resorted to spending their income frivolously without plans to work their way out of poverty. They had poor nutrition within a contaminated environment. Contamination affected the immediate community and the nation as mercury bioaccumulated in some foods.

Recommendations;

- i. Employing the approach practised by some companies in five Latin American countries, where small-scale miners were allowed to ply their trade at the corners of the concessions of large corporations. This enabled their activities to be regulated by the country's law.
- ii. Institute the use of mercury-free high-yield mining techniques informed by research from the scientific community.
- iii. Political willingness to fight against illegal mining.



SPECIAL FEATURE - THE IMPACT OF ILLEGAL MINING IN GHANA

Prof. Richmond Aryeetey Professor, Public Health School of Public Health

Title of Presentation: Impact of Galamsey on Livelihoods

Galamsey is not a homogenous occupation, thus a wide range of persons from children to adults, are engaged in illegal mining. In recent times, advanced technology has been utilized.

Summary of Observations

- i. Gold mining plays a critical role in the economy of individuals and the country; Galamsey contributes significantly to national revenue generation. Ghana is the eleventh highest exporter of gold, globally.
- ii. Miners engage in transactional sexual behavior, squander their revenue and quickly return to the pits to get more gold to sustain this lifestyle.
- iii. Locals in mining area frequently fall into uncovered deep dug-out pits on farm leading to death and injuries.
- iv. Due to Galamsey, some communities are coping by eating more processed foods; they assume these are safer than their crops which are laden with heavy metals. Also, galamsey has resulted in increased cost of fresh foods like vegetables since they are imported from other communities.
- v. Miners pump water with a high concentration of heavy metals into fishponds, contaminating the fish. This affects the quality and safety of fresh fish such as tilapia etc.
- vi. Cocoa farmers struggle to find hired labour because the youth find better paying roles in Galamsey.
- vii. Farmers give out their lands to illegal miners because of the upfront lump sums offered to them in exchange for the land.
- viii. Children in mining communities chose Galamsey over schooling; their role models, including teachers are also involved in Galamsey.
- ix. Unregulated small scale mining exposes children to situations where they lack safety and protection from the mining process.









Degraded lands/Polluted water bodies

RESEARCH PROJECTS

COLLEGE OF BASIC AND APPLIED SCIENCES - CBAS

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Food & Agriculture Organization of the United Nations ("FAO")	Dr. Husein Mohammed	Department of Nutrition and Food Science	Development of supporting tools (food list coded with FoodEx2 and table of harmonized disaggregated mixed dishes/recipes) of 'Community assessment course of the Department of Nutrition and Food Science, 2019' and 'Effect of lysine supplementation on health and morbidity in subjects belonging to poor peri-urban households in Accra, Ghana, 2008' survey datasets"
African Academy of Sciences (AAS)	Dr. Lucas Amenga-Etego	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	PAMGENE-Covid-19 – Dynamics of SAR- CoV-2 and Plasmodium species co- transmission & genetic variation across a gradient of malaria endemic areas in Africa
Education, Culture and Audiovisual Executive Agency	Prof. Gordon Awandare	West Africa Centre for Cell Biology of infectious Pathogens (WACCBIP)	Mobility for Research and African Integration through Health Sciences, BRAINS
The European and Developing Countries Clinical Trials Partnership	Dr. Lucas Amenga-Etego	West Africa Centre for Cell Biology of infectious Pathogens (WACCBIP)	Plasmodium falciparum tolerance to antimalarial drugs in West Africa - EGSAT"
DAAD (German Academic Exchange Service)	Prof. Eric Danquah	West Africa Centre for Crop Improvement (WACCI)	DAAD In-Country/In-Region Scholarship Programme
DAAD (German Academic Exchange Service)	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	DAAD In-Country/In-Region Scholarship Programme
Wellcome Trust/ Foreign, Commonwealth & Development Office	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Public Engagement to strengthen COVID-19 genomics research in Africa
Economic & Social Research Council	Prof. Kwasi Appeaning Addo	Institute for Environment and Sanitation Studies (IESS)	Building youth-led citizen science expertise in remote Ghanaian coastal communities – SargSNAP!
Swiss Innovation Agency (Innosuisse)	Dr. Joycelyn K. Quansah	Department of Nutrition and Food Science	Fruit to Bar – Innovative post-harvest processing of depulped cocoa beans and pulp thereof for single source chocolate
The National Geographic Society	Dr. Edem Mahu	Department of Marine and Fisheries Sciences	Oyster Restoration and Conservation for Ecosystem and Livelihood Protection in Anyanui
British Society for Antimicrobial Chemotheraphy COVID-19 Grant Scheme	Prof. Lydia Mosi	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Field validation of a new high-sensitivity, low-cost SARS-CoV-2 nucleic acid point-of-care test in Ghana
HBNU Fogarty Global Health Consortium	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Partnership for Global Health Research Training Program. (5D43TW010543-05)
Environmental Protection Agency (EPA)/ University of Massachusetts Amherst	Dr. Allison Felix Hughes	Department of Physics	Urban air pollution in sub-Saharan Africa: A study of prenatal exposures, birth outcomes, and lower-respiratory infections in infants

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
International Union for Conservation of Nature and Natural Resources (IUCN) / East Carolina University	Prof. Kwasi Appeaning Addo	Institute for Environment and Sanitation Studies (IESS)	Upscaling Mangrove Restoration for Coastal Hazard Reductions in a Deltaic Environment: Prioritizing Restoration Efforts for Nature-based Solutions in the Volta Delta
The Royal Society ("RS") / University of Surrey	Dr. Mary Anti Chama	Department of Chemistry	Phytochemical Investigation of Threatened Medicinal Plants of Ghana
European Research Council Executive Agency	Prof. Seth Adu Afarwuah	Department of Nutrition and Food Science	Leveraging Early Adolescence for Development: Longitudinal and Experimental Evidence from Ghana
Volkswagen Stiftung	Prof. Gordon Awandare	West Africa Centre for Crop Improvement (WACCI)	Establishment of open source RT-LAMP based SARS-CoV-2 diagnostics in Africa
Google LLC	Prof. Chris Gordon	Institute for Environment and Sanitation Studies (IESS)	Climate information needs for Africa with a focus on Ghana
International Development Research Centre / Data Science Africa & Deep Learning Indaba	Mr. Emmanuel Annor (MPhil Student/ Graduate Research Assistant) Dr. Richard Minkah (Supervisor)	Department of Statistics and Actuarial Sciences	Revisiting the Application of Extreme Value Theory to the Management of a Hydroelectric Dam
Innovate UK KTN	Prof. Ken Okwae Fening	Soil and Irrigation Research Centre (SIREC)	Testing Bi-Modal Trap Efficiency for Controlling the Fruit and Shoot Borer Complex Associated with African Eggplant (Solanum aethiopicum) in Ghana
Google LLC	Prof. Isaac Wiafe	Department of Computer Science	Waxal Project Partnership
KGL Foundation LBG	Prof. Eric Danquah	West Africa Centre for Crop Improvement (WACCI)	Incubator Programme for The Sustainable Development of Green Start-ups and Seed Businesses Towards Food, Nutrition and Economic Livelihood Security in Ghana
Bundesministerium f Bildung und Forschung / ZALF	Prof. Dilys S. MacCarthy	Soil and Irrigation Research Centre (SIREC)	Co-Developing Innovations for Sustainable Land Management in West African Smallholder Farming Systems (COINS)
UK Research & Innovation / Economic & Social Research Council	Dr. Dora Neina	Department of Soil Science	GCRF: Social and Environmental Trade- offs African Agriculture (SENTINEL)
Challenge Co. Ltd, Japan	Dr. Thomas Armah	Department of Earth Science	Pilot Project on Early Warning Earthquake
UNESCO - The World Academy of Sciences	Prof. Lydia Mosi	Department of Biochemistry, Cell and Molecular Biology	The microbiome of Buruli ulcers and its impact on intervention outcomes
The World Academy of Sciences (UNESCO-TWAS)	Dr. Joseph Asare	Department of Physics	Flexible Organic-Inorganic Photovoltaic Investigation
Danida Fellowship Centre	Dr. Dzidzo Yirenya-Tawiah	Institute for Environment and Sanitation Studies (IESS)	Coastal Community Action for Resilience through Edutainment (C-CARE)

