

**West African Centre for Cell Biology of
Infectious Pathogens (WACCBIP),
University of Ghana**

**Annual Reports by Unit Heads
(July 2017 - June 2018)**

**Submitted to:
The WACCBIP International Advisory Board**

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HEAD OF UNITS ANNUAL REPORT FORM

Name of Unit: Grants Management

A: Activities during the last year (Attach relevant supporting documents)

1. GOVERNANCE

- Second WACCBIP International Advisory Board meeting, Peduase Valley Resort, Aburi, Ghana - July 8, 2017
- Five (5) WACCBIP Management Committee meetings - June 22, 2017, September 27, 2017, November 23, 2017, February 15, 2018 and May 24, 2018

2. ACADEMIC

- Second annual research conference, Institute of Statistical, Social and Economic Research (ISSER) Conference Hall, University of Ghana - July 6-7, 2017
- Student enrolment as of the 2017/2018 academic year:

LEVEL	COURSE	MALE	FEMALE	TOTAL
MPhil	Molecular Cell Biology of Infectious Diseases	14	13	27
PhD	Molecular Cell Biology of Infectious Diseases	8	3	11

3. WORLD BANK AFRICAN CENTRE OF EXCELLENCE (ACE) PROJECT

- Eight African Centres of Excellence (ACE) project workshop workshop, LaPalm Royale Beach Hotel in Accra, Ghana - November 7-9, 2017
- Ninth ACE project workshop, Institute of Water and Environmental Engineering (2iE), Ouagadougou, Burkina Faso - May 8-9, 2018
- List of fellowships awarded:

	NAME	PROGRAMME	YEAR OF ENROLLMENT	NATIONALITY	SCHOLARSHIP AWARD (\$)			
					TUITION FEES	RESEARCH COST	STIPEND	TOTAL AWARD
1	Alamissa Soulama	PhD MCBI	2017/2018	Burkinabe	28,000	25,000	14,400	67,400
2	Stephen Osei-Wusu	PhD MCBI	2017/2018	Ghanaian	10,000			10,000
3	Henrietta Mensah Brown	PhD MCBI	2014/2015	Ghanaian				4,036
4	Joshua Adjah	MPhil MCBI	2016/2017	Ghanaian	1,500	5,000	1,800	8,300
5	Achiaa Christine Antwi	MPhil MCBI	2016/2017	Ghanaian	1,500	5,000	1,800	8,300
6	Faustus Akankperiwen Azerigyik	MPhil MCBI	2016/2017	Ghanaian	1,500			1,500
7	Raymond Lovelace Adjei	MPhil MCBI	2016/2017	Ghanaian	1,500	5,000	1,800	8,300



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8	Abena Adomah Kissi-Twum	MPhil MCBI	2016/2017	Ghanaian	1,500	3,700		5,200
9	Charlotte Adjoa Addae	MPhil MCBI	2016/2017	Ghanaian	1,500		1,800	3,300
10	Cynthia Mmalebna Amisigo	MPhil MCBI	2016/2017	Ghanaian	1,500	5,000	1,800	8,300
11	Leonard Kwadwo Asare	MPhil MCBI	2016/2017	Ghanaian	1,500	5,000	1,800	8,300
12	Prince Berko Nyarko	MPhil MCBI	2016/2017	Ghanaian		5,000	1,800	6,800
13	Rebecca Yeboah	MPhil MCBI	2016/2017	Ghanaian	2,000	5,000	1,800	8,800
14	Kwadwo Awudu Daniel Aquah	MPhil MCBI	2016/2017	Ghanaian	2,000	5,000	1,800	8,800
15	Isaac Carilo	MPhil MCBI	2016/2017	Ghanaian	2,000	5,000	1,800	8,800
16	Rita Owusu Adjei	MPhil MCBI	2017/2018	Ghanaian	2,000		1,800	3,800
17	Richmond Ayee	MPhil MCBI	2017/2018	Ghanaian	2,000		1,800	3,800
18	Nneka Ugwu	MPhil MCBI	2017/2018	Nigerian	16,000	5,000	4,800	25,800
19	Ojo-Ojogu Akuh	MPhil MCBI	2017/2018	Nigerian	16,000	5,000	4,800	25,800
20	Philip Ilani	MPhil MCBI	2017/2018	Nigerian	16,000	5,000	4,800	25,800
							TOTAL (USD)	251,136

Building project

- Monthly building project committee meetings
- Site visit by Vice-Chancellor - May 14, 2018
- Procurement of office furniture and fittings
- Building Commissioning ceremony - June 22, 2018

4. WELLCOME TRUST DELTAS PROJECT

- Second DELTAS Africa Annual Grantees Meeting - Fiesta Royale Hotel, Accra - July 3-5, 2017
- Recruitment of last postdoctoral fellow Dr Vincent Amarah
- Postdocs progress report meetings - February 7-9, 2018, July 17, 2018
- Complete list of postdoctoral fellows:

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Emails: Secretariat: waacbipadmin@ug.edu.gh | Centre Leader: waccbipleader@ug.edu.gh

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NO.	NAME OF FELLOW	NATIONALITY	GENDER	TRAINING INSTITUTION	DATE OF ENTRY TO PROGRAMME	RESEARCH PROJECT TITLE
1	Dr. Yaw Aniweh	Ghanaian	Male	WACCBIP-BCMB, University of Ghana	April 1, 2016	Unravelling the molecular players during <i>Plasmodium falciparum</i> invasion of erythrocytes
2	Dr. Jewelna Akorli	Ghanaian	Female	WACCBIP-BCMB/NMIMR, University of Ghana	April 1, 2016	The role of dominant midgut bacteria isolated from Anopheles mosquitoes in larval development and susceptibility to <i>Plasmodium</i> infection
3	Dr. Adwoa Asante-Poku Wiredu	Ghanaian	Female	WACCBIP-BCMB/NMIMR, University of Ghana	April 1, 2016	Host susceptibility to Tuberculosis (TB) in Ghana
4	Dr. Kolapo Oyebola	Nigeria	Male	Medical Research Unit, Fajara, the Gambia	April 1, 2016	Genetic variations and differential immunological response to malaria chemotherapy in variably exposed West African populations
5	Dr. Modibo Sangare	Mali	Male	Malaria Research and Training Center at the University of Science, Techniques, and Technology, Bamako, Mali	April 1, 2016	Epidemiology, clinical neurophysiology, and molecular genetic studies of Autism Spectrum Disorders in Mali.

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6	Dr. Seidina A. S. Diakite	Mali	Male	Malaria Research and Training Center at the University of Science, Techniques, and Technology, Bamako, Mali	April 1, 2016	Genomic variation in <i>P. falciparum</i> and pharmacogenomics of antimalarial drugs in Mali
7	Dr. Valentina Josiane Ngo Bitoungui	Cameroon	Female	University of Cape Town, South Africa	April 1, 2016	Genetic factors associated with cardiovascular diseases in Cameroonian sickle cell disease patients
8	Dr. Daniel Muthui Kiboi	Kenya	Male	Kenya Medical Research Institute, Kilifi, Kenya	May 1, 2016	Validation of candidate mutations in <i>Plasmodium</i> for resistance to the antimalarial drugs Piperazine and Lumefantrine
9	Dr. Emmanuel Amlabu	Nigeria	Male	WACCBIP-BCMB, University of Ghana	November 1, 2016	New Generation Malaria Vaccine Development
10	Dr. Lily Paemka	Ghanaian	Female	WACCBIP-BCMB, University of Ghana	July 1, 2017	Characterizing Genetic Breast Cancer Risk Factors in Ghanaian Women
11	Dr. Saikou Y. Bah	Gambian	Male	WACCBIP-BCMB, University of Ghana	June 1, 2017	Using bioinformatics tools to validate biosignature for diagnosis of childhood tuberculosis



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12	Dr. Vincent Amarah	Ghanaian	Male	WACCBIP-BCMB, University of Ghana	January 15, 2018	Development of Novel Antibiotics Targeting the Bacterial DNA Double-Strand Break Repair Pathway
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- List of masters students supported by DELTAS fellows:

	NAME	PROGRAMME	POSTDOCTORAL SUPERVISOR	SCHOLARSHIP AWARD (\$)		
				TUITION FEES	STIPEND	TOTAL AWARD
1	Evelyn Baaba Quansah	MPhil MCBI	Yaw Aniweh	2,000.00	1,800.00	3,800.00
2	Williams Godwin Ametsi	MPhil MCBI	Jewelna Akorli	2,000.00	1,800.00	3,800.00
3	Grace Opoku	MPhil MCBI	Emmanuel Amlabu	2,000.00	1,800.00	3,800.00
4	Claudia Adzo Anyigba	MPhil Biochemistry	Lily Paemka	2,000.00	1,800.00	3,800.00
TOTAL (USD)						15,200.00

- List of student visitor fellowships offered:

No.	Name	Institution	Supervisors
1	Emmanuel Ayitey Tagoe	Savannah State University, USA	Dr. Mahasin Osman
2	Francis Krampa	University of Cambridge, UK	Prof. Elizabeth Hall
3	Yaw Aniweh	Wellcome trust Sanger Institute, UK	Dr. Julian Rayner
4	Dominic Selorm Yao Amuzu	University of Oxford, UK	Prof. Dominic Kwiatkowski and Dr. Kirk Rockett
5	Isawumi Abiola	Queens University Belfast, UK	Dr. Miguel Valvano
6	Aboagye Kwarteng Dofour	London School of Hygiene and Tropical Medicine, UK	Dr. Sam Alford
7	Lily Paemka	University of Iowa, USA	Prof. Ronald J Weigel
8	Reuben Ayivor-Djanie	University of New Mexico, UK	Prof. Douglas J. Perkins
9	Prince Berko Nyarko	London School of Hygiene and Tropical Medicine, UK	Prof. David Conway
10	Oheneba C. K. Hagan	Wellcome trust Sanger Institute, UK	Dr. Julian Ryner and Dr. Marcus Lee
11	Elizabeth Gyamfi	University of Surrey, UK	Dr. Rachel Simmonds

- List of third cohort of graduate interns (60 applications submitted, 18 applicants selected after the review process):

	Names	Gender	University	Degree
1	Mensah Nana Ama Theresa	Female	UG	Biochemistry, Cell and Molecular Biology
2	Vivian Wellington	Female	UG	Biochemistry, Cell and Molecular Biology
3	Genevieve Antwi-Nuamah	Female	UG	Biochemistry, Cell and Molecular Biology
4	Nelson Edu	Male	UG	Biochemistry, Cell and Molecular Biology
5	Quarshie Luther Jesse	Male	UG	Biochemistry, Cell and Molecular Biology

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6	Emmanuel Acquah	Male	UG	Biochemistry, Cell and Molecular Biology
7	Kyei-Baffour Edwin Sakyi	Male	UG	Biochemistry, Cell and Molecular Biology
8	Gervin Kpodo	Male	UG	Biochemistry, Cell and Molecular Biology
9	Abdulai Zigli	Male	UG	Chemistry
10	Amina Ibrahim	Female	KNUST	Chemistry
11	Stefan Danquah	Male	KNUST	Development Planning
12	Wendy Effah	Female	UG	Medical Laboratory Sciences
13	Michael Debrah Acheampong	Male	UG	Medical Laboratory Sciences
14	Ato Hayford	Male	UG	Medical Laboratory Sciences
15	Rhodalyn Essien	Female	Central University	Physician Assistantship
16	Polley Nana Bentum Amodzin	Male	KNUST	Electrical Engineering
17	Anthony Kwaku Gassinu	Male	UCC	Management Studies
18	Opoku Duah	Male	UG	Computer Science

5. OTHER GRANTS

Tackling Infections to Benefit Africa (TIBA) project

- TIBA Rapid Impact project “The effects of Artemisinin-based combination therapy (ACT) on the dynamics of *Plasmodium falciparum*, *P. malariae* and *P. ovale* infection in Ghana” approved (£100,000) – October 6, 2017
- TIBA partnership launch, University of Edinburgh, UK – October 25, 2017
- One TIBA PhD fellowship awarded (£ 75,000) – Felix Ansah
- TIBA Ghana Rapid Impact project launch – Ewim, Cape Coast - February 23, 2018
- TIBA local expert advisory group meeting – February 26, 2018
- TIBA Ghana public forum for World Malaria Day, University of Cape Coast - April 24, 2018
- TIBA Annual Grantees Meeting, Durban, South Africa – May 29-31, 2018
- Pending ‘Making A Difference’ project with Kenya Medical Research Institute, Kilifi, Kenya ((£500,000)

MRC project

- First disbursement of £87,200 received for project (Identification of Specific Metabolites in Mycolactone Producing Mycobacteria and Buruli Ulcer Infection: Diagnostic Biomarkers through Metabolomics)
- Sub-award contact signed with Centre Suisse de Recherches Scientifiques (CSRS), Cote d'Ivoire

Crick African Network

- Scientific symposium and research methods workshop (£ 50,000) December 14-16, 2017
- Pending applications for career accelerator fellowships



6. NEW FACULTY GRANTS

Title	Brief Description of Award	WACCBIP faculty awarded	Grant PI	Amount and Period
Hearing Impairment Genetics Studies in Africa (HI-GENES Africa)	AESA H3Africa initiative grant has been awarded to researchers to identify genes that cause non-syndromic hearing loss in African populations. One PhD fellowship at WACCBIP has been awarded under this project.	Gordon Awandare	Ambroise Wonkam	\$3,294,140 2017-2021
Hearing Impairment Genetics Studies in Africa (HI-GENES Africa)	National Institutes of Health (NIH) grant has been awarded to researchers to identify genes that cause non-syndromic hearing loss in African populations.	Gordon Awandare	Ambroise Wonkam	\$1,249,097 2017 –2022
Characterization of wild trypanosome coats towards the development of an animal African trypanosomiasis vaccine	The Willowcroft Foundation has awarded a grant to the John Hopkins University, USA to characterize wild trypanosome coats towards the development of a vaccine for animal African trypanosomiasis	Theresa Manful Gwira	Monica Mugnier	\$10,000 2017-2018
Accelerating the development of a malaria vaccine for Africa project	DANIDA has awarded researchers a grant to undertake phase two of a project to develop a malaria vaccine. Two PhD fellowships at WACCBIP have been awarded under this project.	Kwadwo Koram Gordon Awandare Michael Ofori	Lars Hviid	DKK10,000,000 2018-2020



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NIHR Global Health Research Group on genomic surveillance of malaria in West Africa at the Wellcome Trust Sanger Institute.	NIHR Global Health Research Programme has awarded a grant to establish local capacity in West Africa for genomic surveillance of malaria parasites and vectors, and to develop analytical outputs that will be of practical value to National Malaria Control Programmes (NMCPs) in planning effective interventions in the face of increasing drug and insecticide resistance. A Medical Epidemiologist has been recruited under this project to liaise with the National Malaria Control Programme.	Gordon Awandare Lucas Amenga-Etego Kwadwo Koram	Dominic Kwiatkowski	£1,999,179 2018-2021
PAMGEN: Genetic interactions between human populations and malaria parasites in different environmental settings across Africa	AESA H3Africa initiative grant has been awarded to researchers to study how genetic changes in humans and malaria parasites impact on the disease in individuals and communities in sub-Saharan Africa.	Lucas Amenga-Etego	Alfred Amambua Ngwa	\$3,122,568 2018-2020

7. STAFF TRAINING

Name	Training	Date
<ul style="list-style-type: none"> Ms. Sika Menka 	Society of Research Administrators International Annual Meeting, Vancouver, Canada	October 14-18, 2017
<ul style="list-style-type: none"> Mr. Emmanuel Ghartey Mrs. Afua Yeboah Mrs Afia Serwaa Attrams 	National Institutes of Health (NIH) Regional Seminar, Baltimore, USA	October 25-27, 2017
<ul style="list-style-type: none"> Ms. Sika Menka Ms. Diana Precious Aklamati 	Basic Records Management, University of Ghana, Legon	November 1-2, 2017
<ul style="list-style-type: none"> Ms. Emefa Adzadu 	Asian-Pacific Conference on International Accounting Issues, Kuala Lumpur, Malaysia	November 5-8, 2017
<ul style="list-style-type: none"> Mr. Solomon Katachie 	Wellcome Trust Communications training and International Communications Forum, London, UK	November 26-30, 2017

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<ul style="list-style-type: none"> Ms. Sika Menka Ms. Emefa Adzadu 	AESA Risk Management Workshop, Nairobi, Kenya	February 26-27, 2018
<ul style="list-style-type: none"> Ms. Emefa Adzadu Ms. Marian Nanor Ms. Winifred Amakye 	AAS Good Financial Grant Practice workshop, Accra, Ghana	April 12-13, 2018
<ul style="list-style-type: none"> Ms Kyerewaa Akuamoah Boateng 	AESA Community & Public Engagement Workshop, Nairobi, Kenya	June 11-12, 2018

8. WORKSHOPS

Workshop Title	Date	Number of participants
Viral Phylogenetics and Bioinformatics workshop, Department of Biomedical Engineering, University of Ghana	October 5-6, 2017	45
WACCBIP-DELTAS Bioethics workshop, MRTC, Bamako, Mali	November 27 - December 1, 2017	10
Crick African Network scientific symposium and research methods workshop	December 14-16, 2017	22
Buruli Ulcer outreach programme/training workshop – Jacobu, Amansie Central District, Ashanti Region	December 18, 2017	40
WACCBIP-Oxford-ASCB workshop	January 15-26, 2018	38
WACCBIP-National Catholic Health Services (NCHS) workshop (Part I)	January 29 – February 2, 2018	24
Collaborative research symposium with faculty from the Centre from Experimental Medicine, Queen’s University Belfast, UK	February 19-22, 2018	27
Computational Modelling workshop, Department for Biomedical Engineering, University of Ghana	March 28-29, 2018	47
WACCBIP-Glasgow Workshop on introduction to NGS bioinformatics	April 25-27, 2018	43
WACCBIP-National Catholic Health Services (NCHS) workshop (Part II)	June 4-8, 2018	25

B: Overall status of implementation

1. WORLD BANK AFRICAN CENTRE OF EXCELLENCE (ACE) PROJECT

Programme	Target	Current Status	Percentage female	Percentage regional
Masters	80	90	39 %	10%
PhD	40	50	36%	26%



