



UNIVERSITY OF NAIROBI
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF HUMAN ANATOMY

ANNUAL REPORT, 2015

1.0 PREAMBLE

The year 2015 was exciting in many ways. The Department continued to be driven by optimization of her structures and efficiency of our processes. Innovations have continued to improve the quality in service delivery and engagements. The department has developed a strong brand and team that embraces challenges as opportunities to explore newer paths of growth.

2.0 TEACHING AND ASSESSMENTS

Cadaveric teaching, student-centered learning, progressive formative tests and the efficiency with which we have done the business have ensured a consistently high rating of our anatomy program by students. Faculty received high scores in the domains of professionalism, knowledge, presentation skills, interaction with students and communication skills. Our unique program of demonstrators who complement teaching has, just like our dedicated faculty, technical and support staff, been appreciated by the students.

2.1 MBChB course: 368 students registered for the course at the start of the academic year. Two hundred and sixty nine (81.26%) passed out of 331 who completed the April 2015 end year examination.

2.2 BDS course: Forty nine students registered for the course. Twenty two (52.38%) passed out of 42 who completed the April 2015 end year examination. Forty seven students registered for Oral Biology. Thirty six (87.8%) passed out of 41 who completed the April 2015 end year examination.

2.3 BSC Nursing course: 120 students registered for the course at the start of the academic year. Fifty seven (53.77%) passed out of 106 who completed the April 2015 end year examination.

2.4 BPharm course: 101 students registered for the course. Sixty two (65.26%) passed out of 95 who completed the April 2015 end year examination

The external examiners Dr. Russa from Muhimbili University and Dr. Buwembo from Makerere University were happy with the quality of the examinations and the overall students' performance. They recommended more applied anatomy questions.

2.5 BSC Anatomy course: The following candidates successfully defended their dissertations titled below:

- Evans Mutwiri “*Effect of odorant stimulation on the regeneration of the rat olfactory mucosa following carbimazole induced injury*”
- Swafiya Salim El-Busaidy “*Age and sex differences in the structure of crista terminalis*”
- Brian Bundi Nyamweya “*Topography and age related changes in the hepatic bile duct*”
- Aseta Faith Bonareri “*Structural changes in the cornea of the rat (Rattus norvegicus) following monocular eyelid closure*”
- Nur Amir Mumin “*Age and sex differences in the morphology of the left atrial appendage*”
- Githambo Beth Wambui “*Histoarchitecture of adrenal cortex of the laboratory rat (Rattus norvegicus) following repeated exposure to mifepristone*”
- Omondi Chadwink Ochieng “*Structural changes in the epididymal epithelium of the laboratory rat (Rattus norvegicus) following prolonged exposure to noise stress*”

The first three were externally examined by Prof. El-Badawy (Moi University) and Prof. Hassanali (Pwani University) in August 2005 while Prof. Hassanali (Pwani University) examined the last four candidates in November 2015. They judged the overall performances at Ist Class and Upper 2nd class levels. They opined that the quality of BSc students work was impressive for the level of training and advised that the students be encouraged to publish the works.

2.6 MSc Anatomy course: Four students completed their part I examination. Two passed

2.7 MMed/MDS Courses: the performance in Surgical Anatomy for the different surgical programs is highlighted in the table below.

Thematic area in surgery	Number registered	Number completed the exam	Number passed
Cardiothoracic surgery	1	1	1
ENT surgery	7	5	3
General surgery	13	13	8
Neurosurgery	3	3	3
Paediatric surgery	4	4	1
Plastic surgery	5	5	3
MDS	6	6	1

2.8 PhD Anatomy: Dr. Paul Odula successfully defended his thesis “*Histomorphology and tensiometry of the fibrous ventral abdominal wall of the baboon (Papio Anubis) and goat (Capra hircus)*” and was awarded the degree.