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Agence Française de Développement (AFD)	Prof. Kwasi Appeaning Addo	Institute for Environment and Sanitation Studies (IESS)	ENGULF - Coastal land subsidence in the GULF of Guinea: Assessing relative sea- level rise and land subsidence of coastal mega-cities and river deltas along the Gulf of Guinea
National Institute for Health Research (UK) / Imperial College of Science, Technology & Medicine	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Digital Diagnostic for Africa Network
European Research Council Executive Agency (ERCEA)	Prof. Seth Adu Afarwuah	Department of Nutrition and Food Science	Leveraging Early Adolescence for Development: Longitudinal and Experimental Evidence from Ghana
European Research Executive Agency of the European Commission	Prof. Kwaku Kyeremeh	Department of Chemistry	HOTBIO-A Holistic Approach to Training a New Generation of Scientists in Marine Biodiscovery
International Union for Conservation of Nature and Natural Resources / East Carolina University	Prof. Kwasi Appeaning Addo	Institute for Environment and Sanitation Studies (IESS)	Upscaling Mangrove Restoration for Coastal Hazard Reductions in a Deltaic Environment: Prioritizing Restoration Efforts for Nature-based Solutions in the Volta Delta
Africa Research Excellence Fund	Dr. Aniefiok Udoakang	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Strengthening Research Capacity to Investigate and Characterize Breast Cancer Risks Factors, Genetics and Epigenetics mechanisms predisposing women of West African descent to Breast Cancer
Trinity Change Fund (Cambridge University Hospitals, NHS Foundation Trust; Chancellor Masters, & Scholar (University of Cambridge of the old Schools; University College of London Hospitals NHS Foundation)	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	BloodCounts! Application of Rich Full Blood Count Data for Early SARS-CV-2 Disease Outbreak and Adverse Health Event Detection
The United States Agency for International Development (USAID)	Prof. Seth Adu Afarwuah	Department of Nutrition and Food Science	Implementation science approach to adolescent nutrition and neurodevelopment
Organization for Women in Science for the Developing World, a UNESCO programme, hosted by The World Academy of Sciences	Dr. Mavis Agyeiwaa Acheampong	Department of Crop Science	Integrated biocontrol of key pests and diseases of chilli pepper using microbial plant extract formulation
Bill & Melinda Gates Foundation	Dr. Lucas Amenga-Etego	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Integration of malaria parasite & vector surveillance in Ghana
Biotechnology and Biological Sciences Research Council of the Global Challenges Research Fund / University of Bristol and University of Cambridge	Prof. Ken Okwae Fening	Soil and Irrigation Research Centre (SIREC)	Formal Identification and Characterisation of the Viral Pathogen Causing a New Aphid-Associated Disease of Cabbage in Ghana

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
	1972 Supplie (Salandaria Salandaria)	principals from references and pages according and product of source of	STATE OF SELECTION SELECT SECURITY SECU
Cambridge-Africa ALBORADA Research Fund	Dr. Seloame Tatu Nyaku	Department of Crop Science	Pathogenomic characterisation of Fusarium isolates from Fusarium Wilt diseased field and glasshouse tomato production systems in Ghana
Science for Africa Foundation	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Grant Award for WACCBIP-DELTAS II Programme
Bundesministerium fűr Bildung und Forschung / ZALF	Prof. Dilys S. MacCarthy	Soil and Irrigation Research Centre (SIREC)	Co-Developing Innovations for Sustainable Land Management in West African Smallholder Farming Systems (COINS)
Pathological Society of Great Britain and Ireland	Ms. Genevieve Kwao-Zigah (Supervisor: Prof. Osbourne Quaye)	Department of Biochemistry, Cell and Molecular Biology	OPTIMISTICC (Opportunity to Investigate the Microbiome's Impact on Science and Treatment In Colorectal Cancer) Large Bowel Microbiome Disease Network – Phase 2
OCP-Africa	Prof. Eric Kwesi Nartey	Department of Soil Science	Unlocking the potential of acid soils in West Africa through the design of a three- part system DAQARA for diagnosing acidity (DA), quality of amendment (QA), and recommendations of application (RA)
Clean Air Fund	Dr. Allison Felix Hughes	Department of Physics	Afri-SET: The air quality Sensor Evaluation and Training centre for West Africa
Wellcome Trust UK	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	West Africa, West Indies, West London: Mechanisms driving heterogeneity in immunity to SARS-CoV-2 variants
Wellcome Trust, UK	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Collaboration for Antimicrobial Optimisation Network (CAMO-Net)
Collaborative Drug Discovery, Inc	Dr. Richard Amewu	Department of Chemistry	Subscription to Collaborative Drug Discover Database
African Research Universities Alliance EU Guild Cluster of Excellence in Sustainable Food Systems	Dr. Pearl Abu	West Africa Centre for Crop Improvement (WACCI)	Research Collaboration Agreement between University of Ghana and Iowa State University of Science and Technology
The United States Agency for International Development (USAID) / University of California's Horticulture Innovation Lab	Dr. Freda Elikplim Asem	Department of Agricultural Economics and Agribusiness	Promotion of Food and Nutrition Security in West Africa Sub-Region through Indigenous, Neglected and Underutilized Fruits and Vegetables
The United States Agency for International Development (USAID) – Horticultural Innovation Lab	Dr. Gloria L. Essilfie	Department of Crop Science	Enhancing the Production and Consumption Of Indigenous Fruit and Vegetables to Improve Diets in Ghana and Mali
Bill & Melinda Gates Foundation / the International Livestock Research Institute	Prof. Richard Osei-Amponsah	Department of Animal Science	CGIAR Livestock Partnership: Window 3 – Tropical Poultry Genetic Solutions (TPGS/W3)
Office of Naval Research Global	Dr. Joseph Kojo Ansong	Department of Mathematics	Workshop for Capacity Development in the Gulf of Guinea