- Summary of results achieved for each Disbursement Linked Result

Disbursement Linked Results	Maximum SDR per DLR	Total Earnings to date (SDR)	Balance (SDR)	Percentage Achieved
DLI #1: Institutional Readiness	530,000	530,000	0	100%
DLI #2: Excellence in education and research capacity and development impact				
2.1: New Short term students	260,000	38,545	221,455	15%
2.2: New Masters students	260,000	130,000	130,000	50%
2.3: New PhD	260,000	260,000	0	100%
2.4: No. of outreach periods	520,000	10,400	509,600	2%
2.5: Quality Benchmarks (Accreditation)	520,000	520,000	0	100%
2.6: No. of published articles	520,000	520,000	0	100%
2.7: Externally generated revenue	780,000	780,000	0	100%
2.8: Improved teaching and learning environment	1,030,000	1,030,000	0	100%
DLI #3: Financial management	260,000	97,500	162,500	38%
DLI #4: Timely and audited procurement	260,000	32,500	227,500	13%
TOTALS	5,200,000	3,948,945	1,251,055	76%

2. WELLCOME TRUST DELTAS PROJECT

Programme	Target	Current Status	Percentage female	Percentage regional
PhD	15	15	47%	60%
Postdoctoral fellows	12	12	33%	58%
Graduate Interns	60	48	44%	0%
Student Visitor fellows	25	11	18%	9%
Bioethics short course	50	23	22%	61%

C: Planned activities for next year (indicate dates where possible)

1. GOVERNANCE

- Fourth WACCBIP International Advisory Board meeting - July 2019
- Quarterly WACCBIP Management Committee meetings

2. ACADEMIC

- Student enrolment of students for 2018/2019 academic year – August 2018
- Fourth annual research conference - July 2019



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3. WORLD BANK AFRICAN CENTRE OF EXCELLENCE (ACE) PROJECT

- Submission of application for ACE for development impact – September 2018
- Tenth African Centres of Excellence (ACE) project workshop and launch of ACE for Development Impact, Djibouti – February 2019
- Submission of M&E report for verification

4. WELLCOME TRUST DELTAS PROJECT

- Fourth DELTAS Africa Annual Grantees Meeting - July 2019
- Completion postdocs recruited in 2016
- Recruitment of fourth cohort of graduate interns
- Award of additional student visitor fellowships

5. WORKSHOPS

- Insect Neuroscience and drosophila Neurogenetics course in collaboration with the Francis Crick Institute and Teaching and Research in Natural Sciences for Development in Africa (TReND) – November 2018
- Third WACCBIP -DELTAS bioethics workshop - November 2018
- WACCBIP-Oxford-ASCB workshop - January 2019

Head of Unit

Name: Sika Menka

Signature: 

Date: July 4, 2018



HEAD OF UNITS ANNUAL REPORT: JULY 2017 – JUNE 2018

Name of Unit: **ACCOUNTS / FINANCE**

A: Activities during the last quarter (Attach relevant supporting documents)

1. Income:

As of the end of June 2018 the Centre had received a total disbursement of **USD1,979,060.46** and **GBP157,200.00** from grants. The breakdown is as follows:

Project	Funds Received (USD)	Funds Received (GBP)
World Bank ACE	314,432.46	-
Wellcome Trust DELTAS	1,637,740.00	-
Tackling Infections to Benefit Africa (TIBA)	-	70,000.00
MRC – Buruli Ulcer	-	87,200.00
NIH - Hearing Impairment Genetics Studies in Africa (HI-GENES Africa)	26,888.00	-
TOTAL	1,979,060.46	157,200.00

2. Investments:

During the year under review, the Centre invested some funds in fixed deposits with Ideal Capital Partners. The interests earned from these investments went into the Centre's administrative account as internally generated funds which serves as a reserve for financing staff costs after the end of the grants and the Centre's activities for which provision has not been made in the grants. Below is the schedule of the investments:

Investment Date	Investment Period	Maturity Date	Amount Invested (GHS)	Interest Rate	Interest Amount (GHS)
21-Jul-2017	182 days	19-Jan-2018	4,282,500.00	26.00%	555,199.73
30-Jan-2018	182 days	31-Jul-2018	3,500,000.00	24.00%	418,849.32
Total Interest					974,049.05

3. Fellowships Awarded:

A total of **USD1,422,990.00** and **GBP75,000.00** was awarded in scholarship to MPhil and PhD students, and post-doctoral fellows. The distribution across the various grants is shown in the table below.

Following the award of the fellowships, an orientation was organised by the accounts unit in collaboration with the grants unit to explain to the students the conditions of their awards and the procedures for accessing their funds. Individual accounts are



maintained for the students/fellows who are regularly furnished with their account statements.

Project/Fellowship Type	Number of Awards	Amount Awarded (USD)	Amount Awarded (GBP)
Tackling Infections to Benefit Africa (TIBA):			
PhD	1	-	75,000.00
World Bank ACE:			
PhD	3	81,900.00	-
MPHIL	17	168,550.00	-
Wellcome Trust DELTAS:			
PhD	7	910,000.00	-
MPHIL	4	15,200.00	-
Student Visitor	9	237,340.00	-
Post-doctoral	1	10,000.00	-
TOTAL		1,422,990.00	75,000.00

4. Assets Acquired:

During the year, the following major assets were acquired by the Centre:

Description	Quantity	Type	Value (USD)	Value (GHS)
Building (Biochemistry Annex)	1	Building	-	2,176,881.89
MDV Air conditioners	24	Equipment	26,211.19	
25-Seater board room table	1	Furniture	5,267.05	
Conference room chairs	250	Furniture	11,424.73	
Class II Type A2 Biological Safety Cabinet	1	Lab Equipment	5,497.08	
Inspissator	1	Lab Equipment	7,485.19	
Master cycler	1	Lab Equipment	7,088.14	
Confocal Microscope Axio Observer for LSM 800	1	Lab Equipment	307,036.52	
Freezer gg5210 commercial 513I 1865x750x760 (-20)	1	Lab Equipment	5,564.87	

5. Reporting:

The unit duly submitted all required reports to the various funders and met all reporting deadlines. All queries raised on submitted reports were successfully addressed since they were not major issues.



6. Auditing:

The financial operations of the year 2017 for both ACE and DELTAS were successfully audited externally by PWC and internally by the University's internal auditors (copies of the externally audited financial statements and management letters have been attached). As required by the World Bank, the External Auditors also verified the externally (outside the ACE project) generated funds by the Centre (attached).

Copies of the reports and management letters were submitted to the respective funders as well as the University's Audit Report Implementation Committee (ARIC).

7. Compliance with Grant Conditions:

- WACCBIP complied with all the conditions of the various grants except for the requirement by the Wellcome Trust to have risk management policies, including anti-bribery and fraud policies. The Centre has however, engaged KPMG to develop these policies and train the staff on them; this is currently ongoing.
- During the year, the unit developed some policies and established some procedures to ensure better financial management of the grants. The policies included:
 - fellows' imprest policy;
 - international travel policy;
 - conditions of service;
 - vehicle rental policy.

Copies of these policies have been attached.

- The unit completed an assessment for "Good Financial Grant Practices" on behalf of the Centre which was a requirement for all DELTAS grantees. This is part of the efforts of Accelerating Excellence in Science in Africa (AESAs) to create a global community for grantors and grantees. The initiative will enable the standardization, simplification and strengthening of the governance of grant funding.

B: Overall status of implementation

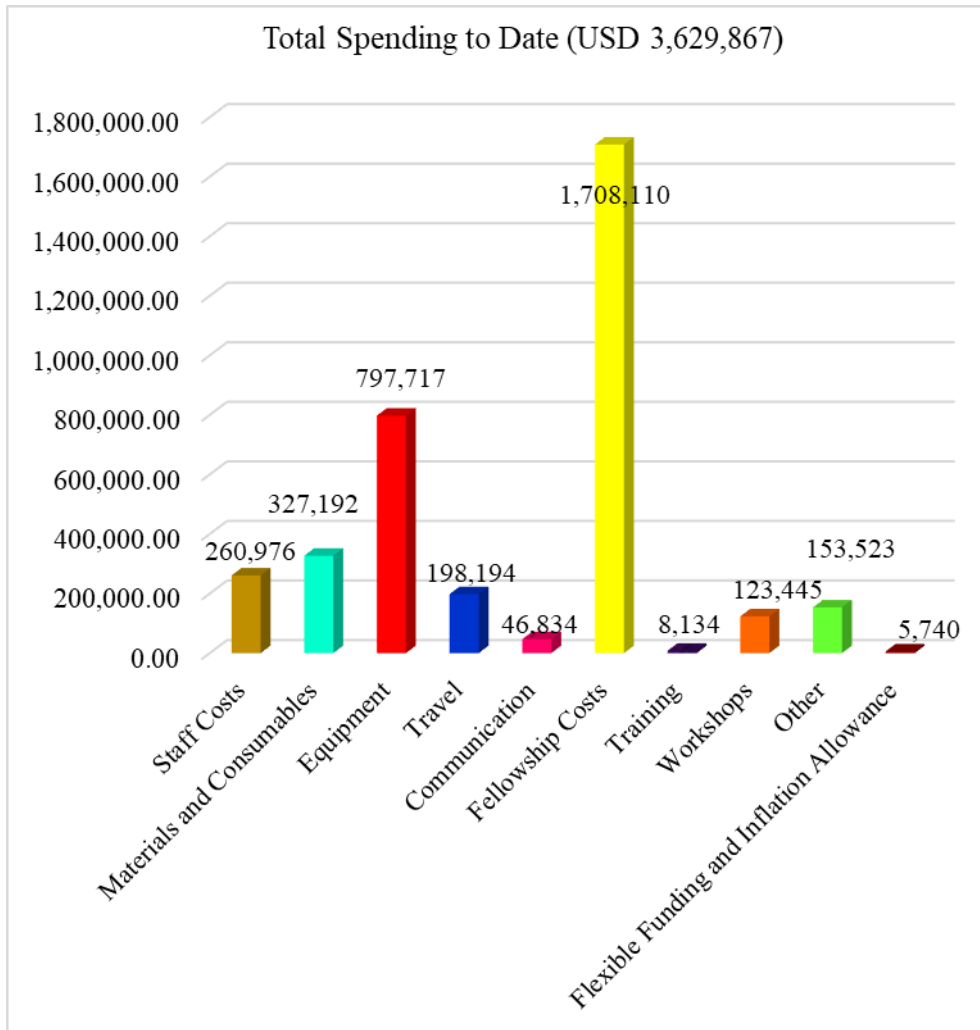
1. Wellcome Trust DELTAS Grant:

Description	Amount (USD)	% of Award
Total Grant Award	7,185,851.83	100.00%
Total Disbursements received to June 2018	3,950,877.00	55.00%
Total Expenditure to June 2018	3,629,869.00	50.51%

UK partners are excluded



The figure below shows the distribution of the total expenditure up to the end of June 2018 across budget lines.

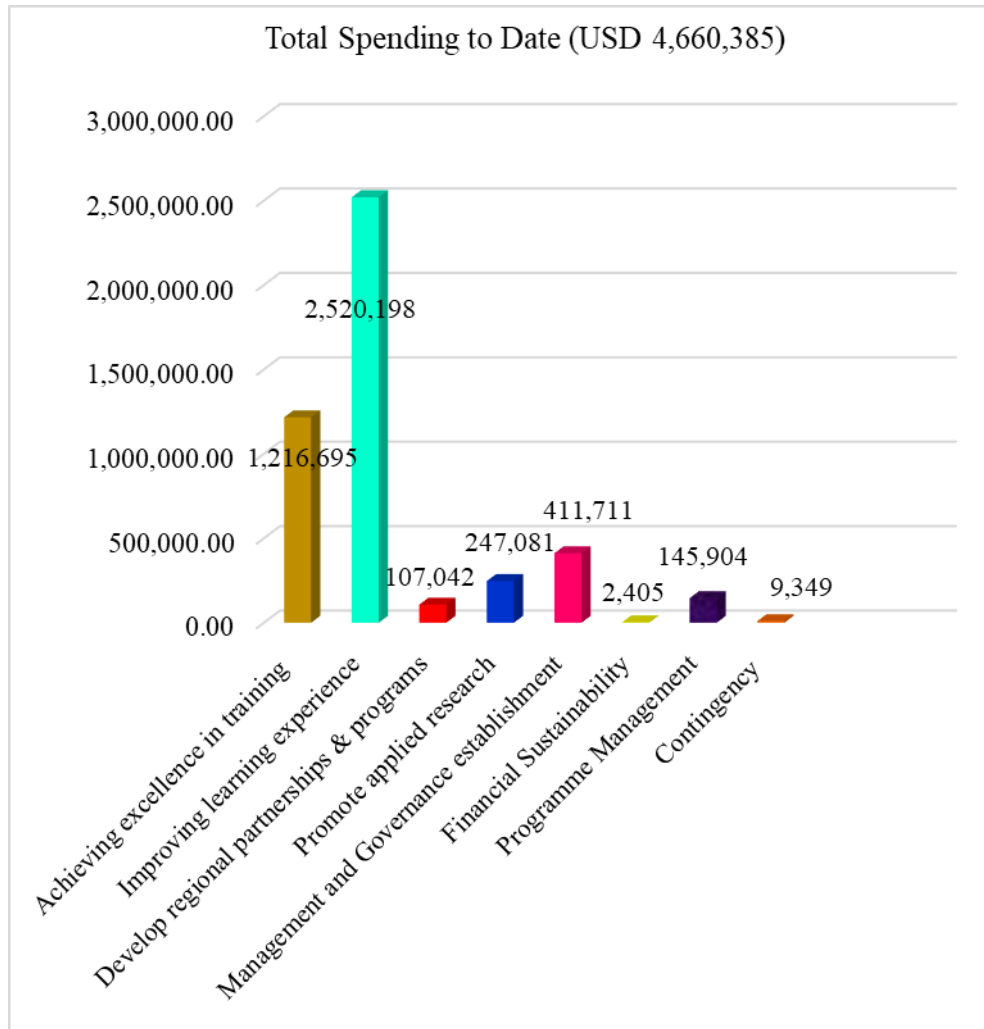


2. World Bank ACE Grant:

Description	Amount (USD)	Amount (SDR)	% of Award (SDR)
Total Grant Budget	8,000,000.00	5,200,000.00	100.00%
Total Disbursements received to June 2018	5,778,295.46	4,171,087.82	80.00%
Total Amount Earned to June 2018	4,692,935.59	3,386,885.00	65.13%

***SDR – Special Drawing Rights**

The figure below shows the distribution of the total expenditure up to the end of June 2018 across budget lines.



3. Bank Accounts

The bank balances as of the end of June 2018 were as follows:

- | | |
|-----------------------------------|-----------------|
| a. Offshore/Foreign USD account - | USD10,826.18 |
| b. Onshore/Forex USD account - | USD1,069,884.05 |
| c. GBP account - | GBP50,332.15 |
| d. GHS account - | GHS21,634.78 |

C: Planned activities for next year (indicate dates where possible)

The following are the unit's planned major activities for the coming year:

1. ensuring the completion of the GFGP assessment by the DELTAS partners as required by AESA;
2. making required financial information available for the DELTAS midterm evaluation;
3. preparation for the closure of the ACE grant;



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4. budgeting and financial review for the “ACE for Impact” as well as other grant applications;
5. financial reporting for the various grants;
6. facilitating the financial audits of the grants;
7. monitoring of the Centre’s compliance with grantors’ financial conditions;
8. management of the Centre’s financial risks;
9. day-to-day financial management of the Centre;
10. documentation of grant financial management procedures;
11. organising grant financial management training for finance staff.

Head of Unit

Name: Mr Collins Amofah

Signature:

Date: July 16, 2018



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HEAD OF UNITS ANNUAL REPORT FORM

Name of Unit: TRAINING AND RESEARCH

A: Activities during the last year (Attach relevant supporting documents)

MPhil

1st Cohort

- All have submitted their thesis, only one student is yet to graduate

2nd Cohort

- All 18 students have presented their thesis defenses have submitted their thesis
- All the students are due to graduate this July exception one student who needs to improve and resubmit the thesis

3rd Cohort

- On their project
- Progress reports presentations have been completed from 5th March to 26th March 2018
- Seven out of the fourteen defended their thesis on the 26th June 2018, the remaining students will have their turn in October 2018

4th Cohort

- Preparation of project proposals ongoing after the project design workshop by R&T and further discussions at the just ended WACCBIP-ASCB-Oxford Workshop 2018
- Submission is planned for 15th July 2018
- Project proposal defense is planned for 23rd to 25th July 2018

PhD

1st Cohort

- All have presented third and final progress report
- Rufai's final report was presented on 5th March 2018
- Progress reports have all now been submitted

2nd Cohort

- Progress report 1 have been presented from 12th February to 1st March 2018
- Isawumi Abiola (needed more time to analyze data) could not present and will be scheduled in August 2018



3rd Cohort

- All 15 students have defended their PhD project proposals
- Beatrice Muriuki has now pass comprehensive exams and presented Proposal seminar via Skype)
- All of them presented their Experiential learning reports except Samuel Mawuli Adadey (who traveled for a training course without rescheduling the seminar) and Beatrice Muriuki (poor internet link from Kenya) could not present and will be schedulde in August 2018.

4th Cohort

- Preparation of project proposals ongoing after the project design workshop by R&T and further discussions at the just ended WACCBIP-ASCB-Oxford Workshop 2018.
- Submission is planned for 31st May 2018
- Project proposal defense is planned for August to October 2018

Graduate Interns

1st Cohort

- Completed (12)

2nd Cohort

- 18 in all (regular TAs make up to 25)
- Second round of journal club took place in March – April 2018
- Outreach to Northern and Upper East region took place in May 2018

3rd Cohort

- Recruitment is completed with 18 selected

Partner activities

The second part covered bacterial and helminth/fungal infections and took place from 4-8 June 2018. Data collection exercise started after the part 1 and this was processed and discussed in June 2018.

B: Overall status of implementation

MPhil – 90 students in total so far

- 4 cohorts admitted
- 2 cohort completed so far

PhD – 50 students in total so far



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- 4 cohorts admitted
- All are in the programme, the first graduation for July 2018.

