MEPI-JF project: Strengthening of Research Capacity for Junior Faculty in Tanzania

Project Work Plan (Sept 2015- Aug 2016)

Draft 1

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Executive summary

MEPI-JF project is a 5 years NIH funded program implemented at Kilimanjaro Christian Medical University college (KCMUco) and the Catholic University of Health and Allied Sciences (CUHAS) in Mwanza. The goal is to promote career development among junior faculty by providing essential skills to junior faculty and institutional support at two MEPI-JF institutions basing on identified gaps in the first cycle of MEPI.

The following are the overarching objectives of the project:

- 1. To provide rigorous research training for junior faculty, preparing them to pursue their mentored research training projects.
- 2. To provide faculty mentors for junior faculty who will actively participate in the mentored research training projects, and serve as role models for trainees.
- 3. To build upon the research culture created in the MEPI-JF first cycle, enhancing the competitiveness of junior faculty, increasing their productivity, initiating career development planning, understanding the roles and responsibilities of principal investigators, engaging future generations of junior investigators, and promoting an enabling environment for research.
- 4. To sustain the training program beyond the five years of this award, and to extend its impact to others at KCMUco and CUHAS, creating a regional model of excellence in research training.

The following is the proposed work-plan for the first year that is guided by the project logic model. In summary, work-plan of first year of MEPI-JF project is broken down in two phases. The first phase is the conception/initiation phase that consists of activities that are geared towards establishing teams for the program implantation. The second phase is the project-planning phase that highlights activities for setting up of infrastructure and purchases of materials and supplies for the project to take off. The third phase is the program implementation phase that consists of communication and program implementation to achieve program objectives. A detailed project timelines and team member duties and responsibilities as elaborated in appendices.

Phase 1 - The conception/initiation phase

The conception phase will consist of identification and formation of program administration teams that will identify the major deliverables of the project. There will be 4 teams with different responsibilities as highlighted in the table 1.

- The leadership team
- The operations team
- Training advisory committee
- The technical teams (The didactic training curriculum team, ORMI curriculum team, MRTP curriculum team and the PDP team).

Teams	Responsibilities	Participant(s)
The leadership team	 Handling major decisions such as selection of trainees, assess their progress, and negotiate their career development milestones Supervise the operational team Oversee creation of a PDP for each trainee Ensure successful return of graduating trainees in their faculty position Review and present project deliverables to TAC 	Alfred Mteta, John Bartlett, Egbert Kessi, Paskalis Rugalabamu Daniel Fitzgerald, Ahaz Kulanga, Charles Muiruri
Training Advisory Committee (TAC)	• Review and approval of selected candidates	Dr Masenga, Dr Sara Urassa, Prof Elton Kisanga, Prof Jacob Mtabaji, Prof Johanes Katarihiya, Prof Gilbert Kolonga,
Operations team	 Ensure the efficient functioning, appropriate trainee support, and documentation of key outcomes. Manages daily to daily functions of the project in accordance to the project plan Supervises the technical teams Provide overall project direction Direct/lead the technical teams and project members toward project objectives Manages the project budget 	Ahaz Kulanga, Charles Muiruiri, Gabriel Msuka, Iman Israel, Chrispina Tarimo, Irene Kawala and ICT specialist from CUHAS
Technical teams: 1. The didactic training curriculum team		Sia Msuya & Michael Mahande from KCMUCo Benson Kidenya &

Table 1. Project teams

	Bahati Wajanga from
	CUHAS
2. ORMI	Ahaz Kulanga & Imani
curriculum team	Israel from KCMUCo
	Franky masasi &
	Yvonne Thandiwe from
	CUHAS
3. MRTP	Mramba Nyindo &
curriculum team	Gloria temu from
	KCMUCo
	Stephene Mshana &
	Rodrick Kabangila from
	CUHAS
4. PDP team	Sia Msuya & Elton
	Kisanga from KCMUCo
	Dominica Marona &
	Mange Manyama from
	CUHAS

Phase 2: The planning phase

Following the formation of teams, the next phase is the planning phase, is where the project teams set down all the necessary steps to meet the project's objective are planned. The planning activities in this project fall into 2 main categories - setting up infrastructure and purchase of supplies and materials.