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
The African Engineering and Technology Network (Afretch)/Carnegie Melon University	Prof. Elsie Effah Kaufmann	Department of Biomedical Engineering	Low cost, accessible biotechnologies for African hair and dark skin colors
Eunice Kennedy Shriver National Institute of Child Health & Human Development	Prof. Seth Adu Afarwuah	Department of Nutrition and Food Science	Neural Mechanisms of Protective Effects of Early Nutrition on the Development of Social-Emotional Difficulties among Children in Ghana
European Union (EU) / Norges Teknisk- Naturvitenskapelige Universitet (NTNU)	Prof. Chris Gordon	Institute for Environment and Sanitation Studies (IESS)	Integrated Observation, Monitoring and Prediction Architecture for Functional Biodiversity of Coastal Seas (DiverSea)
LifeArc	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Building 21st Century African Biomedical Science: the Crick African Network
Mastercard Foundation	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Climate Resilience and Sustainability
The Rockefeller Foundation	Prof. Dilys S. MacCarthy	Soil and Irrigation Research Centre (SIREC)	Advanced Crop Modeling for the Vision for Adapted and Soils (VACS) Initiative
Federal Ministry for Economic Cooperation and Development (BMZ)/DAAD	Prof. Daniel Nukpezah	Institute for Environment and Sanitation Studies (IESS)	Network for Labour-Market oriented Education in Waste and Water Management for the Sub-Saharan Region (NEWW)
National Institute for Health Research (NIHR)/Secretary of State for Health and Social Care	Dr. Lucas Amenga-Etego	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	NIHR Global Health Research Group on Establishing Regional Hubs for Genomic Surveillance
Wellcome Trust/Science for Africa Foundation / University of Cape Town	Prof. Chris Gordon	Institute for Environment and Sanitation Studies (IESS)	Cascading Climate and Health Risks in Cities-(CASCADE)
International Union for Conservation of Nature and Natural Resources (IUCN)/East Carolina University	Prof. Kwasi Appeaning Addo	Institute for Environment and Sanitation Studies (IESS)	Upscaling Mangrove Restoration for Coastal Hazard Reductions in a Deltaic Environment: Prioritizing Restoration Efforts for Nature-based Solutions in the Volta Delta
Environmental Protection Agency (EPA)/ University of Massachusetts Amherst	Dr. Allison Felix Hughes	Department of Physics	Urban air pollution in sub-Saharan Africa: A study of prenatal exposures, birth outcomes and lower-respiratory infections in infants
European Union (EU) / Rheinisch-Westfaelische Technische Hochschule Aachen (RWTH AACHEN)	Dr. John Saviour Yaw Eleblu	West Africa Centre for Crop Improvement (WACCI)	Improving Study Programs in Ghana by Introducing Green Solutions, Sustainability Modules and Digital Transformation (ImPreSSion)
Bill and Melinda Gates Foundation	Prof. Seth Adu Afarwuah	Department of Nutrition and Food Science	Adolescent nutrition & neurodevelopment in Ghana
Bill and Melinda Gates Foundation	Dr. Richard Amewu	Department of Chemistry	Discovery of Novel Antimalarial Early Lead in Africa
European Union (EU)	Prof. Elsie Effah Kaufmann	Department of Biomedical Engineering	Learning mobility for higher education students and staff

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
African Research Universities Alliance (ARUA)	Dr. Selorm Yoaste Dorvlo	Department of Agricultural Engineering	ARUA Centre of Excellence (CoE) in in Sustainable Food Systems at the University of Pretoria
Wellcome Trust, UK	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Collaboration for Antimicrobial Optimisation Network (CAMO-Net)
LifeArc	Dr. Richard Amewu	Department of Chemistry	Discovery of Novel Antimalarial Early Lead in Africa
National Institute for Health Research (NIHR), UK / Imperial College of Science, Technology & Medicine	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Digital Diagnostic for Africa Network
Wellcome Trust, UK	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	West Africa, West Indies, West London: Mechanisms driving heterogeneity in immunity to SARS-CoV-2 variants
European Union(EU) / Norges Teknisk- Naturvitenskapelige Universitet (NTNU)	Prof. Chris Gordon	Institute for Environment and Sanitation Studies (IESS)	Integrated Observation, Monitoring and Prediction Architecture for Functional Biodiversity of Coastal Seas (DiverSea)
Federal Ministry for Economic Cooperation & Development(BMZ)/DAAD	Prof. Daniel Nukpezah	Institute for Environment and Sanitation Studies (IESS)	Network for Labour-Market oriented Education in Waste and Water Management for the Sub-Saharan Region (NEWW)
GlaxoSmithKline (GSK)	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Partnership for Delivering Training Workshops for African Scientists
National Institutes of Health (NIH)	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Partnership for Global Health Research Training Program
Google LLC	Prof. Isaac Wiafe	Department of Computer Science	Advancing AI and Machine Learning Research
Bill and Melinda Gates Foundation / LifeArc	Prof. Richard Amewu	Department of Chemistry	Malaria Drug Accelerator Program
Google LLC	Prof. Isaac Wiafe	Department of Computer Science	Text to Speech (TTS) Voices for African Languages
National Institute of Mental Health (NIMH)	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Public Understanding of Big data in Genomics Medicine in Africa (PUBGEM- Africa)
National Institutes of Health (NIH)	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Characterizing the Spatial Epidemiology of Urban Malaria Infection in Accra, Ghana (MUSE)
European Research Council Executive Agency (ERCEA)	Prof. Seth Adu Afarwuah	Department of Nutrition and Food Science	Leveraging Early Adolescence for Development: Longitudinal and Experimental Evidence from Ghana
National Institutes of Health (NIH)	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Characterizing the Spatial Epidemiology of Urban Malaria Infection in Accra, Ghana (MUSE)