Graduate Interns – 48 selected so far

- 3 cohort selected
- 1 cohort completed and the other in the programme

C: Planned activities for next quarter (indicate dates where possible)

MPhil:

- MPhil 1 (Cohort 4) project proposal defence – July 2018
- MPhil 2 (Cohort 3) thesis defence – June 2018 (Part 1)
- MPhil 2 (Cohort 3) thesis defence – October 2018 (Part 2)

PhD

- Thesis submissions by some of the Cohort 1 PhD students
- Thesis project progress reports by Cohort 2,3 and 4 students PhD

WACCBIP programme accreditation:

- An annual report to be prepared in May 2019 for submission to the Royal Society of Biology



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MPhil Cohort 4:2017-2019

#	NAME	Index Number	Pathogen/Host	Theme	Lead Supervisor
1	Kwesi Tandoh	10172044	Virus	Immunogenetics	Kusi
2	Yaa Yvonne Asantewaa	10220530	Bacteria	Transmission	Mosi
3	Joshua Labadah	10247504	Helminth	Immune response	Kusi
4	Barbara Mensah	10340924	Virus	Human genetics	Ghansah
5	Claudia Anyigba Adzo	10348030	Cancer	Drug discovery	Paemka
6	Ebenezer Addo Ofori	10380514	Protozoa	Vaccines	Kusi
7	Godwin Williams Ametsi	10393712	Protozoa	Vector biology	Arkoli
8	George K. G. Yankson	10400006	Cancer	Drug discovery	Ocloo
9	Evelyn Baaba Quansah	10402830	Protozoa	Vaccines	Aniweh
10	Kwadwo Otioku Oworae	10404042	Protozoa	Vaccines	Gwira
11	Emmanuel Edem Adade	10405077	Diabetes	Microbiome	Ametefe
12	Richmond Ayee	10414185	Virus	Diagnostics	Quaye
13	Rita Adjei Owusu	10419727	Bacteria	Drug Resistance	Duodu
14	Magdalene Dogbe	10421622	Bacteria	Pathogen diversity	Mosi
15	Grace Opoku	10432853	Protozoa	Vaccines	Amlabu
16	Peter Hodoamede	10636504	Protozoa	Drug resistance	Quashie
17	Michelle Abena Buckman	10636933	Cancer	Microbiome	Paemka
18	Keren Okyerebea Attiku	10637102	Virus	Diagnostics	Quaye
19	Augustina Arjarquah	10637471	Virus	Diagnostics	Quaye
20	Kwabena Owusu Boateng	10637886	Bacteria	Diagnostics	Mosi
21	Akuh Ojo - Ajogu	10640047	Protozoa	vaccines	Amlabu
22	Philip Ilani	10640048	Protozoa	Protozoa	Amlabu
23	Ugwu Nneka	10640105	Virus	Drug discovery	Kwofie
24	Ouelo A.B. Elodie	10639095	Virus	Diagnostics	Quaye
25	Samuel Ampoful Asenso	10070208	Bacteria	Drug resistance	Duodo

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26	Dona Alda Adjahi	10640447	Cancer	Drug discovery	Aikins
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MPhil Cohort 3:2016-2018					
#	NAME	INDEX NO.	Pathogen/ Host	Theme	Lead Supervisor
1	Prince Berko Nyarko	10338705	Protozoa	Vaccines	Awandare
2	Rebecca Yeboah	10343581	Fungi	Drug discovery	Arthur
3	Cynthia Mmalebna Amisigo	10374698	Protozoa	Drug discovery	Gwira
4	Charlotte Adjoa Addae	10599402	Virus	Diagnostics	Paintsil
5	Faustus A. Azerigyik	10598918	Protozoa	Drug discovery	Gwira
6	Abena Adomah Kissi Twum	10308200	Virus	Pathogenesis	Telenesky
7	Emelia Konadu Danso	10552505	Bacteria	Pathogenesis	Yeboah-Manu
8	Christine Achiaa Antwi	10598673	Protozoa	Drug discovery	Gwira
9	Leonard K. Asare	10599063	Bacteria	Drug discovery	Arthur
10	Raymond L. Adjei	10599431	Virus	Diagnostics	Quaye
11	Daniel K. A. Aquah	10302889	Protozoa	Vaccines	Awandare
12	Joshua Adjah	10338643	Protozoa	Transmission	Amoah
13	Isaac Carilo	10246622	Bacteria	Drug discovery	Arthur
14	Luru Ibrahim Abdulai	10309691	Bacteria	Drug discovery	Mosi

In bold are those who were able to defend their thesis on June 26 2018



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MPhil MCBI Cohort 2: 2015-2017					
#	SURNAME	INDEX NO.	Pathogen/Host	Theme	Lead Supervisor
1	Selassie Louis Ameke	10095009	Bacteria	Diagnostics	Yeboah-Manu
2	Elizabeth Laryea-Akrong	10281466	Bacteria	Diagnostics	Mosi
3	Osei Musah	10507059	Protozoa	Drug Resistance	Awandare
4	Caroline Boatemaa Agyare	10551079	Virus	Diagnostics	Quaye
5	Victoria Simpson Shirley	10551058	Bacteria	Diagnostics	Addo
6	Diana Asema Asandem	10305818	Bacteria	Diagnostics	Yeboah-Manu
7	Ranee Aflakpui	10273372	Bacteria	Drug Resistance	Baughn
8	Pheonah Badu	10551956	Bacteria/Virus/Fungi	Diagnostics	Yeboah-Manu
9	Felix Alexander Ayelazuno	10551967	Protozoa	Diagnostics	Amoah
10	Charles-Chess Essel	10513067	Protozoa	Vaccines	Awandare
11	Sedem Agbemafle	10551096	Protozoa	Drug discovery	Gbewonyo
12	Justice Adzigbe	10506922	Protozoa	Diagnostics	Gwira
13	Nsoh Godwin Anabire	10551491	Protozoa and Virus	Immune response	Helegbe
14	Raphael Abban Lartey	10552422	Fungi	Drug discovery	Arthur
MPhil Molecular Biology (15,16), MPhil Biochemistry(17,18), MSc Biochemistry (19,30)					
15	Ernestine Kubi	10550855	Kidney disease	Human genetics	Ghansah
16	Priscilla Abena Akyaw	10306073	Kidney disease	Human genetics	Ghansah
17	Emmanuel Opoku Antwi	10552111	Protozoa	Diagnostics	Gwira
18	Isaac Tuffour	10551731	Cancer and Helminths	Pathogenesis	Appiah-Opong
19	Sylvester Languon	10346916	Virus	Diagnostics	Quaye
20	Kwasi Yeboah Oduro	10551151	Virus	Diagnostics	Quaye

All students graduate this July except Raphael Abban Lartey

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MPhil MCBI Cohort 1: 2014-2016

#	SURNAME	INDEX NO.	Pathogen/ Host	Theme	Lead Supervisor
1	Christiana Ofori Onwona	10507542	Protozoa	Drug resistance	Ghansah
2	James L. Myers-Hansen	10513076	Protozoa	Drug resistance	Ghansah
3	Soale Majeed Bakari	10277352	Protozoa	Immune response	Gwira
4	Adiza Abass	10308032	Bacteria	Drug discovery	Mosi
5	Selase Deletsu	10573087	Virus	Diagnostics	Bonney
6	Precious Cramer	10301390	Virus	Diagnostics	Quaye
7	Deladem K. Amekudzi	10311264	Virus	Diagnostics	Quaye
8	Stephen Osei-Wusu	10252660	Bacteria	Drug resistance	Yeboah- Manu
9	David Abana	10513090	Bacteria	Drug resistance	Mosi
10	Samuel Ofori Addo	10507562	Bacteria	Pathogen diversity	Addo
11	Sandra Adelaide King	10507709	Protozoa	Vector Insecticide resistance	Desouza
12	Patrick Tsibangu A. Tshibangu	10512723	Protozoa	Drug resistance	Ghansah
13	Daniel Addo-Gyan	10508246	Protozoa	Transmission	Wilson
14	Joshua Kuleape	10296210	Virus	Pathogenesis	Quaye
15	Seidu Zakaria	10513069	Protozoa	Immune response	Ofori
16	Emmanuel Ayisi Manu	10312449	Protozoa	Vaccines	Kusi
17	Jersley D. Chirawurah	10278348	Protozoa	Drug discovery	Awandare
18	Temitope Ademolue	10512725	Protozoa	Immune response	Awandare
19	Edmund Atindaana		Virus	Pathogenesis	Teleneski
20	Victor Letsa	10281491	Virus	Diagnostics	Quaye

MPhil Biochemistry (21,22) MSc Biochemistry (23-28) MPhil Molecular Biology (29,30)

21	Frederick Ayertey	10507338	Inflammatio n	Drug discovery	Okine
22	Eric Akpanja Mensah	10307816	Virus	Drug metabolism	Ocloo
23	Richmond Senanu Adzadogo	10507491		<i>Short project</i>	
24	Eugene Aidoo	10069898		<i>Short project</i>	
25	Christian Kweku Arhin	10316114		<i>Short project</i>	
26	Eke Eric Paul	10509537		<i>Short project</i>	
27	Dorcas A. Frimpong	10507548		<i>Short project</i>	
28	Okideran Ademola Philips	10512729		<i>Short project</i>	



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29	Maame Ekuia Akowa Selorm Acquah	10507145	Virus	Diagnostics	Quaye
30	Esenam Dzifa Buatsi	10301863	Bacteria	Pathogenesis	Mosi

All have graduated except Deladem K. Amekudzi

PhD Cohort 4:2017-2021					
#	NAME	Index Number	Pathogen/ Host	Theme	Lead Supervisor
1	Stephen Osei-Wusu	10252660	Bacteria	Drug resistance	Yeboah-Manu
2	Jersley D. Chirawurah	10278348	Protozoa	Drug discovery	Awandare
3	Irene Amoakoh Owusu	10284117	Virus	Pathogenesis	Quaye
4	Felix Ansah	10383902	Protozoa	Diagnostics	Awandare
5	Samuel Ofori Addo	10507562	Bacteria	Drug resistance	Addo
6	Balagra Kasim Sumabe	10640022	Bacteria	Drug discovery	Arthur
7	Nerepen Dite Agnes Guirido	10640079	Protozoa	Vaccines and transmission	Diakete
8	Collins Misita Moranga	10640080	Protozoa	Pathogen Biology	Awandare
9	Pearl Ihuoma Osirike	10642021	Protozoa	Drug discovery	Gwira
10	Seth Agyei Domfeh	10657007	Virus	Drug discovery	Mutocheluh
11	Alamissa Soulama	10639171	Protozoa	Diagnostics	Cisse

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PhD Cohort 3:2016-2020

#	Name	Student ID	Pathogen/ Host	Theme	Lead Supervisor
1	Samuel Mawuli Adadey	10395444	Hearing impairment	Human Genetics	Wonkam
2	Dominic Selorm Yao Amuzu	10068999	Protozoa	Human Genetics	Awandare
3	Majidah Hamid-Adianoh	10601171	Protozoa	Vector	Afranie
4	Ouafo Jonas Kengne	10601148	Protozoa	Pathogen Biology	Dinko
5	Haddijatou Mbye	10601182	Protozoa	Drug resistance	Amabua Ngwa
6	Beatrice Mukami Muriuki	10601161	Cancer	Pathogenesis	Ongecha
7	Niaré Karamoko	10601145	Protozoa	Vaccines	Osier
8	Kemuma Nancy Nyakoe	10601156	Protozoa	Vaccines	Awandare
9	Festus Kojo Acquah	10245118	Protozoa	Vaccines	Amoah
10	Seth Agyemang	10105580	Virus	Pathogenesis	Amoah
11	William Ekloh	10025519	Protozoa	Drug resistance	Gwira
12	Elizabeth Gyamfi	10442509	Bacteria	Pathogen diversity	Mosi
13	Diana Ahu Prah	10221593	Protozoa	Vaccines	Hafalla
14	Michael Bright Yakass	10599786	Virus	Pathogenesis	Quaye
15	Sheriffo Jagne	10587734	Virus	Diagnostics	Martin
16	Nikoi Erasmus Kotey	10300632	Virus	Vaccines	Ampofo

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PhD Cohort 2: 2015-2019					
#	SURNAME	INDEX NO.	Pathogen / Host	Theme	Lead Supervisor
1	C.K. Hagan Oheneba	10552818	Protozoa	Drug resistance	Quashie
2	Belinda Lartey	10551338	Virus`	Diagnostics	Armah
3	Francis D. Krampa	10363861	Protozoa	Diagnostics	Awandare
4	Bernice A. Mawuli	10357510	Protozoa	Vector	Afranie
5	Cecilia Smith	10552806	Cancer	Pathogenesis	Gyan
6	Annie Wilhelmina Mensah	10554799	Bacteria	Drug discovery	Mosi
7	Samuel Yao Ahorhorlu	10363287	Protozoa	Drug resistance	Quashie
8	Laty Gaye Thiam	10556633	Protozoa	Vaccines	Awandare
9	Arnold Togiwe Luuse	10357504	Protozoa	Vaccines	Gyan
10	Abiola Isawumi	10552983	Bacteria	Drug resistance	Mosi
11	Mubarak Abdul-Rahman	10357501	Protozoa	Vaccines	Amoah
12	Prince Asare	10250691	Bacteria	Transmission	Yeboah-Manu

PhD Cohort 1:2014-2018					
#	SURNAME	INDEX NO.	Pathogen/ Host	Theme	Lead Supervisor
1	Ethel Juliet Blessie	10221445	Fungi	Drug discovery	Arthur
2	Emmanuel A. Tagoe	10042507	Bacteria	Pathogenesis	Brown
3	Aboagyie Kwarteng Dofour	10307987	Protozoa	Drug discovery	Gwira
4	Nicholas Amoako	10513065	Virus and Bacteria	Diagnostics	Duodu
5	William Van Der Puije	10010232	Protozoa	Immune Response	Ofori
6	Henrietta E. Mensah-Brown	10363148	Protozoa	Vaccines	Awandare
7	Dorotheah Obiri	10358024	Pre-eclampsia	Pathogenesis	Gyan
8	Sena Matrevi	10215186	Protozoa	Drug resistance	Quashie
9	Augustina Frimpong	10357518	Protozoa	Immune Response	Kusi
10	Ahmed Rufai Abdul Rahman	10508317	Virus	Drug discovery	Mutochulu h
11	Reuben Ayivor-Djanie	10513071	Cancer	Pathogenesis	Awandare

In bold are those ready to submit by the end of July 2018



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Summary of research areas by our students in terms of pathogens/host, the themes and the lead supervisors

Pathogen/Host	# (M/P)	Themes	# (M/P)	Lead Supervisor	# (M/P)
Protozoa	59 (31/28)	Diagnostics and Transmission	32 (25/7)	Awandare	15 (6/9)
Virus	29 (20/9)	Drug discovery	23 (15/8)	Quaye	15 (13/2)
		Drug resistance	18 (10/8)	Mosi	11 (8/3)
Bacteria	28 (20/8)	Vaccines	19 (9/10)	Gwira	10 (7/3)
Fungi	2 (1/1)	Immune response and immunogenetics	8 (6/2)	Yeboah-Manu	8 (6/2)
Helminth	1 (1/0)	Vector biology	4 (1/3)	Ghansah	6 (6/0)
Human subjects	15 (10/5)	Pathogenesis	12 (4/8)	Arthur	6 (4/2)
		Pathogen biology	2 (0/2)	Amoah	5 (2/3)
		Human genetics	5 (3/2)	Kusi	5 (4/1)
		Microbiome	2 (2/0)	Quashie	4 (1/3)

Head of Unit

Name: Dr. Patrick Kobina Arthur

Signature:

Date: 5th July 2018



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HEAD OF UNITS ANNUAL REPORT FORM

Name of Unit: Monitoring and Evaluation

A: Activities during the last year (Attach relevant supporting documents)

1. Planned and sent timely reports to AAU/World Bank and DELTAS/Wellcome Trust
2. Collated fellows and faculty publications every three (3) months.
3. Collated graduated/submitted M.Phil. students' current place of study/work.
4. Collated graduated/submitted M.Phil. students' current manuscript/publication status
5. Sent emails every semester to the first two cohorts of M.Phil. students who have graduated or submitted their theses to find out where they are currently and what they are doing (Destination Data).
6. Sent emails every semester to the first two cohorts of M.Phil. students to find out about the status of manuscripts of their WACCBIP research work.
7. Set up course evaluations every semester for M.Phil. and Ph.D. students and sensitise them to complete the evaluations.
8. Analysed course evaluations every semester for M.Phil. and Ph.D. students.
9. Administered evaluations for short courses (Bioethics, Crick African Network Capacity Building, WACCBIP-ASCB, and WACCBIP-NCHS Workshops) and WACCBIP Research Conference.
10. Analysed evaluations of short courses (Bioethics, Crick African Network Capacity Building, WACCBIP-ASCB, and WACCBIP-NCHS Workshops) and WACCBIP Research Conference.

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B: Overall status of implementation

All the activities were successfully implemented.

Students' attitude to completing the course evaluations still needs improvement.

