

**UNIVERSITY OF NAIROBI  
COLLEGE OF HEALTH SCIENCES  
SCHOOL OF MEDICINE  
DEPARTMENT OF MEDICAL PHYSIOLOGY**

**ANNUAL REPORT 2015**

**Introduction**

The Department of Medical Physiology is located on the Chiromo Campus, (off Riverside Drive), University of Nairobi. It is part of the School of Medicine, College of Health Sciences.

The department offers the following courses in medical physiology: BSc (intercalated), MSc, and PhD. It also provides teaching in medical physiology for MBChB, BPharm, BDS, BSc Nursing, BSc MLST, MSc Nursing, and MMed degree programs offered by the College of Health Sciences. In addition, it service course in medical physiology for the College of Agriculture and Veterinary Science for BSc FND degree.

**Academic Staff and Designation**

Professors	2
Associate Professor	2
Senior Lecturer	5
Lecturer	7
Tutorial Fellows	0
Total	16

**Staff Appointments and Promotion**

Name	Gender	Title	Comment
Martin M Kaburia	M	Snr Tech DEF	Promotion
David K. Wafula	M	Snr Tech DEF	Promotion

**Staff retired, on leave of absence, or services terminated.**

Name	Gender	Title	Comment
Paul Gichu Kioy	M	Associate Professor	Leave of absence

**Academic programmes**

**Undergraduate Programs**

BSc Intercalated Honours Medical Physiology

**Graduate Programs**

MSc Medical Physiology

PhD Medical Physiology

**Number of students admitted into each undergraduate and graduate programs**

BSc Intercalated	3
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MSc	3
PhD	0

### Number of students graduated

BSc Intercalated	0
MSc	1
PhD	0

### Student performance in other degree programs

Degree	Code	Pass	Fail	i/c	Total
MBChB Level I	HMP 100	285	56	3	344
MBChB Level II	HMP 200	272	6	3	281
BPharm Level I	UPC 103	68	32	0	100
BPharm Level II	UPC 203	78	11	2	91
BDS Level I	VMP 100	31	13	0	44
BDS Level II	VMP 200	30	1	3	34
BSc Nursing	HNS 100	45	64	4	113
BSc Nursing e-learning	HNS 102	39	14	4	57
BSc (MLS&T)	HMP 113	36	12	0	48
MMed General Surgery	HMP 600	12	0	0	12
MMed Anaesthesia		13	0	0	13
MMed ENT Surgery		4	2	0	6
MMed Orthopedic Surgery		11	1	1	13
MMed Paediatric Surgery		4	0	0	4
MMed Urology		4	0	0	4
MMed Neurosurgery		3	0	0	3
MMed Plastic & Reconstructive Surgery		4	0	0	4
MMed Cardiothoracic Surgery		1	0	0	1
MMed Oral & Maxillofacial Surgery	VMS 643	4	0	0	4

### Number of students discontinued on academic grounds

None

### Completed research projects and degrees in the Department of Medical Physiology

Student	Degree	Project	Supervisors
Alkizim Faraj Omar	MSc	An in vivo study of the effect of African Black Tea on wound healing	Prof K Thairu Dr. E. S. Otieno

### Ongoing postgraduate research projects

Student	Student no	Degree	Project	Supervisor
Dennis Rono	H56/68827/2013	MSc	Investigation of regulatory T-cell activity among RHD patients	Dr. F. O. Bukachi Dr. P. M. Waweru
Rose K. Kamenchu	H56/70004/2013	MSc	Effect of wild yam root powder on memory and learning in mice	Prof. K. T. Thairu Prof. N. B. Patel
Awot Sunday Luke	H56/70089/2013	MSc	Effect of brake fluid on second degree burns	Prof. K. T. Thairu Dr. E. S. Otieno
Eliphas Gitonga Makunyi	H56/67735/2013	MSc	Haemostatic effects of selected Kenyan herbs	Dr. F. O. Bukachi Dr. P. M. Waweru
Mwaniki Douglas Kamunya	H56/68826/2013	MSc	Investigation of blood pressure lowering mechanisms of Aloe secundiflora	Dr. F. O. Bukachi Dr. P. M. Waweru
William Gitau Gichui	H56/83352/2012	MSc	Antinociceptive effects of roots, leaves, and bark extract of Croton megalocarpus	Dr. H. N. Kariuki Dr. F. Waweru
Marin Kuria Mungai	H56/66752/2013	MSc	Effect of chronic sleep deprivation of pulse pressure	Dr. F. O. Bukachi Dr. J. S. Sian

