Overview of UI-MEPI-J

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Principal Investigator

ANNUAL D43 (JUNIOR FACULTY) NETWORKING CONFERENCE

Held at the ICC, Durban, South Africa
August 04, 2018
University of Ibadan MEPI Junior Faculty Research Training Program (UI-MEPI-J)

Grant Number: D43TW010140
**OUR VISION**

“To be a world-class institution for academic excellence geared towards meeting societal needs”

**MISSION**

• To expand the frontiers of Knowledge and Transform the Society through Innovation
• To produce graduates who are worthy in character and sound judgement
• To contribute to the transformation of society through creativity and innovation
• To serve as a dynamic custodian of society’s salutary values and thus sustain its integrity
Relevant Demographics

University of Ibadan

- 9 Faculties
  - Science, Arts, Technology, Social Sciences, Pharmacy, Agriculture, Veterinary Medicine, Education and Law
- College of Medicine (4 Faculties)
  - Basic Medical Sciences
  - Clinical Sciences
  - Dentistry
  - Public Health
- 4 Institutes,
- PG School and
- Distance learning center
University College Hospital Ibadan

- The foremost Tertiary Healthcare Facility in Nigeria
- 17 Clinical Dept and 10 service units
- 10 Schools
- 1000 bed
Rationale for research training program

- The objective of the UI-MEPI-J research training program is to support development of early career faculty to acquire sufficient knowledge and skills to conduct high quality country relevant biomedical, clinical, epidemiological or behavioral research for improvement of human health.
- Prepare them to assume the roles and responsibility of a researcher and principal investigator
Scientific Themes

- Laboratory and Clinical Investigation of HIV and Its Long-Term Complications
  - *Laboratory Training*
  - Clinical Training

- GENOMICS OF INFECTIOUS DISEASES
  - HIV
  - Tuberculosis
  - Malaria
  - Other infectious diseases now inclusive

- Neurology (including Neuroimagining)
  - Stroke
  - Epilepsy
  - General neurology
Training Plan

Two Levels of training

- Institutional Level

- Program for selected Trainees
  - Junior faculty
    - Assistant Lecturer, Lecturer II, Lecturer I, Senior Lecturer (3yr)
  - Confirmed appointment with the University of Ibadan
  - Protected Time
Institutional Level

- Continuation of faculty development short courses developed as part of the original MEPI program at the University.

- Mentoring training, focusing on senior academic staff of the College of Medicine and related disciplines in the University.
  - To build the critical mass of mentors required to mentor junior faculty in the University.
Program for Mentored Research Trainees

A total of 24 junior faculty will be provided mentored research training

- Two years training to include:
  - Short-term Overseas internship training/mentorship
  - Implement a research project with the guidance of the local and overseas mentors
  - Participate in professional/career development activities
  - Participate in local and international conference with mentor

- Additional short courses (didactic and online)
  - Biosafety and Biosecurity, Good Clinical and Laboratory Practice, Scientific Communication, Bioinformatics, Intellectual Property and Material Transfer, Mentoring
  - Bioethics/ Scientific Integrity
Expected Outcomes of the program

At the end of the mentored research training period, each trainee will be expected to have

- completed the core curriculum for research training
- conducted a well-designed project
- submitted original manuscript for peer reviewed publication
- made scientific presentations at local and international conferences
- submitted proposal for a competitive grant.
- become an active member of scholars in his/her field of study and assuming leadership role in his/her academic unit with active fostering of the next generation of investigators in his/her academic unit or group.
Model/approach do you use for training

- Partnership with two US research intensive institutions - Northwestern University, Chicago and Harvard School of Public Health, Boston; and Stellenbosch University, Cape Town (i.e. N-S and S-S collaboration)

- Institutional and individual research capacity building

- Research training through mentoring

This model was adopted based on the successes achieved in the research training component of our MEPIN grant in six universities
PROGRESS
Objective 1

Provide research training for 24 junior faculty members of the University of Ibadan through

- a two-year mentored research
- career development activities
- develop capacity of the research trainees to compete for relevant institutional, national and international funding opportunities.
Achievements

• Call for application for UI-MEPI-J research trainee was advertised using the MEPI website, posters and fliers
  • Year 01 to 04

• Applications assessed by a panel of Scientific Reviewers made of experts in the areas of genomics, infectious disease, HIV/AIDS and neurology
  • Used the modified NIH criteria for assessment of proposal applied in the mentored research program of our parent MEPI grant to assess the application.