C: Planned activities for next year (indicate dates where possible)

1. Plan and send timely reports to AAU/World Bank and DELTAS/Wellcome Trust
2. Collate fellows and faculty publications every three (3) months.
3. Collate graduated/submitted M.Phil. and Ph.D. students' current place of study/work.
4. Collate graduated/submitted M.Phil. and Ph.D. students' current manuscript/publication
5. Send emails every semester to the first three cohorts of M.Phil. students and first cohort of Ph.D. students who have graduated/submitted their theses to ask for their current place of study/work.
6. Send emails every semester to the first three cohorts of M.Phil. students and first cohort of Ph.D. students for the status of manuscripts of their WACCBIP research work.
7. Set up course evaluations every semester for M.Phil. and Ph.D. students and sensitise them to complete the evaluations.
8. Analyse course evaluations every semester for M.Phil. and Ph.D. students for the 2018/2019 academic year.
9. Administer evaluations for short courses (Bioethics, Crick African Network Capacity Building, WACCBIP-ASCB, and WACCBIP-NCHS Workshops) and WACCBIP Research Conference (July 2019).
10. Analyse evaluations of short courses (Bioethics, Crick African Network Capacity Building, WACCBIP-ASCB, and WACCBIP-NCHS Workshops) and WACCBIP Research Conference (July 2018).
11. Travel to the United State of America and Europe to monitor students (who are undertaking postgraduate programs



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Head of Unit

Name: Dr. Osbourne Quaye

Signature: 

Date: 2nd July, 2018

WACBIP UG

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WACCBIP PUBLICATION LIST, - 2018

1. **Anabire, N. G.**, Aryee , P. A., Addo, F., Anaba, F., Kanwugu, O. N, Ankrah, J., **Awandare, G. A., Helegbe , G. K.**, (2018), Evaluation of hematological indices of childhood illnesses in Tamale Metropolis of Ghana, *Journal of Clinical Laboratory Analysis*, 2018 June 3:e22582, doi: 10.1002/jcla.22582
2. Essel, T. Y. A., Koomson, A., Seniagya, M. O., Cobbold, G. P., **Kwofie, S. K.**, Asimeng, B. O., **Arthur, P. K., Awandare, G., Tiburu, E. K.** (2018). Chitosan composites synthesized using acetic acid and tetraethylorthosilicate respond differently to methylene blue adsorption. *Polymers* 10, 466; doi:10.3390/polym10050466
3. **Dinko, B., Ansah, F.**, Agyare-Kwabi, C., Tagboto, S., **Amoah, L. E.**, Urban, B. C., Sutherland, C. J., **Awandare, G. A.**, Williamson, K. C., Binka, F. N. Deitsch, K. W.,(2018), Gametocyte Development and Carriage in Ghanaian Individuals with Uncomplicated *Plasmodium falciparum* Malaria,*The American Journal of Tropical Medicine and Hygiene*,DOI: 10.4269/ajtmh.18-0077.
4. Adams, T., Ennuson, N. A., **Quashie, N. B.**, Futagbi, G., **Matrevi, S., Hagan, O. C. K.**, Abuaku, B., **Koram, K. A., Duah, N. O.** (2018). Prevalence of *Plasmodium falciparum* delayed clearance associated polymorphisms in adaptor protein complex 2 mu subunit (pfap2mu) and ubiquitin specific protease 1 (pfubp1) genes in Ghanaian isolates. *Parasites & Vectors*, 11:175. <https://doi.org/10.1186/s13071-018-2762-3>
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14. **Mosi, L., Adadey, S. M., Sowah, S. A., & Yeboah, C.** (2018). Microbiological assessment of sachet water “pure water” from five regions in Ghana. *AAS Open Research*, *1*.
15. Nlinwe, O. N., **Kusi, K. A., Adu, B., & Sedegah, M.** (2018). T-cell responses against Malaria: Effect of parasite antigen diversity and relevance for vaccine development. *Vaccine*.
16. Oyebola, K. M., Aina, O. O., Bah, M. M., Ajibaye, S., Correa, S., **Awandare, G. A., & Amambua-Ngwa, A.** (2018). Assessing naturally acquired immune response and malaria treatment outcomes in Lagos, Nigeria. *AAS Open Research*, *1*.
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18. **Adadey, S. M., Yakass, M. B., Agyemang, S., Duodu, S.,** (2018). The Modulatory Effect of Lead Drug Candidates on Inflammatory Gene Expression in Sepsis: A Mini-Review,

19. **Osei-Wusu, S.**, Omari, M. A., **Asante-Poku, A.**, **Otchere, I. D.**, Asare, P., Forson, A., **Yeboah-Manu, D.** (2018). Second-line anti-tuberculosis drug resistance testing in Ghana identifies the first extensively drug-resistant tuberculosis case. *Infection and Drug Resistance*, *11*, 239.
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CURRENT PLACEMENT – MPHIL COHORT 1

	TRAINEES NAME	DEGREE OBTAINED	TRAINING PERIOD	INITIAL POSITION, PLACE OF EMPLOYMENT / STUDY	CURRENT , PLACE OF EMPLOYMENT / STUDY
1	Stephen Osei-Wusu	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana	PhD student, West African Centre for Cell Biology of Infectious Pathogens , University of Ghana
2	Deletsu Selase	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Intern, Noguchi Memorial Institute for Medical Research, University of Ghana	PhD student, Tokyo Medical and Dental University, Japan
3	Jersley D. Chirawurah	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Teaching assistant, Biomedical Engineering department, University of Ghana	PhD student, West African Centre for Cell Biology of Infectious Pathogens, University of Ghana
4	Victor Letsa	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Centers for Disease Control & Prevention, Atlanta, Georgia	
5	Christiana Ofori Onwona	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana
6	Deladem Kofi Amekudzi	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Teaching & Research Assistant, Department of Biochemistry, Cell and Molecular Biology	
7	Edmond A. Atindaana	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Student, Department of Applied Chemistry and Biochemistry, University of Development Studies.	PhD student, Department of Microbiology and Immunology, University of Michigan
8	Zakaria Seidu	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	National Service Personnel, Department of Human Biology, University for Development Studies	Continous Quality Improvement (CQI) Project Manager, WorldVision Ghana, GI-WASH, Savelugu
9	Joshua Kuleape	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Teaching & Research Assistant, Department of Biochemistry, Cell and Molecular Biology	PhD student, Tokyo Medical and Dental University, Japan
10	Ademolue Temitope Wilson	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Research Assistant, Institute of child health, University of Ibadan Nigeria.	PhD student, Instituto Gulbenkian de Ciência, Portugal
11	James Leslie Myers-Hansen	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana

12	Sandra Adelaide King	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Unemployed	Research Assistant, West African Centre for Cell Biology of Infectious Pathogens, University of Ghana
13	Addo Ofori Samuel	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana	PhD student, West African Centre for Cell Biology of Infectious Pathogens , University of Ghana
14	Addo-Gyan K. Daniel	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana
15	Abana David	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Analyst, Food and Drugs Authority, Ghana	Analyst, Food and Drugs Authority, Ghana
16	Abass Adiza	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Teaching & Research Assistant, Department of Biochemistry, Cell and Molecular Biology, University of Ghana	PhD student, Tokyo Medical and Dental University, Japan
17	Bakari Soale Majeed	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Teaching & Research Assistant, Department of Biochemistry, Cell and Molecular Biology	PhD student, Department of Cell & Developmental Biology, University of Würzburg, Germany
18	Emmanuel Ayisi Manu	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Student, Department of Biochemistry, Cell and Molecular Biology	Coordinator, Pentecost Students Association (PENSA), Ghana
19	Patrick Tshibangu	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Assistant, Department of Tropical Medicine, University of Kinshasa, D. R. Congo	
20	Precious Cramer	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Teaching & Research Assistant, Department of Biochemistry, Cell and Molecular Biology, University of Ghana	PhD student, University of Freiburg, Germany
21	Buatsi Esenam Dzifa	MPhil Molecular Biology	2014 – 2016	National Service Personnel, Department of Medical Biochemistry, Korle-Bu teaching Hospital	Intern, Inqaba Biotec West Africa Ltd
22	Maame Esi Acquah	MPhil Molecular Biology	2014 – 2016	Teaching & Research Assistant, Kwame Nkrumah University of Science and Technology	Research Assistant, Water Research Institute, Council for Scientific and Industrial Research
23	Frederick Ayertey	MPhil Biochemistry	2014 – 2016	Research Assistant, center for plant medicine research, Mampong-Akwapim	Research Assistant, center for plant medicine research, Mampong-Akwapim

CURRENT PLACEMENT – MPHIL COHORT 2

	TRAINEES NAME	DEGREE OBTAINED	TRAINING PERIOD	INITIAL POSITION, PLACE OF EMPLOYMENT / STUDY	CURRENT , PLACE OF EMPLOYMENT / STUDY
1	Isaac Tuffour	MPhil Biochemistry	2015-2017	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana
2	Felix Alexander Ayelazuno	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	National Service Personnel, Navrongo Health Research Centre	Research Assistant, Navrongo Health Research Centre
3	Ranee Aflakpui	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Student, Department of Biochemistry, Cell & Molecular Biology, University of Ghana.	PhD student, Albert Einstein College of Medicine NY-USA
4	Essel Charles-Chess	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Biomedical Scientist, LEKMA Hospital, Ghana	Biomedical Scientist, LEKMA Hospital, Ghana
5	Priscilla Abena Akyaw	MPhil Molecular Biology	2015-2017	Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana
6	Selassie Louis Ameke	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Senior Biomedical Scientist in Charge of Clinical Chemistry Unit, Ho Municipal Hospital, Ghana Health Service	Principal Biomedical Scientist and Head of Biomedical Laboratory Department, Ho Municipal Hospital, GES
7	Pheonah Badu	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Teaching and Research Assistant, Kwame Nkrumah University of Science and Technology	Research Assistant, Noguchi Memorial Institute for Medical Research
8	Ernestine Kubi	MPhil Molecular Biology	2015-2017	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana	Senior Research Assistant, Noguchi Memorial Institute for Medical Research
9	Shirley Victoria Simpson	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Senior Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana	Snr. Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana
10	Diana Asema Asandem	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Biomedical Scientist, Provita Specialist Hospital	Research Assistant, Noguchi Memorial Institute for Medical Research, University of Ghana
11	Raphael Lartey Abban	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Teaching and Research Assistant, University of Cape Coast	
12	Justice Adzigbe	MSc Biochemistry	2015-2017	Unemployed	

13	Sedem Agbemafle	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Teaching & Research Assistant, University of Education, Winneba	
14	Caroline Boatemaa Agyare	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Ministry of Health	
15	Godwin Nsoh Anabire	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Tutor, University of Development Studies, Tamale	Research Assistant, WACCBIP/University of Development Studies
16	Elizabeth Laryea-Akron	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Unemployed	
17	Musah Osei	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Research Assistant, Kintampo Health Research Centre	Research Assistant, Kintampo Health Research Centre
18	Emmanuel Opoku Antwi	MSc Biochemistry	2015-2017	USSHER polyclinic	
19	Sylvester Languon	MSc Biochemistry	2015-2017	Teaching & Research Assistant, Department of Biochemistry, Cell and Molecular Biology, University of Ghana	Research Assistant, WACCBIP, University of Ghana
20	Kwasi Oduro Yeboah	MSc Biochemistry	2015-2017	Unemployed	G2 medical Laboratory Services at 37

CURRENT PLACEMENT – GRADUATE INTERNS COHORT 1 & 2

	TRAINEES NAME	TRAINING PERIOD	CURRENT , PLACE OF EMPLOYMENT / STUDY
1	Ayee Richmond	2016-2017	MPhil Student, WACCBIP/DBCMB, University of Ghana
2	Grace Opoku	2016-2017	MPhil Student, WACCBIP/DBCMB, University of Ghana
3	Kwadwo Oworae	2016-2017	MPhil Student, WACCBIP/DBCMB, University of Ghana
4	Evelyn Quansah	2016-2017	MPhil Student, WACCBIP/DBCMB, University of Ghana
5	Magdalene Dogbe	2016-2017	MPhil Student, WACCBIP/DBCMB, University of Ghana
6	Rita Owusu Adjei	2016-2017	MPhil Student, WACCBIP/DBCMB, University of Ghana
7	Emmanuel Adade	2016-2017	MPhil Student, WACCBIP/DBCMB, University of Ghana
8	Kyerewaa Akuamoah Boateng	2016-2017	Public Engagement Officer, WACCBIP, University of Ghana
9	Marian Nanor	2016-2017	Accounts Officer, WACCBIP, University of Ghana
10	Pernell Amaning	2016-2017	Access Bank, Ghana

11	Latifatu Mohammed	2016-2017	Tutor, Afex Educational Consult
12	David Ammah-Tagoe	2016-2017	Ghana Standards Authority
13	Winifred Ruby Korang Amakye	2017-2018	
14	Georgia Naa Korkoi Ghartey	2017-2018	
15	Millicenta Kukua Mbeaba Ampiah	2017-2018	
16	Mary Doamekpor	2017-2018	
17	Fuseini Mohammed – Sherrif Napari	2017-2018	University of Ghana Medical School (Graduate Entry Programme)
18	Joanna Afokai Quaye	2017-2018	Georgia State University, Atlanta, Georgia, USA / WACCBIP
19	Salu Philip	2017-2018	North Dakota State University, Fargo, North Dakota, USA
20	Mensah Isaiah Kofi Deladem	2017-2018	Purdue University, West Lafayette, Indiana, USA
21	Ebenezer Nii Adama Aryee	2017-2018	
22	Godfred Osei Kwame	2017-2018	
23	Etwi Barimah Appiah	2017-2018	
24	Akamati Diana Precious	2017-2018	
25	Frederickt Tei-Maya	2017-2018	MPhil Student, WACCBIP/DBCMB, University of Ghana
26	Amaniampong Kyei Bismarck	2017-2018	
27	Appah Anna	2017-2018	
28	Suurbaar Jonathan	2017-2018	MPhil Student, WACCBIP/DBCMB, University of Ghana
29	Emmanuel Kofi Quaye	2017-2018	MPhil Student, WACCBIP/DBCMB, University of Ghana
30	Adams Adjoa Otubea	2017-2018	Missouri State University , USA

STATUS OF MANUSCRIPTS FOR PUBLICATION - MPHIL COHORT 1

	TRAINEES NAME	DEGREE OBTAINED	TRAINING PERIOD	MANUSCRIPT STATUS
1	Stephen Osei-Wusu	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Published
2	Deletsu Selase	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Submitted
3	Jersley D. Chirawurah	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Published
4	Victor Letsa	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Drafted
5	Christiana Ofori Onwona	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	
6	Deladem Kofi Amekudzi	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Yet to submit corrected thesis; not showing up
7	Edmond A. Atindaana	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	
8	Zakaria Seidu	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	
9	Joshua Kuleape	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Published
10	Ademolue Temitope Wilson	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Published
11	James Leslie Myers-Hansen	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	
12	Sandra Adelaide King	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Published
13	Addo Ofori Samuel	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Published
14	Addo-Gyan K. Daniel	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	
15	Abana David	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Submitted
16	Abass Adiza	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Submitted
17	Bakari Soale Majeed	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Published
18	Emmanuel Ayisi Manu	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Published
19	Patrick Tshibangu	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	
20	Precious Cramer	MPhil Molecular Cell Biology of Infectious Diseases	2014 – 2016	Published
21	Buatsi Esenam Dzifa	MPhil Molecular Biology	2014 – 2016	

22	Maame Esi Acquah	MPhil Molecular Biology	2014 – 2016	Drafting
23	Frederick Ayertey	MPhil Biochemistry	2014 – 2016	

STATUS OF MANUSCRIPTS FOR PUBLICATION - MPHIL COHORT 2

	TRAINEES NAME	DEGREE OBTAINED	TRAINING PERIOD	MANUSCRIPT STATUS
1	Isaac Tuffour	MPhil Biochemistry	2015-2017	Drafted
2	Felix Alexander Ayelazuno	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	
3	Ranee Aflakpui	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	
4	Essel Charles-Chess	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Drafting
5	Priscilla Abena Akyaw	MPhil Molecular Biology	2015-2017	Drafted
6	Selassie Louis Ameke	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	
7	Pheonah Badu	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	
8	Ernestine Kubi	MPhil Molecular Biology	2015-2017	
9	Shirley Victoria Simpson	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Drafted
10	Diana Asema Asandem	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Drafted
11	Raphael Lartey Abban	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Drafting
12	Justice Adzigbe	MSc Biochemistry	2015-2017	
13	Sedem Agbemafle	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	
14	Caroline Boatemaa Agyare	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Drafted
15	Godwin Nsoh Anabire	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	Submitted
16	Elizabeth Laryea-Akrong	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	
17	Musah Osei	MPhil Molecular Cell Biology of Infectious Diseases	2015-2017	
18	Emmanuel Opoku Antwi	MSc Biochemistry	2015-2017	
19	Sylvester Languon	MSc Biochemistry	2015-2017	Accepted
20	Kwasi Oduro Yeboah	MSc Biochemistry	2015-2017	

LIST OF FELLOWS WHO PRESENTED AT CONFERENCES

NAMES	CONFERENCE	DATE
Rebecca Yeboah	Gordon Research Conference, USA	22-17 July 2018
Charles Chess	Gordon Research Conference, USA	9-15 June 2018
Laty Thiam	Gordon Research Conference, USA	10-15 June 2018
Francis Krampa	Biosensors Conference 2018, USA	10-17 June, 2018
Yaw Aniwah	Gordon Research Conference	9-16 June, 2018
Emmanuel Amlabu	Genomic Epidemiology of Malaria Conference	11-13 June, 2018
Evelyn Baaba Quansah	Genomic Epidemiology of Malaria Conference	11-13 June, 2018
Dominic Selorm Yao Amuzu	Genomic Epidemiology of Malaria Conference	11-13 June, 2018
Nneka Ugwu	National HIV & AIDS Research Conference, Ghana	8-11 May, 2018
Laty Thiam	Multilateral Initiative on Malaria Conference, Senegal	14-21 April, 2018
Felix Ansah	Multilateral Initiative on Malaria Conference, Senegal	14-21 April, 2018
Jersley Chirawurah	Multilateral Initiative on Malaria Conference, Senegal	14-21 April, 2018
Sedem Agbemafle	Ghana Biomedical Convention, Ghana	26-28 July 2017
Joshua Adjah	Ghana Biomedical Convention, Ghana	26-28 July 2017
Felix Ansah	Ghana Biomedical Convention, Ghana	26-28 July 2017
Diana Asandem	Ghana Biomedical Convention, Ghana	26-28 July 2017
Prince Asare	Ghana Biomedical Convention, Ghana	26-28 July 2017
Pheonah Badu	Ghana Biomedical Convention, Ghana	26-28 July 2017
Isaac Tuffour	Ghana Biomedical Convention, Ghana	26-28 July 2017
Sylvester Languon	Ghana Biomedical Convention, Ghana	26-28 July 2017
Priscilla Akyaw	Ghana Biomedical Convention, Ghana	26-28 July 2017
Aboagye Kwarteng Dofour	Ghana Biomedical Convention, Ghana	26-28 July 2017



UNIVERSITY OF GHANA

West African Centre for Cell Biology of Infectious Pathogens

African Centre of Excellence for Higher Education
College of Basic and Applied Sciences



HEAD OF UNITS ANNUAL REPORT FORM

Name of Unit: Graduate Admissions and Examinations

A: Activities during the last year (Attach relevant supporting documents)

(I) Doctoral Qualifying Examination – 2017/2018 academic year

(II) Preparation of Graduate Handbook

(III) Graduate Admissions – 2018/2019 academic year

B: Overall status of implementation

(I) Doctoral Qualifying Examination – 2017/2018 academic year

- A class of 15 students

Written Proposal - June 23, 2017

- All students passed on the first attempt

Written examination - June 30, 2017

- All students passed on the first attempt

Oral examinations - August 8 -10, 2017

- 13 students passed on the first attempt
- 1 student failed on first attempt but passed on the second attempt
- 1 student completed her oral examination on December 5, 2017 because she was on maternity leave.

