

#### **MAKERERE UNIVERSITY**

#### RESEARCH AND INNOVATIONS FUND (MAK-RIF)



MAKERERE UNIVERSITY

### Mak-RIF Monthly

## NEWSLETTER



#### Word from the Chair, GMC

Dear Reader,

Welcome to the latest issue of the Mak-RIF monthly newsletter. October marked the beginning of the second quarter of FY 2024/2025. Mak-RIF has continued to receive funding from the Government of the Republic of Uganda to support high impact research and innovations that contribute to national development.

In the FY 2023/2024, the GMC reviewed the existing research agenda to update it with emerging issues of national importance. The review was also informed by comprehensive stakeholder consultations to identify priority emerging thematic areas of interest for national development. In October, the GMC launched a newly revised instructive research and innovations agenda as the basis for identifying funding priorities. The revised research agenda contains 7 broad themes and 43 sub themes.

On 28<sup>th</sup> October 2024, Mak-RIF released its 6<sup>th</sup> call for grant applications. We are currently receiving applications under Track 1: New Research and Innovation Agenda - based Proposals for Financial Year 2024/2025. Please visit <u>our website</u> for more information about the call.

We also convened a meeting with Principals from the different Colleges in Makerere University to urge them to identify college-led projects that speak to national development. Such projects will receive a seed fund in our next funding cycle to bridge existing research gaps, produce tangible products, and have results that can be amplified and scaled.

Our work featured in the 2024 <u>Presidential Handbook</u> published by the Uganda Media Centre as part of Uganda's 62nd Independence celebrations. The handbook highlighted key achievements of different government MDAs and it targetted local and international audiences. It was an honor for us to utilize this publication to showcase our impact.

Furthermore, we will be hosting a Makerere University Research and Innovations Week in March 2025. We will use this week-long opportunity to bring targetted stakeholders together, and to showcase transformative research and innovations that we have supported over the years.

Finally, in this newsletter, we share updates and highlights on various activities that happened in October. Nice reading!

Prof. Fred Masagazi Masaazi Chairperson, Grants Management Committee (GMC) Mak-RIF Contents!



Word from the Chair, GMC



Update of the Month



**Disseminations** 



**Pictorial** 



- ⇒ Deadline for Grant Applications Round 6: 22nd November 2024
- → Makerere University Research and Innovations Week: March 2025 at the Makerere University Freedom Square. Dates to be confirmed.

## Update of the Month!

#### MAK-RIF, PRINCIPALS STRATEGIZE ON COLLEGE-LED TRANSFORMATIVE PROJECTS



Members of the Grants Management Committee (GMC), College Principals, and the Mak-RIF Secretariat pose for a group photo at the Makerere University Main Building after the meeting on 23rd October 2025. (*Photo by Elvis Lubanga*)

Mak-RIF's Grants Management Committee (GMC) has urged Principals of different Colleges in Makerere University to identify college-led projects that speak to national development.

While speaking during a meeting between the GMC, College Principals, and the Mak-RIF secretariat which was held in Makerere on 23rd October 2024, Dr. Roy Mayega, the Secretary to the GMC, reminded participants about Mak-RIF's vision achievements and recognized that colleges play a critical leadership role in realizing this vision. He also stressed the need to identify and support more highly transformative projects that meet the country's development priorities.

"Mak-RIF was established to fund research and innovations that contribute to national transformation. Over the last 5 years, Mak-RIF has receieved approximately 130 Billion Shillings and 1,337 projects have been funded in all key thematic areas of the Mak-RIF research agenda," said Dr. Mayega. The GMC called upon all the colleges in Makerere University to identify a project which Mak-RIF shall seed in the next budget cycle.

#### **Characteristics of college-led projects**

Dr. Mayega noted that he college-led transformative projects will speak an issue of national importance, have a prominent output and outcome, have high visibility potential, have high potential for amplification of results, have potential to reach regional or national scale, have capacity to drive industry, have high accountability to stakeholders, and demonstrate ability to attract funding beyond Makerere University.



**Target:** 3-5 college-led projects will be funded per year. They will be vetted by both industry experts and peers to determine the transformative ones.