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
US Army (PTE: University of Pittsburgh, USA; Subrecipient: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)	Prof. Dilys S. MacCarthy & Dr. Alfred Asuming- Boakye	Soil and Irrigation Research Centre (SIREC)	Hyperlocal Elicitation and Understanding of Risks to Stability in Complex Systems" – (HEURISTICS)
European Union (EU)	Dr. Adelina Mensah	Institute for Environment and Sanitation Studies (IESS)	Supporting Policy Regulations and Interventions to Negate aggravated Global diarrheal disease due to future climate Shocks (SPRINGS)
European Union (EU)	Dr. Adelina Mensah	Institute for Environment and Sanitation Studies (IESS)	Advancing knowledge for Long-term Benefits and climate Adaptation through holistic climate services and nature-based Solutions (ALBATROSS)
The United States Agency for International Development (USAID) / University of California's Horticulture Innovation Lab	Dr. Freda Elikplim Asem	Department of Agricultural Economics and Agribusiness	Promotion of Food and Nutrition Security in West Africa Sub-Region Through Indigenous, Neglected and Underutilized Fruits and Vegetables
The United States Agency for International Development (USAID) – Horticultural Innovation Lab	Dr. Gloria L. Essilfie	Department of Crop Science	Enhancing The Production and Consumption Of Indigenous Fruit and Vegetables to Improve Diets in Ghana and Mali
The African Engineering and Technology Network (Afretec) / Carnegie Melon University	Prof. Elsie Effah Kaufmann	Department of Biomedical Engineering	Low-Cost, Accessible Biotechnologies for African Hair and Dark Skin Colors
Erasmus +	Dr. Yaw Agyeman Boafo	Centre for Climate Change and Sustainability Studies	Erasmus + Programme – Mobility of higher education students and staff
The Cambridge Crystallographic Data Centre	Dr. Bozumeh Som	Department of Chemistry	Development of Organic Donor-Acceptor Cocystals for Ferroelectric Materials
University of Oxford / Imperial College of Science, Technology and Medicine	Dr. Fred Aboagye-Antwi	Department of Animal Biology and Conservation Science	Target Malaria project "Anopheles gambiae ecological observatory study
Schimdt Sciences	Dr. Edem Mahu	Department of Marine and Fisheries Sciences	Ocean Margins Initiative
Department of Health & Human Services, National Institutes of Health (NIH) Fogarty International Center	Prof. Gordon Awandare	West Africa Centre for Cell Biology of Infectious Pathogens (WACCBIP)	Geo-enabled Detect and Respond System for Antimalarial Resistance in Ghana: GDRS - Ghana
PATH	Prof. George Armah	Department of Electron Microscopy	A Phase 3 double-blind, randomized, active comparator-controlled, group-sequential, multinational trial to assess the safety, immunogenicity and efficacy of a trivalent rotavirus P2-VP8 subunit vaccine in prevention of severe rotavirus gastroenteritis in healthy infants

RESEARCH PROJECTS

COLLEGE OF HEALTH SCIENCES - CHS

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Bill and Melinda Gates Foundation	Prof. Yaw Asare Afrane	Department of Medical Microbiology	Malaria Modeling Field-Strengthening: WAMCAD
National Institutes of Health	Prof. Yvonne A. Dei-Adomakoh	Department of Haematology	Development and evaluation of community-based approaches and donor care intervention models for improving availability and safety of blood for the management of severe anemia in Ghana
National Institutes of Health (National Heart, Lung and Blood Institute)	Prof. Solomon Ofori-Acquah	Department of Medical Laboratory Sciences	Ghana-SPARCO: Ghana Sickle Pan-African Research Consortium
National Institutes of Health / National Institute of Mental Health (NIMH)	Prof. Angela L Ofori-Atta	Department of Psychiatry	Combining mHealth and nurse-delivered care to improve the outcomes of people with serious mental illness in West Africa
National Institute for Health Research	Prof. Albert Akpalu	Department of Medicine and Therapeutics	NIHR Global Health Research Group on transforming Parkinson's care in Africa (TraPCAf)
National Institutes of Health/University of Miami	Prof. Albert Akpalu	Department of Medicine and Therapeutics	Origins of Alzheimers Disease in African Americans
National Institutes of Health	Prof. Eric Sampane-Donkor	Department of Medical Microbiology	Research and Capacity Building in Antimicrobial Resistance in West Africa
Carnegie Corporation of New York	Prof. Neils Ben Quashie	Department of Pharmacology and Toxicology	CAPREx Award
Novartis Institutes for Biomedical Research, INC.	Prof. Solomon Fiifi Ofori-Acquah	Department of Medical Laboratory Sciences	The Feasibility of In Vivo Gene Therapy for Sickle Cell Disease in Ghana
Global Fund / Ghana Health Service	Prof. Kwasi Torpey	Department of Population, Family and Reproductive Health	Integrated Bio-behavioral Surveillance Survey amongst Men who have Sex with Men in Ghana
Bill and Melinda Gates Foundation	Prof. Justice Nonvignon	Department of Health Policy, Planning and Management	Cost-effectiveness of Covid-19 vaccination strategies in Ghana and Benin
European Union / ICLEI Africa	Prof. Amos Laar	Department of Population, Family and Reproductive Health	Transforming Africa's urban food environments through strengthening linkages between food systems stakeholders in cities across the continent and Europe
Botnar Institute / World Health Organization	Dr. Benedict Weobong	Department of Social and Behavioural Sciences	Y-Check: Evaluating the effects of adolescent health check-ups
Norwegian Ministry of Foreign Affairs / Norad	Dr. Genevieve Cecilia Aryeetey	Department of Health Policy, Planning and Management	Collaboration agreement Between Norwegian Institute of Public Health (NIPH) and University of Ghana («UG») as part of NIPH's program building stronger public health institutions and systems (BIS)
Department for International Development (DfID) / University of Leeds	Prof. Justice Nonvignon	Department of Health Policy, Planning and Management	Community led Responsive and Effective Urban Health Systems (CHORUS)

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Bill and Melinda Gates / London School of Hygyiene and Tropical Medicine	Prof. Richmond Aryeetey	Department of Population, Family and Reproductive Health	NutriShed: Adapting Foodshed Analysis for Nutrition Security Planning
Botnar Institute / World Health Organization	Dr. Benedict Weobong	Department of Social and Behavioural Sciences	Y-Check: Evaluating the effects of adolescent health check-ups
Canada Institute Of Health Research	Dr. Mary Ani-Amponsah	Department of Mental Health	Maternal Health Toolkit Phase Two: Pilot Evaluation of Implementation Planning Toolkit
European Union / FORSCH- UNGSZENTRUM BORSTEL LEIBNIZLUNGENZENTRU- M	Prof. Dorothy Yeboah-Manu	Department of Bacteriology	Pan-Africa network for genomic surveillance of poverty related diseases and emerging pathogens
European Union / Academisch Medisch Centrum bij de Universiteit van Amsterdam (AMC)	Prof. Amos Laar	Department of Population, Family and Reproductive Health	Multi-component interventions to reducing unhealthy diets and physical inactivity among adolescents in sub-Saharan Africa (Generation-H)
National Institutes of Health (NIH)/The Henry M. Jackson Foundation	Dr. Linda Eva Amoah	Department of Immunology	Plasmodium falciparum gametocytogenesis in vitro and in vivo
The African Academy of Sciences	Dr. Benedict Weobong	Department of Social and Behavioural Sciences	African Mental Health Research Initiative (AMARI) II
Johns Hopkins University Applied Physics Laboratory LLC / Montana State University	Prof. Richard Dery Suu-lre	School of Veterinary Medicine	Zoonotic Contact Tracing: Cross-species : Contact Tracing for Pandemic Source Attribution
European Union (EU) / Academisch Medisch Centrum bij de Universiteit van Amsterdam (AMC)	Prof. Amos Laar	Department of Population, Family and Reproductive Health	Multi-component interventions to reducing unhealthy diets and physical inactivity among adolescents in sub-Saharan Africa (Generation-H)
Bundesministerium für Bildung und Forschung (BMBF) [German Federal Ministry of Education and Research (BMBF)]	Dr. Adom Manu	Department of Population, Family and Reproductive Health	Network for design and evaluation of adolescent health interventions and policies in Sub-Sahara Research in Africa
International Development Research Centre (IDRC)	Dr. Theophilus Odoom	School of Veterinary Medicine	Enhancement of antiviral T cell responses for improved control of viral infection
National Institutes of Health (NIH)/ Hospital for Special Surgery	Dr. Dzifa Dey	Department of Medicine and Therapeutics	ELUCIDATE-Epigenetics; Lupus Urine Cells In Decoding APOL1 Transmutation Effect
National Institutes of Health (NIH) (National Heart, Lung & Blood Institute)	Prof. Solomon Ofori-Acquah	Department of Medical Laboratory Sciences	Ghana-SPARCO: Ghana Sickle Pan-African Research Consortium
European Union (EU)/ Academisch Medisch Centrum bij de Universiteit van Amsterdam (AMC)	Prof. Amos Laar	Department of Population, Family and Reproductive Health	Multi-component interventions to reducing unhealthy diets and physical inactivity among adolescents in sub-Saharan Africa (Generation-H)

