Integrated Biorepository of H3Africa in Uganda

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Overall goal

To develop a state-of-the-art world class biorepository

- Well annotated quality assured biospecimens (ISBER)
- Available to African & International researchers

*Enhance genomic discovery projects as it relates to Africa and beyond*
Specific aims

Phase I
✓ Build organizational structure
✓ Train human resource
✓ Improve existing infrastructure
✓ Develop protocols
± Pilot-test above frame-work

Phase II
• Renovations and alterations to the existing infrastructure
✓ Expand human capacity through further training
• Scale up to handle 400,000 samples by end of 2019
Progress so far
Progress - Governance & organization structure

H3Africa Consortium Governance Structures e.g. DBAC, Biorepository Consultants, ELSI

IBRH₃AU Executive Committee

- QA & Risk Management Committee
- Data Management Committee

Figure 1. Shows the revised Governance structure of the IBRH₃AU
I am pleased to inform you that Uganda National Council for Science and Technology (UNCST) has no objection to your proposal to establish an Integrated Bio-repository at the College of Health Sciences, Makerere University. UNCST believes the proposed bio-repository will enable the country and the region to develop capability for advanced genomics and other related areas of research and development.
Progress - Management and science training
IBRH₃AU url is live
Progress – Infrastructure improvement
Progress – Standardization of operations

Response Analysis for the ISBER Self-Assessment Tool (SAT)

January 21, 2014

Dear Integrated Biorepository of H3Africa Uganda,

Your risk-balanced assessment score is 86.7% (for reference, a perfect score is 100%). Questions which you indicated as Not Applicable are not taken into account in your score calculation.
DNA Extraction from Whole Blood
This is to certify that
ibrh3au
(Participant code: L123)
DNA quantification and purity scheme
This is to certify that
ibrh3au
(Participant code: L123)
RNA Integrity Scheme
This is to certify that
ibrh3au
(Participant code: L123)
Cell Viability Scheme
This is to certify that
ibrh3au
(Participant code: L123)
RNA Extraction from Whole Blood
This is to certify that
ibrh3au
(Participant code: L123)
Progress – Feasibility & Pilot studies

- Courier – World Courier, DHL
- Turn around time 3-7 days
- Controlled ambient temperature and Dry ice was successfully delivered
- Refrigerated shipments were problematic with both couriers
- Use of preconditioned shipping boxes offered better alternative
- DNA quality uneven
Progress – Feasibility & Pilot studies

CAfGEN-Retr-UGR0373-104899-PBMC-15SEP2014-13:00-F-16

1. Protocol/study name
2. Study Type
3. Participant ID Number
4. Unique Sample Identification (auto-generated)
5. Aliquot Type
6. Date and Time collected
7. Gender of participant
8. Age of participant
Next Steps

• Pilot study with real biological samples – starts June 2015

• University of Luxembourg Certificate Principles of Biobanking – June 6 - July 1 2015

• Complete the alterations and renovations – end of July 2015

• Equipping the biorepository – by end of Oct 2015

• Full scale operations – Oct 2015
Barriers

• Limited local expertise in biorepository management and science; reason we are training

• Lack of institutional and national framework for biorepositories; reason we are engaging UNCST

• Limited availability of infrastructure and equipment; reason we are building

• Ethics, legal and regulatory issues; suprisingly we have national approval to operate.
Thank You !!!