AQUILLAH M. KANZI, Ph.D.
University of Pretoria, Department of Genetics
Lunnon Street, Hillcrest, Pretoria, 0028, South Africa
Email: kanziaquillah@gmail.com, Phone: +27 84 792 9896

Background

I have a BSc degree in Medical Microbiology from the Jomo Kenyatta University of Agriculture and Technology (Kenya). After my undergraduate studies, I became interested in bioinformatics and genomics. Therefore, I joined the Research Unit in Bioinformatics (RUBi) at Rhodes University (South Africa) where I graduated with an MSc in Bioinformatics and Computational Molecular Biology. Shortly thereafter, I joined the Forestry and Agricultural Biotechnology Institute (FABI) at the University of Pretoria (South Africa) to pursue a PhD in genetics with a major focus on comparative genomics. Currently, I am a post-doctoral fellow at the University of Pretoria where I am working on comparative genomic analysis of fungal mitochondrial genomes.

Research Interests

My research interest is broadly focused on the genomics of microbial and fungal pathogens. In particular, I am interested in the specific factors and complex processes that drive evolution of the genes, genomes and the associated phenotypes. A comprehensive understanding of these factors is crucial for the development of effective control and treatment strategies. To address the various biological questions related to these subjects, I apply an integrated approach that involve using modern molecular biology, bioinformatics and genomics tools.

Biography

2017 - Present Post-doctoral fellow. Department of Biochemistry, Genetics and Microbiology, Forestry and Agricultural Biotechnology institute, University of Pretoria, Pretoria, South Africa. Supervised by SARChI Chair Fungal Genomics Prof. Brenda D. Wingfield.

2013 - 2017 PhD. Genetics. Department of Genetics, Forestry and Agricultural Biotechnology institute, University of Pretoria, Pretoria, South Africa. Supervised by Dr. Albé van der Merwe and Professors Emma T. Steenkamp and Brenda D. Wingfield

2012 - 2013 MSc. In Bioinformatics and Computational Molecular Biology, Department of Biochemistry and Microbiology, Research Group in Bioinformatics, Rhodes University, Grahamstown, South Africa. Supervised by Dr. Özlem T. Bishop and Dr. Kevin Lobb

2010 - 2011 Research Assistant at the Centres for Disease Control and Prevention/Kenya Medical Research Institute HIV - Research Laboratory, Kisumu, Kenya

2008 - 2009 Research Assistant. Undergraduate. Dissertation work. Kenya Medical Research Institute – Centre for Microbiology Research, Nairobi, Kenya supervised by Dr. John N. Kiiru

2005 - 2009 BSc. Medical Microbiology, Department of Medical Microbiology, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

Useful links

FABI profile: https://www.fabinet.up.ac.za/index.php/people-profile?profile=898

Researchgate profile: https://www.researchgate.net/profile/Aquillah_Kanzi

Publications

Kanzi AM, Wingfield BD, Steenkamp ET, Naidoo S and Van der Merwe NA (2016) Intron Derived Size Polymorphism in the Mitochondrial Genomes of Closely Related *Chrysoporthe* Species. PloS One. 2016 Jun 6;11(6):e0156104.

Musyoka TM, **Kanzi AM**, Lobb KA and Bishop ÖT (2016) Structure Based Docking and Molecular Dynamic Studies of Plasmodial Cysteine Proteases against a South African Natural Compound and its Analogs. Scientific Reports 03/2016; 6:23690. DOI:10.1038/srep23690

Musyoka TM, **Kanzi AM**, Lobb KA, Bishop ÖT (2015) Analysis of Non-Peptidic Compounds as Potential Malarial Inhibitors against Plasmodial Cysteine Proteases via Integrated Virtual Screening Workflow. Journal of biomolecular Structure & Dynamics 01/2016; DOI:10.1080/07391102.2015.1108231

Wingfield BD, Irene Barnes, De Beer ZW, De Vos L, Doung TA, **Kanzi AM**, Kershney Naidoo, Nguyen HDT, Santana QC, Mohammad Sayari, Seifert KA, Steenkamp ET, Conrad Trollip, Van der Merwe NA, Van der Nest MA, P Markus Wilken, Wingfield MJ (2015) Draft genome sequences of *Ceratocystis eucalypticola*, *Chrysoporthe cubensis*, *C. deuterocubensis*, *Davidsoniella virescens*, *Fusarium temperatum*, *Graphilbum fragrans*, *Penicillium nordicum*, and *Thielaviopsis musarum*. IMA Fungus, 12/2015; 6(2):493-506. DOI:10.5598/imafungus.2015.06.02.13

Wingfield BD, Ades PK, Al-Naemi FA, Beirn LA, Bihon Wubetu, Crouch Jo Anne, de Beer ZW, De Vos Lieschen, Duong TA, Fields CJ., Fourie Gerda, **Kanzi AM**, Malapi-Wight Martha, Pethybridge SJ, Radwan Osman, Rendon Gloria, Slippers Bernard, Santana QC, Steenkamp ET, Taylor PWJ, Vaghefi Niloofar, Van der Merwe NA, Veltri Daniel, Wingfield MJ (2015) Draft genome sequences of *Chrysoporthe austroafricana*, *Diplodia scrobiculata*, *Fusarium nygamai*, *Leptographium lundbergii*, *Limonomyces culmigenus*, *Stagonosporopsis tanaceti*, and *Thielaviopsis punctulata*. IMA Fungus, 06/2015; 6(1):233-248. DOI:10.5598/imafungus.2015.06.01.15

Thesis and Dissertations,

Kanzi, Aquillah Mumo. **Comparative genomics of *Chrysoporthe* species**. Ph.D. Thesis, Department of Genetics, University of Pretoria, South Africa.

Kanzi, Aquillah Mumo. **Falcipains as Malarial Drug Targets**. MSc. thesis, Department of Biochemistry and Microbiology, Rhodes University, South Africa

Kanzi, Aquillah Mumo. **Screening for beta-lactamase inhibitor resistant phenotype in gram negative clinical isolates in Nairobi.** BSc. Dissertation**,** Department of Medical Microbiology**,** Jomo Kenyatta University of Agriculture and Technology, Kenya