At the end of the examination all 15 students passed all components the examinations.

(II) Graduate handbook

Draft complete and receiving comments from faculty



(III) Graduate Admissions 2018/2019 academic year

- Applications opened: February – April 2018
 - Selection of applicants: April – June 2018
- Organization of entrance examinations and interviews
Selection of applicants

A total of 95 applications were received through the University of Ghana graduate school online application system

Entry type	Number of Application
International	14
Ghanaian	81
TOTAL	95

International applicants

Programme	Number interviewed	Number accepted
PhD	2	2
MPhil	7	7
MSc	2	2
TOTAL	11	11

Ghanaian applicants

A total of 65 applicants participated in the graduate entrance examination

Programme	Shortlisted for interview	Number accepted	Number in waiting
PhD*	12	8	0
MPhil	41	20	8
MSc	1	1	0
TOTAL	54	29	8

*3 PhD applicants were earlier awarded fellowships. Total of accepted Ghanaian PhD = 11



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C: Planned activities for next year (indicate dates where possible)

(I) Graduate handbook

Input comments from faculty and finalise the document for printing

(II) Doctoral Qualifying Examination 2018/2019 academic year

Dates for the examinations and submission of research proposal

1. Research proposal submission: June 22, 2018
2. Written examination: June 29, 2018
3. Oral examination: August 6 – 10, 2018 (subject to satisfactory review of the written research proposal).

(III) Graduate Admissions – 2019/2020 academic year

Head of Unit

Name: Dr. Theresa M. Gwira

Signature:

Date: July 6, 2018



HEAD OF UNITS ANNUAL REPORT FORM

Name of Unit: Postdoctoral Programme

A: Activities during the last year (Attach relevant supporting documents)

Twelve Post-docs that have been recruited have all been placed at different collaborating centres under the supervision of experts in the required fields. In addition of providing progress reports (Nov 2017 and May 2018), the centre was able to organise a workshop, which some of the Post-docs were able to participate. The workshops organised with the Crick Centre (An interactive training workshop on the development of high quality research study design and proposals) on 15-16 December 2017

In addition, together with Prof Awandare, we were able to have a one on one interaction with the post-docs either through skype or face-to-face. Items discussed include progress of work, Outputs, challenges. They were reminded of the AAS Open Research platform, and encouraged them to draft manuscripts obtained from the descriptive data of their research work for publication. Fellows in the first cohort were encouraged to have drafted manuscripts for publication by the next reporting period.

We also encouraged fellows to actively start applying for grants as their postdoctoral fellowship was nearing completion. All grant applications should be included in subsequent progress report submissions. The fellows were also informed fellows that there will be a call for applications for postdoctoral fellowships under the Crick African Network grant, and encouraged them to apply

Time for the Meeting:

No.	Name	Date	Time (GMT)	Meeting type
1.	Daniel Muthui Kiboi	February 7, 2018	10:00 - 10:30	Skype
2.	Seidina Diakite	February 7, 2018	11:00 - 11:30	Skype
3.	Valentina Ngo Bitongui	February 7, 2018	11:30 - 12:00	Skype
4.	Kolapo Oyebola	February 7, 2018	12:00 - 12:30	Skype
5.	Saikou Bah	February 7, 2018	12:30 - 13:00	Skype
6.	Lily Paemka	February 7, 2018	13:00 - 13:30	Skype
7.	Jewelna Akorli	February 8, 2018	14:30 - 15:00	Face-to-face
8.	Emmanuel Amlabu	February 8, 2018	15:00 - 15:30	Face-to-face
9.	Yaw Aniweh	February 8, 2018	15:30 - 16:00	Face-to-face
10.	Vincent Armah	February 8, 2018	16:00 - 16:30	Face-to-face
11.	Adwoa Asante-Poku Wiredu	February 9, 2018	09:30 - 10.00	Face-to-face
12.	Modibo Sangare	February 9, 2018	15.00 - 15.30	Skype

B: Overall status of implementation

- 12 Post-doc recruited in two batches



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Outputs

Publications: Seven papers have been published in different peer-review journals. At least each of the fellows in the first cohorts have a manuscript under preparation.

Attendance to Scientific Conferences: All the fellows in the first cohort and one in the second cohort have attended international scientific conferences and presented parts of their work

Undergraduate and Graduate Student Supervision: Almost all the fellows are involved in student project supervisions. At the last meeting, the Director and Postdoctoral Programme Coordinator commended all fellows who were involved in the supervision of students. One of the post-docs requested that the Director informs all mentors/supervisors that WACCBIP encourages postdocs to supervise students. This will prevent conflict of interests as some supervisors felt postdocs should concentrate only on their research projects.

Community Engagement: Some of the fellows are very much involved in community education and screening activities. Drs Asante-Poku Wiredu and Modibo Sangare who have been actively involved in organizing public engagement activities as part of their research projects were asked to submit a one-page write-up of their public engagement plans to be incorporated in the WACCBIP public engagement grant application.

Grant Application: All together close to ten grant applications by different fellows have been submitted and one has been successful.

Recognition: Dr. Jewelna Akorli was appointed as an Affiliate Fellow of the African Academy of Sciences.

CHALLENGES

- The main challenges are procurement, internet access and disbursement of funds. Some of which are being addressed.
-

C: Planned activities for next year (indicate dates where possible)

- The next one-on one meeting is scheduled for the 17th July 2018.
- The first cohort will finish their program within the year

Head of Unit

Name: Dorothy Yeboah Manu

Signature:

Date: July 5, 2018



HEAD OF UNITS ANNUAL REPORT FORM

Name of Unit: **LOGISTICS**

A: Activities during the last year (Attach relevant supporting documents)

New procurements

The outstanding equipment from April – May, 2017 bidding have all been delivered. The full list, quantities and location of each equipment supplied is shown below.

1. Biobase Biosafety cabin II (2) – (BCMB/WACCBIP)
2. Eppendorf Master cycler (1) – (BCMB/WACCBIP)
3. Nexus gradient Thermocycler (1) – (BCMB/WACCBIP)
4. Zenith Instruments Microbial Inspissator (1) - - (BCMB/WACCBIP)
5. Upright Microscopes with Bresser Camera attached (2) – (BCMB/WACCBIP)
6. Thermo Fisher Scientific Heraeus Pico 17 centrifuge (2) – (BCMB/WACCBIP)
7. Eppendorf Thermomixer C (1) – (BCMB/WACCBIP)
8. Liebherr Profiline-20°C Freezer (1) – (BCMB/WACCBIP)
9. Thermofisher Scientific TSX series -80°C Upright freezer (1) – NMIMR
10. Eppendorf Master cycler Thermocycler (1) – (LEKMA)
11. pH meter (1) – (LEKMA)
12. Biorad Gel electrophoresis apparatus (1) – (LEKMA)
13. Carl Zeiss LSM 800 Confocal Microscope (1) – (BCMB/WACCBIP)
14. DELL HighPerformance Computing system (1) – (UGCS)

For each of these equipment selected technicians in the department and centre have been trained on their usage. The confocal microscope has also been placed in the charge of a trained technician and a WACCBIP research fellow for equipment oversight and usage monitoring. Maintenance service contracts have been purchased for all major equipment and voltage stabilizers have been purchased for all sensitive equipment including the thermocyclers, freezers, confocal microscope, HPC and biosafety cabinets.

Quotation analysis for the supply and installation of a new batch of laboratory equipment (IFT: UG/GD/ACE-WACCBIP/0303/2018) for WACCBIP Laboratories has received approval from the University of Ghana tender committee as of the 3rd of July 2018 (tender report attached). These equipment are purposed for existing labs at BCMB/WACCBIP and to the newly established bacteriology* laboratory at BCMB/WACCBIP. Below is a list of the new batch of equipment slated for delivery by September 2018

1. Digital Dry Bath Heaters (2)
2. Unstirred Water Baths (3)
3. RB Centrifuge (2)
4. Vortex (3)



5. Autoclave (2)
6. Fridge* (1)
7. Weigh scale * (2)
8. Ultrasonic Cleaner (1)
9. Upright Bright field microscope (10)
10. Upright -20°C Freezer * (1)
11. Anaerobic Jars* (5)
12. CO₂ Incubator* (2)
13. Dissection microscope* (1)
14. Bench top centrifuge * (1)
15. pH meter (1)
16. Stomacher blender* (1)
17. Biosafety cabin Class II* (2)

Due to the high price quoted by the local suppliers for four out of the other equipment, 2 units of Autoclaves, 5 anaerobic jars, 2 units Thermo cyclers and 2 units of Incubators will be procured from sole sourcing.

For the new WACCBIP building a series of orders were procured from various units in the centre. The ICT unit will present information on the procurement of computers for the Bioinformatics units, monitors/TV screens for the board room, PhD lecture room and conference rooms. Active devices, PA systems and internet cabling and other resources will also be presented by the ICT Unit.

Other items comprising furniture and curtains for various rooms in the center were also procured following competitive bidding in most cases and sole sourcing when the requested items did not meet the specifications.

Equipment repair

We conducted an inventory of the equipment procured and installed for the last two years and their current conditions. We also assisted Internal audit to check on the listed of the equipment has delivered and installed in various laboratories.

All equipment in need of servicing and repair were fixed during the reporting period. Below is a list of maintenance activities undertaken.

- Two units of Thermo Scientific Heraeus- Biofuge Stratos Refrigerated Centrifuges supplied by Arcoa Ghana Ltd broke down. The unit were sent back to Manufactures in Germany for repairs at their expense for shipping. They have since been returned in functioning condition.
- The probe for the Digital sonicator micro probe got broken and has since been replaced.
- The Thermo Scientific Quanti studio 5 Real time PCR had been having connection failure. We have received new hardware unit from manufactures and this has been installed. The



equipment technician has requested that we procure a 96-Well 0.2 l TaqMan RnaseP instrument verification plate from Thermo fisher Scientific. We have therefore requested a purchase order for PCR plates from the Thermofisher Scientific local supplier to avoid the tray jamming challenges which occur due to using other brands of plates which over heat and stick to the heating lid.

- The Eppendorf Thermomixer C failed to sense the block. The local suppliers have replaced the block at no cost to the centre.
- A UV ballast choke was replaced for a BCMB Esco Laminar air flow with a new one from the manufactures
- The Olympus Fluorescence microscope lamp at dark room has been replaced and two sets of new HEPA filters have been purchased in stock.
- A new UV filtering polycarbonate glass and mother board were procured to replace the older one of the Fasta biosafety Cabin.
- Two units of BCMB older Stuart Vortex machines have been fixed.
- An 8x50 ml fixed angle rotor for the Thermo Scientific Heraeus- Biofuge Stratos Refrigerated Centrifuge has been procured.
- A new UV filtering polycarbonate glass and mother board was procured to replace the older Fasta biosafety Cabin in the Chemical systems laboratory however there are still challenges on trouble shooting the hardware.
- A new pH probe for a pH meter was purchased to replace a faulty one at Molecular biology laboratory.
- A Labconco 16 valve freeze dryer chamber in the Medicinal Plant lab had an error and could not create vacuum. A new freeze dryer chamber has been purchased and installed.

Other issues

- New login sheets were designed for the all equipment and circulated to various laboratories and we have received some good reports from the laboratory in-charges.
- Our WACCBIP laboratory technician and Department of Biochemistry Assistant chief technician participated foundation course to ISO/IEC 17025:2005 laboratory quality management.
- We assisted one of our local suppliers Arco Ghana Ltd to organize a one day workshop for researchers and teaching laboratory technicians regarding the advancement of centrifuges, sample handling/processing devices and microscopes. All the presenters were from Thermo Scientific, Germany.
- We have serious issue with the electrical current and voltage being supplied to this building and this is responsible for the breakdown of many of our equipment. We are in talks with 1 companies to provide a 150KVA Automatic Voltage stabilizer and current regulator for the mains that supply power to the whole building.

New equipment requests



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We are in the process of compiling a new list of required equipment for the laboratories at BCMB/WACCBIP. Majority of these equipment will be for the newly established sequencing facility which has an ION torrent and MiSeq sequencer.

B: Overall status of implementation

We have successfully implemented our major activities especially in collection of equipment lists from various laboratories, preparing technical specification for the submitted equipment, and costs of equipment from manufacturers. We also undertake evaluation of equipment bidding, provided the bidders evaluation report to the procurement unit to place the purchase order, installation, train and monitor performance of equipment.

C: Planned activities for next year (indicate dates where possible)

- Undertake ISO certification and accreditation for all research and teaching laboratories in BCMB/WACCBIP.
- Provide more training on equipment maintenance and cleaning for each personal in the laboratory to avoid the breakdown of equipment in the lab.
- Organizing more hands on training to the end users by arranging with local suppliers and other international partners.
- Preparing new set of equipment order list by the department to procure for centre labs.
- Setting up an animal facility to (a) temporarily house mice and rats for the duration of a study; (b) breed and maintain zebrafish and brine shrimp for bacterial pathogenesis and toxicological studies respectively; and (c) breed and maintain Galleria larvae for bacterial virulence studies.

Head of Unit

Name: Dr. Lydia Mosi

Signature: 

Date: 6th July, 2018



HEADS OF UNIT ANNUAL REPORT FORM

Name of Unit: **Communication & Public Engagement**

A: Activities during the last year (Attach relevant supporting documents)

1. Website Management

- a. The Unit took charge of re-structuring the old WACCBIP website in order to better manage content. The process included reclassifying categories for posts, decongesting the site's homepage and main menu bar, and creating an archive for old/outdated posts.
- b. The Unit also initiated the process for the development of a new WACCBIP website. Limitations on features such as direct video hosting on the old website, which is structured on a blog template, necessitated the development of a new website that will allow for the use of more advanced content management tools. A US-based firm was contracted to develop the new website.

2. Social Media Management

The Unit sought to increase the Centre's social media activity by putting out more often targeted communication on WACCBIP activities. An estimation of the key audiences of the Centre informed the choice of Facebook and Twitter as the main social media needed to drive the Centre's online communication. Within the year in review, the Unit:

- a. Increased its social media activity by producing more posts on both platforms.
- b. Improved its social media engagement by attracting more followers with audience targeted content.

3. Public & Media Engagement

- a. A TB/Medical Outreach programme was organised for communities known to have high prevalence of the disease. The public engagement team visited three communities within the Greater Accra Region and interacted with residents on disease prevention and health safety. The programme was



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- organised in partnership with the Chest Clinic at the Korle-Bu teaching Hospital in Accra. The communities the team visited and respective dates are listed below:
- i. Korle-Gonno – October 21, 2017
 - ii. Dansoman Glefe – October 24, 2017
 - iii. Gbese Bukom – November 4, 2017
- b. The Unit facilitated media appearances for two WACCBIP fellows in the first quarter of the year. The fellows appeared on health talk shows on a popular local language TV station to talk about their research as detailed below:
- i. Adom TV: Malaria and Burkitt's Lymphoma education by Reuben Ayivor – September 18, 2017
 - ii. Adom TV: Breast Cancer awareness expert discussion by Dr. Lily Paemka – October 23, 2017
- c. The Unit also collaborated with a popular Accra-based radio station to place WACCBIP Faculty/Research Fellows in the spotlight. The three members of faculty appeared on a segment of the station's morning show dedicated to the discussion of scientific research. All three spoke about their research and how each ties into the overall research agenda of the Centre. The three appearances and dates are as follows:
- i. Dr. Lily Paemka – March 14, 2018
 - ii. Dr. Theresa Manful Gwira – March 21, 2018
 - iii. Dr. Yaw Aniweh – April 18, 2018
- d. The Unit facilitated coverage of two TIBA Ghana public/community engagement activities. The two events were held in Cape Coast in the Central Region of Ghana.
- e. The Unit supervised the organisation of the second Senior High Schools Outreach Tour in the Northern & Upper East Regions of Ghana. The tour was facilitated by Graduate Interns at the Centre with support from the Public Engagement Officer.
- f. The Unit spearheaded efforts to provide a sponsorship package for the National Science & Maths Quiz, a popular quiz competition for High Schools in Ghana.

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Emails: Secretariat: waacbpadmin@ug.edu.gh | Centre Leader: waccbpleader@ug.edu.gh

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4. Brand Item Development

- WACCBIP Quarterly Newsletter
- Equipment Brief Brochure
- BCMB Brochure
- WACCBIP Brochure
- Other brand materials such as signage, posters, etc.

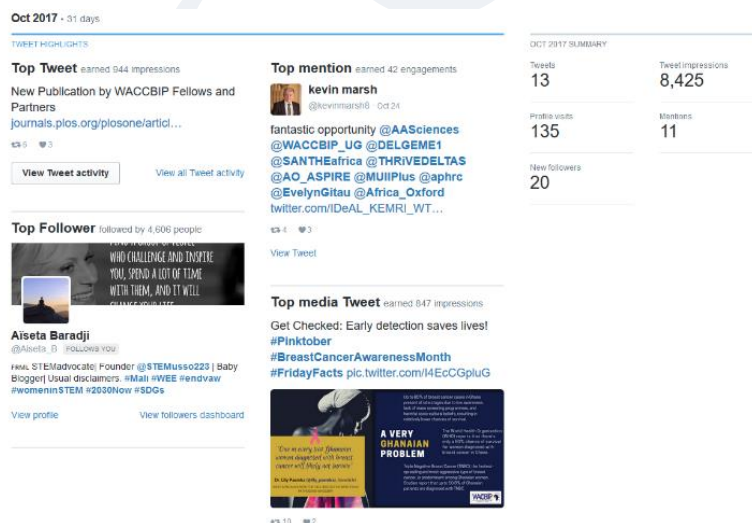
B: Overall status of implementation

1. Website Management

- Currently at the final stages of Website Development. Minor edits to be completed and final product to be launched in coming weeks.
- Process to migrate content from old website to new website nearing completion.

