

## Oppah Kuguyo

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### Summary of Qualifications

#### **Post Graduate studies**

Currently enrolled for DPhil studies at the University of Zimbabwe, Clinical Pharmacology Department

Master of Science degree in Cancer Biology at Kingston University London, UK

#### **Undergraduate studies**

Bachelor of Sciences degree with Honours at the University of the West of England, Bristol, UK

I am a co-founder of Sikhangele Grace Cancer Trust, 2015. I have experience in multicultural and interdisciplinary research in laboratories in the UK and USA. Working in research has enhanced my confidence, personal organization, teamwork, problem solving, integrity, strategic and analytical thinking. I am an articulate individual with excellent written and IT skills that have been developed during the course of university and also during the preparations for various symposiums.

### Education

#### **I. MSc Cancer Biology, Kinston University London, UK . September 2013 – September 2014**

Classification: Upper Second class

*Modules (overall grade):* Immunology and Biology of Disease (**B**) Cellular and Molecular Biology of Cancer (**B**) Cancer Diagnosis and treatment (**B**) Research techniques and analysis (B)

*Practical Skills:* Immunofluorescence, confocal microscopy, restriction fragment length polymorphism, isolation of DNA, immunohistochemical staining, reduction of IgM using DTT

*Research project:* 'Investigation of the association of high-risk types of Human Papillomavirus (HPV) 18 and 35 with breast cancer (BC)'. In this project the DNA of high-risk HPV18 was detected in breast cancer samples. DNA, RNA and protein was extracted from breast cancer tissue and then using the DNA sample to run PCR and run on a 3% agarose gel for electrophoresis. HPV 18 is the only high-risk HPV sub-types that was detected in the breast cancer tissue. The findings for my project suggest that high risk HPV subtypes may play a significant role in the pathogenesis of BC, however further tests need to be carried out for example western blotting in order to confirm the presence of HPV protein, as well real time PCR to confirm the presence of HPV RNA in the tissue. These tests were not carried out due to time constraints, however the samples will be handed over to the PhD students to continue with the research.

**Employability Skills:** Fresh tissue sample handling, DNA extraction, RNA extraction, protein extraction, polymerase chain reaction, patient confidentiality, how to acquire ethical permission.

#### **II. BSc (Hons) Biomedical Sciences, The University of the West of England, Bristol, UK September 2009 – July 2013: Upper Second class**

*Practical skills attained during the degree:* Use of haemocytometer, ELISA technique, Microscope analysis, Bacterial culturing, Cell chromatography, HPLC, GC Spectrometry,

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SDS-PAGE, Western Blotting, Colometric analysis, TRizol RNA isolation, PCR, RNA extraction, Chemotaxis assay, LD50 calculations, nematode culturing.

*Final year:* Haematology and Transfusion (2:2); Gene Expression and Cell Regulation (2:2); Clinical Biochemistry (2:1); Final year research project (2:1) ; Professional Practice (1<sup>st</sup>)

*Research project:* 'Does green tea affect the locomotion, chemotaxis and longevity of the nematode, *Caenorhabditis elegans*'. I found that green tea increased the longevity of the nematode but did not significantly affect the chemotaxis and locomotion of the nematode.

**Techniques used:** TRizol RNA isolation, PCR, RNA extraction, Chemotaxis assay, LD50 calculations, nematode culturing.

*Internship:* Research Scholar, East Carolina University, North Carolina USA (2011-2012) I worked in a Cancer Research laboratory under the supervision of Dr. Isabelle Lemasson investigating the effects of the transcription factor c-Jun on Human T-cell Leukaemia virus type-I transcribed protein. In this project, we found that the viral protein stabilized the transcription thus resulting in the uncontrolled cell proliferation and spreading of the cancer. Further we analyzed the other transcription factors in the Jun family (JunB and JunD), and we did not observe the same effect as the c-Jun. However due to financial restraints, the project was put on hold until 2016 where the publication of this data is expected.