2.1 Setting up infrastructure

We plan to undertake the following activities in addition to the ICT and research infrastructure created by MEPI 1:

- Installation of **video conferencing facility** at CUHAS to support long distance communication with our partners and stakeholders.
- Establishment of office of research management at CUHAS (ORMI)
- **Purchase and installation of eIRB software installation** We plan to purchase, install and provide training on eIRB software
- **Rent a House** within the KCMC to allow program trainees from CUHAS, and faculty and staff from collaborating institutions under this project easy access to the School of Medicine and Medical Center within a comfortable and safe environment.

2.2 Purchase of supplies and materials

We plan to purchase the following supplies and materials to ensure smooth project implementation as follow below:

- **Bandwidth** to assist the training program activities and support video conferencing systems that will be instrumental in the delivery didactic training between, KCMU College, CUHAS, Cornell and Duke. Also, access to the internet will assist junior faculty communication with mentors, peers and also access to online databases for literature searches.
- Annual Smartnet as extended services agreement for the Cisco
- Hardware replacement and soft ware application support from Cisco for Video Conferencing units at the KCMU College.
- **Subscribe** to the Collaborative Institutional Training Initiative (CITI) that will be instrumental in training junior faculty in the responsible conduct of research and in research with human subjects.
- Laptops for the ARTP and CRTP trainees. These devices will be useful in supporting the training, research design, analysis and dissemination of the mentored research projects.
- **Responsible Conduct of Research Textbooks** that will be used in the training of responsible conduct of research. We will purchase "On Being A Scientist: A Guide to Responsible Conduct in Research" texts for trainees and mentors
- **Mentoring Textbooks** that will be used in the mentorship workshop training. We will purchase "Adviser, Teacher, Role Model, Friend" textbook.
- Data analysis software (Stata & Atlas ti) to support trainees in the initial study design (power calculations) and qualitative data analysis.
- Questionnaire Development System (QDS) that will enable researchers to develop and administer data collection with data entry modules to increase data quality assurance. These modules will include; Computer Administered Personal Interview (CAPI) and Handheld Assisted Personal Interview (HAPI).

Phase 3 - Implementation (Execution) phase

During the implementation phase, the project plan will be put into motion and project activities will begin. It is important to maintain control and communication as needed during implementation. Therefore during this phase we will have regular communications activities and activities geared towards achieving the programs objectives will be highlighted.

a) Communication

Communication outline that describes the delivery method to be used to keep the stakeholders informed is necessary for this program. We therefore plan to have the following activities (meetings & travels) as part of our communication plan.

Meetings

• *Weekly operations team meeting*. These meetings are held weekly to discuss daily to daily progress in the implementation of the program activities.

• *Monthly leadership team meetings.* These leadership meetings are held on every month to discuss challenges/successes encountered by the operations team.

Travels:

- **PI, CoPI**, and project leader will travel once to the United States for the Training Program network meeting in Bethesda MD to network with other schools and learn from one another.
- The Leadership Team will also visit Duke University to meet with the Duke Co-PI and faculty mentors in the Program and review the progress of the project aimed at providing continuous quality improvement within the training program.
- **Dr. Mteta** will travel twice from Mwanza to Moshi at the beginning of the project and another during the year to review progress of the program.
- **Mr. Msuka** will travel to Mwanza to ensure proper installation and functioning of the video conferencing facility for uninterrupted training schedules and also provide an opportunity for information technology capacity building between the two institutions.
- **Mr. Kulanga** will travel to Mwanza to support the research administration capacity building at CUHAS. He will provide training and mentorship to the research administrators at CUHAS, and at the same time work with the CUHAS leadership to set up systems for research administration for pre and post award including SOPs and training manuals.
- **Professor Kessi** will travel to CUHAS annually to meet with the CUHAS leadership to engage in continuous quality improvement of the Program, from the perspective as the Provost of KCMU College.
- **Ms. Tarimo** will travel to Mwanza for the semi-annual monitoring and evaluation exercise to provide insights to the achievements and key milestones of the Program. She will also uncover unforeseen and challenges through surveys, and assess the overall performance of the project at CUHAS. She will assist in building capacity for monitoring and evaluation functions at CUHAS.