• Comments on applications that were not successful and recommendations on improvement were provided to the applicants

• Year 01 to 03 concluded while Year 04 is ongoing
14 trainees have been enrolled in the UI-MEPI-J Mentored research program.

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Year</th>
<th>Year</th>
<th>Year</th>
<th>Total</th>
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<tr>
<td></td>
<td>01</td>
<td>02</td>
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<tr>
<td>HIV/AIDS</td>
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<td>Neurology</td>
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<td>Genomics of Infectious diseases</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
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<tr>
<td>Total</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>14</td>
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</tbody>
</table>
Achievements cont.

- Trainees are participating in the institutional level training
  - research methodology, responsible conduct in research, bioethics, data analysis, career development and mentoring.

- Overseas internship program
  - The Trainees have both local and overseas mentors
  - Year 03 Trainees are currently in Northwestern University, Chicago
  - Each candidate will spend 6 to 8 weeks with their overseas mentors at the host institutions (NU or HSPH)
  - One of the Trainees in Year 03 working on TB spent 4 weeks in NU and 4 weeks at the NIH TB laboratory in Mali
  - NIH supported TB laboratory under the supervision of NU
Year 01 & 02 Trainees
During their US internship
UI-MEPI-J/STAMINA
Mentoring workshop
<table>
<thead>
<tr>
<th>Name of Trainee</th>
<th>Thematic area</th>
<th>Title of research project</th>
<th>Mentor</th>
<th>International Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Akin A. Ojagbemi, Department of Psychiatry, College of Medicine, University of Ibadan</td>
<td>Neurology &amp; HIV</td>
<td>Delirium, HIV and the risk of vascular dementia after Stroke in Nigeria</td>
<td>Professor Olusegun Baiyewu</td>
<td>Professor Ann Ragin, Northwestern University, Chicago, USA</td>
</tr>
<tr>
<td>Dr. Abimbola M. Obimakinde, Department of Community Medicine, College of Medicine, University of Ibadan</td>
<td>Neuro &amp; HIV</td>
<td>Multimorbidity and cognitive impairment in HIV-positive and negative elderly patients in Ibadan, Nigeria</td>
<td>Professor A. Ogunniyi</td>
<td>Dr. Chad Achenbach, Northwestern University, Chicago, USA</td>
</tr>
<tr>
<td>Dr. H. K. Adesokan, Department of Veterinary Public Health and Preventive Medicine, College of Medicine, University of Ibadan</td>
<td>Genomics &amp; TB/HIV</td>
<td>Genomics of <em>Mycobacterium tuberculosis</em> complex in infected humans and cattle in Oyo State, Nigeria</td>
<td>Professor S. I. B. Cadmus</td>
<td>Dr. Mamoudou Maiga, Northwestern University, Chicago, USA</td>
</tr>
<tr>
<td>Name of Trainee</td>
<td>Thematic area</td>
<td>Title of research project</td>
<td>Mentor</td>
<td>International Mentor</td>
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<tr>
<td>Dr. Bernard Onoja, Department of Virology, College of Medicine, University of Ibadan</td>
<td>Genomics of infectious disease</td>
<td>Molecular epidemiology of dengue virus from febrile patients and <em>Aedes species</em> in Nigeria</td>
<td>Professors David O. Olaleye and Georgina N. Odaibo, Department of Virology, College of Medicine, University of Ibadan</td>
<td>Dr. Mamoudou Maiga, Northwestern University, Chicago, USA</td>
</tr>
<tr>
<td>Dr. Bose E. Orimadegun, Department of Chemical Pathology, College of Medicine, University of Ibadan</td>
<td>Genomics of infectious disease</td>
<td>Relationships among Apolipoprotein A1 Gene Polymorphisms, Lipid Levels and Human Gene Expression in Malaria Infections</td>
<td>Professors Catherine O. Falade and E. O. Agbedana, College of Medicine, University of Ibadan</td>
<td>Professor Phyllis Kanki, Harvard School of Public Health, Boston, USA</td>
</tr>
<tr>
<td>Dr. Olukemi A. Adekanmbi, Department of Medicine, College of Medicine, University of Ibadan</td>
<td>HIV/AIDS</td>
<td>Epidemiology and Clinico-pathologic parameters of Central Nervous System Disease in Hospitalized HIV/AIDS patients at the University College Hospital, Ibadan</td>
<td>Professor A. Ogunniyi, Department of Medicine, College of Medicine, University of Ibadan</td>
<td>Professor Babafemi Taiwo, Northwestern University, Chicago, USA</td>
</tr>
<tr>
<td>Name of Trainee</td>
<td>Thematic area</td>
<td>Title of research project</td>
<td>Mentor</td>
<td>International Mentor</td>
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</tr>
<tr>
<td>Dr. Kolawole O. Akande</td>
<td>HIV/AIDS</td>
<td>Treatment outcomes in HBV and HBV co-infected patients attending University College Hospital, Ibadan</td>
<td>Professors Ayodeji Arije and David O. Olaleye, College of Medicine, University of Ibadan</td>
<td>Professor Claudia Hawkins, Northwestern University, Chicago, USA</td>
</tr>
<tr>
<td>Dr. Temitope H. Farombi</td>
<td>Neurology</td>
<td>Gait changes and risk of falls in the healthy adult in Ibadan Nigeria</td>
<td>Professors A. Ogunniyi and Temitope Alonge, College of Medicine, University of Ibadan</td>
<td>Professor Sorond, Northwestern University, Chicago, USA</td>
</tr>
<tr>
<td>Dr. Ayodele L. Baiyewu</td>
<td>Genomics of infectious diseases</td>
<td>Use of bed-side pleuroscopy in obtaining high-yield tissues for genomic diagnosis of tuberculosis in sputum-negative Nigerian adults with clinically-suspected tuberculous pleural effusion</td>
<td>Professor Victor O. Adegboye, Department of Surgery, College of Medicine, University of Ibadan</td>
<td>Drs Mamoudou Maiga and Collin Gillespie, Northwestern University, Chicago, USA</td>
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## UI-MEPI-J Year 03 Trainees