3.0 RESEARCH AND OTHER SCHOLARLY / ACTIVITIES

3.1 PhD proposals presented

3.1.1 “*Effect of age, gender and cardiovascular risk factors on the distribution of elastic fibers and collagen I and III in occluded atherosclerotic segments of infra-inguinal arteries*” by Dr. Kirsten Awori

3.1.2 “*The effect of timing of analgesic use and ageing on long bone fracture healing in a rat model*” by Dr. James Kigera

3.1.3 “*Pattern of endometriosis among indigenous Africans*” by Dr. Gichuhi

3.2 Publications in Referred Journals/Book Chapters

3.2.1 Murila F, Obimbo M, Musoke R, Tsikhutsu I, Migiro S, Ogengo J Breast feeding and human immunodeficiency virus infection: assessment of knowledge among clinicians in Kenya *Int. J Nurs Prac.* 2015; 21: 37-42

3.2.2 Bokindo IK, Butt F, Hassanali J. Morphology and morphometry of the lingual nerve in relation to the mandibular third molar. *Open Journal of Stomatology* 2015; 5: 6-11

3.2.3 Pokhriyal G, Hassanali J, Ndungu M, Kimani N Dimensional analysis of selected linear and curved measurements of human and baboon brains. *Austin Journal of Nursing and Health care.* 2015; 2(1): 1013

3.2.4 Duysburgh E, Kerstens B, Kouanda S, Kabre P, Yugbare DB, Gichangi P et al. Opportunities to improve postpartum care for mothers and infants: design of context –specific

packages of postpartum interventions in rural districts in four sub-Saharan African countries. *BMC Pregnancy and Childbirth* 2015; 15: 131

3.2.5 Loyal PK, Ongeti K, Mandela P, Odula P. Functional adaptability of the tunica media of the atriopulmonary junction *Austin J Anat* 2015; 2(2): 1034

3.2.6 Kihara A-B, Harries AD, Bissell K et al. Antenatal and pregnancy outcomes in a safe motherhood health voucher system in rural Kenya, 2007-2013 *PHS* 2015; 5(1): 23-29

3.2.7 Mwachaka P, Saidi H, Odula P, Mandela P Effect of monocular deprivation on rabbit neural retinal cell densities *J Ophthalmic Vis Res* 2015; 10: 144-50

3.2.8 Kanyata D, Odula P, Nyamai L, Nduati PK Morphology and location of surface landmarks of foramen ovale in Kenyans *Int J Morphol* 2015; 33(2): 471-475

3.2.9 Ogeng'o J, Elbusaidy H, Sinkeet S, Olabu B, Mwchaka P, Inyimili M Variant origin of the superior cerebellar artery in black Kenyan population *Eur J Anat* 2015; 19(3): 287-290

3.2.10 Silvestri D, Blevins M, Afzal A, Andrews B, Berbew M, Kaur S, Mipando M, Mwachaka P Medical and nursing students' intention to work abroad or in rural areas: an eight-country cross-sectional survey in Asia and Africa. *Annals of Global Health* 2015; 81(1): 52

3.2.11 Silvestri D, Blevins M, Afzal A, Andrews B, Berbew M, Kaur S, Mipando M, Mkony C, Mwachaka P, Ranjit N, Vermund S. Non-cognitive attributes predict medical and nursing students' intentions to migrate or work rurally: an eight-country cross-sectional survey in Asia and Africa. *Annals of Global Health* 2015; 81(1): 63

3.2.12 Kigera J, Kimpiatu P Incidence of early postoperative infection after primary total knee arthroplasty at an East African Centre. *Ann Afr Surg* 2015; 12(2):

3.2.13 Kamau M, Mpekethy M, Guthua S, Macigo F Orbito-maxillofacial cutaneous anthrax as seen at a peripheral level 5 hospital. *Ann Afr Surg* 2015; 12(2):

3.2.14 Butt F, Gakonyo J, Mwachaka P, Wagaiyu E Arterial blood supply variation in the anterior midline mandible: significance to dental implantology. *Int J Impant dentistry* 2015; 1: 24

3.2.15 Kipyator I, Ongeti K, Butt F, Ogeng'o J Regional topography of the internal carotid artery. *Anat J Africa* 2015; 4(1): 444-449.

3.3 Conference Presentations

3.3.1 Riogi B, Saidi H, Abdallah A. acute pancreatitis at Aga Khan University Hospital; Annual Conference of the Surgical Society of Kenya, March 25-27, Diani, Kenya.