b) Activities according to specific objectives

Objective 1. To provide rigorous research training for junior faculty, preparing them to pursue their mentored research training projects.

ART program

The Advanced Research Training will provide an extended mentored research experience for junior faculty who already have Master's and PhD degrees. The following is a list of activities that will be implemented in the ART program during the first year:

- Announcement for training opportunities
- Selection of ART candidates
- ART training
- Development of PDP
- RCR training

• Training on successful academic careers (SAC),

CRT Program

The CRT program will provide a 6-month didactic course followed by 18 months of mentored research project to junior faculty who do not have master degree. During the first year of the project, the following activities will be implemented

- Introducing training opportunities to heads of departments,
- Announcing of CRT through websites, conference and other media,
- Applications due for CRT,
- Review of written applications,
- Interview of selected applicants,
- Notifying applicants & head of departments,
- First didactic class of CRT begins

Objective 2: To provide faculty mentors for junior faculty who will actively participate in the mentored research training projects, and serve as role models for trainees

Mentorship for junior faculties will be provided in both programs. However, as The CRT program will begin at the end of the first year, no mentorship activities have been scheduled for during this first year of the project. Therefore, the following mentorship activities mentioned here under fall under the ART program.

- Formation of mentorship teams
- Development of mentorship plan
- Implementation of mentorship plan
- Training on grantsmanship and peer review
- ART candidates start to prepare for teaching and mentoring the CRT candidates.

Objective 3. To build upon the research culture created in the MEPI first cycle

The following activities will be carried out in order to build upon the research culture created by the previous KCMC-MEPI program;

- Development of ORMI at CUHAS,
- Grantsmanship workshop to enhance competitiveness of junior faculty and increasing their productivity
- Creation of eRA common accounts for trainees
- Development of PDP
- Mentoring trainees development of leadership skills
- Train 5 research support staff

Objective 4. To sustain the training program beyond the five years of this award, and to extend its impact to others at KCMU College and CUHAS, creating a regional model of excellence in research

training.

In order to sustain the training program beyond five years, the following are the planned activities that will be carried out during the first year.

- The leading role of the KCMC and CUHAS in health professions education
- Support activities of the Epidemiology and Biostatistical Unit at KCMU College, which include epidemiological and biostatistical consultations for methodological issues with experimental design and data analysis, and training of the ARTP trainees. The unit will also provide services such "walk-in clinics" to assist investigators with power calculations, study design tips and analysis, and development of SOPs and training modules.

APPENDICES

APPENDIX 1: TIMELINE OF PLANNED ACTIVITIES

Key Activity	Expected outputs	Responsible person(s)	Aug 2015 –Jul 2016			
			Q 1	Q2	Q3	Q4
	Phase 1. The inception/initiation phase	•				
1.1 Formation of teams						
• Leadership team	Leadership team formed	PI & Co-PI				
Operations team	Operations team formed	Leadership team				
• TAC	TAC formed	Leadership team				
Technical teams	Technical teams formed	Leadership team				
	Phase 2. Program planning					
2.1 Infrastructure						
• Installation of V-C facility at CUHAS	Enhanced communication between KCMUCo & CUHAS	PL & ICT analyst				
• Establishment of ORMI office at CUHAS	Enhanced research environment at CUHAS	PL & ICT analyst				
Installation of e-IRB software	Electronic submission and review of proposal	PL & ICT analyst				
Rent a house		РА				
2.2 Purchase of supplies and materials						
0 Bandwidth	Support VC system to deliver didactic training	PL & ICT analyst				
0 Smartnet	Support long distance communication	PL & ICT analyst				
• Hardware replacement		ICT analyst				
• CITI subscription	Training on RCR and on research with human subjects.	Operations team				
• Purchase of desktop computers	Support the training	Operations team				
• Laptops for ART & CRT trainees	Support the training on research design to	Operations team				