**Techniques used in this project included:** Western blotting, Immunoprecipitation, Luciferase Assaying, real time PCR, cell culture, transfections, Immunofluorescence, cloning and transformations. Main responsibilities included making buffers and solutions for the experiments, researching around the literature for alternative experiments, routine lab chores and autoclaving. While on placement, my confidence, public speaking and writing skills were improved because on a monthly basis, I presented my data at a symposium and came second of all the undergraduate researchers. Further, endurance, motivation, team working and independent working were mastered because of the challenges I faced while I was carrying out some unsuccessful experiments. Problem solving was implemented when I had to adjust the set protocols in order to improve the quality of my results. Moreover, I took a radiation-training course and managed to attain a radiation badge at this institute.

### III. Advanced Level, Watershed College, Zimbabwe (2007– 2008)

Mathematics (B), Biology (B), Chemistry (D)

### IV. IGCSE, Watershed College, Zimbabwe (2003– 2006)

9 including Mathematics (B), First Language English (B), Biology (B), Chemistry (B)

## Country Experience

Morocco (Leisure)

South Africa (Work/Leisure)

Spain (Leisure)

United Kingdom (Education/Work)

United States of America (Education/Work)

Zimbabwe (Home)

## Professional Experience

October 2015 – current

### Research Assistant for the Zimbabwe Diabetic Foot Project

The overall administration for the project such as planning the launch and implementation of the project. Ensuring the procurement of the necessary equipment needed to train as

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well as organizing and planning the training workshops.

October 2015 –current

**Assistant for the Genomics Inheritance Legal Ethical Social issues project, Harare, Zimbabwe**

Assisting the administration for the project such as ensuring the procurement of the necessary equipment

### Additional Experience

May 2015 – August 2016

**Activities co-ordinator of Next Generation Biomedical Sciences, AIBST Harare Zimbabwe.**

The general overseeing and planning of the NGBS program and camps including designs of the camp activities (preparation of work plans, budgets, implementation schedules, and evaluation criteria). Ensuring the provision of appropriate technical and management assistance for the programs including getting appropriate permission and affiliations and procuring necessary resources. Oversee the administrative and financial systems of the NGBS grant awarded by the Wellcome Trust, UK and ensure the management and monitoring of programs. Setting up the effective monitoring and evaluating plans to keep the program running including constructing surveys and interviews to find out how best to improve the program.

2013-2014

**Research assistant** in ‘Enhancing nutritional benefits of flavor materials with natural functional ingredients from control of production processes’, UWE, UK. The use of social media to promote health and wellness, including the use of Twitter and Facebook. **Responsibilities included** social networking for the cause, preparing seminars, communication with health specialists, researching around day-to-day supermarket brands on salt and omega-3 content. **Main skills achieved** were team building, organization, communication, motivation, independent working, IT skills, literacy, public speaking and confidence.

2012-2013

**Biomedical Sciences Student Representative**, The UNIVERSITY OF THE WEST OF ENGLAND, UK. **Duties Involved:** Communication with Biomedical Sciences students to give advice and assistance, meetings with institute board to inform them how to improve the courses or lectures

2006

**Voluntary worker World Vision Organisation Zimbabwe**

### **Additional qualifications:**

- **Project Management** under the Norwegian programme for capacity development in higher education and research development (NORHED). Date acquired (19/02/2016)
- **Good Clinical Practice** (University of Zimbabwe Research Support Centre) Date acquired- 16/12/15
- **International Computing Driver’s License (ICDL)**- Date acquired 2008

### **Professional Affiliations**

- Advisory board of the Next Generation Biomedical Sciences; May 2015- current

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- Management board of the Next Generation Biomedical Sciences; May 2015-current
- Co-founder of Sikhangele Grace Cancer Trust, 2015 to current

### **Grants awarded:**

- **Next Generation Biomedical Scientists (Funded by Wellcome Trust Grant ID) 2015-2016**

### **International conferences:**

- **Fourth African Society of Human Genome meeting (2016)**
- **Eighth Human, Health and Hereditary for Africa (H3 Africa) consortium**