A funding threshold of up to 300 million UGX per year, with possibility of extension of funding upon demonstration of formidable results.

College Principals expressed their enthusiasm about the college-led projects initiative and unanimously committed to act.

In his reaction, Prof. Edward Bbaale, the Principal at the College of Business and Management Sciences (CoBAMS), said that colleges are discipline specific and occupy unique spaces which are connected to national development. He however added that the schools specialize in specific areas hence a need to develop inter-disciplinary projects.

Prof. Gorreti Nabanoga, the Principal, College of Agricultural and Environmental Sciences (CAES) also suggested that colleges can venture into research that guides investment in government initiativs like the Parish Development Model (PDM) and that ideas can cut across colleges.

Prof. Ronald Naluwairo, the Principal, School of Law, also added that the next step is for Principals to go back and creatively create such projects. He also said that some of the projects that have been unsuccessful in the past can be improved to fit within the set criteria.

Prof. Ronald Bisaso, the Deputy Principal, College of Education and External Studies (CEES), who was representing the Principal, expressed the need for capacity strengthening in grant writing before the next call for applications is released.

This meeting was very timely since Mak-RIF released its 6<sup>th</sup> call for grant applications on 28<sup>th</sup> October 2024.



### MOLECULAR EPIDEMIOLOGY OF CANDIDA SPECIES CAUSING OROPHARYNGEAL CANDIDIASIS IN HIV/AIDS INDIVIDUALS IN UGANDA



Mr. Benson Musinguzi (1st right) after presenting his abstract on Molecular Epidemiology of Candida Species Causing Oropharyngeal Candidiasis in HIV/AIDS Individuals in Uganda during the 18th Joint Annual Scientific Health Conference (JASHC) held at Hotel Africana on 16th – 17th October 2024.

A study on Molecular Epidemiology of Candida Species Causing Oropharyngeal Candidiasis (OPC) in HIV/AIDS Individuals in Uganda has stressed the need for research on increasing capacity to combat communicable and non-communicable diseases and reduce the pressure on Uganda's health systems.

While presenting his abstract during the 18th Joint Annual Scientific Health Conference (JASHC) held at Hotel Africana on 17th October 2024, Mr. Benson Musinguzi, the Principal Investigator of this research project noted that OPC is an AIDS-defining illness in over 90% of HIV infected individuals and that 45,000 HIV/AIDS associated OPC occur each year in Uganda.

"This study uses molecular approaches to determine the candida species, antifungal resistance profiles, virulence profile and relatedness of candida species causing OPC among HIV/AIDS individuals in Uganda," Mr. Musinguzi explained.

Molecular Epidemiology of Candida Species Causing Oropharyngeal Candidiasis in HIV/AIDS Individuals in Uganda is the first study to characterize candida species causing OPC in Uganda. Its findings will be used to provide evidence-based information on the candida species. Mr. Musinguzi appreciated the Government of the Republic of Uganda for funding his research through Mak-RIF.

This year's JASHC conference was attended by officials from Makerere University, Uganda Medical Association, Uganda National Association of Community and Occupational Health, PEPFAR, USAID, UNAIDS, Uganda National Council for Science and Technology, and many others.



Molecular Epidemiology of Candida Species
Causing Oropharyngeal Candidiasis in
HIV/AIDS Individuals in Uganda is the first
study to characterize candida species
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Uganda. Its findings will be used to provide
evidence-based information on the candida
species.

#### MAK-RIF LAUNCHES A NEWLY REVISED RESEARCH AND INNOVATION AGENDA



Prof. Barnabas Nawangwe, Vice Chancellor Makerere University working with Prof. Fred Masagazi Massaazi, Chairperson of the Mak-RIF Grants Management Committee, and Secretariat convened an engagement with representatives from Government Ministries, Departments and Agencies to review the Mak-RIF Research Agenda in August 2023.

To be highly relevant to national development priorities, the MakRIF implementation framework requires that the GMC develops an instructive research and Innovation agenda to drive funding priorities. MakRIF's first research agenda was developed in 2019. There was a need to update the agenda to match with the changing national development context and realities, including emerging areas of programming and industry.