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
International Development Research Centre (IDRC)	Prof. Nancy Quashie	Department of Epidemiology	i-NEVER REST: Invetigating the role and impact of Nano-sized Extracellular Vesicles and drug Resistance in protozoan diseases
WHO -TDR	Prof. Phyllis Dako-Gyeke	Department of Population, Family and Reproductive Health	2nd phase of TDR Postgraduate Training Scheme with a focus on Implementation Research
National Institutes of Health (NIH)/National Institute of Mental Health (NIMH)	Prof Angela L. Ofori-Atta	Department of Psychiatry	Combining mHealth and nurse-delivered care to improve the outcomes of people with serious mental illness in West Africa
National Science Foundation	Prof. Mawuli Dzodzomenyo	Department of Biological, Environmental & Occupational Health	Unraveling the genetic architecture and evolutionary history of skin pigmentation and related traits in African populations
National Institutes of Health (NIH)	Prof. Moses Aheto	Department of Biostatistics	Leveraging Data Science Applications to Improve Children's Environmental Health in Sub-Saharan Africa (DICE Project)"
National Institutes of Health (NIH) National Institute of Health (HIH)/FIC /New York	Prof. Kwasi Torpey	Department of Population, Family and Reproductive Health	Adaptation and Feasibility of Many Men Many Voices (3MV), an HIV Prevention Intervention to Reduce Intersectional Stigma and Increase HIVST Among YSMM residing in Ghanaian slums/ URFAWD00006248
University School of Medicine	Prof. Amos Laar	Department of Population, Family and Reproductive Health	NYU-UG Research Integrity Training Program
National Institutes of Health (NIH)/The Henry M. Jackson Foundation	Dr. Linda Eva Amoah	Department of Immunology	Plasmodium falciparum gametocytogenesis in vitro and in vivo
European Commission	Prof. Julius Fobil	Department of Biological, Environmental & Occupational Health	Preclinical and Clinical validation of the biosensing Platform
Norwegian Ministry of Foreign Affairs/ Norad	Dr. Genevieve Cecilia Aryeetey	Department of Health Policy, Planning and Management	Collaboration agreement Between Norwegian Institute of Public Health (NIPH) and University of Ghana («UG») as part of NIPH's program Building Stronger Public Health Institutions and Systems (BIS)
National Institutes for Health (NIH)	Prof. Mark Tettey	Department of Surgery	AHOMKA: A Culturally-adapted mHealth Platform for Management of Hypertension in an Urban and Rural Region of Ghana
National Institute for Health Research (NIHR)	Prof. Albert Akpalu	Department of Medicine and Therapeutics	NIHR Global Health Research Group on transforming Parkinson's care in Africa (TraPCAf)
The Canadian Institutes of Health Research	Prof. Samuel Adjorlolo	Department of Mental Health	Unveiling the Silence: Developing and Evaluating a Feasibility Study to Improve Access and Utilization to Sexual and Reproductive Health Services for Kayayei (Head Porters) in Ghanaian Markets

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Horizons Institute Pump-prime Fund	Prof. Samuel Adjorlolo	Department of Mental Health	Climate change, agriculture practices and health outcomes among female-based community farming groups in Northern Ghana
Nature for Health / EcoHealth Alliance	Prof. Richard Suu-Ire	School Veterinary Medicine	Nature for Health (N4H)
European Commission	Prof. Titus Beyuo	Department of Obstetrics and Gynaecology	Capacity Strengthening of Transdisciolinary education for Non- communicable disease care in West Africa (CAPSTONE)
National Institutes of Health (NIH) / Regents of the University of Michigan	Prof. Ernest Kenu	Department of Epidemiology and Disease Control	Understanding and improving the effectiveness of Public Health laboratory networks for infectious diseases in Ghana
Funding Initiative of the German Federal Ministry of Education and Research	Prof. Adom Manu	Department of Population, Family and Reproductive Health	Research Network for Design and Evaluation of Adolescent Health Interventions and Policies in Sub-Saharan Africa (DASH)
PATH	Prof. George Armah	Department of Electron Microscopy	A Phase 3 double-blind, randomized, active comparator-controlled, groupsequential, multinational trial to assess the safety, immunogenicity and efficacy of a trivalent rotavirus P2-VP8 subunit vaccine in prevention of severe rotavirus gastroenteritis in healthy infants
Bundesministerium für Bildung und Forschung (BMBF) [German Federal Ministry of Education and Research (BMBF)]	Dr. Adom Manu	Department of Population, Family and Reproductive Health	Network for design and evaluation of adolescent health interventions and policies in Sub-Sahara Research in Africa
Department for International Development (DfID) / University of Leeds	Prof. Justice Nonvignon	Department of Health Policy, Planning and Management	Community- led Responsive and Effective Urban Health Systems (CHORUS)
National Institutes of Health (NIH) / University of Rochester	Prof. Kwasi Torpey	Department of Population, Family and Reproductive Health	Status-neutral community-based multilever intervention to address intersectional stigma and discrimination, and increase HIV testing, PrEP, and ART uptake among YGBMSM in Ghanaian Slums / URF AWD00006431
National Institutes of Health (NIH)	Prof. Eric Sampane-Donkor	Department of Medical Microbiology	Invasive Pneumococcal Disease and Carriage among Children with Sickle Cell Disease in Ghana: A Post-vaccination Study
UKRI-Medical Research Council	Dr. Gladys Dzansi	Department of Adult Health	ExtraCECI: A cluster randomised controlled trial of community-based person-centred enhanced care for people with HIV/AIDS in Ghana
Department for International Development (DfID) / University of Leeds	Prof. Justice Nonvignon	Department of Health Policy, Planning and Management	Community- led Responsive and Effective Urban Health Systems (CHORUS)

