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1G11AI152201-01 Akuffo, O**FOREIGN INSTITUTION**

RESUME AND SUMMARY OF DISCUSSION: This outstanding new Extramural Associate Research Development Award application entitled “Capacity Building for Enhanced Research Administration (CaBERA- II) in Africa” was submitted in response to PAR18-335: Global Infectious Disease Research Administration Development Award For Low-and Middle-income Country Institutions (G11-Clinical Trial Not Allowed) by the Noguchi Memorial Institute for Medical Research (NMIMR), Legon, Ghana with Dr. Oye Akuffo as Principal Investigator (PI). The application aims to (1) expand on the success of the CaBERA project to include other institutions in the subregion and assist them to revamp their research management offices, (2) provide training and capacity building services to staff of the selected research management offices, (3) serve as a resource hub for grant management and sustainability to institutions in the sub region, and (4) sustain and support the two universities from the CaBERA project to submit at least one award winning grant.

This application addresses the important need for improved research administration knowledge and training for health sciences research in low-to-middle income countries (LMIC). The application builds upon the successful execution of a 2016 G11 award, presenting a straightforward plan to improve research administration and capacity building at NMIMR and other institutions in the subregion. The aims presented in the application are clear, and the proposed focus on mentoring of other institutions in the region is innovative. The program is designed to support both research administrators and scientific faculty, focusing on gaps in the research administration program identified using a needs assessment. Sustainability is adequately addressed through plans for regular refresher training. The Principal Investigator has the appropriate experience, passion and willingness to extend efforts beyond NMIMR, and is supported by well engaged staff. The associated staff at Yale University are highly accomplished grants administrators and have the necessary expertise to facilitate training of administrators at the selected institutions. The collaboration with Yale is properly articulated, and an appropriate level of commitment is in place at both NMIMR and Yale to support the proposed work, supported by successful collaboration established during the previous iteration of the award. The strengths of the application are balanced by a few minor weaknesses. The application does not include adequate evidence of commitment from the regional institutions to be mentored by NMIMR, making it difficult to assess whether their participation will be welcomed and supported. In addition, although sustainability plans are presented, it is not clear how they will be financially supported. Further detail is needed regarding benchmarks of success, mitigation of potential issues, and alternative strategies. The application would also be strengthened by additional description of plans for mentoring junior staff, training specialists at other institutions, and alteration of institutional grants management practices.

Overall, this is an outstanding application for which enthusiasm is tempered by a few minor weaknesses. Based upon the evaluation of scientific and technical merit, this application received an Impact/Priority score of 26.

DESCRIPTION (provided by applicant): Research underpins the successful implementation of health intervention programs, which is lacking in low-to-middle income countries (LMIC) where most of preventable diseases occur. The LMICs account for 90% of global burden of preventable diseases and yet they are recipients of only 10% of the resources available for research. The obstacles are many and although this situation has improved in recent times through external collaborations with scientists and institutions they do not significantly address the problem. This situation is further compounded by the

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volume of work required to satisfy the requirements; compliance of pre-and post-award, of the major funding agencies including the NIH, Wellcome Trust, EU etc. The frequent changes in policies and regulations make it more difficult for LMICs to follow without the institutional structures/mechanisms in place. We hypothesize that a major contributing factor to the dearth of health research in LMICs is the inability to secure competitive research grants by LMICs' scientists and research institutions because of the virtual non-existence of offices to support grant applications. We propose the establishment of offices of research management in three selected African tertiary institutions. Over the course of eighteen months, this initiative will set up registered research management offices in at least 3 African institutions and provide training to staff to gain competencies in managing sponsored research grants that meet the requirement of funding agencies. It will build on the successes of CaBERA award that established three offices of research management in Ghanaian tertiary institutions. It will also build on the long standing record of the Ghana-Yale Partnership for Global Health for capacity building for health research.

