

UNIVERSITY OF NAIROBI
SCHOOL OF PHARMACY
DEPARTMENT OF PHARMACOLOGY AND PHARMACOGNOSY

2012 ANNUAL REPORT

1. Brief Introduction of the Department

The Department of Pharmacology and Pharmacognosy is one of the three departments within the School of Pharmacy, University of Nairobi. The Vision of the Department is to be a centre of excellence in teaching and biomedical research. The objectives of the Department are to teach Pharmacology and Pharmacognosy to undergraduate students of pharmacy; build capacity in traditional medicine and biomedical research through post-graduate training; to provide specialized clinical and laboratory services; and to carry out basic and applied medical research.

The Department has 16 members of academic staff with diverse areas of specialization. These are as follows: (3) Professors, (1) Associate Professor, (3) Senior Lecturers (5) lecturers and (4) tutorial fellows. In addition, the Department has a team of technical staff comprising of (1) Principal technologist, (1) Chief technologist, (2) Senior technologies and two technicians. Other staffs include a department secretary, (1) Junior Technologist, two animal attendants and (1) messenger. The Department has two sections i.e. Pharmacology and Pharmacognosy.

Location: The Department of Pharmacology & Pharmacognosy is strategically located at the Kenyatta National Hospital, Hospital Road of Ngong Road. For further information Contact: pharmacognosy@uonbi.ac.ke .

2. Courses Offered

- a. Bachelor of Pharmacy.
- b. Master of Science in Pharmacognosy and Complementary Medicine.
- c. Master of Science in Pharmacoepidemiology & Pharmacovigilance. (M.Pharm Epivigil)
- d. Master of Science in Molecular Pharmacology (MSc Mol. Pharmacology)

3. Enrolled students at both under graduate and post graduate

a. Undergraduate over 300

b. Postgraduate 25

4. International student Component: 1

5. Research activities Undertaken

- (i) Phytochemical and Pharmacological investigation of *Acmella caulirhiza*. **Dr. K.A. Sinei.**
- (ii) Neurotoxicity of Cassava Cyanogen analogues: Relevance to the pathogenesis of Konzo (Spastic Paraparesis). **S.K. Thuo, Prof. C.K. Maitai, Dr. K.A. Sinei**
- (iii) Evaluation of the medicinal properties and safety of a polyherbal product (NEFANG). **Dr. G.A Agbor, Prof. A. N. Guantai, Dr. F. A. Okalebo.**
- (iv) A Cohort study: comparison of the safety and effectiveness of anti-diabetic herbal preparations and allopathic therapies. Ethics approval obtained on 25th of October, 2012 (P446/08/2012) . **Irene Njeri Chege, Faith Apolot Okalebo, Solomon Derese, Prof A. N. Guantai.**
- (v) Phytochemical Investigation and Anthelmintic Activity of *Hegenia Abyssinica*
Dr. Esther Wamuyu Karumi
- (vi) Quality of Ginseng Products in the Kenyan Market **Dr. Ronald Mwendu Inyangala**
- (vii) Gynandropsis gynandra on the haematological profile of lactating mothers
Dr. Kefa O. Bosire
- (viii) Evaluation of the efficacy of selected Kenyan plants on wound healing.
Dr. Lydia Magdaline Olieyo
- (ix) Comparative Study of the Artemisinin Content of *Artemisia annua* L. Cultivated in Kenya.
Dr. Sarah W. Mwangi
- (x) Anti-malarial Activity of Annonaceae found in Kenya. **Dr. Nelly N. Mungai**
- (xi) Genetic Polymorphism of Drug Metabolizing Enzymes and Clinical Implications for Kenyan Populations. **Dr. M.O. Oluka**
- (xii) Clinical Response and pharmacokinetics of antiretroviral drugs in Kenyan HIV patients.
Dr. M.O. Oluka.
- (xiii) Production of Carotenoids **Dr. G. O. Osanjo.**

(xiv) Development of Camelid antibodies for diagnostics and therapeutics. **Dr. G. O. Osanjo.**

6. External and International Links and Collaborations

- a. The Department has international links with Tianjin University of Traditional Chinese Medicine and Aibst of Zimbabwe.
- b. Dr. K. A. Sinei: Participated in Joint Workshop between The Kenya Medical Training College (KMTC) and The University of Nairobi in Development of Proposed KMTC Bachelor of Pharmacy Degree; Venue: Egerton University; Dates: 18th – 22nd March, 2012
- c. Dr. K.A. Sinei, External Examiner Kenyatta University.
- d. Prof. J. W. Mwangi External Examiner in Kenyatta University.
- e. Prof. J. W. Mwangi: External Peer Reviewer and Interview for Promotion of Associate/Professors, Masinde Muliro University of Science and Technology, July 2012, Kakamega.
- f. Prof. J. W. Mwangi: Assessment of promotion purposes for Kwame Nkrumah University of Sciences and Technology for Associate and Senior Lecturer, July 2012.
- g. Prof. J. W. Mwangi: Assessment for promotion purposes for University of Nigeria, Nsukka for Associate Professor May 2012.
- h. Prof. J. W. Mwangi: East African team to review a book “Pharmacology and Therapeutics” a Manual for Health Personnel in Rural Africa. Nov. 2012.
- i. Dr. M. Oluka: Workshop to finalize the proposed KMTC/UON Bachelor of Pharmacy curriculum at Egerton Agricultural Resource Centre from 18th – 22 March 2012.
- j. Dr. M. Oluka: facilitated the session on standardizing formats for curriculum and formatting of the final draft of UON/KMTC B.Pharm Curriculum.
- k. Dr. M. Oluka: KNH formulary review workshop at the Elementaita Country Lodge from 4th – 6th July 2012.
- l. Dr. M. Oluka: KNH formulary review Stakeholders Meeting at the Panafric Hotel on Friday 26th October 2012 from 8.30 am to 4.00 pm.
- m. Dr. F. A. Okalebo: Kenyatta National Hospital Formulary Review Committee – date of appointment 30th March, KNH/PHARM/18th November to 15th December, 2012:
- n. Dr. F. A. Okalebo: 2^{0th} May to 1^{5th} June, 2012: Item Writing, administration and Marking of May/June 2012 Series of Pharmacy and Poisons Board Pre-registration examinations.