3.3.2 Mwachaka P, Kitunguuu P, Kiboi J, Ogengo J. Surgical anatomy of the sphenoid sinus and sellar floor in a Kenyan population. Annual Conference of the Surgical Society of Kenya, March

25-27, Diani, Kenya & 15th interim meeting of the World Federation of Neurosurgical Societies, Rome September 8-12

3.3.3 Double blind randomized trial comparing effectiveness of 0.2% topical Nifedipine versus 0.2% topical Glyceryl Trinitrate in the treatment of chronic anal fissure. Annual Conference of the Surgical Society of Kenya, March 25-27, Diani, Kenya.

3.3.4 Kariuki N, Butt F, Mandela I. Surgical landmarks of the cervical part of the hypoglossal nerve. Annual Conference of the Surgical Society of Kenya, March 25-27, Diani, Kenya.

3.3.5 Saidi H, Mbugua E, Munguti J, Karuri Firearm related fatalities in Kenya between 2009 and 2013. Annual Conference of the Surgical Society of Kenya, March 25-27, Diani, Kenya.

3.3.6 Saidi H, Mbugua E, Mutiso B, Ogengo J Urban violence in Kenya: how bad is the shape and character. Annual Conference of the Surgical Society of Kenya, March 25-27, Diani, Kenya.

3.3.7 Bothchey I, Paruk F, Wako D, Aliwa B, Shetter E, Saidi H, Hyder A, Stevens K. Strengthening trauma care in the developing world: lessons from Kenya. Annual Conference of the Surgical Society of Kenya, March 25-27, Diani, Kenya.

3.3.8 Odula P Elastic fiber and collagen interlinkages: Is it of surgical relevance in ventral herniae? 3rd symposium of the Hernia Society of Kenya, November 21 2015, Nairobi Kenya

3.3.9 Pulei A Distribution of elastic and collagen in the human abdominal linea alba, 3rd symposium of the Hernia Society of Kenya November 21st 2015, Nairobi, Kenya

4.4 Staff Attending Other Academic fora

4.4.1 Dr. Martin Kamau participated at the 45th conference for the Pan African Association of cleft lip and palate, 26-28 March, Ethiopia

4.4.2 Most academic staff members attended the XXIV International symposium on Morphological Science held in Istanbul, September 2-6, 2015

4.4.3 Dr. Kigera completed the ATLS course for doctors according to the standards established by the ACS committee on trauma, April, 2015

4.4.3 Dr. Kigera, Prof Saidi, Dr. K. Awori participated in the Surgical society of Kenya workshop on “Leadership: strategy, coaching and competencies”, Leisure Lodge, March 23-24, 2015

4.4.4 Dr. Kigera, Prof Saidi, Dr. Awori attended the 15th Surgical Society of Kenya annual scientific conference themed “Surgery: Global and public health perspectives”, Diani, March 25-27, 2015

4.4.5 Dr. Odula attended the open colorectal course at the NSSC, May 25-26, 2015

- 4.4.6 Dr. Kirsten Awori attended the a workshop on spine, May 5-10, India
- 4.4.7 Dr. Martin Kamau attended the training, research and leadership fellowship at the Guwahati comprehensive cleft care centre in Assam India between May 1st and June 30th, 2015
- 4.4.8 Prof. Saidi Hassan attended the VTE Safety zone Intercontinental meeting in Istanbul, Turkey, June 12^t to 13th, 2015
- 4.4.9 Mr. Jacob Gimongo attended training on Plastination techniques at the University of Witwatersrand, Johannesburg, South Africa, February 23-25 May, 2015
- 4.4.10 Dr. Kirsteen Awori attended a SICOT International conference, September, 17-19,
- 4.4.11 Dr. Bernard Ndungu facilitated Basic laparoscopy skills course for General surgeons, Arusha, Tanzania, November 26-27
- 4.4.12 Dr. Bernard Ndungu attended the International Masterclass in laparoscopic and open groin and ventral hernia surgery, Clinicum Mittelbden, Universitat Heidelberg, Germany November 5-7
- 4.4.13 Dr. Bernard Ndungu attended the Laparoscopic and metabolic surgery course at the centre of excellence for minimally invasive surgery, Mumbai, November 16-18
- 4.4.14 Dr. Fauzia Butt attended the 7th AOMCMF course- advances in flap raising (with Human anatomical specimens), October 14-16, 2015, Vienna, Austria
- 4.4.15 Dr. Bernard Ndungu and Wycliffe Kaisha coordinated the 3rd symposium of the Hernia Society of Kenya at the Panafric hotel, November 21st 2015, Nairobi