PUBLIC HEALTH RELEVANCE: The Noguchi Memorial Institute for Medical Research (NMIMR), Ghana collaboration with Yale University's Office of Sponsored Research successfully applied to NIH in 2016 for a G11 capacity building grant titled Capacity Building for Enhanced Research Administration (CaBERA) at Noguchi Memorial Institute with the aim to strengthen the ORS at NMIMR and in addition help establish such offices in two other tertiary institutions in Ghana. At the end of the project period, a systematic evaluation of the project, especially in establishing research offices in two other Institutes, revealed the need for such offices across Africa. The overall objective of this project is therefore, building upon the successes of the first project, seek support for the establishment of research management offices in three selected Institutes in Africa.

CRITIQUE: The comments in the CRITIQUE section were prepared by the reviewers assigned to this application and are provided without significant modification or editing by staff. They are included to indicate the range of comments made during the discussion, and may not reflect the final outcome. The RESUME AND SUMMARY OF DISCUSSION section summarizes the final opinion of the committee after the discussion and is the basis for the assigned Overall Impact/Priority score.

CRITIQUE 1

Significance:	2
Investigator(s):	1
Innovation:	3
Approach:	2
Environment:	2

DESCRIPTION (provided by reviewer): The proposed capacity building for enhanced research administration in Africa is well built on the successes of the CaBERA-I. The PI is experienced, and the environment is supportive. It's helpful to see that the project rides on long standing collaboration with Yale University and that the support will extend beyond Ghana to neighboring institutions in the region.

Overall Impact: The project aims at capacity building for research administration building on the successes and lessons learnt from CaBERA-I. The project is beneficial because of demand driven need to not only support Noguchi Memorial Institute but other institutions within Ghana and beyond.

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1. Significance:

Strengths

- The project responds to capacity building needs for research administration and necessary institutional development
- The project leverages on CaBERA-I which is a good add on for the proposed project
- Capacity building of both administrators and faculty is necessary for required research expertise

Weaknesses

- None were noted.

2. Investigators:

Strengths

- The proposed PI has the relevant experience, authority and passion to succeed
- The ongoing collaborations with Yale University. Yale University has the required expertise for skills transfer and have proposed a solid follow up mechanism
- The proposed key staff are equally engaged and provided commitment to support the project

Weaknesses

- None were noted.

3. Innovation:

Strengths

- The proposed project is incremental to what was already started in CaBERA-I
- The project proposes to expand to two other institutions in the region which is good for shared scarce research administration support with required experience in both pre and post award mechanisms

Weaknesses

- Inadequate mention of how the efforts established will practically be sustained i.e. who will pay for the Noguchi team's time post the project for the newly established research support offices especially if there are no other grants to support the establishment

4. Approach:

Strengths

- Project has a needs assessment from which a training plan will be developed around gaps identified
- Proposed support from recruitment to training with ask for permanent roles necessary for sustainability
- Includes regular training and refresher necessary for sustaining efforts
- Builds on success of CaBERA-I

Weaknesses

- None were noted.

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5. Environment:**Strengths**

- Institutional support has been provided
- Key staff have provided commitment support
- Yale University has provided support
- The institutions have required equipment and internet infrastructure for such arrangements

Weaknesses

- It would have been beneficial to see expression of interest or request from the other universities needing support – this could demonstrate the required demand

CRITIQUE 2

Significance:	2
Investigator(s):	3
Innovation:	4
Approach:	3
Environment:	2

Overall Impact: There is a high likelihood that business practices for management of US federal grants and cooperative agreements will be improved if the project plan laid out in this proposal is successfully implemented. The foreign and US personnel designated to conduct the activities proposed in this grant possess the administrative and technical knowledge needed to successfully complete the project and to create an environment to provide adequate oversight of funding and compliance with NIH funding policies. The plan outlined in the proposal is sufficient to create an environment of sustained grants management through training, collaboration and mentorship at the NMIMR and other institutions in the region. Additional detail in the approach for development and implementation of the improvements and training program at other institutions would provide added confidence that the effort can achieve sustained grants management improvement at the applicant institution and other institutions.