### Department Publications

#### Articles

1. Nilesh B. Patel, "Natural Amphetamine" Khat: A Cultural Tradition or a Drug of Abuse. *International Review of Neurobiology* 120:236-251 (2015).
2. Immo Kleinschmidt, Abraham Peter Mnzava, Hmooda Toto Kafy, Charles Mbogo, Adam Ismail Bashir, Jude Bigoga, Alioun Adechoubou, Kamaraju Raghavendra, Tessa Bellamy Knox, Elfatih M Malik, Zinga José Nkuni, Nabie Bayoh, Eric Ochomo, Etienne Fondjo, Celestin Kouambeng, Herman Parfait Awono-Ambene, Josiane Etang, Martin Akogbeto, Rajendra Bhatt, Dipak K Swain, **Teresa Kinyari**, Kiambo Njagi, Lawrence Muthami, Krishanthi Subramaniam, John Bradley, Philippa West, Achile Massougboji, Mariam Oke-Sopoh, Aurore Hounto, Khalid Elmardi, Neena Valecha, Luna Kamau, Evan Mathenge and Martin James Donnelly. **Design of a study to determine**

**the impact of insecticide resistance on malaria vector control: a multi-country investigation.** Malaria Journal (2015) 14:282

3. David O. Soti, Stephen N. Kinoti, Ahmeddin H. Omar, John Logedi, **Teresa K. Mwendwa**, Zahra Hirji and Santiago Ferro. **Feasibility of an innovative electronic mobile system to assist health workers to collect accurate, complete and timely data in a malaria control programme in a remote setting in Kenya.** Malaria Journal (2015) 14:430
4. Keira Lowther, Irene J Higginson, Victoria Simms, Nancy Gikaara, Aabid Ahmed, Zipporah Ali, Faiza Zuhura, Gaudencia Afuande, Eric Amisi, Hellen Kariuki, Lorraine Sherr, Rachel Jenkins, Lucy Selman, Richard Harding. Nurse-led palliative care for HIV-positive patients taking antiretroviral therapy in Kenya: a randomised controlled trial. *Lancet HIV* July 2015 (published online: 15 June 2015). DOI: [http://dx.doi.org/10.1016/S2352-3018\(15\)00111-3](http://dx.doi.org/10.1016/S2352-3018(15)00111-3)

**Conferences/Workshops/Courses attended and Academic Activity**

1	Dr. Anne W. Muriithi	Stakeholders' workshop for MDS curriculum review	10 <sup>th</sup> Dec 2015, Nairobi, Kenya
2	Dr. Fredrick Bukachi	External Examiner, Maseno University	14-18 <sup>th</sup> Dec 2015, Kisumu, Kenya
3	Dr. Anne W. Muriithi	External Examiner, Moi University	1-7 <sup>th</sup> Oct 2015, Eldoret, Kenya
4	Dr. Fredrick Bukachi	External Examiner, Kenya Methodist University	5-10 <sup>th</sup> July 2015, Meru, Kenya
5	Prof Nilesh B. Patel	Teaching Tools in Neuroscience Workshop	16-22 <sup>nd</sup> Sept 2015, Addis Ababa, Ethiopia
6	Dr. M. F. Din	Pan African Otolaryngology Congress	11-14 <sup>th</sup> March 2015, Luxor Egypt
7	Dr. M. F. Din	MedEl - surgical Hearing Implant Academy	16 <sup>th</sup> -17 <sup>th</sup> March, 2015, Innsbruck, Austria
8	Dr. M. F. Din	International Forum on infectious Diseases	26-30 <sup>th</sup> April, 2015, Bangkok, Thailand.
9	Dr. M. F. Din	KENTS	21-24 <sup>th</sup> May 2015, Eldoret, Kenya
10	Dr. M. F. Din	Paediatric Otolaryngology symposium	11 <sup>th</sup> September 2015, Nairobi, Kenya
11	Dr. M. F. Din	Montiget Symposium Scientific Program	17 <sup>th</sup> October 2015, Nairobi,