2. Social Media Management

- Weekly trend #FridayFacts was started to kickstart WACCBIP social media presence on October 27, 2017. The trend ran until January, 2018.
- Social media activity increased (production of content for Twitter and shared on Facebook page)
- Social media following continues to increase. Steady increase in number of impressions posts have made in the last year.





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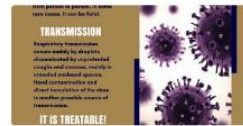


Dec 2017 - 31 days

TWEET HIGHLIGHTS

Top Tweet earned 2,392 impressions

"What is the H1N1 virus? Here are a few things you should know. #FridayFacts #SwineFlu" pic.twitter.com/cJom6ankUN



53.2K 15

[View Tweet activity](#)

[View all Tweet activity](#)

Top Follower followed by 2,992 people



Pontus Skoglund

@pontus_skoglund

DNA and the human past. Group leader of @theCrick Institute's ancient genomics lab.

[View profile](#)

[View followers dashboard](#)

Top mention earned 60 engagements

Charles Quaye
@ChaleC Dec 18

#BuruliUlcer awareness at #Jacabu #AmanseCentralDistrict Team and Participants ready. @WACCBIP_UG @NoguchiPara pic.twitter.com/xc7SSTpXX5



53.7 5

[View Tweet](#)

Top media Tweet earned 994 impressions

What is Buruli Ulcer? What are the potential diagnostic biomarkers?

Dr. Lydia Mosi (@msmos) gives some insight into the identification of specific metabolites in Mycobacterium ulcerans infection. pic.twitter.com/BTvBA0xWDN



53.7 5

[View Tweet](#)

DEC 2017 SUMMARY

Tweets	27	Tweet impressions	15K
Profile visits	401	Mentions	21
New followers	25		

Jan 2018 - 31 days

TWEET HIGHLIGHTS

Top Tweet earned 895 impressions

"If you want to tell an important story, you have to ask an important question."

Before giving his lecture on the dynamic organisation of the eukaryotic cell nucleus, Prof. Keith Gull encourages participants to engage and aim to learn. #WACCBIPASCB #WACCBIPOXFORD @Africa_Oxford pic.twitter.com/GlOKkFmQ4B



4.1 53.2 15

[View Tweet activity](#)

[View all Tweet activity](#)

Top Follower followed by 1,781 people



Asawasi Boy

@AsawaBoy

Top mention earned 145 engagements

Richard Wheeler
@Zephyris Jan 24

Joe McKenna and other Oxford Brookes researcher commissioning the new Airyscan Zeiss Confocal for @WACCBIP_UG in Ghana. It's now the best microscope in sub-Saharan Africa! Thanks to @WorldBankAfrica @AnneOsterrieder @joey_mck pic.twitter.com/R2cXWF17cx



4.4 53.14 22

[View Tweet](#)

Top media Tweet earned 685 impressions

The TrypTag team from @Dunn_School lead our #WACCBIPOXFORD participants in discussion of selected topics for Journal Club. @Africa_Oxford @eupathdb pic.twitter.com/C7jf82xP1



JAN 2018 SUMMARY

Tweets	30	Tweet impressions	14.7K
Profile visits	529	Mentions	41
New followers	32		

Activate Windows
Go to Settings to activate Windows.

Activate Windows
Go to Settings to activate Windows.

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Emails: Secretariat: waccbipadmin@ug.edu.gh | Centre Leader: waccbipleader@ug.edu.gh

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Mar 2018 - 31 days

TWEET HIGHLIGHTS

Top Tweet earned 2,402 impressions

Our research fellow Dr. @illy_paemka is on @Starr1035Fm this morning to talk about her research and how WACCBIP is shaping scientific research in Ghana. pic.twitter.com/JZ2ZUanJG



13 5 12

[View Tweet activity](#)

[View all Tweet activity](#)

Top Follower followed by 9,202 people



Abena Owusu Nyamekye

@Abenanyamekye [#Radio93.5](#)
Kept by the power of God! Broadcast Journalist, Producer @CHITVGH & @CH973 | Events Moderator | Fmr BU @ GHOne Tv, Starr Fm| mercynt4@gmail.com

[View profile](#)

[View followers dashboard](#)

Top mention earned 136 engagements

Gordon Awandare

@gordon_awandare Mar 23

WACCBIP-DELTA student Samuel Mawuli Adadey presenting his Hearing Impairment genetics research work at H3Africa consortium meeting in Entebbe, Uganda. @WACCBIP_UG @AAS_AESA pic.twitter.com/TFpinAg04d



4 1 13 15 25

[View Tweet](#)

Top media Tweet earned 2,060 impressions

And it's a wrap! Dr. Manful Gwira poses with #MorningStarr host, Mr. Francis Abban, after our conversation this morning. pic.twitter.com/8PoPg5BYh



MAR 2018 SUMMARY

Tweets

10

Profile visits

460

New followers

25

Tweet impressions

17.8K

Mentions

24

May 2018 - 31 days

TWEET HIGHLIGHTS

Top Tweet earned 2,676 impressions

Today, we began our tour of the Northern & Upper East Regions of Ghana, where we are engaging High School students on study & career options in the Sciences.

Our @AAS_AESA DELTAS Graduate Interns are visiting five schools to facilitate interactive learning sessions. pic.twitter.com/24pjiyP6c



4 3 14 20

[View Tweet activity](#)

[View all Tweet activity](#)

Top Follower followed by 5,791 people



Top mention earned 251 engagements

Kevin Marsh

@kevinmarsh111 May 11

Great pleasure for the @Africa_Oxford team to meet with HE Nana Akufo-Addo president of #Ghana today @GhanainUK @WACCBIP_UG @Kesh_Anne @Kuukuwa_ @OxAfricaCon @UniofOxford pic.twitter.com/Z4gFwmRqy5



4 1 11 17 37

[View Tweet](#)

Top media Tweet earned 2,389 impressions

Our first day was excellent!

We talked in ride of the Tamala Girls' Senior

MAY 2018 SUMMARY

Tweets

23

Profile visits

946

New followers

26

Tweet impressions

25.3K

Mentions

43

Jun 2018 - 30 days

TWEET HIGHLIGHTS

Top Tweet earned 2,037 impressions

Today, we open up the doors to our new home.

We're excited to be joined by the Hon. Minister of State (Tertiary Education), Prof. Kwesi Yankah & our @UnivGh_VC, Prof. Ebenezer Oduro Owusu, who will do us the honour of commissioning our Centre building. pic.twitter.com/rngsSykVpI



4 1 12 12 31

[View Tweet activity](#)

[View all Tweet activity](#)

Top Follower followed by 1,863 people



Top mention earned 314 engagements

Gordon Awandare

@gordon_awandare Jun 13

The WACCBIP malaria team making a strong showing at #GEM18. @WACCBIP_UG @malarigenomics pic.twitter.com/01FIW5HCS3



4 1 14 14 37

[View Tweet](#)

Top media Tweet earned 1,753 impressions

It's official our new home is open! Welcome to our home! pic.twitter.com/9ZjufvUh7A



JUN 2018 SUMMARY

Tweets

32

Profile visits

1,026

New followers

81

Tweet impressions

39.7K

Mentions

78

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Emails: Secretariat: waccbipadmin@ug.edu.gh | Centre Leader: waccbipleader@ug.edu.gh

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3. Public Engagement

- a. All community medical outreach events completed successfully. Overall, more than 800 persons have attended the events.
- b. Media appearances were very successful. Resource persons were asked to return. Several callers left requests for further consultation with resources persons.
- c. Three successful appearances by Drs Paemka, Gwira, and Aniweh on morning show segment, "The Horizon". High engagement rate on Twitter and Facebook. Radio station has asked to feature more WACCBIP researchers.
- d. TIBA community outreach event in Ewim, Cape Coast, completed successfully. WACCBIP Faculty engaged members of the community on malaria prevention and treatment. Also, a public forum on malaria was organised at the University of Cape Coast to mark World Malaria Day. Both events attracted good media attention.
- e. Senior High Schools Tour completed successfully. Significant impact made on schools visited with several requests from other schools to have the programme brought to their schools as well. Solid testament to the success of the DELTAS Graduate Internship Programme as outreach tour was exclusively facilitated by Graduate Interns.
- f. Sponsorship programme for contestants of the National Science & Maths Quiz to be rolled out and sustained for next three years. Contestants from the winning school, the second-placed school, and the best-performing girls' school will be hosted for two weeks in a cell & molecular biology training course. Communication & Public Engagement Unit has already sounded out media outlets on covering the programme as part of running TV shows. Talks still in progress.

4. Brand Item Development

- a. Rolled out first issue of quarterly newsletter. Preliminary feedback has been generally good. Second issue to be sent out before end of July.
- b. Created a brochure with information on WACCBIP equipment. The brochure has been used during College fair and ACE Higher Education Fair.



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- c. Departmental brochure designed and submitted for faculty comments and edits.
- d. New WACCBIP brochure designed.
- e. Successfully created a consistent brand identity for WACCBIP reflected in all brand materials.

C: Planned activities for next year (indicate dates where possible)

1. Website Management

- a. Begin a 'Meet Our People' series on new WACCBIP website. The series will feature profiles of faculty and fellows and highlight key partners of the Centre.

2. Social Media Management

- a. Improve social media engagement with more targeted content featuring specific research conducted at WACCBIP translated for a non-scientific audience.
- b. Incorporate YouTube and Instagram into social media communication.

3. Public Engagement

- a. Senior High Schools Outreach Tour. Schools in the Brong-Ahafo & Upper East Regions to be prioritised. Plan to be refined and finalised by close of year.

4. Brand Management

- a. Create brand identity for new WACCBIP initiative, 'African Science Initiative', with Dr. Yaw Bediako. The initiative seeks to create an official network for collaboration and interaction among young African scientists.

Head of Unit

Name: Solomon Katachie

Signature:

Date: 4th July, 2018



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HEAD OF UNITS ANNUAL REPORT FORM

Name of Unit: ICT - Electronic Resources

A: Activities during the last year (Attach relevant supporting documents)

1. Supervision, installation and commissioning of Surveillance System in the Biochemistry Building
2. Preparation of Bill of Quantities and specifications for Local Area Network, WIFI, Audio-Visual and Surveillance equipment for new WACCBIP building
3. Worked with UGCS Team to extend the University's Internet backbone to the new WACCBIP building
4. Supervision of IT Infrastructure, CCTV and Audio-Visual installation in the new WACCBIP building

B: Overall status of implementation

1. Over 90% of all activities were completed
2. Additional resources are needed to address the rest

C: Planned activities for next year (indicate dates where possible)

1. Start document management and digitisation of project records through acquisition of hardware, software and training to support
2. Work closely with management and Project Director to extend Information Literacy course to Masters' students
3. Train students, researchers and faculty in Research Data Management techniques to attract funding and efficient management of research projects
4. Continue to monitor and advise on IT resources to support the project mandate

Head of Unit

Name: Barfi-Adomako Owusu

Signature:

Date: July 6, 2018

DELTAS PROJECT

FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2017

Contents	Pages
Project management information	1
Project background	2
Report by the Project Management Team	3
Independent auditor's report	4 - 6
Financial statements:	
Statement of Receipts and Payments	7
Notes	8 - 10

PROJECT MANAGEMENT INFORMATION

Project Management Team	Prof. Gordon Awandare – Director Prof Kwadwo Koram – Deputy Director Dr. Anita Ghansah – Genetics Project Coordinator Prof. Diakite Mahamadou – Collaborator, MRTC Dr. Alfred Amambua Ngwa – Collaborator, MRC Dr. Faith Osier – Collaborator, KEMRI Prof. Ambroise Wonkam – Collaborator, UCT Prof. Dominic Peter Kwiatkowski – Collaborator, Oxford Prof. Mark Carrington – Collaborator, Cambridge Prof. David Joseph Conway – Collaborator, LSHTM Prof. Solomon Fiifi Ofori-Acquah – Collaborator, Pittsburgh Dr. Patrick Arthur – Head Of Research And Training Dr. Osbourne Quaye – Head Of Monitoring & Evaluation Mr. Emmanuel O. Ghartey – Administrator Mr. Collins Amofah – Finance Manager Prof. Dorothy Yeboah-Manu – Postdoctoral Programme Coordinator Dr. Lucas Amenga-Etego – Bioinformatics Coordinator Dr. Lydia Mosi – Logistics Coordinator Dr. Theresa Manful – Graduate Admissions & Examinations Coordinator Mr. Barfi Adomako – Co-Head ICT – Electronic Resources Ms. Ama Gyakyewaa Dadson – Co-Head ICT – Physical Resources Ms. Constance Cocke – Procurement Officer
Registered office	West African Centre for Cell Biology of Infectious Pathogens (WACCBIP) Dept. of Biochemistry, Cell and Molecular Biology College of Basic and Applied Sciences University of Ghana P.O. Box LG 54 Legon, Accra
Auditor	PricewaterhouseCoopers Chartered Accountants No. 12 Airport City UNA Home 3 rd Floor PMB CT 42 Cantonments, Accra
Bankers	Standard Chartered Bank Ghana Ltd

PROJECT BACKGROUND

West African Centre for Cell Biology of Infectious Pathogens (WACCBIP) - Wellcome Trust DELTAS Project is sponsored by Wellcome Trust located in the United Kingdom.

The objectives of the Project are:

- to provide a structured research training platform to synergize with existing genetics training projects led by the H3Africa network;
- to develop a post-doctoral project to help keep newly qualified PhDs in Africa and attract African scientists who have completed their PhDs abroad to return home. These postdoctoral fellows will conduct supervised research at WACCBIP and its regional partner institutions;
- to strengthen the co-supervisor system through a Student Visitor project, so that PhD students and postdocs will be funded for six-month visits to the laboratories of co-supervisors in the UK or USA to hone their research skills;
- to strengthen the mentoring system so each postdoctoral and PhD trainee will have a local mentor and access to advice from a UK or US scientist; and
- to develop a short course in research ethics that will be run annually to train young African scientists on responsible conduct.

The project is implemented by the West African Centre for Cell Biology of Infectious Pathogens (WACCBIP) and the financial management is handled by the finance department of the office of Research, Innovation and Development of University of Ghana.

The Project is for the period 1 September 2015 to 31 August 2020.

REPORT BY THE PROJECT MANAGEMENT TEAM

The Project Management Team has the pleasure in submitting their report and the audited financial statements of the project for the year ended 31 December 2017.

Statement of responsibility by the Project Management Team


The Project Management Team is responsible for the fair presentation of the financial statements for the period which presents in all material respects funds received and expenditure incurred for the year. In preparing the financial statements, the Project Management Team has selected suitable accounting policies and applied them consistently and followed the cash basis of accounting as indicated on page 8.

The Project Management Team is responsible for ensuring that the project keeps proper accounting records that disclose with reasonable accuracy at any time the cash position of the Project. The Project Management Team is also responsible for safeguarding the assets of the Project and taking reasonable steps for the prevention and detection of fraud and other irregularities.

Results for the year

The Statement of Receipts and Payments on page 7 shows a balance for the year of **US\$137,977** (2016: US\$665,259).

Director:


.....

GORDON AWANDARE

30 April 2018

**INDEPENDENT AUDITOR'S REPORT
TO THE BOARD OF THE DELTAS PROJECT**

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

Our opinion

In our opinion, the accompanying financial statements of the Deltas Project for the year ended 31 December 2017 are prepared, in all material respects, in accordance with the financial reporting provisions of the project described in note 1 to the financial statements.

What we have audited

We have audited the financial statements of the Deltas Project (the "Project") for the year ended 31 December 2017.

The financial statements on pages 7 to 10 comprise:

- the Statement of Receipts and Payments for the year ended 31 December 2017; and
- the notes to the financial statements, which include a summary of significant accounting policies.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Deltas Project and the Office of Research and Development (ORID) of the University of Ghana and its donors in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code). We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

Other information

The Project Management Team is responsible for the other information. The other information comprises Report of the Project Management Team but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

**INDEPENDENT AUDITOR'S REPORT
TO THE BOARD OF THE DELTAS PROJECT (continued)**

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS (continued)

Other information (continued)

If, based on the work we have performed on the other information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Emphasis of Matter – Basis of Accounting and Restriction on Distribution and Use

We draw attention to note 1 to the financial statements which describes the basis of accounting. The financial statements are prepared to assist the Project Management Team to report to the Board of Deltas Project. As a result, the financial statements may not be suitable for another purpose. Our report is intended solely for the use of the Project Management Team and the Board of Deltas Project and should not be distributed to or used by parties other than the Project Management Team and the Board of Deltas Project. Our opinion is not modified in respect of this matter.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation of the financial statements in accordance with the financial reporting provisions of the agreement, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the project's ability to continue as a going concern. Under the terms of the grant agreement, the project will end on 31 August 2020.

Those charged with governance are responsible for overseeing the project's financial reporting process.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

**INDEPENDENT AUDITOR'S REPORT
TO THE BOARD OF THE DELTAS PROJECT (continued)**

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS (continued)

Auditor's responsibilities for the audit of the financial statements (continued)

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Project's internal control;
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management; and
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the project's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Project to cease to continue as a going concern.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

The engagement partner on the audit resulting in this independent auditor's report is Michael Asiedu-Antwi (ICAG/P/1138).