1. Significance:**Strengths**

- Project addresses the important problem of lack of research administration (RA) knowledge and training for health sciences research in low-to-middle income countries.
- Track record of success in RA training and capacity building as evidenced by successful completion of the 2016 CaBERA G11 award.
- Strong partnership with US collaborator Yale University.
- Straightforward plan to improve grants management.
- Intensive interactions with all elements of sponsored research to ensure knowledge transfer from a top-notch US institution.

Weaknesses

- Lack of detail related to sponsored research deficiencies and how to remedy them.
- Lack of specifics about research administration personnel, roles and responsibilities at NMIMR.

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- Inconsistencies in effort and funds requested.

2. Investigators:

Strengths

- PD/PI and other key personnel have relevant training and experience and are well suited to the project.
- PD/PI has demonstrated an ability to accomplish the objectives of the proposal as evidenced by successful completion of the 2016 CaBERA G11 award.
- Successful prior collaboration with the US academic research institution supports the NMIMR team's ability to accomplish the objectives in collaboration with Yale University.

Weaknesses

- None were noted.

3. Innovation:

Strengths

- The application provides a solid plan for transferring knowledge from a top-notch US academic research institution to the NMIMR and other institutions in the region.
- The application proposes to use up-to-date communication technologies to foster information transfer, training and collaboration.

Weaknesses

- The proposed approach does not utilize novel concepts, approaches or methodologies.
- The application does not propose new ideas or strategies for improving institutional grants management training or business practices.

4. Approach:

Strengths

- The strategy, methodology and timeline are well-reasoned and appropriate.
- Specific aims are detailed and reasonable.
- The application adequately details the timeline for training at Yale, NMIMR and other in-country institutions.
- The proposal puts forth a detailed plan to expand upon prior successes by continuing to expand capacity at the home institution, to mentor other institutions engaged in the previous award and to take on new mentees.

Weaknesses

- The proposal lacks detail on benchmarks for success, alternative strategies and ways to mitigate potential problems.
- The proposal lacks detail on plans for mentoring junior staff, changing institutional grants management practices and training specialists at other in-country institutions.

5. Environment:

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Strengths

- The strong and supportive administrative environment at Yale and NMIMR contribute to the probability of success.
- The institutional support, IT and communication equipment and infrastructure are adequate for the proposed project.
- The project is likely to benefit from a solid and continued collaboration with Yale.
- High level leadership exhibits strong support for strengthening research administration.
- The NMIMR appears to have adequate staff, facilities and resources to improve training in research administration.
- The US institution has appropriate grants management staff and sponsored research environment to train the foreign grants managers.

Weaknesses

- The administrative environment in which the work will be performed is not sufficiently described.
- The institutional support, equipment and physical resources are not sufficiently described.

CRITIQUE 3

Significance:	3
Investigator(s):	3
Innovation:	3
Approach:	4
Environment:	4

Overall Impact: The present application proposes to build upon the achievement of a previously NIH-funded application. Along these lines, during the previous support, the Noguchi Memorial Institute for Medical Research developed its infrastructure for handling the grant management of federal research grants and contracts. This was achieved with the assistance of the Office of Sponsored Programs at Yale University. In addition, previous funding was used to develop the capacity for effective grant management at other two institutions in Ghana. In the present application the PI proposes to develop the grant management offices of other institutions in Ghana as well as other in the Western region of Africa. This intention is perceived as innovative and meritorious. The PI and collaborators at Yale University have the necessary skills to implement the project. The approach is straightforward and seems to be doable, but very little is said with regards to how the mentee institutions outside Ghana will be selected. Letters of commitment from these potential mentee institutions could have been of benefit to the application. A comprehensive assessment plan to evaluate the impact of the program on mentee institutions is not presented.

