

Year	Work Plan Activities	Description	Partner Contribution (if relevant)	2022												Milestone/Output	If NEW, Provide Justification	Estimated Budget(\$)	Estimated Revenue (\$)	Contribution from Partner
				2022 Y2Q1			2022 Y2Q2			2022 Y2Q3			2022 Y2Q4							
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					

**Sub-Action 1a: Attendance of trainings and ACE workshops**

Activity	Description	Frequency	Duration	Cost	Impact	Notes
Activity 1:	To have both Faculty and Staff in To assist in hosting such trainings as				Increased number of Regular	65,470 b 24,000

*Sub-Action 1b: Procurement of essential office equipment and stationery*

Activity 1:	In order to ensure smooth running	Not Applicable					Effective centre	Monthly	2,000	p	p
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**Sub-Action 1c: Periodic meetings with partners, SAB and ISAB**

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Action 2: DLI 3 Quantity of Students

**Sub-Action 2a: DLI 3.1 (PhD students), DLI 3.2 (Masters students)**

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[illegible]

Activity 4: DNA/RNA (cDNA synthesis), Protein extractions, samples processing and Sequencing	Genomic samples will be obtained from parasite samples for biobanking and genomics studies	Selected partners to assist in sequencing and genomic analysis																biobanking of genomic samples	Not Applicable	20,000	0		9,000
Activity 5: Prediction and validation of genes, and essentiality studies	Carry out virtual prediction and experimental validation of predicted genes	Selected partners to provide support for bioinformatic analysis																Identification of resistance markers within the region	This is needed to provide drug targets needed in the follow up processing and analysis.	30,000	0		5,000
Activity 6: Develop virtual and/or high throughput screening (HTS) and inhibitors design for drugs/insecticides discovery	Develop pipelines for virtual and/or high throughput screening (HTS) and inhibitor design	Selected partners to provide support for bioinformatic analysis																Identification of lead anti-malarial compounds	This is an important step in turning our drug and insectidal targets into lead molecules for antimalarial drugs and insecticides development.	40,000	0		5,000
Activity 7: Anti-plasmodial drug validation, including synthesis, structure validation and biological assays	Conduct anti-plasmodial drug validation, including synthesis, structure validation and biological assay	Selected partners to provide Molecular biology research support																Development of new anti-malarial compounds	Not Applicable	30,000	0		5,000
Activity 8: Experimental prediction and validation of predicted targets e.g. inhibitor synthesis, structure validation, bioassay		Selected partners to provide Molecular biology research support																New Drug discovery, validation of new drug targets	Not Applicable	130,000	0		5,000
Activity 9: Regulatory metabolic modelling (In-Silico only)	Licensing  Provide external SSD hard-disks, Consumables and travel logistics for legend-based screening through docking studies, structure based virtual design and HTS.	Selected partners to provide support for Bioinformatic analysis																Establish pipeline for drug discovery	This is useful for modelling the true situation of the parasite in the human system	2,000	0		5,000
Activity 10: Share research output and Generate quality publications in PubMed and SCOPUS-listed journals		Selected partners to be involved in manuscript preparation and submission for publication																Dissemination of knowledge	Not Applicable	23,000	0		2,500
Activity 11: Revise and modify ICE postgrad curriculum	We intend to revise&enhance ICE postgrad curriculum to reflect IoT, Cloud Computing and Big Data Analytics	The following partners will be involved:IBM,Landmark University, ABUAD,ULPGL																The revision will help develop&strengthen research capacity of West/Central African students&researchers	Not Applicable	1,000	0		2,500
Activity 12: Prepare and submit manuscripts	We intend to prepare and submit many manuscripts on FEDGEN project	All our national and regional partners will be involved in the activity																We intend to generate quality publications in SCOPUS-listed journals	Not Applicable	9,126	0		1,041
Activity 13: Requirements elicitation and experimental works on Cloud Apps, FEDGEN Testbed and Cloud Datacenter	We intend to conduct requirements elicitation and necessary experimentation to evolve novel algorithms and methods on Cloud & High Performance Computing (CHPC) as well as AI.	The academic partners for the FEDGEN will be involved;ABUAD, Landmark University, ULPGL at DRC, IPD, Senegal and NIMS-Ghana																System Requirements Specification (SRS), System Design Specification(SDS) documents, FEDGEN Repository on GitHub for Cloud Apps Codes, High Impact Publications in Scopus Indexed Conferences and Journals from Experimental Results on the FEDGEN Testbed and Cloud Datacenter.	Not Applicable	2,000	0		5,200
<b>Sub-Action 3b: DLI 4.3a Infrastructure improvement for research and learning (procurement and civil works)</b>																							
Activity 1: Continue the expansion of the existing Insectary and laboratory	We need to bring the current insectary and laboratory upto phase 2, that will allow us for example, to infect mosquitoes with the malaria parasite for testing of our evolution proof insecticides.	Not Applicable																The establishment of a functional insectary for assist in biodiversity studies. In addition, it will enhance our insecticide efficacy testing	This is helpful to expand on the current insectary lab (under construction from DLR4.3) to allow us to perform for example, P. falciparum infection of the mosquito A. gamb.	250,000	0		
Activity 2: Generate genomic data for biodiversity of Plasmodium species in West Africa and genomic profile of parasite	We need this to buy consumables for the generation of the required genomic data using our sequencing facility	Not Applicable																Generate genomic profile of the malaria parasite Plasmodium	This will provide needed information from the field useful for our antimalarial drugs development	3,000	10,000		

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