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Mak-RIF has launched a newly revised instructive research and innovations agenda as the basis for identifying funding priorities. The new research agenda contains 7 broad themes and 43 sub themes.

In the FY 2023/2024, the Grants Management Committee (GMC) conducted a review of the existing research agenda to update it with emerging issues of national importance. The GMC also conducted comprehensive stakeholder consultations to identify priority emerging thematic areas of interest for national development. The consultations included meetings with representatives from key government sectors, semi-autonomous government agencies, the private-for-profit sector, and civil society.

The GMC triangulated this information with that from the National Development Plan III, the Makerere University Strategic Plan and Research Agenda, the Sustainable Development Goals, and the critical areas in the National Budget for FY2025/2026. The review was led by the GMC sub-committee on Research Agenda, headed by Prof. Robert Wamala, Director of the Directorate of Research and Graduate Training (DRGT).

Speaking about the significance of this new Research and Innovation Agenda, Prof. Wamala says, "This Research Agenda will, if harnessed by researchers and innovators, drive Uganda's socio-economic transformation."

The 7 themes and 43 sub themes of the newly revised research agenda are as follows.

THEME	SUB THEMES
THEME 1: AGRICULTURAL TRANSFORMATION, FOOD SECURITY AND	1.1 Transforming the agricultural sector to drive development     1.2 Agricultural and environmental policy and planning     1.3 Sustainable landscapes and human settlements     1.4 Livestock Farming and Animal Health
LIVELIHOODS	
THEME 2: HEALTH AND WELL-BEING	2.1 Achieving Sustainable health as a means to sustainable development 2.2 Healthcare Quality Improvement
	2.3 Mental Health Services and Interventions
	2.4 Introducing ICT in health service delivery
	2.5 Infectious Disease, Zoonoses and Neglected Tropical Diseases (using one health approach)
	2.6 Aging and Gerontology
	2.7 Maternal, Child Health and Adolescent Health
	2.8 Healthcare Innovation and Technology     2.9 Law, Policy and Governance
THEME 3: SCIENCE AND	3.1 Re-imagining Education to unlock capacity for economic
TECHNOLOGY	development
	3.2 Science Communication and Public Engagement
	3.3 Emerging Technologies 3.4 Information science
	3.5 Information Science 3.5 Information Technology and Computer Science
	3.6 Space Science and Exploration
THEME 4: NATURAL	4.1 Water Resource Management and Agricultural Sustainability
RESOURCES MANAGEMENT,	4.2 Environmental sustainability, climate change and resilience
URBANIZATION AND CLIMATE CHANGE	4.3 Ecosystem Services and Biodiversity Conservation 4.4 Renewable Energy and Energy Efficiency
OLIMATE STATE	4.5 Energy and Minerals as drivers of rapid economic development
	4.6 Urban Sustainability, smart cities and Climate Resilience
THEME 5: CULTURAL,	5.1 Heritage Site Management and Planning
HERITAGE AND CREATIVE ARTS	5.2 Public Engagement and Education
ARIS	5.3 Digital Heritage and Virtual Reality 5.4 Indigenous knowledge systems
	5.5 Art Practices and Management
	5.6 Climate Change and Cultural Heritage
THEME C.	5.7 Heritage Tourism and Economic Development
THEME 6: GOVERNANCE, SOCIAL	6.1 Governance 6.2 Human Rights
JUSTICE AND HUMAN	6.3 Gender Justice
RIGHTS	6.4 Law Reforms
	6.5 Economic Justice
	6.6 Disability Justice 6.7 Media Representation and Cultural Justice
	6.8 Alternative Dispute Resolution
THEME 7: ECONOMIC	7.1 Solutions to catalyse business and enterprise
GROWTH AND INNOVATION	7.2 Economic modelling and policy analysis
	7.3 Works, manufacturing, science and technology as tools to
	accelerate development

# Disseminations!



#### CO - Principal Investigator: Dr. Badru Musisi

#### Imparting Entrepreneurship Skills in Universal Secondary Education Learners Through Student Training for Entrepreneurial Promotion

Researchers at Makerere University have developed a scalable and sustainable Student Training for Entrepreneurial Promotion (STEP) program to Universal Secondary School (USE) teachers and students.