RESEARCH PROJECTS

COLLEGE OF HUMANITIES - COH

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Danida Fellowship Centre / Rosklide University	Prof. Martin Oteng-Ababio	Department of Geography & Resource Development	SWASH: Sustainable Wastewater Systems for Ghana
Wellcome Trust	Dr. Caesar Atuire	Department of Philosophy and Classics	Moving beyond solidarity rhetoric in global health: Pluriversality and actionable tools
European Union / Wageningen University	Prof. Fred Dzanku Mawunyo	Institute of Statistical, Social and Economic Research (ISSER)	Transformative Pathways for Synergizing Just Biodiversity and Climate Action (TRANSPATH)
Worldwide Universities Network / University of Sheffield	Prof. Joseph Osafo	Department of Psychology	Getting Back in Touch: Emotional Pathways to a Post-Pandemic World
Swiss National Science Foundation	Prof. Akosua K. Darkwah	Department of Sociology	Alleviating the gendered impacts of land- right formalization. The potential of collective tenure arrangements in agricultural investments
International Union for the Scientific Study of Population (IUSSP)	Dr. Adriana Biney	Regional Institute of Population Studies (RIPS)	Exploring use, non-use and discontinuatior of modern contraception among urban youth in Accra, Ghana
German Research Foundation / University of Passau	Dr. Edward Asiedu	Department of Finance	An Agri-Business Platform: Uptake and Impacts in Ghana
Research England's Higher Education Innovation Fund	Dr. Lily Kpobi & Dr. Annabella Osei-Tutu	Regional Institute of Population Studies (RIPS)	Using Film to Engage Stakeholders in Ghana and Identify Priority Actions for Mental Health
International Development Research Centre - Canada / Infectious Diseases Institute	Dr. Abigail Mills	Department of Social Work	Utilizing Artificial Intelligence (AI) to Promote Sexual and Reproductive and Health Outcomes for Adolescents with Disabilities in Ghana
International Development Research Centre - Canada	Prof. Mary Boatemaa Setrana	Centre for Migration Studies	Strengthening Knowledge, Evidence Use and Leadership in the Global South on Forced Displacement: Focus on Anglophone West Africa
University of Washington Global WACh	Dr. Emmanuel Nii-Boye Quarshie	Department of Psychology	Suicidal Behaviour In Pregnant Adolescent Girls In Ghana
European Union / Wageningen University	Prof. Fred Dzanku Mawunyo	Institute of Statistical, Social and Economic Research (ISSER)	Transformative Pathways for Synergizing Just Biodiversity and Climate Action (TRANSPATH)
Mastercard Foundation / SOFTtribe	Dr. George Acheampong	Department of Marketing and Entrepreneurship	Devices and connectivity program
British Council	Dr. George Acheampong	Department of Marketing and Entrepreneurship	Enterprise Support and Incubation Curriculum Development Project
British Council	Prof. Kobby Mensah	Department of Marketing and Entrepreneurship	Accelerating Youth Entrepreneurship and Innovation for Sustainable Tourism Development in Africa (Phase 3 of Innovation for African Universities Project
University of Bergen, Norway	Dr. Collins Badu Agyemang	Department of Psychology	Pandemic Preparedness in Higher Education

RESEARCH PROJECTS - CoH

FUNDER	UG LEAD	ORIGINATING UNIT	DDO JECT TITLE
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Jacobs-CERES Foundation	Prof. Richard Boateng	Department of Operations and Management Information Systems	CERES-Ghana Open Learning Platform for Primary Education
University of Chicago	Dr. Ernest Agyemang	Department of Geography &Resource Development	Research to Support Large-Scale Investments in Bicycling in the Cities of Low-and Middle-Income Countries
The United States Agency for International Development/CHEMONICS INTERNATIONAL INC.	Dr. Roger Atinga	Department of Public Administration and Health Services Management	Social and Behavioral Change assessment on GhiLMIS utilization
German Research Council / Africa Multiple – Custer of Excellence	Prof. Daniel Avorgbedor	Department of Music	Beyond the Digital Return: New Heritage/s, Sustainability and the Decolonisation of Music Archives in South Africa, Kenya, and Ghana
German and Aerospace Centre/University of Siegen	Dr. Efua E. Mantey Agyire-Tettey	Department of Social Work	Life course transitions & trajectories of persons with disabilities in West African societies/LICOT-WASO
The British Academy / University of Newcastle Upon Tyne	Prof. Austin Ablo	Department of Geography & Resource Development	Energising Landscapes: lands, livelihoods and energy infrastructures in Ghana (EnergyScapes)
Arts and Humanities Research Council (AHRC)	Dr. Anabella Osei-Tutu	Department of Psychology	Developing a Network for Mutual Learning on the Potential of Creative Arts for Mental Health Advocacy and Activism in Ghana and Indonesia
Arts & Humanities Research Council / University of Exeter / University of Arts London (UAL)	Mark Seyram Amenyo-Xa	Department of Archaeology and Heritage Studies	Prisoners of Love: Affect, Containment and Alternative Futures
The Andrew Mellon Foundation/ University of Witwatersrand, South Africa	Prof. Mary Setrana	Centre for Migration Studies	Mobility, Temporality, and Africa's Future Politics
Wellcome Trust, UK	Prof. Ama de-Graft Aikins	Regional Institute of Population Studies (RIPS)	HABVIA: Heat Adaptation benefits for vulnerable groups in Africa
The William and Flora Hewlett Foundation	Prof. Akosua K. Darkwah	Department of Sociology	Promoting Effective Policies for Women's Economic Empowerment in Ghana
Horizon Europe / EU	Prof. Mary Setrana	Centre for Migration Studies	Link4Skills project
The International Development Research Centre (IDRC)	Prof. Peter Quartey	Institute of Statistical, Social and Economic Research (ISSER)	The Future of Work, Skills Development, Social Protection and Decarbonization
Bernhard Nocht Institute for Tropical Medicine (BNITM)	Dr. Edward Asiedu	Department of Finance	Economic of Prescription in low income countries: Understanding antibiotics prescriptions in pharmacies to reduce antimicrobial resistance (AMR) in Ghana
German Institute of Development and Sustainability	Dr. Edward Asiedu	Department of Finance	Economic of Prescription in low income countries: Understanding antibiotics prescriptions in pharmacies to reduce antimicrobial resistance (AMR) in Ghana