		dissemination of MRTP	
0	RCR books	For RCR training	Operations team
0	Mentoring text books	Support mentorship training	Operations team
0	Data analysis software- STATA and Atlas t.	Enhanced data analysis	Operations team
0	Questionnaire development system	Development and administration of data collection	Operations team
110		Phase 3 - Implementation (Execution) phase	
	nunication plan		
3.1.1 Meet	8		
0	Weekly meetings of the operations team	Progress of the program is discussed	PL
0	Monthly leadership meeting	Challenges/successes discussed	PL
0	Leadership team present to the TAC	Acquaint the team with project overview and its beneficiaries	Leadership team
3.1.2 Trav	rels		
•	PI, Co PI & Project leader travel to US	Review progress of the project for quality improvement	PA
•	PI (CUHAS) travel to KCMU Co	Review progress of the project for quality improvement	PA
•	Admin travel to KCMU Co	Training and mentorship on research administration	PA
•	Project leader travel to CUHAS	Training and mentorship on research administration	PA
•	ICT analyst travel to CUHAS	IT support on	PA
•	M&E travel to CUHAS	Assess the overall performance of the project	PA
•	CUHAS visit KCMU College office of IRM	Provide with skills and knowledge on for the establishment of RMI	PL & PA
•	KCMU Co provost travel to CUHAS	Meet with CUHAS leaders to engage in quality improvements	PA

Objective 1				
A: ART Program				
• Call for applications to the ARTP	ATR candidates	Leadership team		
Selection of ART candidates	ART trainees	Leadership team		
• Team meetings to define principles for PDP	Identification of skills need for career advancement	PDP team & trainees		
• TAC review of recommendation for ART	Proposal review and approval	Leadership team & TAC team		
ART training	Implementation of research proposal	Technical team		
• SAC training for ART candidates	Develop skills for successful academic career	Technical team		
RCR training	Develop skills on research ethics and conduct	Technical team		
Developing PDP	Identification of skills need for career advancement	PDP team & trainees		
3: CRT program				
 Introducing training opportunities to heads of departments 	Create awareness on CRTP	Operations team		
Announcing of CRT	Junior faculty preparing application for CRTP	Operations team		
• Applications due for CRT	Application for CRTP received	Operations team		
• Review of written applications	Candidates selected for CRTP interview	Leadership team		
• Interview of selected applicants	4 candidates selected for CRTP	Leadership team		
 Notifying applicants & head of departments 	Trainees prepare for CRT training	PI		
Objective 2				
• Formation of ART mentorship team	Develop mentorship plan	Technical team		
• Development of mentorship plans (ART trainees)	Intensive mentorship during project implementation	Trainees		
ART trainees submit protocols for regulatory review	Implementation of ART curricula	Trainees		

• ART trainees begin their mentored research projects	Implementation of research proposal	MRTP team		
Mentorship to ART trainees continues	Intensive mentorship during project implementation	Technical team		
Preparation ART trainees to teach & mentor CRT trainees	ATR trainees acquiring mentorship skills	Mentors of ART trainees		
Objective 3				
• Training on grantmanship	Enhanced competitiveness of junior faculty and increasing their productivity	Technical & Operations team		
Proposal development training	Proposal development skills enhanced	Technical team		
Mentorship on leadership skills development	Enhanced leadership skills of ART trainees	Technical & Operations team		
Training 5 Research Supporting staff	Strengthened support in epidemiology and biostatistics	Pl & PA		
Creation of trainees' eRA commons account	Enhanced competitiveness of junior faculty	РА		
4. Sustainability				
Support epidemiology and biostatistical unit	Research services availed to trainees	Leadership & Operations teams		
 KCMC and CUHAS leading health professions education 	Program ownership enhanced	Leadership team & TAC		