7. Publications

- a. **Maitai C.K.:** A Cascade of biochemical and physiological markers East Central Afri. J. Pharm Sci., Vol 15(2012) 1-2.
 - b. Nyamu D.G., **Maitai C.K.**, Trends of acute poisoning cases at the Kenyatta National Hospital, Nairobi. East Central Afri. J. Pharm Sci. Vol. 15 (2012) 29-34.
 - c. **Prof. J. Mwangi:** Inaugural Lecture: Herbal Medicines: Do They Really Work? 14th March 2012.
 - d. **Dr. E. M. Guantai** and **K. Chibale.** (2012) ‘Natural product-based drug discovery in Africa: the need for integration into modern drug-discovery paradigms. In: Drug Discovery in Africa, eds. Chibale K., Masimirembwa C. and Davies-Coleman, M., Springer: Germany (Pg. 101-126).
- E. Protus ArreyTarkang, **Faith A. Okalebo**, Gabriel A. Agbor, Nolé Tsabang, Anastasia N. Guantai, Geoffrey M. Rukunga. Indigenous Knowledge and Folk Use of a Polyherbal Antimalarial by the Bayang Community, South West Region of Cameroon. *J. Nat. Prod. Plant Resour.*, 2012, 2 (3):372-380

8. Consultancies

No.	Name of Staff	Type of consultancy	Place
1.	Prof. C.K. Maitai	Member - Pest Control Product Board (PCPB)	Pharmacy and Poisons Board, Nairobi
	“ ”	Editor, Est African Journal of Pharmaceutical Sciences	School of Pharmacy, UoN
	“ ”	Chairman - Technical and Registration Committee of PCPB.	Nairobi
3	Prof. Julius Mwangi	Intellectual Property Coordinator	University of Nairobi
4	Prof. G. Muriuki	Chairman, Training and Assessment Committee	Pharmacy and Poison Board - Nairobi
	“ ”	Member of Academic Board – Kenya Institute of Education (KIE)	KIE Nairobi
	Pharmacognosy Section: Prof. J. W. Mwangi, Dr. E .Karumi, Dr. N. Mukungu, Mr. Josephat Mwalukumbi	Interview and screening of herbalists for purposes of issuance of certificates for practice under the Ministry of Culture and Social Services.	Mitishamba Lab, Dept. of Pharmacology & Pharmacognosy, UoN
5	Prof. A.N. Guantai	Setting and moderation of the registration examination for degree and Pharmacy and diploma holders.	Pharmacy and Poisons Board
	“ ”	Chairman	Pesticides Control Board
7.	Dr. G.O. Osanjo	Member of CEBIB Board	College of Biological and Physical

			Sciences, UoN
	“ ”	Member, Steering Committee on CHS International Scientific Conference	College of Health Sciences, UoN
8.	Dr. K O. Bosire	Co-ordinator, PRIME-K, MEPI	CHS - UoN

9. Graduands

1. M.Sc. Students in Pharmacognosy and Complementary Medicine. - 1
2. PhD - 1

10. Papers presented at Conferences.

- (i) Dr. K.A. Sinei, Prof. J.W. Mwangi, Mr. A.M. Mwaura, Mrs. R.W. Munenge: The contractile action of *Adenia globosa* Engl. on isolated preparations of mammalian smooth muscle., National Council for Science and Technology, KICC Nairobi - 7th – 11th May, 2012.
- (ii) Prof. J.W. Mwangi: Traditional Medicine and Intellectual Property. Kerugoya – 31st August 2012.
- (iii) Dr. M. Oluka: Annual review meeting 2012 of the University of Nairobi STD/Aids collaborative group at Mayfair Court Southern Sun, Nairobi from Mon 23rdJan – Fri 27th 2012. Presented a paper entitled: Cyp2b6 pharmacogenetics and nevirapine clinical outcomes in HIV-1 seropositive Kenyan women receiving antiretroviral therapy.
- (iv) Comparison of the Renal Safety of Tenofovir and Stavudine in Patients on Antiretroviral Therapy at a Kenyan Referral Hospital [201] Linus A Masese, **Faith A Okalebo**, Lawrence E Mwangangi, Kepha O Bosire, Moses Mwangi. (Kenya). Poster Session A. August 24th, 2012. Barcelona, Spain. Poster number 106. International Society for Pharmacoepidemiology http://www.pharmacoepi.org/meetings/28ICPE/ICPE2012_program_pages50-89.pdf

Approved by Chairman:----- Date:-----