<table>
<thead>
<tr>
<th>Name of Trainee</th>
<th>Thematic area</th>
<th>Title of research project</th>
<th>Mentor</th>
<th>International Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Abimbola E. Akindolire</td>
<td>Neurology</td>
<td>Diagnostic Evaluation of Paediatric Patients with Fever and Encephalopathy in Ibadan.</td>
<td>Dr. Adanze O. Asinobi</td>
<td>Dr Jane Holl</td>
</tr>
<tr>
<td>Dr. Elizabeth B. Bolajoko</td>
<td>Genomics of infectious disease</td>
<td>Genetics of Host Immune Factors to <em>Mycobacterium Tuberculosis</em> Infection.</td>
<td>Professor O. G. Arinola</td>
<td>Dr Mamoudou Maiga</td>
</tr>
<tr>
<td>Dr. Samuel O. Ajayi</td>
<td>HIV/AIDS</td>
<td>Risk factors for chronic kidney disease in HIV-infected patients in a treatment program in Nigeria.</td>
<td>Professor Solomon Kadiri</td>
<td>Dr Anand Sriveastava</td>
</tr>
<tr>
<td>Babatunde A. Olusola</td>
<td>HIV/AIDS</td>
<td>Genotypic characterization of transmitting non-subtypes B HIV-1 isolated from blood samples of infected children and adults in Nigeria.</td>
<td>Professors David O. Olaleye</td>
<td>Dr Lifanh Hou</td>
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<tr>
<td>Dr. Adedayo Faneye</td>
<td>Genomics of infectious disease</td>
<td>Evaluation of a Novel Cervical Cancer Screening Algorithm</td>
<td>Professors Georgina N. Odaibo</td>
<td>Dr. Claudia Hawkins</td>
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</table>
Year 03 UI-MEPI-J mentees

Drs Ajayi, Faneye, Bolajoko, Akindolire and Olusola
Objective 2

- Produce or update course outlines/curricula for structured and tailored institutional level training and

- Train junior faculty of the College of Medicine and related disciplines of the University of Ibadan in the methods of scientific investigation, the art of oral and written communication, interpersonal interactions, legal and ethical aspects of scientific responsibility.
Achievements

- We have continued the implementation of the updated curricula for faculty development short courses for institutional level started in year 01.
- Additional short courses including professional development and good clinical/laboratory practise have been developed and implemented.
- In year 03, we conducted
  - 30 hours didactic RCR and online CITI course
  - 36 hours research design/methodology and bioethics
  - 50 hours of data analysis and manuscript writing
  - 30 hours of bibliography
“Deliverables”