5.0 SECTION REPORTS

5.1 Gross Anatomy, Microscopic Anatomy & Photography

- 5.1.1 Lockable cabinets delivered to the Gross Anatomy laboratory
- 5.1.2 Carpentry, plumbing and electrical maintenance repairs carried out
- 5.1.3 148 microscopes kept in working order while initiative to buy additional 50 student microscopes and one research microscope started

5.2 NSSC

- 5.2.1 Twenty six courses were held during the year
- 5.2.2 Four hundred and sixty nine participants were trained at the facility in 2015
- 5.2.3 Visitors to the unit included the vice Chancellor, Prof. Peter Mbithi, who presided over the *Management of Surgical Emergencies* course, February 2015
- 5.2.4 University of Nairobi courses are still few.

5.3 CFP

5.3.1 Admissions totaled 2350 while dispatches were 2336

5.3.2 Special admissions included the 144 bodies received following the Garissa University terrorist attack, April 2015

5.3.3 Number of waivers, post-mortems and repatriations were 24, 222 and 20 respectively

5.3.4 Four departmental vehicles; KAH 091F (Toyota Hiace), KAV 643E (Hearse), KBV 769T (bus) and KAV 418 (Toyota land cruiser) were well maintained. 3.3.4 One hundred and five trips were made (Bus 38, Van 67).

6.0 Committee reports

6.1 Academic & Body donation

6.1.1 Body donation program documentation done and available for prospective donors

6.2 Facilities

6.2.1 There were leakages in several areas of the department block including the gross anatomy lab and the NSSC

6.2.2 Inadequate ventilation with cold room not in functional state for some time now

6.2.3 Poor escape routes and termite/rate infestation

6.2.4 Additional challenges at the NSSC include inadequate toilet facilities during training and back-up power facility

6.2.5 Challenges at the CFP include mechanical ventilation, cold storage, forensic service equipment, and general facility maintenance

6.3 CFP

6.3.1 Thirty one (31) students successfully completed the mortuary certificate program

6.3.2 CFP continued to offer support to financially needy students by giving them a chance every month to exploit their skills and abilities in different areas. This was done on rotational basis to at least three students per month.

6.4 Environmental;

6.4.1 Martin joined Dr. Kaisha in the Environmental stewardship committee

6.5 Digital and Learning Innovation

6.5.1 The Kimani's text and atlas was used by the third class in 2015 while the development of anatomy models for BPharm and BScN was advanced

- 6.5.2 The online material for histology has formed part of regular teaching while the development of a companion histology atlas is ongoing
- 6.5.3 The screens installed in the Gross Anatomy used for brief introductory didactics before dissection sections
- 6.5.4 The dual/intercalated MSc and PhD anatomy curricular presented at the school of medicine awaiting processing at CAB
- 6.5.5 The Diploma in mortuary sciences curriculum under development
- 6.5.6 A dissection board created to showcase the best images from a week's dissection established
- 6.5.7 The department took leadership in implementing the empowerment and soft skills session for first year students. The first session "surviving first year" was facilitated by Dr. Gikenye, Dr. Angela Amayo, Dr. Odula, Dr. Mandela and moderated by Prof. Saidi

6.6 Journal, Website and regional engagement

6.6.1 The anatomy journal of Africa

Two issues published in 2015(volume 4 (1) and volume 4(2)

Number of published editorials, glimpses from the past, case reports and original articles and were two, one, three and twenty one and one respectively

The published papers were received from authors in Kenya, Nigeria, India, Brunei, Venezuela, Uganda and Tanzania

6.6.2 The departmental website

This was kept current by regular uploads on academic, other curricular and extracurricular activities in the department

6.6.3 The Anatomy society of Kenya/East Africa

Engagements with departments of Anatomy in Kenya and in the region ongoing with the view of formation of a national and regional association of Anatomy

6.7 Procurement

6.7.1 Bernard Ndungu, Judith, Sara, Aclleus Murunga, Martin Indimili were appointed to the Departmental procurement committee to study and implement measures to unlock delays in procurement