RESEARCH PROJECTS - CoH

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
Erasmus +	Prof. Mary Setrana	Centre for Migration Studies	Erasmus+ Programme: Inter-institutional Agreement between University of Ghana and Radboud University
European and Developing Countries Clinical Trials Partnership	Prof. Mary Setrana	Centre for Migration Studies	Non-Western Migration Regimes in a Global Perspective - MARS
Hitotsubashi Institute for Advanced Study	Dr. Edward Asiedu	Department of Finance	Ghana Financial Incentives Trial Wave II: Spillover and Tuberculosis Screening
Erasmus +	Dr. Efua E. Mantey Agyire-Tettey	Department of Social Work	Erasmus+ Programme: Inter-institutional Agreement between University of Ghana and University of Siegen
European Commission- Horizon 2020	Prof. Albert Ahenkan	Department of Public Administration and Health Services Management	Globalised governance norms and local management and business practices in Africa and on the Arab Peninsula (MANAGLOBAL)
German Institute of Development and Sustainability (IDOS)	Prof. Mary Setrana	Centre for Migration Studies	IDOS Postgraduate Program – Research Team Ghana
German Institute of Development and Sustainability (IDOS)	Prof. Mary Setrana	Centre for Migration Studies	Social Cohesion in Displacement Contexts
Open Society University Network/Talloires Network of Engaged Universities / Trustees of Tufts College	Prof. Austin Ablo	Department of Geography & Resource Development	Building urban resilience: Volarizing informal solid waste sector in low-income communities of Accra
British Academy	Prof. Caesar Atuire	Department of Philosophy and Classics	Just Transitions to contain antibiotic resistance while minimising potential burdens and harms
British Council	Dr. George Acheampong	Department of Marketing and Entrepreneurship	Enterprise Support and Incubation Curriculum Development Project
Hitotsubashi Institute for Advanced Study	Dr. Edward Asiedu	Department of Finance	Ghana Financial Incentives Trial Wave II: Spillover and Tuberculosis Screening
UKRI / University of Coventry	Prof. Joseph Teye	Centre for Migration Studies	Migration, Inequality and Development Hub
World Bank through the Ministry of Local Government, Decentralisation and Rural Development	Dr. George Domfe	Centre for Social Policy Studies (CSPS)	Ghana Productive Safety Net Project 2 (GPSNP 2)
British Academy	Prof. Irene Appeaning Addo	Institute of African Studies (IAS)	Writing Campus Modernisms British Academy Writing Workshop
Sciences and Humanities Research Council (SSHRC)	Prof. Joseph Teye	Centre for Migration Studies	Complex Migration Flows and Multiple Drivers in Comparative Perspective (MEMO)



COLLEGE OF EDUCATION

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
High Commission of Canada (Foreign Affairs, Trade and Development)	Dr. Abena Yeboah-Banin	Department of Communication Studies	Youth and Cybersecurity Safety
United Nations Educational, Social and Cultural Organization (UNESCO)	Dr. Abena Yeboah-Banin	Department of Communication Studies	Training on Fact-Checking Competency and practice among Ghanaian Rural Media Organizations
Jacobs-CERES Foundation	Dr. Gideon Mensah Anapey	Department of Distance Education	Connecting The Edtech Research Ecosystem (CERES): Pedagogy and Edtech Research for Ghana's Standards-Based Education
Commonwealth of Learning	Prof. Samuel Amponsah	Department of Distance Education	To Promote and Implement Open and Distance Learning (ODL)
USAID /ResilientAfrica Network / University of Notre Dame	Dr. Clement Adamba	Department of Educational Studies and Leadership	Supporting Holistic and Actionable Research in Education (SHARE): Co-Creating for Change Learning Becomes Service to Justice
Jacobs-CERES Foundation	Dr. Gideon Mensah Anapey	Department of Distance Education	Connecting The Edtech Research Ecosystem (CERES): Pedagogy and Edtech Research for Ghana's Standards-Based Education

CENTRAL ADMINISTRATION

FUNDER	UG LEAD	ORIGINATING UNIT	PROJECT TITLE
The British Council	Prof. Felix Ankomah Asante	RID	Going Global Partnerships, Innovation for African Universities Project
The Association of Commonwealth Universities	Mr. Godfred Amoah	Central Administration	Human Resources in Higher Education Community Challenge Grants
KGL Foundation LBG	Prof. Felix A. Asante	RID	Unleashing Youth Creative Potential for Job Creation through Arts, Artify
Imperial College London	Prof. Felix Asante	RID	UG-Imperial Student Venture Support Programme

ACADEMIC AWARDS

Vice-Chancellor's Academic Awards for Outstanding Doctoral Thesis

Dr. Pearl Ihumona Osiriki School of Public Health

DOCTORAL THESIS TITLE:
INVESTIGATION OF THE MODE OF ACTION
OF SELECTED NATURAL AND SYNTHETIC
ANTITRYPANOSOMAL COMPOUNDS



African trypanosomiasis refers to human and animal diseases caused by certain trypanosome species and could be pernicious if untreated. Disease management relies heavily on drugs with unsuitable pharmacological profiles and whose continued use is threatened by rising levels of drug resistance.

Despite recent progress in antitrypanosomal drug discovery, there is still a need to increase the arsenal of therapeutic options. More pressing is the need to understand how prospective drugs act to facilitate the rational design of new effective drugs. This research aimed to identify promising compounds for new antitrypanosomal drugs and provide preliminary insights into their mode of trypanocidal action using cytological profiling as well as untargeted metabolomic and transcriptomic approaches. Two compound sources were explored: Ghanaian herbal medicines and a synthetic library of drug-like compounds. Promising extracts were derived herbal medicines, including eupatorichromene-rich residual oil obtained from a mixture of Aloe barbadensis and Taraxacum officinale that was more effective than diminazene aceturate (a standard antitrypanosomal drug).

However, limited quantity hindered further investigation. The extracts appeared to target

trypanosomes' mitochondria, increasing reactive oxygen species and depolarizing the mitochondrial membrane. They also disrupted kinetoplast duplication and/or segregation, leading to necrotic cell death. This study revealed the potential of a mixture of Aloe barbadensis and Taraxacum officinale against African trypanosomiasis and their mode of action.

On the other hand, two compounds (MMV667494 and MMV028694) identified from the synthetic compound library after in vitro screening. Although both caused mitochondrial membrane depolarization, they did not appear to be the primary cause of cell death. Instead, increased reactive oxygen species and cell cycle perturbations were observed, resulting in apoptotic-like cell death. Transcriptomic and metabolomic profiling revealed changes in gene expression and metabolite levels related to energy metabolism. ribosomal biogenesis assembly, the cell cycle, andoxidative stress. These changes occurred before the observed phenotypic effects, suggesting the compounds possess a molecular rather than a cellular target.

Overall, this research provides the first insights into promising leads for developing new drugs against African trypanosomiasis.

ACADEMIC AWARDS

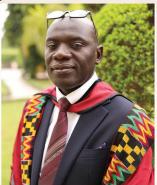
Vice Chancellor's Academic Awards for Outstanding Doctoral Thesis

Albert Kwaw Eliason

University of Ghana Business School Department of Public Administration

DOCTORAL THESIS TITLE:

A STUDY IN POLICY MARKETING AND POLICY ACCEPTANCE LINKAGE(S): EVIDENCE FROM GHANA'S LUXURY VEHICLE TAX AND FREE SENIOR HIGH SCHOOL POLICIES



Public policies may fail to gain acceptance, although they are unquestionably good. Therefore, the central argument of this study is that policymakers should use marketing strategies to enhance acceptance of public policies. Consequently, the current study draws on conventional marketing approaches derived from an amalgam of social exchange and micromanagement theories to examine if policy marketing can influence policy acceptance, using Ghana's Luxury Vehicle Tax and the Free Senior High School policies as cases of emphasis.