APPENDIX 2: TEAM MEMBERS AND THEIR ROLES

LEADERSHIP TEAM

- 1. **Principal Investigator** will oversee the Leadership Team and the Operations Team, and will chair all meetings of the TAC. Ultimately he will be responsible for all training, administrative and evaluation functions of the project.
- 2. **Co-Principal Investigator (Egbert Kessi)** Provost of KCMU College will play an important role in encouraging junior faculty to apply for the training programs, selecting the most promising candidates, assisting with PDP development, and retaining faculty at KCMU College.
- 3. **Paschalis Rugarabamu** will play an important role in encouraging junior faculty to apply for the training programs, selecting the most promising candidates, assisting with PDP development, and retaining faculty at CUHAS.
- 4. Co-Principal Investigator (John A. Bartlett MD) who will assist Dr. Mteta in overseeing the leadership team and operations team and also join the operations team calls and participate in all meetings of the TAC and external advisory committee. He will also provide assistance on research projects focused on HIV/AIDS and related problems in non-communicable diseases and cancer.
- 5. Co-Principal Investigator **(Daniel Fitzgerald) who** will assist with mentorship of trainees studying HIV infection, TB, and the intersection of HIV infection and cardiovascular disease, and HIV infection and maternal health.

OPERATIONAL TEAM

- 1. **The project leader (Ahaz K. Kulanga) who** will be a member of the Leadership Team, and will chair meetings of the Operations Team. He will participate in all meetings of the TAC and External Advisory Committee. He will lead efforts from this Office to assist with developing a similar resource at CUHAS, further institutionalizing CUHAS support for research.
- 2. Senior Leader (Charles Muiruri) who will be a member of the leadership team, participates in all meetings of the operations team and TAC and external advisory committee. He will also play an important role in the IRIM award, serving as an experienced senior leader guiding the development of the KCMU College ORMI by engaging in similar activities as the CUHAS ORM developer. In addition he will assist in communication with Duke University and Weill Cornell Medical College on insuring the smooth execution of subcontracts.

- 3. **KCMU College Project Administrator (Imani Israel)** will participate as a member of the Operations Team, and will attend meetings of the TAC and External Advisory Committee. He will play a leading role in the IRIM award, and will assist with trainings in the creation of the CUHAS Office of Research Management and oversee the allocation of funds for mentored research training projects and ensure that all expenses are in compliance.
- 4. **KCMU College Information Technology Specialist (Gabriel Msuka)** will participate as a member of the operations Team, and will provide IT support to ensure smooth functioning of the KCMU College videoconferencing facility, faculty computer laboratory, and e-Library. His expertise will be essential in coordinating the videoconferencing, e-library activities and information technology support functions including installation of software for trainees to ensure the efficient operations of project. He will assist with the development of the CUHAS videoconferencing facility, and will mentor the CUHAS Information Technology Specialist. In year 1 he will make 2 trips to Mwanza to assist with creation of the CUHAS videoconferencing facility.
- 5. **MEPI-JF Monitoring and Evaluation Officer (Chrispina Tarimo)** will participate as a member of the Operations Team, and will attend meetings of the TAC and External Advisory Committee. She will receive all reports from trainees on their trainings, and will monitor progress toward critical milestones. Ms. Tarimo will prepare progress reports for review by the Leadership Team, TAC and External Advisory Committee, and she will prepare annual progress reports for FIC.
- 6. **CUHAS Information Technology Specialist who** will coordinate the CUHAS video conferencing facility and provide information technology support including the installation of software for trainees to ensure the efficient operations of MEPI T.
- 7. **CUHAS Grants Administrator (Irene Kawala)** will serve as the operations team to assist trainees and leadership team with procurement, documentation of regulatory approvals, funds tracking for MRTP and annual financial reports and oversee the CUHAS ORMI.