ANNUAL D43 NETWORKING CONFERENCE
AUGUST 4, 2018

Professor Folasade Ogunsola
Principal Investigator
College of Medicine, University of Lagos
Prof AO Atoyebi
Prof Christian Harpi
Prof Atiene Sagay
Dr Tillerson

Bose Afolabi
Biola Oduwole

Neurosciences
Njide Okubadejo
GOALS OF BRAINS

• **Build research Capacity using two approaches**
  – Train faculty on relevant coursework to ensure they are equipped to conduct research, develop projects, follow all proper protocols in conducting research, and produce strong manuscripts to present their findings.
    • By Year 5 of this grant to have formalized these courses into an official M.Sc. program focused on Clinical Investigation.
  – Build a robust mentored research program that pairs junior faculty with senior researchers to allow for utilization of skills developed through coursework and practice of research.
    • During this process there will be opportunities for a few faculty to travel for courses at Harvard and Northwestern universities

• **Develop capacity in innovation in Biomedical engineering**
What we have done this year
<table>
<thead>
<tr>
<th>S/N O.</th>
<th>TRAINING</th>
<th>DATE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>1</td>
<td>Research Design and Methodology Workshop</td>
<td>August 15 – 17, 2017</td>
<td>13</td>
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<td>Bioinformatics Workshop</td>
<td>January 9 – 11, 2018</td>
<td>19</td>
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<td>Mentoring Workshop</td>
<td>February 21 – 22, 2018</td>
<td>24</td>
<td>19</td>
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<td>Manuscript Writing Workshop</td>
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<td>Case-Based Method of Teaching Workshop</td>
<td>March 26 – 27, 2018</td>
<td>26</td>
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10 Trainings / 292 trained
# TRAINING

<table>
<thead>
<tr>
<th>S/N</th>
<th>NAME OF TRAINING</th>
<th>DATE</th>
<th>MALE</th>
<th>FEMALE</th>
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<tr>
<td>6</td>
<td>Master of Science in Clinical Investigation</td>
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<td>e-Learning Workshop</td>
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<td>Viral Genomics Workshop</td>
<td>May 7 – 11, 2018</td>
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<td>Responsible Conduct of Research/Grant Writing Workshop</td>
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<td>11</td>
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<td>10</td>
<td>Introductory Genomics/Bioinformatics Workshop</td>
<td>July 10 – 12, 2018</td>
<td>17</td>
<td>15</td>
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</tbody>
</table>

10 Trainings / 292 trained
Northwestern University, Chicago: 
March 28 – June 20, 2018 – (Drs. Mobolanle Balogun, Adeseye Akinsete, Kehinde Okunade).
## SUMMARY OF YEAR 1-3 TRAININGS

<table>
<thead>
<tr>
<th>S/No</th>
<th>Name of training</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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<td>Research Design and Methodology</td>
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<td>2</td>
<td>Bioinformatics</td>
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<td>Manuscript Writing</td>
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<td>Case-based Method of Teaching</td>
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<td>Short-term public health postgraduate course at Northwestern</td>
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<td>e-Learning</td>
<td></td>
<td></td>
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<td>8</td>
<td>Viral Genomics (Boston &amp; Jos)</td>
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<td>3</td>
<td>4</td>
<td>12</td>
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<tr>
<td>9</td>
<td>Introductory Genomics and Bioinformatics</td>
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<td>38</td>
<td>32</td>
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<td>Responsible Conduct of Research</td>
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<td>144</td>
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<td>210</td>
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<td>11</td>
<td>Public Health Research in Infectious Diseases</td>
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Mentored Research

<table>
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<tr>
<th></th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
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<td>HIV &amp; Infectious dis.</td>
<td>2</td>
<td>2*</td>
<td>2</td>
<td>2</td>
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<td>Neurosciences</td>
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<td>Community Medicine</td>
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<td>*</td>
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<td>Bioinformatics and Genomics</td>
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<td>1*</td>
<td>2</td>
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<tr>
<td>Biomedical engineering</td>
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<td>2</td>
<td>3</td>
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<td>8</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>6 (12)</td>
<td>27</td>
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- expected
- achieved
MENTORED RESEARCH

- To date, there have been sixty five (65) applications by Junior Faculty members at CMUL over the three years lifecycle of the BRAINS project.
- 27 (82%) have been awarded out of a total of 33 expected
- 4 have published 4 have submitted
Biomedical Engineering

• An interdisciplinary Biomedical Engineering Journal Club has been established with several meetings holding.
• Training on Innovation
• Outcomes
  – Antenna for Ablation of Necrotic tissue
  – Digital cuff
  – Gel for wound healing
  – Lateral flow device for diagnosis of Prostate Cancer – very exciting
The Responsible Conduct of Research has been migrated to the Electronic platform.
Accessible via

https://cmul-brains.moodlecloud.com
Outcome

Junior faculty secured international grants and:

• **Dr. Oluwakemi Odukoya:** - a *NIH K43 Grant*, the first NIH grant to be awarded to a junior faculty in CMUL.
  – Also secured the 2017/2018 *HBNU/Fogarty Global Health Fellowship Programme*.

• **Dr. Kehinde Okunade:** was selected for the 2018/2019 *HBNU/Fogarty Global Health Fellowship Programme*. 
Dr. I.O. Ishola: Study abstract was accepted for a poster presentation at the 18th World Congress of Basic and Clinical Pharmacology that held from July 1-6, 2018 in Kyoto, Japan.

Dr. E. N. Akang: got a grant to attend the Basic Science Summer School in Osaka, Japan, 2018.

Dr. A.K. Oloyo: GSK Grant on Animal Research is awaiting possible funding

CITI registrations - 860 to 1609
Outcome

• Increased visibility of the University – requests by young researchers to come to the University
• Senior Faculty: Have been joining our training
• Multidisciplinary research has increased
• More faculty applying for grants
• New networks have developed amongst our junior faculty
• New grants have been obtained by BRAINS team and other Faculty leading to more infrastructure, equipment and involving more faculty
Challenges- Mentorship

Participation in formal mentor research training

- No Response: 4%
- Yes: 24%
- No: 72%

Do you have a mentor?

- Yes: 79%
- No: 21%
Challenges

• Biomedical Engineering – Not enough proposals
• Some slow in completing their research – often due to strikes, requiring reagents not easily obtained
• Energy fluctuations
Moving Forward

- **Mentored research**: Focus will be on biomed engineering
- **E-learning**: Migrate the remaining courses onto the E-platform to spread training
- **MSc in Clinical Investigation curriculum**: Undergoing the approval process
- **Dissemination**: Publications!
Northwestern University, Chicago:  
March 28 – June 20, 2018 – (Drs. Mobolanle Balogun, Adeseye Akinsete, Kehinde Okunade).
Opportunities for Collaborations

• Area of Genomics of Disease especially Breast cervical and Liver both HIV related and otherwise
• Major interest in the Microbiome and disease
• Biomedical engineering
Acknowledgement

• The Government and People of USA
• National Institutes of Health and Fogarty International Centre and the other agencies
• Our partner Universities Harvard, Northwestern
• Our Vibrant Junior Faculty
• University of Lagos staff and students
Thank you for listening!