During a dissemination meeting at Makerere University on 10th October 2024, Dr. Badru Musisi, the Co-Principal Investigator of the project said that unlike regular entrepreneurship training programs in Uganda, STEP is unique and innovative in the sense that it is action oriented, evidence based, scientifically evaluated, and locally embedded. He added that rising unemployment and poverty among hordes of vulnerable young people who typically attend USE schools, needs urgent attention because it poses a clear and present social, economic, political, and security danger to the country.

USE-STEP is a timely, strategic, and innovative skilling program purposively designed to combat rising youth unemployment by equipping young people with action knowledge, skills and progressive attitude they need to start up and successfully manage their own businesses as a viable employment option. The project applies evidence-based framework for scoping existing entrepreneurship training in selected USE schools. It also offers action-oriented training to USE school teachers, who in turn train students using established STEP training methodology.

100 USE learners from Mityana SS and 100 USE learners from Nakanyonyi SS in Mukono district were trained in the first cohort in FY 2021/2022 while 100 USE learners from Lweru SS, Buikwe and 100 USE learners from Bombo SS, Luweero have been trained in the FY2023/2024 cohort. Each group of students went through a 12-week training on how to identify viable business opportunities an how to start micro businesses.

Mr. Abdul Nsereko, an Education Officer in Luweero district, commended the project for supporting and skilling youth in entrepreneurship. Through the project, learners can identify business opportunities and engage practically. With funding from the government of Uganda through Mak-RIF, the project is strengthening the capacity of teachers to support students.



Principal Investigator: Dr. Alison Annet Kinengyere

## Dissemination of medical research findings among medical researchers in a tertiary institution in Uganda

A new study conducted at Makerere University's College of Health Sciences (CHS) has revealed that a staggering 80% of science research projects remain idle, failing to translate into practical solutions or drive development.

The research, led by Dr. Alison Annet Kinengyere, found that scientists often struggle to communicate their findings beyond academic journals and conferences. The study was released as part of the Alliance For Medical Research Communication (AMRC) project.

In his key note address, Dr. Moses Ocan, a lecturer in the Department of Pharmacology at CHS urged researchers to improve the impact of research through policy briefs, stakeholder engagements, community dialogues, partnerships with the media, and adding incentives to publications among other strategies.

#### **Project outputs**

Some of the outputs of the AMRC project include

- ⇒ A publication in the African Journal of Health Sciences accessible here https://www.ajol.info/index.php/ahs/article/view/280088
- ⇒ News articles, documentaries, animations, infographics, TV talk shows, cartoons etc translating medical research into products that are more shareable and relatable to the public. Such products include <a href="https://www.youtube.com/watch?v=CjHtEBmm82Q">https://www.youtube.com/watch?v=CjHtEBmm82Q</a>
- ⇒ A draft policy brief. The final version will be shared with relevant MDAs

The AMRC project aims to inspire researchers to be more intentional about dissemination of research findings, conduct studies that contribute to improving healthcare in Uganda, improve channels of communication ad research dissemination





Mr. Benson Musinguzi (1st right) after presenting his abstract on *Molecular Epidemiology of Candida Species Causing Oropharyngeal Candidiasis in HIV/AIDS Individuals in Uganda* during the 18th Joint Annual Scientific Health Conference (JASHC) held at Hotel Africana on 16th – 17th October 2024.



Participants pose for a group photo after the dissemination of the USE-STEP project held at CTF 2 in Makerere University on 10th October 2024.



Dr. Roy Mayega (standing), the Secretary to the GMC, speaking about Mak-RIF's vision and the characteristics of college-led projects during a meeting between the GMC, College Principals, and the Mak-RIF secretariat which was held in Makerere on 23rd October 2024.



Participants pose for a group photo after a meeting on the *Dissemination of medical research findings among medical researchers in a tertiary institution in Uganda* held at CHS on 31st October 2024.

## Editoria!!

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