

**BIOINFORMATICS TRAINING WORKSHOP**  
**(Basic Bioinformatics Treatise for Research, Health care delivery and Education)**  
**June 19 – 23, 2017**

**Biomedical Research and Cancer Training Centre, Nigerian Institute of Medical Research (NIMR), Lagos, Nigeria.**

**Preamble**

The use of bioinformatics in biomedical research and health care delivery is uncommon in Nigeria. This has been attributed to limited learning opportunities to acquire knowledge and skills in computational biology and informatics in the country.

The Nigerian Institute of Medical Research hereby welcomes application for the above bioinformatics training to be held under a state-of-the-art infrastructural condition. This training workshop will provide knowledge and skills in Bioinformatics and its use for biomedical research and health care using publicly available databases, algorithms and high speed computing.

At this training participating will learn from a set of lecture modules tailored to their needs, have hands-on experience in the exploration of sequence to elucidate structure and functions of biomarkers in biological systems, participate in group projects and presentations, take part in group discussion and role-model plays and finally have the opportunity to sustain the newly acquired capabilities in Bioinformatics.

The training programme has been designed for health related professionals in Nigeria and Africa. They include clinicians, nurses, laboratory scientists, paramedicals, graduates and post graduates (undergraduates can also apply), university lecturers, ICT specialists, mathematicians, computer scientists and scientists from other research institutes in and outside the country with little or no experience in Bioinformatics and computer.

A limited number of discounted fees are available to attend this training workshop. Potential participants should contact NIMR Consults or visit NIMR website ([www.nimr.or.ng](http://www.nimr.or.ng)) for more information.

**Learning outcomes:**

At the end of this training workshop, participants will be able to:

- Understand and explain bioinformatics in principles and practise.
- Discuss the use bioinformatics for biomedical research
- Discuss the use of bioinformatics for health care delivery
- Give bioinformatics talks and lectures to expand awareness creation and build capacity.
- Use appropriate bioinformatics tools to explore biological information
- Understand how biological data can be stored, retrieved, transcribed, translated, functionally predicted and organised.

**Content:**

The training workshop will include the following in lectures and practise

- Genomics
- Genome Sequencing

- Bioinformatics: Principles and Applications
- Biological Databases
- Sequence retrieval and Storage
- Algorithms and sequence entry
- Sequence alignment in theory and practise
- Structural Biology and functional prediction
- De. Novo Assembly and Annotation
- Pathogen identification and Phylogenetics
- Metabolomics
- Chemoinformatics/Chemo genomics
- *In silico* SNP typing
- Drug Design

#### **Lead instructors**

Dr. Iwalokun BA (Molecular Biology & Biotechnology Dept, NIMR)

Dr. Muinat Fowora (Molecular Biology & Biotechnology Dept, NIMR)

Dr. Chika Onwuama (Human Virology unit, NIMR)

Dr Babatunde James (Dept of Biochemistry, University of Lagos).

Dr. Bankole Habeeb (Dept of Biochemistry, Lagos State University).

Dr. Olabisi Ojo, Albany State University, USA.

#### **Dates to Remember**

Discounted fee deadline May 30th, 2017

Application deadline May 30th, 2017

**Training Workshop fee: N100,000**

#### **Payment can be made onsite**

#### **Benefits:**

- Free paired accommodation at NIMR Hocal Suites for 2 nights
- Tea Break, Lunch and light refreshment in between
- Training material: Lecture modules (on CD) and training manuals
- High speed internet facilities
- Laptops to use for training
- Mentorship
- Distinguished guest lecture on mentorship

#### **Note:**

Only 20 health professionals will be trained at a time. Participants will be enrolled on first come and first served basis. Thank you.

Dr. Iwalokun BA (Team leader)