1. Significance:**Strengths**

- The project addresses an important problem in the field
- The proposed project builds upon the achievements of a previously NIH-funded grant intended to strengthen the management of federal grants at the host foreign institution and two others located in Ghana.

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- If the aims of the project are achieved, several institutions in Ghana as well as other in the Western sub region of Africa will be in position to strengthen their infrastructure to manage grants and contracts from the NIH and other federal agencies.

Weaknesses

- A comprehensive assessment program to evaluate the impact of the training activities at the different institutions is lacking from the proposal

2. Investigators:

Strengths

- The PI and collaborators are experienced grant managers
- The PI and her assistant have already received training to manage federal grants particularly from the NIH. They have the necessary skills and knowledge to carry out the training plan
- The PI seems to have the required authority to implement the activities contemplated in the application
- Consultants at collaborating USA institution (Yale University) are experienced and accomplished grant administrators and, thus, have the necessary skills to assist the foreign institution.

Weaknesses

- Collaborators/contact individuals at the mentee institutions (Ghana as well as others in Western region of Africa) were not identified

3. Innovation:

Strengths

- The proposed approach of mentoring various institutions in Ghana as well as other institutions in the Western region of Africa, in the area of grants management of federal grants and contracts, is innovative.

Weaknesses

- Activities designed to train in the area of grant management are standard

4. Approach:

Strengths

- Aims of the project are clearly spelled out
- The proposed approach is generally well-explained and appears to be doable
- Plans to assure sustainability seem to be adequate

Weaknesses

- It is unclear how the mentee institutions outside Ghana will be selected for participation in the project
- An assessment plan to evaluate the effectiveness of the program is not provided
- Commitment of mentee institutions is unclear

5. Environment:

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Strengths

- The overall environment currently available at the host foreign institution seems to be adequate
- The host institution seems to be committed to PI and the project

Weaknesses

- Letters of collaboration from mentee institutions are not included. Are they committed to the project?
- Plans for coordination and communication between the host institutions and the mentee institutions are uncertain

THE FOLLOWING RESUME SECTIONS WERE PREPARED BY THE SCIENTIFIC REVIEW OFFICER TO SUMMARIZE THE OUTCOME OF DISCUSSIONS OF THE REVIEW COMMITTEE ON THE FOLLOWING ISSUES:

PROTECTION OF HUMAN SUBJECTS: NOT APPLICABLE

INCLUSION OF WOMEN PLAN: NOT APPLICABLE

INCLUSION OF MINORITIES PLAN: NOT APPLICABLE

INCLUSION OF INDIVIDUALS ACROSS THE LIFESPAN: NOT APPLICABLE

VERTEBRATE ANIMAL: NOT APPLICABLE

RESOURCE SHARING PLANS

DATA SHARING PLAN: NOT APPLICABLE

MODEL ORGANISM SHARING PLAN: NOT APPLICABLE

GENOMIC DATA SHARING PLAN: NOT APPLICABLE

FOREIGN INSTITUTION: JUSTIFIED

Comments: Ghana

AUTHENTICATION OF KEY BIOLOGICAL AND/OR CHEMICAL RESOURCES: NOT APPLICABLE

BUDGETARY OVERLAP: NOT APPLICABLE

COMMITTEE BUDGET RECOMMENDATIONS:

The budget is recommended as requested in all years.

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NIH has modified its policy regarding the receipt of resubmissions (amended applications). See Guide Notice NOT-OD-14-074 at <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-074.html>. The impact/priority score is calculated after discussion of an application by averaging the overall scores (1-9) given by all voting reviewers on the committee and multiplying by 10. The criterion scores are submitted prior to the meeting by the individual reviewers assigned to an application, and are not discussed specifically at the review meeting or calculated into the overall impact score. Some applications also receive a percentile ranking. For details on the review process, see http://grants.nih.gov/grants/peer_review_process.htm#scoring.