			Kenya
12	Dr. M. F. Din	Allergy symposium	30th October 2015, Nairobi, Kenya
13	Dr. M. F. Din	Endoscopic Ear Surgery Course Program	23rd- 27th November 2015, OED, Nairobi, Kenya
14	Dr. M. F. Din	Otology Symposium	28th November 2015, OED, Nairobi, Kenya
15	Dr. Teresa Kinyari	WHO Collaborative Meeting. Epidemiology progress report: National Coordinators meeting on the Impact of Insecticide Resistance on the effectiveness of LLINs and ITNs	Khartoum Sudan, January 2015
16	Dr. Hellen Kariuki	Indian Pain Association Neuropathic Pain Update	November 2015, New Delhi, India
17	Dr. Hellen Kariuki	IASP Council Meeting	November 2015, New Delhi, India
18	Dr. Hellen Kariuki	Mhealth Research in Palliative Care meeting	July 2015, Kampala, Uganda
19	Dr. Hellen Kariuki	First Turkish/Pan-African Meeting of 'Headache and Pain Management'	4-8 <sup>th</sup> May 2015, Istanbul, Turkey
20	Martin Kaburia	Training of Trainers (TOT)by the Ministry of Health, (National Malaria Control Program)	21st-23rd May,2015, Machakos, Kenya
21	Martin Kaburia	Latest Laboratory procedures of diagnosing Malaria as recommended by WHO and MoH(K) (National Malaria Control Program)	June 21st- 24th,2015, Mombasa, Kenya

## Ongoing Research Projects

1	Dr. Teresa Kinyari	Impact of insecticide resistance on ITN and IRS in Kenya-a collaborative study between National Malaria Control Program(NMCP), Ministry of Health (MOH), Kenya Medical Research Institute (KEMRI) and the University of Nairobi (UON) Funded by the Bill and Melinda Gates Foundation through WHO
2	Prof. Nilesh B. Patel	Cognitive effects of khat use

## Outreach and community service activities

### Teaching and research equipment purchased ( Chief Tech fill in this section)

4 LCD TV screens for teaching

## Staff in Department of Medical Physiology

	Name	Designation
1	Prof. Owino Okongo	Professor
2	Prof. Kihumbu Thairu	Professor
3	Prof. Nilesh B. Patel	Associate Professor
4	Prof. Paul Kioy	Associate Professor
5	Dr. Paul Mungai Mbugua	Senior Lecturer
6	Dr. Anne Muriithi	Senior Lecturer
7	Dr. Fred Bukachi	Senior Lecturer
8	Dr. Teresa Kiama	Senior Lecturer
9	Dr. Hellen N Kariuki	Senior Lecturer
10	Dr. Frank Waweru	Lecturer
11	Dr. Mujahid Din	Lecturer
13	Dr. Edwin Otieno	Lecturer
14	Dr. Teresa Kinyari Mwendwa	Lecturer
15	Dr. Michael Muriithi	Lecturer
16	Dr. Peter Waweru	Lecturer
17	Dr. Charles Githinji	Lecturer

18	Mr. Charles Kinyungu	Chief Technologist
19	Mr Jacob A Owiti	Senior Technologist
20	Mr. Charles K. Nzivo	Senior Technologist
21	Ms. Juliet N. Ndungu	Senior Technologist
22	Mr. David K. Wafula	Technologist
23	Mr. Martin B. Kaburia	Technologist
24	Mr. Fredrick O. Bwana	Cleaner Grade II
25	Mr. David M. Horo	Animal Attendant Grade III
26	Ms. Rosemary M. Muindi	Secretary Grade A
27	Ms. Hellen N. Nyangoya	Secretary Grade B
28	Mr. Bonface O Ochola	Junior Technologist
29	Ms. Maureen W. Waweru	Junior Technologist
30	Mr. Joseph Mosei	Technical Assistant Grade II
32	Ms. Monica Onguka	Technical Assistant Grade II