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1 FOODS FOR HEALTH

My Discovery Themes initiative is catalyzing meaningful collaboration to solve today's complex challenges. Discovery Themes investment in the Foods for Health initiative will develop Makerere University's metabolomics expertise and strengthen the network for collaboration across all disciplines transforming how the university works with industry and community partners to develop solutions to improve health.

1.1 VISION

Foods and nutrition for healthier individuals and communities.

1.2 MISSION

To create a healthier future for individuals and populations through the application of scientific approaches integrating foods and nutrition, metabolomics and health through Makerere University.

1.3 IMPACT

I'm committed to being a leader in the science of using food and nutrition to promote health and prevent disease. Many costly and preventable chronic conditions, heart disease, stroke, cancer, diabetes, hypertension and obesity are caused by poor diet. Based on my research in the university I have observed that at least 14 percent of students in the university cannot access required health foods leading to such chronic diseases mentioned above. And worldwide, inadequate nutrition is a major cause of developmental delays and death. While the link between diet and disease is becoming clearer, much more remains to be learned about personalized nutrition for optimal health. This is why I am researching in metabolomics technology to advance the understanding of biochemical variation in individuals in response to specific foods. Such insights will contribute to development of personalized dietary recommendations, strategic design of novel foods, and nutritional interventions that promote

wellness and decrease the risk of disease and its severity. By building on the collaborations among faculties in the university that span a breadth of expertise, and by joining with key partners in the public and private sectors in the university to create a healthier future for individuals all around the university.

1.4 ASSETS TO LEVERAGE

The university is uniquely positioned to develop metabolomics-based food and nutritional solutions to promote wellness and prevent disease. Makerere university is the only university in Uganda that convenes agriculture and all health science colleges with other related disciplines on one easily navigable campus to enable a crops-to-clinic-to-consumer approach. Makerere university offers world-class teaching, research and outreach throughout the university. The network of experts involved in the foods for health mission spans diverse disciplines, including food and nutritional sciences, kinesiology, medicine, environmental health, plant and animal sciences, data analytics and more. New programmatic excellence, training, and funding opportunities through the initiative will advance knowledge and encourage the type of transdisciplinary collaboration required for meaningful discovery in this initiative. The Foods for Health initiative will establish the University as a leader in personalized food and nutritional metabolomics for health by:

- Targeting new faculty hires committed to collaborative research, specifically lipid omics experts, food and nutritional metabolomics scientists who will use metabolomics to study both health and chronic disease.
- Using a targeted investment strategy to support new faculty hires and existing faculty at Makerere University through new graduate students, postdoctoral researchers, technical support staff, administrative, personnel, building infrastructure, metabolomics equipment, seed grants, seminars and workshops.
- Engaging existing faculty by enhancing collaborations and building upon the strengths of current cross-disciplinary programs on campus, such as the center for Advanced Functional Foods Research program, and connecting these faculties with the Discovery Themes resources.
- Developing industry and community partnerships through funding research projects, sponsorship programs and technology transfer.