The study population comprises parties affected by the policies examined: policy experts, policy makers, and civil society organizations. The study employs a sequential exploratory mixed-method approach, where data is collected sequentially through both qualitative and quantitative methods. The qualitative session, using interviews and netnographic data, explored the nexus between the policy marketing mix (i.e., stakeholder consultation, promotion, policy design, place of interfacing, and cost of the policy) and policy acceptance. The netnographic data was identified and selected through thematic and meaning-oriented content analysis. Structured questionnaires were developed from the qualitative results to conduct a primary survey with 487 respondents. The survey aimed to assess the statistical generalizability of the qualitative findings using the partial least squares structural equation modelling technique.

The qualitative inquiry revealed that the lack of stakeholder consultation prior to crafting policies led to the creation of public policies that failed to address the needs of affected parties. For instance, it was revealed that policymakers of the LVT and FSHS undertook stakeholder consultation mainly within the political ranks, while the affected parties were only consulted after implementing the policy.

The study also discovered that the Luxury Vehicle Tax policy failed to gain acceptance because it was poorly designed and inadequately promoted. The compliance and access costs were much higher than the benefits provided by the policy. Because of these factors, parties affected by the LVT manifested cynicism through public demonstrations and negative word of mouth about the policy. The quantitative results confirmed most of the results of the qualitative session. Therefore, policy marketing mix constructs, such as stakeholder consultation, promotion, ease of policy access, and desirable policy design, have a statistically significant positive correlation with policy acceptance. Notwithstanding this, the results failed to confirm the hypothesized negative relationship public policy between cost and policy acceptance.

Based on the findings, the study develops the Power-Benefit Model of Social Exchange in Policy Marketing (PBMSEPM), a strategic framework for using a market and marketing oriented approach to policy planning and execution, policy advisory, and policy analysis. This model is built on business marketing, political marketing, and public policy models and is informed by the results of mixed methods research and the principles of social exchange and micromanagement theories.

STUDENT INNOVATION INITIATIVES

STUDENT VENTURE SUPPORT TRAINING PROGRAMME

The Research and Innovation Directorate spearheaded a student venture support programme, to develop and nurture innovative ideas of students and foster a culture of entrepreneurship. The University of Ghana leads the initiative in collaboration with the Kwame Nkrumah University of Science and Technology (KNUST), the University of Cape Coast and external partners. The University of Ghana Business School (UGBS) supports the programme with mentorship and training.

In a student enterprise pitch competition, student-led teams shortlisted for presenting business proposals evaluated for innovative concepts and commercial viability pitch their ideas in a finale of the competition for grand prizes. Proposals are appraised by a panel of judges, based on presentation skill, novelty, market potential, business model, environment and social impact, and execution plan.

Thus far, various iterations of the competition have yielded six winning teams. Prizes include cash as well as training and mentorship at the UGBS innovation and incubation hub with support from Impact – Hub, Accra. Following intensive training to scale up proposals, viable commercial entities have been established and are operating. Training entailed a series of workshops and mentoring sessions, covering topics such as Design Thinking & Rapid Prototyping, Strategic Planning, Business Fundamentals, Fundraising Action Plan & Building, Building Powerful Business Relationships, Pitch DNA & Practice, Lean Methodology, Data and Metrics, Growth, Hacking, Pitching and Storytelling form part of the project's capacity building strategy.



Student Enterprise Pitch Competition-Winning Teams

STUDENT INNOVATION INITIATIVES - STUDENT VENTURE SUPPORT TRAINING PROGRAMME

Two iterations of the Student Enterprise Pitch Competition produced the underlisted winners; Teams in the first cohort, which won first, second and third place were;



McHan Organics | 11 1ST

Team Members - Hannah Appiah, Nicholas Apenya Kofi, Emmanuella Egyir

Sector - Health, Agricultural Engineering/ Extension, Manufacturing, Processing of cocoa pods into cosmetic products and detergents e.g solid black soap, shower gel with mosquito repellant properties.



Smart Farm 111 2ND

Team Members - Funchious Paul Mensah, Emmanuella Odoom, Paa Kwasi Saka Dankyi, Abubakar Fianu Ali

Sector - Food, Agricultural Engineering A 'green' dryer to address the problem of sun drying and post-harvest losses. The technology is powered by solar energy and other renewable energy sources.



Eduvara III 3RD

Team Members - Raymond Dodzi Helegah, Priscilla Yamoah, Micheal Korangteng, Henritta Obeng, Dinah Adjeiwah Asare, Priscilla Dadzie

Sector - Digital Education

A school management suite, to address the inefficiency of administrative processes in education. With an offline-first approach, it tackles the challenge of limited internet connectivity in schools.

STUDENT INNOVATION INITIATIVES - STUDENT VENTURE SUPPORT TRAINING PROGRAMME

The second batch of winners, currently undergoing mentorship and business venture training are;



EcoFibre Solutions !!! 1ST

Team Members - Godsway Kwame Awusi, Ernestina Baidoo, Edwin-Williams Gadabor

Sector - Sustainable manufacturing
Waste reduction, sustainability and
eco-friendly practices in the agricultural and
packaging industries. Transforming
agricultural residues into valuable resources.
The project aims to convert rice husk,
coconut coir, and pineapple leaves into
self-binding fibres, to create
biodegradable food packaging and tableware.



Upcraft III 2ND

Team Members - Chelsie Selby, Afari Phyllis Kobeh, Priscillia Ogor, Sydney Cudjoe

Sector - Sustainable manufacturing Upcraft is an initiative to transform plastic waste into sustainable ecofriendly products of value. The team proposes to repurpose plastics, specifically plastic bottles and sachet water rubber bags, into beautiful ecofriendly products such as woven bags and jewelry, thus addressing the problem of plastic waste.



Todeka's Enterprise 111 3RD

Team Members - Bernice Forson, Paulina Toudeka, Josephine Toudeka

Sector - Sustainable food system
Production of high-quality palm oil with no
harmful additives. Minimizing post-harvest
losses. Todeka's Enterprise proposes to
address food safety and sustainable production
in the palm oil industry. The mission is to
support farmers and contribute to a healthier
and more sustainable food system

INDUSTRY PARTNERS

Food Processing







Parlays Biscuits







CSIR-Food Research Institute



Jegs Company Limited

Manufacturing/Transport/Assembly





L'ORÉAL





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



CENTRE FOR PLANT MEDICINE RESEARCH

Centre for Plant Medicine and Medical Research



Ghana Federation of Traditional Medicine **Practitioners**



Hanisa Ghana Ltd



Clinix Healthcare Ghana Ltd

GOG/Regulatory Agencies







SDG Secretariat of the office of the President



Bulk Oil Storage and Transportation Ltd





Ghana Chamber of Mines



Radiation Protection Institute



Nuclear Regulatory Authority

CSO/NGO/Advocacy/Fund Raising/Energy







Ghana



Plastic Punch





Space Generation **Advisory Council**



RESEARCH SUPPORT SERVICES

The Research and Innovation Directorate (RID) provides a range of research management services to faculty, students and staff. As the University's central research administration unit, RID facilitates volumes of funded research and provides other research related services in the following areas;













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