



INTRODUCING THE GENOMICS AND POST GRADUATE RESEARCH LABORATORY

Godwin E. Imade PhD
Research Professor/Laboratory Director
Faculty of Clinical Sciences
College Of Health Sciences, University Of Jos/JUTH,
Lamingo, Jos, Nigeria
Email: ereimade@gmail.com

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University of Jos (UNIJOS)



Jos University Teaching Hospital (JUTH)



Genomics and Post Graduate Research Laboratory, Faculty of Clinical Sciences, College of Health Sciences, University of Jos



Background

- **Genomics & PG Lab:** Established in November, 2018 to provide a state-of-the-art facility for cutting edge research and development.
 - Genomics, Epigenetics, Emerging Infectious Diseases and others.
 - Solid base for Post Graduate Students (MSc and PhD) to carry out their research projects.
 - Mentees who receive seed grants either from Support of Training and Mentoring in Nigeria for Academics (STAMINA) or other Funded projects use the laboratory for their research projects.

LABORATORY FACILITIES AND STAFF

- **Laboratory Space:** Provided by the Acting Provost, College of Health Sciences/University of Jos
- **Renovation:** Prof. Atiene S. Sagay - Principal Investigator STAMINA, U54 & Zika Projects
- **Equipment and Supplies**
 - STAMINA
 - U54 Epigenetic Project
 - APIN Project
 - Harvard School of Public Health & STAMINA
 - Depart of Medical Microbiology
 - TETFund 2020/2021
- **Staff**
 - UNIJOS
 - Funded Project U54 and Zika Projects

On-Going Activities

- **NIH Funded Research Projects**

- U54 Epigenetic study of biomarkers of liver and cervical cancers Northwestern University (NU), Chicago, USA and Jos University Teaching Hospital/University of Jos (JUTH/UJ)
- The Zika in pregnancy study: Harvard T. H. Chan school of Public Health, JUTH and OLA Hospital
- K43 Vaginal Microbiome Study
- STAMINA and U54 Mentees and Seed Grant Projects
 - 5 On-going Projects requiring the use of Quantitative/Real-time PCR
 - 2 of the projects are part of PhD work.

On-Going Activities

- **Storage of Research Project Samples at ultra-low Temperature -80 degree C**
- **Training and Research**
 - Staff training (Unijos and Other Institutions)
 - Post Graduate (MSc& PhD) laboratory Practicals/Experiments and Tutorials
 - Collaborative Research

EQUIPMENT

Conventional and Quantitative/Real-Time PCR Instrument Work Station



RNA and DNA Extraction and Qubit 4 DNA Quantification Work Station



Ultra-Low -80 ° and 35 ° C Freezers for long term Storage of Samples (Plasma, RNA, DNA, Tissues etc)





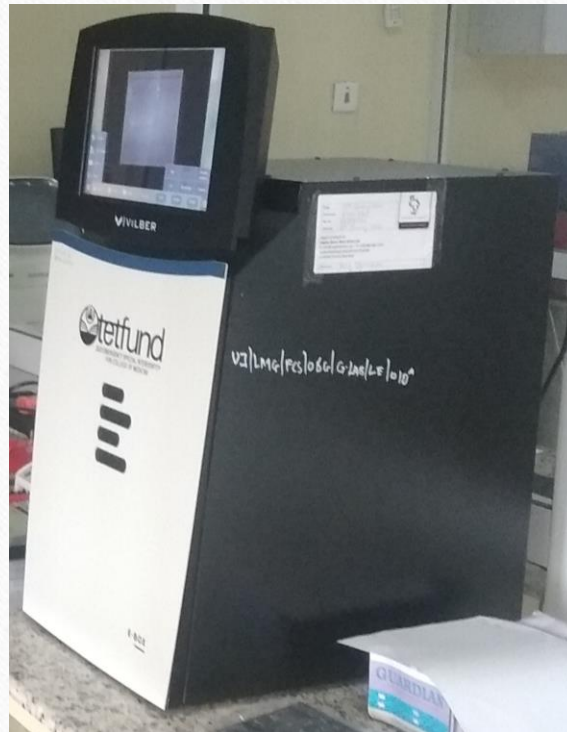
VR Training Tool: Donation from Phyllis Kanki, Harvard T. H. Chan School of Public Health



Equipment and Laboratory Supplies Donations from Phyllis Kanki, Harvard



Molecular Biology Lab Equipment Purchased With FG/Unijos TETFund 2021



Laboratory Work and Trainings



Quantitative PCR Training Demy Clinic Abuja

3-6 JUNE 2019



ZikV in Pregnancy Lab Training in Photos 23

April 2019 at JUTH, Lamingo, Jos, Nigeria



U54 Epigenetic:ccfDNA Extraction Troubleshooting Training LUTH 5-9 May 2019



U54 Joint Lab Training Jos Photo 20-22 January, 2020



Post Graduate (MSc) Students



Staff and MSc Students



STAMINA & U54 MENTEES/5 PHD CANDIDATES

Dr. Chuwang
Nyam U54/PD
Candidate



Dr. Simi Dami
STAMINA/Ph
D Candidate

CHALLENGES

- Teething problems: Establishing standards for operations
- Staff Trainings
- Equipment
- Power and Water

The Way Forward

- Sustained focus and funding
- Centre for training in advanced laboratory techniques
- Supporting Post Graduate (Masters & PhD) Students
- Support collaborative research

Acknowledgement

- Prof Seddi Maimako VC, UniJos
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- Prof. Atiene S. Sagay, PI STAMINA, U54 and Zika Projects.
- Prof. Oche Agbaji, PI APIN
- Prof Phyllis Kanki & Harvard T. H. Chan School of Public Team
- Prof Rob Murphy and Northwestern University Team
- Prof. Gbenga Silas and Team
- Prof. Jonah Musa and Team
- Prof. Edith Okeke and Team
- Dr. Mark Okolo. Head Medical Microbiology
- Others
- STAFF and Mentees
 - APIN Lab Staff
 - O&G Lab Staff
 - Pioneer Staff (Shadrach, Rapp, Michael, Yop, Theresa)
 - Mentees Dr.. Chwang Nyam & Dr. Simi Dami



THANK YOU!