7.0 STAFF MATTERS

7.1 Staff appraisals

7.1.1 Appraisals were performed for most staff members

7.2 Recognition

7.2.1 Dr. Kigera was a 2015 American Academy of Orthopaedic surgeons (AAOS) International surgical skills scholarship recipient and successfully completed the of AAOS total hip arthroplasty skills course and observership program at Palo Alto Medical Foundation, Palo Alto, California

7.2.2 Prof. Saidi Hassan was invited as external examiner for the year 2014/2015 academic year exam for Department of Surgery & Orthopaedics, Kenyatta University

7.3 Transition

7.3.1 Joseph Mwangi left the department for transfer to department of Medical Microbiology. Kamau and Francis resigned from the CFP for other engagements elsewhere

7.3.1 Members of the department consoled and attended the funerals of Prof. Gichangi's mother, Dr. Anne Pulei's father and Ms. Jacinta Waciuri's father

7.4 Retreats & team Building events

7.4.1 The academic staff had a successful retreat in Istambul, Turkey, on the sidelines of the anatomy conference

7.4.2 Academic, technical and CFP staff took time off to bond and enhance team spirit at a retreat at Maanzoni lodge Machakos county

7.4.3 Members also attended the 2015 Preclinical dinner held at the Royal Orchids hotel.

8.0 ENGAGEMENT

8.1 External Examiners for the year 2015

Professor Denis Russa, University of Muhimbili, Tanzania

Dr. William Buwembo Makerere University, Uganda

Prof. Jameela Hassanali, Pwani university, Kenya

Prof. Mohammed Galal El-Badawi, Moi University, Eldoret, Kenya

8.2 Visitors to the Department

8.2.1 Several prospecting medical students & students of applied biology from Kabete Technical Training Institute

8.2.3 The Anatomy class of 1970 – Rajiv Dixit (USA), Swarupsinh (UK), Ramesh Kanabar (UK), Jatinder Shaarma (USA), Javaid Mughal (UK), Zarina Munshi (Wales), Mohamed Hirji (Canada), Suresh Jari (Mombasa), Naresh Solanki (USA)

8.2.4 University of Nairobi Managers: Vice Chancellor, UON Prof. Peter Mbithi, Principal CHS Prof. Isaac Kibwage and the 16th Dean of the medical school, Prof. Fred Were

8.2.5 Dignitaries: 1st lady Margaret Kenyatta, Cabinet Secretaries Ambassador Amina Mohammed (Foreign Affairs) and Hassan Wario (Sports, culture & the arts); Korea Ambassador (Choi Donggyon), John Cardinal Njue, Safaricom CEO Bob Collymore, Members of Parliament Hon. Richard Makenga, Kathuri Murugi, Cecily Mbarire, Simba Arati and Johnson Sakaja, Amb Yvonne Khamati, Japhther Kiplimo Rugutt etc.

8.3 Invitations

8.3.1 Dr. Beda invited to stakeholder’s workshop to develop Diploma in dental assistant curriculum, School of Dental Sciences

8.3.2 Dr. Mandela invited to the EMTCT Forgarty training program, October 30, Arziki conference

8.3.3 Dr. Kirsten Awori invited to facilitate the trauma life support training, February 25-27, Kenyatta National Hospital

8.3.4 Kigera attended and supported Rotary club of Nairobi activities

8.3.5 Martin Kamau invited to participate in a reconstruction surgical mission at Rwamagana District hospital, Rwanda, August 22-30, 2015

8.4 Building networks

8.4.1 Members of the department (mostly from the CFP) attended a briefing retreat at Naivasha courtesy of the Kenya Red Cross , May 16th-17th, 2015

8.4.2 In collaboration with ICRC, the organization also donated two cold storage containers to be used at the CFP.

9.0 FINANCIAL PERFORMANCE

Annual Income	CFP	OTHER SOURCES	TOTAL
January to March 2015	9,662,796.00	238,000.000	9,900,796.00
April to June 2015	10,873,359.00	181,250.00	11,054,609.00
July to September 2015	14,576,472.00	-	14,576,472.00
October to	9,586,668.00	240,000	9,826,668.00

December 2015			
Total	44,699,295.00	659,250.00	45,358,545.00

Thank you.

Prof. Saidi Hassan

Chairman