PricewaterhouseCoopers (ICAG/F/2018/028)
Chartered Accountants
Accra, Ghana
30 April 2018



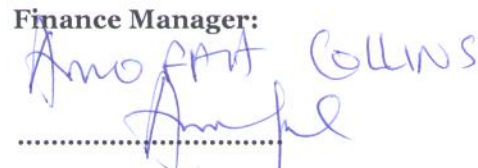
STATEMENT OF RECEIPTS AND PAYMENTS
 (All amounts are expressed in US Dollars)

	Note	Year ended 31 December	
		2017	2016
Receipts			
Funds received	2	<u>1,373,205</u>	<u>885,433</u>
Payments			
Staff costs	3	112,354	78,436
Materials and consumables	4	86,336	164,810
Equipment	5	67,567	658,455
Travel	6	51,453	63,148
Communication	7	27,048	5,137
Fellowship costs	8	776,944	463,774
Training	9	4,207	3,927
Workshops	10	65,124	58,209
Other	11	42,262	51,586
Funding and inflation allowance	12	<u>1,933</u>	<u>3,210</u>
Total		<u>1,235,228</u>	<u>1,550,692</u>
Surplus/(deficit) for the year		<u>137,977</u>	<u>(665,259)</u>
Balance at 1 January		223,074	888,333
Surplus/(deficit) for the year		<u>137,977</u>	<u>(665,259)</u>
Fund Balance at 31 December	13	<u>361,051</u>	<u>223,074</u>

The Statement of Receipts and Payments and accompanying notes on pages 8 to 10 were approved by the Project Management Team on³⁰April 2018 and signed on its behalf by:

Project Director:


Name and Signature

Finance Manager:


Name and Signature

NOTES

1. Accounting policies

The principal accounting policies adopted in the preparation of the financial statements are set out below:

(a) Basis of accounting

The financial statements have been prepared using the cash basis of accounting.

(b) Receipts

Transfers from Wellcome Trust are recognized as receipt when received into the bank account of the WACCBIP of the University of Ghana.

(c) Payments

Expenditure is recognised when payment is made.

(d) Foreign currencies

Functional and presentation currency

The financial statements are presented in United States Dollars which is the presentation currency of the Project. The functional currency is US Dollars.

Transactions denominated in currencies other than US Dollars are translated into US Dollars and recorded at the exchange rate prevailing at the date of the transaction. Foreign exchange gains and losses arising from the translation of year end balances of monetary assets and liabilities denominated in currencies other than the presentation currency are recognised in the statement of receipts and payments.

(e) Capital Expenditure

Capital expenditure is expensed on acquisition.

(f) Cash and bank balance

Cash and bank balance consist of cash in hand and deposits held with Standard Chartered Bank Ghana Limited.

NOTES (continued)

(All amounts are expressed in US Dollars unless otherwise stated)

	Year ended 31 December	
	2017	2016
2. Funds received		
Transfers from African Academy of Sciences	1,373,205	934,098
Refund of travelling expense	<u>-</u>	<u>7,081</u>
	<u>1,373,205</u>	<u>941,179</u>
3. Staff costs		
Responsibility allowances	92,852	77,426
Other staff costs	<u>19,502</u>	<u>1,010</u>
	<u>112,354</u>	<u>78,436</u>
4. Materials and consumables		
Office supplies, fuel and liquid nitrogen	10,391	18,187
General laboratory consumables and reagents	29,739	116,623
Water and electricity	<u>46,206</u>	<u>30,000</u>
	<u>86,336</u>	<u>164,810</u>
5. Equipment		
Pickup truck	-	37,639
Classroom furniture for PhD lecture room	-	4,813
High-capacity computers and heavy-duty photocopier	-	19,490
Ultra-low freezers	5,406	38,935
Real time PCR machines	-	74,625
ICT infrastructure	9,397	4,534
E-resources	10,520	10,000
Other equipment	<u>42,244</u>	<u>468,419</u>
	<u>67,567</u>	<u>658,455</u>
6. Travel		
Implementation meetings (travel component)	7,884	7,004
Supervisor's travel and other expenses	15,853	37,757
Travel and subsistence for student visitor fellows	16,162	-
General travels	<u>11,554</u>	<u>18,387</u>
	<u>51,453</u>	<u>63,148</u>
7. Communication		
Newsletters and public engagements	12,540	5,137
Research publication costs	<u>14,508</u>	<u>-</u>
	<u>27,048</u>	<u>5,137</u>

NOTES (continued)

(All amounts are expressed in US Dollars unless otherwise stated)

	Year ended 31 December	
	2017	2016
8. Fellowship costs		
Post-doctoral fellowships	502,027	382,541
PhD fellowships	262,898	74,225
Graduate interns	<u>12,019</u>	<u>7,008</u>
	<u>776,944</u>	<u>463,774</u>
9. Training		
Staff training	<u>4,207</u>	3,927
	<u>4,207</u>	<u>3,927</u>
10. Workshops		
Annual research conference	28,777	42,513
Other workshops	<u>36,347</u>	<u>15,696</u>
	<u>65,124</u>	<u>58,209</u>
11. Other		
Implementation committee meeting	-	2,724
Facilities management and security	25,954	20,725
Procurement	-	14,490
Advisory board meetings	-	116
External financial audits	7,700	4,406
Student recruitment costs	<u>4,322</u>	-
Equipment and vehicle maintenance costs	<u>4,286</u>	<u>9,125</u>
	<u>42,262</u>	<u>51,586</u>

12. Funding and inflation allowance

This represents bank charges related to the project

13. Fund balance

This represents the cash balance of the project as at 31 December 2017 held in the pool bank accounts of WACCBIP of University of Ghana.

14. Commitments

There were no commitments as at the report signing date.

15. Unretired advances

Included in the payments for the year are advances to Partners and PhD students amounting to US\$242,731 which are yet to be retired at the reporting date.

AFRICA HIGHER EDUCATION CENTERS OF EXCELLENCE PROJECT
FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2017

Africa Higher Education Centers of Excellence Project
Year ended 31 December 2017

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PROJECT MANAGEMENT INFORMATION

Project Management Team

Prof. Gordon Awandare- Director
Prof Kwadwo Koram- Deputy Director
Prof. Diakite Mahamadou- Collaborator, MRTC
Dr. Alfred Amambua Ngwa- Collaborator, MRC
Dr. Cisse Mamoudou- Collaborator, Centre Muraz
Dr. Sodiomon B. Sirima- Collaborator, CNRFP
Prof. Bassirou Bonfoh- Collaborator, CSRS
Dr. Olukemi K. Amodu- Collaborator, CoM-UI
Dr. Bismarck Dinko- Collaborator, UHAS
Dr. Kwaku Poku Asante- Collaborator, KHRC
Dr. Lucas Amenga-Etego- Collaborator, NHRC
Dr. Paul A. Lartey- Collaborator, LaGray
Dr. Mohamed Mutocheluh- Collaborator, KNUST
Dr. Gideon Helegbe- Collaborator, UDS
Dr. Juliana Ameh- Collaborator, LEKMA
Dr. Patrick Arthur- Head of Research And Training
Dr. Osbourne Quaye- Head of Monitoring & Evaluation
Mr. Emmanuel O. Ghartey- Administrator
Mr. Collins Amofah- Finance Manager
Dr. Lydia Mosi- Logistics Coordinator
Dr. Theresa Manful- Graduate Admissions & Examinations
Coordinator
Mr. Barfi Adomako- Co-Head ICT – Electronic Resources
Ms. Ama Gyakyewaa Dadson- Co-Head ICT – Physical
Resources
Ms. Constance Cocke- Procurement Officer

Registered office

West African Centre for Cell Biology of Infectious Pathogens
(WACCBIP)
Dept. of Biochemistry, Cell and Molecular Biology
College of Basic and Applied Sciences
University of Ghana
P.O. Box LG 54
Legon, Accra

Auditor

PricewaterhouseCoopers
Chartered Accountants
No. 12 Airport City
UNA Home 3rd Floor
PMB CT 42
Cantonments, Accra

Bankers

Standard Chartered Bank Ghana Ltd

REPORT OF THE PROJECT MANAGEMENT TEAM

The Project Management Team has the pleasure in submitting their report and the audited financial statements of the Project for the year ended 31 December 2017.

Statement of responsibility by the Project Management Team

The Project Management Team is responsible for the presentation of the financial statements for the period which presents in all material respects funds received and expenditure incurred for the year. In preparing the financial statements, the Project Management Team has selected suitable accounting policies and applied them consistently and followed the cash basis of accounting as indicated on page 8.

The Project Management Team is responsible for ensuring that the Project keeps proper accounting records that disclose with reasonable accuracy at any time the cash position of the Project. The Project Management Team is also responsible for safeguarding the assets of the Project and taking reasonable steps for the prevention and detection of fraud and other irregularities.

Results for the year

The Statement of Receipts and Payments on page 7 shows a surplus for the year of **US\$633,655** (2016: US\$1,462,620).

Director:

GORDON AWANBARA


30 April 2018

PROJECT BACKGROUND

The Africa Higher Education Centers of Excellence Project is sponsored by International Development Association. The Project is implemented by the West African Center for Cell Biology of Infectious Pathogens (WACCBIP) at the University of Ghana and seeks to improve diagnosis, prevention and control of infectious diseases in sub-Saharan Africa by providing advanced level training and research excellence on the cell and molecular biology of infectious pathogens.

The objectives of the Project are:

- to develop and run short-term projects (2-4 week long workshops/courses) targeting professionals in the health delivery sector, including physicians, pharmacists, and senior laboratory personnel, to improve their knowledge of disease pathogenesis and modern methods of diagnosis and treatment;
- to run 3-6 month long research internships projects for trainee biomedical scientists and hospital laboratory technologists, to provide experiential training on research design, specialized techniques, and team building skills; and
- to develop and run new Masters and PhD projects in Molecular Cell Biology, targeting career biomedical scientists in Universities and Health research institutions. This is in addition to the already existing programs at BCMB (MSc/MPhil Biochemistry, MPhil Molecular Biology and PhD Biochemistry).

The project spans a period from 10 April 2015 to 31 December 2018.

**INDEPENDENT AUDITOR'S REPORT
TO THE BOARD OF AFRICA HIGHER EDUCATION CENTERS OF EXCELLENCE PROJECT**
REPORT ON THE AUDIT OF FINANCIAL STATEMENTS

Our opinion

In our opinion, the accompanying financial statements of the Africa Higher Education Centers of Excellence Project for the year ended 31 December 2017 are prepared, in all material respects, in accordance with the financial reporting provisions of the project as described in note 1 to the financial statements.

What we have audited

We have audited the financial statements of the Africa Higher Education Centers of Excellence Project (the "Project") for the year ended 31 December 2017.

The financial statements on pages 7 to 10 comprise:

- the Statement of Receipts and Payments for the year ended 31 December 2017; and
- the notes to the financial statements, which include a summary of significant accounting policies.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Africa Higher Education Centers of Excellence Project, Office of Research and Development (ORID) of the University of Ghana and its donors in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code). We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

Other information

The Project Management Team is responsible for the other information. The other information comprises the Report of the Project Management Team but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

**INDEPENDENT AUDITOR'S REPORT
TO THE BOARD OF AFRICA HIGHER EDUCATION CENTERS OF EXCELLENCE PROJECT
(continued)**

REPORT ON THE AUDIT OF FINANCIAL STATEMENTS (continued)

Emphasis of Matter - Basis of Accounting and Restriction on Distribution and Use

We draw attention to note 1 to the financial statements which describes the basis of accounting. The financial statements are prepared to assist the Project Management Team to report to the board of Africa Higher Education Centers of Excellence Project. As a result, the financial statements may not be suitable for another purpose. Our report is intended solely for the use of the Project Management Team and the Board of Africa Higher Education Centers of Excellence Project and should not be distributed to or used by parties other than the Project Management Team and the Board of Africa Higher Education Centers of Excellence Project. Our opinion is not modified in respect of this matter.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation of the financial statements in accordance with the financial reporting provisions of the Project, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Project's ability to continue as a going concern. Under the terms of the grant agreement, the project will end on 31 December 2018.

Those charged with governance are responsible for overseeing the project's financial reporting process.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

**INDEPENDENT AUDITOR'S REPORT
TO THE PROJECT MANAGEMENT TEAM OF AFRICA HIGHER EDUCATION CENTERS OF
EXCELLENCE PROJECT (continued)**

REPORT ON THE AUDIT OF FINANCIAL STATEMENTS (continued)

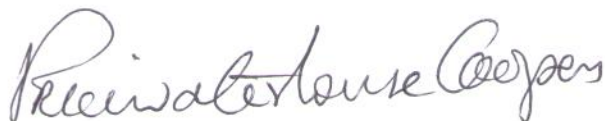
Auditor's responsibilities for the audit of the financial statements (continued)

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Project's internal control;
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management; and
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the project's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Project to cease to continue as a going concern.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

The engagement partner on the audit resulting in this independent auditor's report is Michael Asiedu-Antwi (ICAG/P/1138).




PricewaterhouseCoopers (ICAG/F/2018/028)
Chartered Accountants
Accra, Ghana
30 April 2018



STATEMENT OF RECEIPTS AND PAYMENTS
 (All amounts are expressed in US Dollars)

	Note	Year ended 31 December	
		2017	2016
Receipts			
Transfers from International Development Association	2	2,614,432	2,435,000
Other receipts	3	<u>75,470</u>	-
Total		<u>2,689,902</u>	<u>2,435,000</u>
Payments			
Achieving excellence in training	4	449,390	443,904
Improving learning experience	5	1,234,354	310,584
Develop regional partnerships and programs	6	22,022	38,705
Promote applied research	7	119,059	30,101
Management and governance establishment	8	153,760	113,385
Project management	9	74,553	31,871
Contingency	10	<u>3,109</u>	<u>3,830</u>
Total		<u>2,056,247</u>	<u>972,380</u>
Surplus for the year		<u>633,655</u>	<u>1,462,620</u>
Balance at 1 January		1,541,397	78,777
Surplus for the year		<u>633,655</u>	<u>1,462,620</u>
Fund Balance at 31 December	11	<u>2,175,052</u>	<u>1,541,397</u>

The Statement of Receipts and Payments and accompanying notes on pages 8 to 10 were approved by the Project Management Team on 30 April 2018 and signed on its behalf by:

Project Director:
 GORDON AWANDARE


 Name and Signature

Finance Manager:
 COLLINS AWOBAH


 Name and Signature

NOTES

1. Accounting policies

The principal accounting policies adopted in the preparation of the financial statements are set out below:

(a) Basis of accounting

The financial statements have been prepared using the cash basis of accounting.

(b) Receipts

Transfers are recognized as receipt when received in the bank accounts of WACCBIP of the University of Ghana.

(c) Payments

Expenditure is recognized when payment is made.

(d) Foreign currencies

Functional and presentation currency

The financial statements are presented in United States Dollars which is the presentation currency of the Project. The functional currency is Ghana Cedis.

Transactions denominated in currencies other than US Dollars are translated into US Dollars and recorded at the exchange rate prevailing at the date of the transaction. Foreign exchange gains and losses arising from the translation of year end balances of monetary assets and liabilities denominated in currencies other than the presentation currency are recognised in the statement of receipts and payments.

(e) Capital Expenditure

Capital expenditure is expensed on acquisition.

(f) Cash and Bank balance

Cash and bank balance consist of cash in hand and deposits held with Standard Chartered Bank Ghana Limited.

Africa Higher Education Centers of Excellence Project

Financial statements

Year ended 31 December 2017

NOTES (continued)

(All amounts are expressed in US Dollars unless otherwise stated)

	Year ended 31 December	
	2017	2016
2. Transfers from International Development Association		
First tranche	2,300,000	1,000,000
Second tranche	<u>314,432</u>	<u>1,435,000</u>
	<u>2,614,432</u>	<u>2,435,000</u>
3 Other receipts		
Interest on investment*	74,193	-
Bus hire	<u>1,277</u>	<u>-</u>
	<u>75,470</u>	<u>-</u>
<p>*The Project Management invested an amount of US\$1,000,000 (GHS4,070,000) in fixed deposit with IDEAL Capital Partners in January 2017. The annual interest on the investment is US\$135,473 out of which US\$74,193 was received on 20 July 2017.</p>		
4. Achieving excellence in training		
Obtain international accreditation for new curricula	4,487	15,819
Enrol new students and support training of existing students in Mphil	148,480	130,411
Enrol new students and support training of existing students in PhD	271,878	267,398
Outreach event targeting women and minority groups	3,166	1,737
Develop and run curricula for existing and new short courses	<u>21,379</u>	<u>28,539</u>
	<u>449,390</u>	<u>443,904</u>
5. Improving learning experience		
Refurbish and upgrade ICT infrastructure, purchase software	312,899	146
Provision of new lecture and seminar rooms, conference room and offices	334,626	817
Upgrade cell biology core facility	416,685	238,020
Upgrade research laboratories	156,647	67,485
Faculty Exchange programs with regional and national institutions	-	1,175
Engagement of international faculty for teaching courses, workshops and co-supervision of students	<u>13,497</u>	<u>2,941</u>
	<u>1,234,354</u>	<u>310,584</u>
6. Develop regional and national partnerships and programs		
Maintain active website for showcasing centre's activities and available opportunities	7,175	157
Engagement of regional faculty for teaching and co-supervision of student research	1,201	-
Conduct outreach programs and seminar/lecture tours regionally	428	-
Provide travel awards for regional students and faculty for short research visits	<u>13,218</u>	<u>38,548</u>
	<u>22,022</u>	<u>38,705</u>

NOTES (continued)

(All amounts are expressed in US Dollars unless otherwise stated)

		Year ended 31 December	
		2017	2016
7.	Promote applied research		
	Support centre projects across partner institutions that provide students high quality experience in research	47,978	5,891
	Support short training and research visits for faculty and students outside the ACE	26,333	24,210
	Support incubator projects at the centre	17,701	-
	Investigating the aetiology of febrile illness in Ghana	27,047	-
		<u>119,059</u>	<u>30,101</u>
8.	Management and governance establishment		
	Ensure regular meetings of international advisory board, steering committee and the two subcommittees	13,575	15,220
	Maintain administrative support team for the centre	136,668	89,204
	Purchase equipment, furniture and office supplies for administrative team	<u>3,517</u>	<u>8,961</u>
		<u>153,760</u>	<u>113,385</u>
9.	Project management		
	This represents expenditure made on administrative aspects of the project, including audit fees and insurance.		
10.	Contingency		
	This represents bank charges for the year.		
11.	Fund balance		
	This represents cash balance of the project at year end held in the pool bank accounts of WACCBIP of University of Ghana and investment in fixed deposit with IDEAL Capital Partners.		
12.	Commitments		
	There were no commitments as at the report signing date.		
13	Unretired advances		
	Included in the payments for the year are advances to Partners and PhD students amounting to US\$22,885 which are yet to be retired at the reporting date.		