- Participants developed specific documents relevant to each of the courses
- E.g.
- Eighteen manuscripts were developed during the data analysis and manuscript writing workshop. The manuscripts have been published as a special supplement in the Archives of Basic and Applied Medicine Journal (www.archivesbamui.com)
<table>
<thead>
<tr>
<th>Course</th>
<th>Cadre of participants</th>
<th>Faculty</th>
<th>Gender</th>
<th>Target</th>
<th>Total</th>
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<tbody>
<tr>
<td>RCR</td>
<td>Senior Lecturer, Lecturer I, Lecturer II, Assistant Lecturer and PG Students</td>
<td>Public Health, Basic Medical Sciences, Clinical Sciences, Veterinary Medicine and Pharmacy</td>
<td>M 38</td>
<td>F 32</td>
<td>70</td>
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<tr>
<td>Research Design and Methodology</td>
<td>Senior Lecturer, Lecturer I, Lecturer II, Assistant Lecturer and PG Students</td>
<td>Public Health, Basic Medical Sciences, Clinical Sciences, Veterinary Medicine, Science and Pharmacy</td>
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<td>F 25</td>
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<td>Bioethics</td>
<td>Senior Lecturer, Lecturer I, Lecturer II, and PG Students</td>
<td>Science, Veterinary Medicine, Basic Medical Sciences, Social Sciences and Clinical Sciences.</td>
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<td>F 22</td>
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<tr>
<td>Grants Writing</td>
<td>Professor, Senior Lecturer, Lecturer I, Lecturer II, Assistant Lecturer, Consultants and Resident doctors</td>
<td>Basic Medical Sciences, Clinical Sciences, Dentistry, Public Health, Veterinary Medicine</td>
<td>M 11</td>
<td>F 9</td>
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<tr>
<td>Course</td>
<td>Cadre of participants</td>
<td>Faculty</td>
<td>Gender</td>
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</tr>
<tr>
<td>Bibliography</td>
<td>Lecturer I, Lecturer II, Assistant Lecturer, Consultants, Resident doctors, Graduate research assistants and Postgraduate Student</td>
<td>Basic Medical Sciences, Clinical Sciences, Public Health, Veterinary Medicine, Social Science, Dentistry, Science, RMO, Management Information Unit, Pharmacy, Engineering Agriculture and Forestry</td>
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<td>72</td>
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<tr>
<td>Mentoring Training</td>
<td>Professor, Senior Lecturer, Lecturer I and Lecturer II</td>
<td>Basic Medical Sciences and Clinical Sciences</td>
<td>5</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Professional Development (Achieving a productive and successful career in academia)</td>
<td>Professor, Senior Lecturer, Lecturer I, Lecturer II, Assistant Lecturer, Consultants, House officers, Resident doctors, Medical Lab Scientist, Technologists and undergraduate students</td>
<td>Basic Medical Sciences, Clinical Sciences, Public Health, Veterinary Medicine, Sciences, Pharmacy, Agriculture and Education</td>
<td>175</td>
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<td>150</td>
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</tbody>
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Objective 3

- Engage the University of Ibadan and College of Medicine leadernships to support and strengthen research administration and support structures, and promote effective leadership for research.

- Institutionalize training on research skills and culture in the University.
Bioinformatics training
Achievements

- We continue to work with leadership of the College of Medicine and the University to strengthen research skill, culture and management through training of academic staff and research support staff, and engagement of Principal Officers of Faculties, and College of Medicine on University research development and management related matters.

- We are working with the University of Ibadan leadership to institutionalize the MEPIN CITI ethics course for postgraduate students and staff of the university to take the online ethics course.

- As part of our sustainability plan, facilitators for the faculty development short courses are drawn largely from experienced/senior faculty members, especially among those that participated in the same courses during the original MEPI training workshops.
Objective 4

• Create community of scholars and role models in high output research at the University of Ibadan and networking with related local and international organizations.
Achievements

- Three Administrators attended the NIAID post grant award management training in Senegal. The Provost of the College attended the annual CUGH conference in USA on behalf of the grant.

- Each of the trainees has additional mentor at NU, Chicago or HSPH, Boston, USA oversees mentor.

- A community of practise has been formed among the trainees from year 01 to 03. They hold meetings face to face and online regularly.

- The joint mentor-mentee training for our year 03 cohort was held in collaboration with the University of Jos early career research training grant, STAMINA.

- Mentees are formed networks among themselves
Acknowledgements

- USG NIH
- UI/NU/HSPH Managements (Consortium)
- TAC members
- Project investigators
- Program staff
Thank you very much