



THE TECHNICAL UNIVERSITY OF KENYA

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NAME: DR CLARE IMBOSA MUHANJI

Faculty:	Applied Sciences and Technology
School:	CHEMISTRY AND MATERIAL SCIENCE
Department:	PHARMACEUTICAL AND MEDICINAL CHEMISTRY
Current Designation:	Senior Lecturer, PHARMACEUTICAL AND MEDICINAL CHEMISTRY (DPMC)
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Consultation Hours:	8.00am-05pm, Mon-Fri



EDUCATION

LEVEL	QUALIFICATION NAME	INSTITUTION	YEAR
Doctor of Philosophy (PhD)	CHEMISTRY	UNIVERSITY OF CAPE TOWN(South Africa)	2006
Masters of Science (M.Sc.)	Natural Products Chemistry	University of Botswana(Botswana)	1998
Bachelor of Science (BSc)	BACHELOR OF SCIENCE	UNIVERSITY OF NAIROBI(Kenya)	1997
Certificate	Certificate of secondary Education	Nakuru Day secondary School(Kenya)	1991
Certificate	Certificate in primary education	Mama Ngina Primary School-Nakuru(Kenya)	1987

WORK EXPERIENCE

PERIOD	INSTITUTION	POSITION
2013 - current	Technical University of Kenya	Senior Lecturer
2012 - 2013	Chepkoilel University College	Senior Lecturer
2007 - 2012	Chepkoilel University Campus	Lecturer
2003 - 2005	University of Cape Town	Tutor/Demonstrator
1999 - 2002	University of Botswana	Demonstrator
1997 - 1998	Prof,Midiwo'sResearch lab-University of Nairobi	Research Assistant
2013 - *	Technical University of Kenya	Senior Lecturer

CURRENT RESEARCH PROJECTS

Synthesis of anti-HIV Drugs targeting the Reverse Transcriptase Enzyme and the Nucleocapsid protein.	Synthetic Organic Chemistry
Synthesis of photosensitizers and their metallated derivatives to decontaminate resistant antimicrobials in water using photodynamic antimicrobial chemotherapy.	Synthetic Organic Chemistry

SELECTED PUBLICATIONS

TITLE	LINK TO PUBLICATION	YEAR
[d4U]-Spacer-[HI-236] double-drug inhibitors of HIV-1 reverse-transcriptase Y Younis, R Hunter, CI Muhanji, I Hale, R Singh... - Bioorganic & medicinal ..., 2010 - Elsevier	View online	2010
Benard M. Isaiah.; Edith K. Amuhaya.; and Clare I. Muhanji. Advances in efficacy enhancement of photosensitizer mediated photodynamic antimicrobial chemotherapy. Journal of Porphyrins and Phthalocyanines, 2023, 27, 819-837.	View online	2023
C-2-Aryl O-substituted HI-236 derivatives as non-nucleoside HIV-1 reverse-transcriptase inhibitors R Hunter, Y Younis, CI Muhanji, T Curtin... - Bioorganic & medicinal ..., 2008 - Elsevier	View online	
Current developments in the synthesis and biological activity of HIV-1 double-drug inhibitors CI Muhanji, R Hunter - Current medicinal chemistry, 2007 - ingentaconnect.com	View online	
[d4U]-butyne-[HI-236] as a non-cleavable, bifunctional NRTI/NNRTI HIV-1 reverse-transcriptase inhibitor R Hunter, CI Muhanji, I Hale, CM Bailey... - Bioorganic & medicinal ..., 2007 - Elsevier	View online	
Alan R. Kennedy.; Zaccheus R. Kipkorir.; Clare I. Muhanji.; Maurice O. Okoth. 4-(Benzyloxy)benzaldehyde, Acta Crystallographica, 2010, E66, o2110	View online	2010
Alan R. Kennedy.; Zaccheus R. Kipkorir.; Clare I. Muhanji.; Maurice O. Okoth. 1-Benzyloxy-4-(2-nitroethenyl)benzene, Acta Crystallographica, 2010, E66, o2984-o2985	View online	2010

POSTGRADUATE STUDENTS SUPERVISION

NAME	PROJECT TITLE	PERIOD
Rotich Kipkorir Zachaeus	Towards the synthesis of a thiourea derivative as a potential non-nucleoside Reverse Transcriptase.	SC/PGC/002/06
Orang'o Daniel Mochere	Synthesis and characterisation of 5,7,7,12,14,14-hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene and its metal complexes of Cu(II), Co(II), Zn(II) and Fe(III)	(SC/PGC/04/06)
Charles Kiplangat Rono	Isolation and characterization of active antihyperglycemic/antihyperlipidemic component of Urtica dioica leaves extract on normal and streptozotocin induced diabetic rats	(SC/PGC/002/10)
Nyinge Mwadzombo Nyinge (SC/PGC/21/07)	Isolation of bioactive compounds from Zanthoxylum Chalybeum.	2007 - 2010
Alfred Wangusi Odongo	Synthesis of NRTI-linker-NNRTI Reverse Transcriptase Inhibitors as anti-Retroviral Agents for HIV Chemotherapy	(SC/PGC/021/08)
Ndambuki Sylvester Wambua (SC/PGC/09/07)	Development of Slow Release Fertilizer with Supersorbent Properties using Sugarcane Bagasse	2007-2009

COURSES TAUGHT

NAME	DESCRIPTION	PERIOD
Advanced Organic Chemistry	Advanced organic chemistry for Masters in Petroleum Chemistry	2022 - 2023
Carbonyl compounds and derivatives	Physical and chemical properties of compounds containing a carbonyl group	2021 - 2022
Hydrocarbons and Derivatives	Introduction to organic chemistry	2021 - 2022
Synthetic Organic Chemistry	Synthetic methods used in petrochemicals	2023 - 2024
Carbonyl compounds and derivatives	Physical and chemical properties of compounds containing a carbonyl group	2021 - 2022
Organic Synthesis	The purpose of this course unit is to equip the learner with the principles and strategies in the synthesis of organic compounds	September 2024 - TO-DATE

EXTRA INFORMATION

DESCRIPTION

Member of the Kenya National Academy of Science (MKNAS)

Member of the Kenya Chemical Society