AFRICA HIGHER EDUCATION CENTERS OF EXCELLENCE PROJECT

**WEST AFRICAN CENTRE FOR CELL BIOLOGY OF INFECTIOUS PATHOGENS
(WACCBIP)**

FACTUAL FINDINGS REPORT

FOR THE YEAR ENDED 31 DECEMBER 2017

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PRIVATE & CONFIDENTIAL

The Project Management Team
West African Centre for Cell Biology of Infectious Pathogens (WACCBIP)
Dept. of Biochemistry, Cell and Molecular Biology
College of Basic and Applied Sciences
University of Ghana
P. O. Box LG 54
Legon

30 April 2018

Dear Sirs

REPORT OF FACTUAL FINDINGS TO THE PROJECT MANAGEMENT TEAM OF WEST AFRICAN CENTRE FOR CELL BIOLOGY OF INFECTIOUS PATHOGENS (WACCBIP)

We have performed the procedures agreed with you and enumerated below with respect to externally generated funds by West African Centre for Cell Biology of Infectious Pathogens (WACCBIP) for the year ended 31 December 2017 as set forth in the accompanying schedule (Appendix 1).

Our engagement was undertaken in accordance with the International Standard on Related Services applicable to agreed-upon procedures engagements. The procedures were performed solely to assist you meet the requirements of Indicator 4 in the Monitoring and Evaluation (M&E) report of the Africa Higher Education Centers of Excellence Project Financing Agreement between Republic of Ghana and International Development Association. The procedures we performed are summarised as follows:

1. Obtained from management a schedule, "Externally Generated Funds" other than receipts from the World Bank for the period 1 January 2017 to 31 December 2017.
2. Tested to ascertain whether the schedule of Externally Generated Funds include the following details as defined in Appendix 2.
 - Amount (US\$)
 - Original amount
 - Source
 - Date of receipt
 - Account
 - Region and
 - Purpose of funds
3. Obtained from management original monthly bank statements for the period 1 January 2017 to 31 December 2017.
4. Agreed information on the bank statements for the period 1 January 2017 to 31 December 2017 to information contained in the schedule of externally generated funds in respect of the original amount, date of receipt and account number.



5. Obtained project agreement documents from management and agreed information on the schedule of externally generated funds in respect of the source of the amount, region and purpose of funds to the project agreement document.
6. Agreed the original currency amounts shown in the schedule of externally generated funds to the disbursement notifications/transmittal letters from external donors where available.

We report our findings below:

For procedures 1 to 6, we noted no exceptions.

Because the above procedures do not constitute either an audit, review or other assurance engagement made in accordance with International Standards on Auditing, International Standards on Review Engagements or International Standards on Assurance Engagements, we do not express any assurance on the West African Centre for Cell Biology of Infectious Pathogens (WACCBIP)'s externally generated funds for the year ended 31 December 2017.

Had we performed additional procedures or had we performed an audit or review of, or other assurance engagement on the externally generated funds for the year ended 31 December 2017 in accordance with International Standards on Auditing, International Standards on Review Engagements or International Standards on Assurance Engagements, other matters might have come to our attention that would have been reported to you.

The report is supplied on the basis that it is for the sole use of the parties to whom it is addressed and exclusively for the purposes set out herein. No party other than those to whom it is addressed may rely upon this report for any purpose whatsoever.

Copies of our report may be made available to your advisors provided that it is clearly understood by the recipients that they enjoy such receipt for information only and that we accept no duty of care to them in respect of our reports and letters. Furthermore, the reports and letters are to be used by them only for the purposes stated herein. The report must not be made available or copied in whole or in part to any other party without our prior written consent, which consent may be given or withheld at our absolute discretion. This limitation will obviously not apply to the provision of this report in compliance with any order or court, subpoena or other judicially enforceable directive.

This report relates only to the externally generated funds and the items specified above and do not extend to any financial statements of West African Centre for Cell Biology of Infectious Pathogens (WACCBIP), taken as a whole.

A handwritten signature in black ink, appearing to read 'Michael Asiedu-Antwi', written over a faint, illegible printed name.

Michael Asiedu-Antwi
Director

30 April 2018

Appendix 1 – Externally Generated Funds other than receipts from the World Bank for the period 1 January 2017 to 31 December 2017

AMOUNT (USD)	ORIGINAL AMOUNT	SOURCE	DATE OF RECEIPT	ACCOUNT	REGION	PURPOSE OF FUNDS
23,000	USD 22,975	Ministry of Education, Gambia	15-Feb-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 8701575839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	PhD Training- Sheriffo Jagne
340	USD 340	University of Sheffield Finance Department, UK	7-Mar-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 8701575839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Europe	Bus Rental Fees
498,621	USD498,621	African Academy of Sciences, Kenya	20-Mar-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 8701575839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	Graduate internship, PhD, Post-Doctoral, Short course trainees and Student Visitor Fellowships for PhD students
659.34	GHS 3,000	UG-Animal Biology Department, University of Ghana	31-Mar-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 0100175839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	Bus Rental Fees

Appendix 1 – Externally Generated Funds other than receipts from the World Bank for the period 1 January 2017 to 31 December 2017
(continued)

AMOUNT (USD)	ORIGINAL AMOUNT	SOURCE	DATE OF RECEIPT	ACCOUNT	REGION	PURPOSE OF FUNDS
10,000	USD 9,975	John Hopkins University, USA	6-Oct-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 8701575839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	America	Sample collection for a joint research project with John Hopkins University
277.78	GHS 1,200	Institute of Internal Auditors, Ghana	8-Jun-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 0100175839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	Bus Rental Fees
1,500	USD 1,475	Inqaba Biotec West Africa Ltd	30-Jun-17	UG-West African Centre for Cell Biology of Infectious Pathogens - 8701575839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	Sponsorship for research conference
462.96	GHS 2,000	DCL Laboratory Products Ltd	17-Jul-17	UG-West African Centre for Cell Biology of Infectious Pathogens - 100175839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	Sponsorship for research conference
5,534.83	£4,416.54	Royal Society of Tropical Medicine and Hygiene, London	17-Jul-17	UG-West African Centre for Cell Biology of Infectious Pathogens - 8701575839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Europe	Research grant for research assistants

**Appendix 1 – Externally Generated Funds other than receipts from the World Bank for the period 1 January 2017 to 31 December 2017
(continued)**

AMOUNT (USD)	ORIGINAL AMOUNT	SOURCE	DATE OF RECEIPT	ACCOUNT	REGION	PURPOSE OF FUNDS
74,192.88	GHS 320,513.22	IDEAL Capital, Ghana	19-Jul-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 100175839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	Interest on investment (Fixed Deposit)
22,662.25	USD22,662.25	University of Ghana	11-Sep-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 8701575839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	UG Support to WACCBIP
495.519	USD 495.519	African Academy of Sciences, Kenya	11-Sep-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 8701575839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	Graduate internship, PhD, Post-Doctoral, Short course trainees and Student Visitor Fellowships for PhD students
1,000	GHS 4,360	MES Equipment Limited, Ghana	27-Oct-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 0100175839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	Sponsorship for research conference
379,065	USD379,065	African Academy of Sciences, Kenya	27-Dec-2017	UG-West African Centre for Cell Biology of Infectious Pathogens - 8701575839100 Standard Chartered Bank, Legon Branch, Accra, Ghana	Africa	Graduate internship, PhD, Post-Doctoral, Short course trainees and Student Visitor Fellowships for PhD students



Appendix 2 – Header definitions

Header	Definition
Amount (USD)	The amount presented in the grant agreement with the donor.
Original amount	The amount as received from the source and including appropriate currency symbol.
Source	Origin of funds – name of organisation, institution or individual from whom funds were received.
Date of receipt	The date on which the amount was credited to the designated account.
Account	Name and number of accounts where funds were lodged; also name and address of bank.
Region	Indicate whether funds source is from Africa, Europe, Asia, North or South America.
Purpose of funds	Indicate what funds were given for exactly.

WEST AFRICAN CENTRE FOR CELL BIOLOGY OF INFECTIOUS PATHOGENS

IMPREST POLICY FOR FELLOWS

1. All requests for imprest should be accompanied with the fellow's request form.
2. All requests for imprest and reimbursement for imprest overspend should be approved by the fellow's supervisor.
 - Such overspend should usually not exceed **20%** of the imprest received. Therefore, it is advisable to retire imprest as soon as it is finished, so that a new imprest can be given.
3. Imprest can only be requested to the tune of **GHS 5,000.00** for post-doctoral fellows and PhD students, and **GHS 3,000.00** for MPhil students.
4. A separate request must be made for payment exceeding **GHS 300.00** for payment to be made directly to the vendor. This should be supported with appropriate invoices, request form and approval by the fellow's supervisor (where applicable).
5. No expense which was not presented in the budget during the request for imprest should be paid with the imprest. If it becomes necessary to pay for such an expense from your imprest, the fellow should refer to the WACCBIP Accounts Officers via mail (waccbipaccounts@ug.edu.gh/accountassist@waccbip.org) or via call on 0303-933223.
6. Any payment such as honorarium to personnel (e.g. lab/field assistants) exceeding GHS 200.00 should not be paid from imprest. In the case of the honorarium exceeding GHS 200.00, a separate request must be made indicating the names and contacts of the recipients. The centre will process individual cheques for them.
7. All expenditure should have receipts from the vendor from which they were purchased. An exception is made only for public transportation for which no receipt is obtained. Such expenses should be accounted for using the WACCBIP Acknowledgement of Payment form. The summary transport expense of each trip should be accounted for separately. Fellows are encouraged to use Uber or other transport services for which receipts can be obtained.
8. Upon retirement, each receipt should be numbered and a detailed narration of the expenditure for each receipt should be provided.
9. All travel imprests (eg. for conferences) must be retired within 2weeks of return from travel.

Failure of a fellow to adhere to these regulations makes him/her personally liable for the related expenses.



WACCBIP INTERNATIONAL TRAVEL POLICY

This policy serves to regulate all official international travels financed by WACCBIP. The policy shall apply except where a project has specific provisions for international travels.

1. General Guidelines

- 1.1. All travel requests shall be submitted to the secretariat at least two weeks before the expected departure date.
- 1.2. Travel request shall be made by submitting to the secretariat a completed travel request form. This shall be accompanied by relevant related documents (e.g. Copy of Passport biodata page, copy of conference invitation letter, copy of approved abstract, etc.).
- 1.3. A traveller shall ensure the possession of a valid passport and appropriate inoculation prior to making travel request.
- 1.4. A traveller shall be solely responsible for obtaining the valid passport and inoculation. WACCBIP shall not pay for these costs.
- 1.5. All travellers shall submit their boarding passes to the secretariat upon return from their trip.

2. Transportation

2.1. Air

- 2.1.1. Air travels shall be in Economy class.
- 2.1.2. A traveller who opts for a Business or First-class ticket shall be responsible for the related extra cost.
- 2.1.3. A traveller shall ensure that the information provided to the secretariat is accurate for the purchase of an air ticket.
- 2.1.4. WACCBIP shall directly purchase the air ticket for the traveller.
- 2.1.5. Alternately, a traveller may purchase his/her own ticket and apply for reimbursement from WACBIP if he/she has access to lower flight fares or if it is more convenient. The amount to be reimbursed however, shall



not exceed what the Centre would have paid in an arm's length transaction for a similar booking.

2.1.6. The following costs shall not be eligible for funding by WACCBIP:

- 2.1.6.1. Ticket cancellation costs.
- 2.1.6.2. Charges associated with change of name or travel dates.
- 2.1.6.3. No show charges attributable to personal negligence.
- 2.1.6.4. Airfare of family members or friends accompanying traveller.
- 2.1.6.5. Extra luggage charges for personal belongings except for initial settlement of foreign staff/fellows.

2.2. Ground

For persons travelling for a meeting organized by WACCBIP, necessary ground transportation will be provided throughout the meeting. Ground transportation from the airport to the accommodation, and from the accommodation to the programme venue will be provided.

3. Visas

- 3.1. Persons who require visa for their travel shall apply for the visa prior to making travel request.
- 3.2. Persons travelling to Ghana who require visa-on-arrival should carry cash on hand to pay for their visa.
- 3.3. Persons travelling to Ghana who require visa from their port of departure, shall apply for the visa and submit the necessary documents for reimbursement.
- 3.4. WACCBIP shall reimburse travellers for the cost of the visa application.
- 3.5. WACCBIP may issue introductory letters and other required documentation to aid visa application. However, WACCBIP has no power to expedite visa acquisition.



4. Lodging

4.1. For persons travelling outside Ghana, an accountable imprest shall be given for the payment of lodging. This shall be processed upon the submission of a booking confirmation showing the cost of lodging.

4.2. For persons travelling to Ghana, lodging shall be arranged through WACCBIP.

5. Subsistence

5.1 Staff/faculty travelling internationally shall be entitled to a non-accountable subsistence allowance of one hundred US dollars (\$100) daily.

5.2A person travelling for a project meeting (organized by a funder) shall be entitled to daily subsistence allowance (DSA) based on the rates published by the United Nations International Civil Service Commission Daily Subsistence Allowance Rates Report. This report is updated on a regular basis and rates payable would depend on the travel destination. The DSA shall be abated depending on the facilities provided as follows:

Facilities

DSA

- | | |
|--|-------------------------------------|
| i. No accommodation or meals provided | Full rate of DSA payable. |
| ii. Free accommodation provided without meals | Two thirds of the DSA rate payable |
| iii. Free meals provided without accommodation | Two thirds of the DSA rate payable. |
| iv. Free meals and accommodation provided | One third of the DSA rate payable. |

5.3 The DSA is applicable where the project allows for the payment of per diems. Otherwise, subsection 5.1 shall apply.

All subsistence payments shall be in United States Dollars (USD).

5.4 Subsistence for Fellows

5.4.1 Fellows travelling for conferences/workshops on travel awards shall be entitled to a non-accountable daily subsistence allowance of one hundred US dollars (\$100).

5.4.2 Fellows travelling for Conferences/workshops without travel award shall be entitled to an accountable imprest. This will cover meals and ground transportation.



5.4.3 Other incidental costs such as the use of laundry services, tips to waiters, telephone bills, etc. shall not be covered by the imprest. These are ineligible costs.

5.4.4 Imprest for subsistence shall be retired according to the provisions of the WACCBIP imprest policy.

6. Travel Insurance

6.1 WACCBIP shall provide travel insurance cover for all staff who are required to undertake authorized travels.

7. Vaccinations

7.1 All Staff should check the international health requirements of their destination countries and ensure that they have the necessary vaccinations. WACCBIP shall reimburse cost of vaccinations for staff undertaking approved WACCBIP travel.

8 Reimbursements

8.1 This section applies to persons who pre-finance any of their eligible travel expenses.

8.2 All expenses claims shall be submitted using the WACCBIP claim form. The form should be filled out electronically, printed and signed.

8.3 A traveller shall retain all receipts of transactions made and submit them together with the completed claim form.

8.4 Completed claim forms and accompanying receipts shall be submitted to the WACCBIP Accountant in person or via email (waccbipaccounts@ug.edu.gh or waccbipacc@gmail.com or accountassist@waccbip.org) no later than 30 days after the meeting/ travel.

8.5 Claims received after the 30 days will not be eligible for reimbursement.

8.6 Reimbursements shall be made via bank transfer or cheque.

8.7 A person requesting reimbursement shall ensure the accuracy of the bank details provided to the secretariat.



UNIVERSITY OF GHANA

West African Centre for Cell Biology of Infectious Pathogens

African Centre of Excellence for Higher Education
College of Basic and Applied Sciences



8.8 All foreign currencies transactions shall be reimbursed in U.S. dollars using the exchange rate as determined by the OANDA currency converter on the day processing payment.

WACBIP
UG

P. O. Box LG 54, Legon, Accra, Ghana | Tel: +233-303-933223

Emails: Secretariat: waacbipadmin@ug.edu.gh | Centre Leader: waccbipleader@ug.edu.gh

Mission: Improving diagnosis, prevention and treatment of infectious disease through advance training and research excellence

WACCBIP VEHICLE RENTAL POLICY

1. Request for the vehicle shall be made by a memo endorsed by the head of the requesting unit. The memo should indicate, among others, the following:
 - ✓ the destination of the trip
 - ✓ the dates and duration of the trip
 - ✓ the nature of the trip (return trip or sleep-over).
2. WACCBIP will fill the fuel tank of the vehicle for the trip, and the vehicle must be returned with a full tank.
3. The requesting unit shall bear the cost of the driver's time in addition to the vehicle rate.
4. Vehicle and driver rates shall be determined based on the destination and nature of the trip (**see Appendix A**).
5. Sleepover rates for the driver shall apply where the requesting unit provides no accommodation and feeding to the driver.
6. Only approved drivers shall be allowed to drive the vehicle. Approved driver constitutes a driver of a unit within the University.
7. The following payment options are allowed:
 - ✓ full payment may be made before the trip
 - ✓ a deposit of half the total cost may be made before the trip, and the balance paid within a week upon return.
8. Payment shall be made in cash, cheque or bank transfer.
9. All cheques shall be written in the name of WACCBIP.
10. All bank transfers shall be made into the WACCBIP account indicated on the invoice.
11. Responsibility for any damage to the vehicle shall be determined upon assessment of the incidence.

Appendix A

DAILY RATES (GHC)							
Destination	Vehicle Rates				Driver Rates		
	4*4	Pick-up	Van	Bus	Trip Type	Weekday	Weekend
1. Within Greater Accra	800	500	500	600	-	80	100
2. Outside Greater Accra:							
a. Upper West	1,600.00	1,000.00	1,000.00	1,200.00	Sleepover	200	250
Upper East							
Northern							
b. Brong Ahafo	1,300.00	800.00	800.00	1,000.00	Sleepover	170	200
Ashanti							
Upper Volta							
Western							
c. Eastern	1000	600	600	800	Return	120	150
Central					Sleepover	170	200
Lower Volta							

Approved by:

Director, WACCBIP

Date: