Message from the Head of Department

From The Chief Editors Desk

Feature Services Offered at CSD: Animal Hospital’s Diagnostic Laboratories

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Know Your Animal: The Elephant

Departmental Activity Profile-Outreach to Taita Ranch

Featured Staff Profile Prof. Gilbert Julian Okwaro Agumbaah

From Our Archives

From Our Gallery

Featured Research: Effects of contaminated river water on boar reproduction

Up coming events: April – September 2016

Important Days to Remember April –September 2016

Appreciation Corner
Message from the Head of Department

It is with great pleasure that the Department of Clinical Studies once again releases another edition of its in-house newsletter, The Annals of Veterinary Clinical Studies. The department endeavors to continue informing the Veterinary fraternity of its current/on-going activities through this newsletter.

In this third issue, activities of the Clinical Studies Welfare Group continue to be highlighted. The welfare group with its benevolent fund continues to be a strong pillar of support whenever a member passes on or a member has lost an immediate family member. Furthermore, other activities of the welfare like the end of the year party bring together the families of the members and given them a clearer picture of where their spouses or parents spend their time during the day. This has strengthened the families of the members of the department.

The department continues to put emphasis on participation in outreach activities by its staff and students, as reported in this issue of the newsletter. Recent activities in Taita Ranch in Taita Taveta county, where sick animals were treated and vaccinated against a number of ailments, bear testimony to this. This could not have been possible without the collaboration of one of our partners - Kenya Commercial Bank Foundation. We, as a department will always appreciate this support.

The staff profile in the current issue of the newsletter features Prof. Gilbert Julian Agumbah, a Professor of Veterinary Reproduction and Obstetrics. Prof. Agumbah has vast experience in veterinary reproductive health and performance and has taught and supervised postgraduate and undergraduate students, both in Kenya and in the region. He has also employed his skills in consultancy work. The department will remember him for many years to come not only for the services he has offered but also for offering together with one of our past students - Dr Erick Akunda, the Prof. Agumbah Trophy which will be presented to the best final veterinary student in Theriogenology on an annual basis. We shall continue providing profiles of our members of staff as their contribution to the Veterinary fraternity has been immense.

The department continues receiving very inspiring guest speakers. Among those who gave talks at the department in the recent past include: Dr. Kammagy, one of our past students now resident in the USA who gave a talk on opportunities for Veterinarians in the US; Prof. Thumbi Ndungu who is now resident in South Africa who talked on Veterinarians and HIV research; and Royal Canin / Ultravetis representatives who gave a talk on Pet Health and Nutrition. We look forward to receiving many more such guests with open arms.

Finally, may I thank the editorial team for their efforts in releasing this issue and all those whose contributions are featured herein.

Prof. Daniel W. Gakuya, PhD
Chairman Department of Clinical Studies
We have been late "by a mile" in producing this issue of the newsletter!! But, we have managed, and Volume II - Issue 2 of the *Annals of Veterinary Clinical Studies*, is here. The effects of having an extra class due to the accelerated intake in the just concluded academic year, took a toll on all of us in the Department as our core function - teaching - took centre stage, pushing activities like preparing materials for the newsletter to the periphery.

This current Issue of the newsletter is longer than any previous issue as it literally covers two quarters of production. And yet, we have maintained the tradition we have set in our previous Issues of the newsletter - by covering the topics that you have come to associate with this newsletter and what is dear to us as a Department. In this Issue, we continue to provide a profile of our staff (*In this Issue, we give you the profile of one among the first generation of indigenous trainers in our Department - Professor G.J.O. Agumbah. He has been around for as long as the Department has been in existence*), cover some of the services we provide as a department, give you insights into some of the research undertaken by our academic members of staff, bring some 'stuff' out of our archives, provide some happenings in our social circles, highlight some of the outreach activities we participate in as part of our work and, something about our animals - this time covering the elephant. You will find that this newsletter is dynamic in that it has introduced some two new sections: *Of our animals and world records*, and *Appreciation corner*. Then of course, there are those other sections packed with information - just for you to remember! Find all these in Volume II - Issue 2 of the *Annals of Veterinary Clinical Studies*.

*Happy reading to you all.*

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**Feature- Services Offered by the Department- Diagnostic Laboratories**

The Department of Clinical Studies laboratories are located within the Faculty of Veterinary Medicine. These laboratories serve a number of functions including but not limited to:

- Provision of diagnostic services for the Veterinary Teaching Hospital of the University of Nairobi, based on samples generated from within and outside the teaching facility.
- Providing referral laboratory diagnostic and analytical services for veterinary clinics, biomedical research facilities and veterinarians across this country.
- Support for postgraduate and other research activities within and without the Faculty and University of Nairobi.

The services provided within these laboratories include: Hematology; Biochemistry; Serology; Bacteriology; Seminology.

The laboratories also play the significant role of providing in-house training for our students at both undergraduate and postgraduate levels, and for those on attachment from other institutions.
In Part I of the History of the Clinical Studies Welfare Group published in Volume II Issue I of the Newsletter, we focused on the inception, membership, leadership and members' contributions. In this Part II, we look at the benevolent fund and welfare issues that make this outfit unique.

**Benevolent fund**

At the heart of starting the CSWG was the realization that sometimes, staff who work together face some challenges which they cannot manage within their own means. And therefore it becomes necessary from time to time to lend each other a hand to stabilize things as we all navigate through what life throws at us. Because of this need to support each other and be each other's keeper irrespective of prevailing circumstances, the Welfare Group set up a benevolent fund for its members to assist each other and each others' families, more especially when a member passed on or lost a family member. For this to be set up, it required there be an amendment to the Welfare Group's constitution, which was effected in October 2004. Through this arrangement, the family of any member of the Welfare Group who passes on or any member of the Welfare Group who loses an immediate family member (husband, wife, and children up to 25 years old) gets monetary support at rates that have been fixed by its members. For the family of a member who passes on, on top of monetary support from the Welfare Group, the family also receives the accumulated contributions of the member to the Welfare Group over the entire period of his/her membership.

Welfare Group activities

The CSWG carries out a number of activities in any calendar year. Major among these are the Annual General Meeting(s) and the Annual Christmas Party. At the AGM, members have the opportunity to reflect on the journey they are undertaking and deliberate on issues affecting their welfare. This is the forum they have used over the years to shape their shared vision and engage the leadership they would like to steer their ship. These are always very productive moments for the CSWG as they share in, and implement some decisions geared towards transforming their group to higher levels. There is plenty to expect from this group in the years to come.

During the Family Christmas Party - which has been held every year since the activity was initiated, members come with their families to eat together and celebrate the end of yet another year. This is because they believe in the spirit of sharing, whatever little there is, as one great family. This is when they also celebrate any one of their own who has achieved a milestone in life's events, like weddings, the birth of a baby in a family, a member's birthday, a retirement send-off, a member's promotion and many other memorable achievements. To this group, an good happening is reason to celebrate together. They never forget to invite guests from other sections of the College of Agriculture and Veterinary Sciences to celebrate with them!. END

Prepared by Dr. Willy Mwangi Edwin

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**Of Animal and World Records**

**Dog With the Longest Ears**

The Guinness World Record for a living dog with the longest ears is held by a dog named Harbor, an 8-year-old black and tan Coonhound from Boulder, Colorado. His left and right ears measure 12.25” and 13.5” respectively! Harbor's his ear span is greater than the height of the world's shortest man, Junrey Balawing, who measures just 23.5”.

**The World's Fastest Tortoise**

Yes they can be fast! The Guinness World Record for the world's fastest tortoise is held by a tortoise going by the name of Bertie from Durham, North Carolina. The speed set by Bertie in 2014 was about 0.6 miles (0.97 km) per hour, meaning that Bertie runs twice as fast as the average tortoise and can dash to the end of a 100 m race in just six minutes! Did Usain Bolt say something? Word has it that currently, Bertie lives contentedly in his "luxury enclosure with his girlfriend Bertha" where he enjoys his favourite snack - strawberries.

**The World's Tallest Cow**

The Guinness World Record for the tallest cow ever at 6'4" (1.95 m), is held by a cow named Blossom from northern Illinois, USA. This record was attained in 2014, when she weighed 2,000 lbs (910 kg). She died after holding the record for less than a year. Guinness said that the 13-year-old female Holstein will "live on in the record books as the world's tallest cow ever." The average weight for a mature Holstein is 1,500 pounds.

(Source: http://www.oddee.com/)

Compiled by Dr. Eddy Mogoa
The elephant is the largest animal in existence today. It belongs to the family Elephantidae and is the only surviving members of the order Proboscidea. There are two species of elephants; the African elephant (Loxodonta africana) and the Asian elephant (Elephas maximus). Elephants are found scattered throughout sub-Saharan Africa, South Asia, and Southeast Asia mainly within game parks and other wildlife conservation areas. The male African elephant in one of the largest, and can reach a height of 4 m and weigh up to 7,000 kg. Elephants have several distinctive features and among these are; a long trunk or proboscis, used for many purposes, particularly breathing, lifting water and grasping objects; their incisor teeth which grow into tusks, serving as weapons and as tools for moving objects and digging; and large ear flaps that help to control their body temperature. The African elephants have larger ears and concave backs while Asian elephants have smaller ears and convex or level backs. Elephants are herbivorous and can be found in different habitats including savannahs, forests, deserts and marshes. However, they prefer to stay near water sources and can live up to 70 years in the wild. The females, also referred as “cows” tend to live in family groups, consisting of one female with her calves or several related females with their offspring. The group is usually led by an individual known as the matriarch, often the oldest cow elephants. At the age of 16 years, an elephant cow can reproduce, but rarely bears more than four calves throughout her lifetime. It takes a female 22 months from conception to giving birth, she lactates for 24 months before inviting the strongest bull in a very competitive bid to mate with her and for only about 2 weeks. Elephants communicate by touch, sight, smell, audible sounds and also use of infrasound and seismic communication over long distances. These gigantic creatures are known to be intelligent like primates and often exhibit very social behaviour. The African elephant is listed as vulnerable by the International Union for Conservation of Nature (IUCN), while the Asian elephant is classified as endangered. The biggest threats to elephant populations are the ivory trade, habitat destruction and human conflict. At the turn of the 20th century, there were several millions of African elephants and about 100,000 Asian elephants but today, there is an estimated 450,000 - 700,000 African elephants and between 35,000 - 40,000 Asian elephants in the wild. West African countries are in the verge of losing all their elephant populations and about 100 elephants are being killed every day in Africa by poachers for ivory. Over time, elephants have been used as working animals especially in Asia. They have also been used in wars. Today, elephants can be found displayed in zoos, or exploited for other forms of entertainment.

**Facts on elephants at a glance:**

- An adult elephant requires up to 300 kg of food and can drink up to 160 litres of water per day.
- A pair of elephant tusks may weigh up to 200 kg.
- Elephants rarely get cancer because they have 40 copies of genes that code for the tumor suppressor protein p-53 compared to humans who have only two.
- Elephants have 3 times the number of neurons that humans have, and its not known why they are not smarter than humans.
- Elephants cannot jump.
- Elephants have a slow pulse rate of 27.
- An elephant’s skin is an inch thick.
- Elephants purr like cats.
- Elephants prefer one tusk over the other, just as people are either left or right-handed.
- The elephant trunk has more than 40,000 muscles in it.

Compiled from various sources by Dr. Daniel Muasya
The Department of Clinical Studies, with the support of its partners, continues to help build resilience in communities whose main source of livelihood is livestock. On the 21st of March 2016, final year Veterinary students of the Faculty of Veterinary Medicine, University of Nairobi, accompanied by three of their seasoned Veterinary Surgeons - Dr G. Kirui, Dr W. Mwangi and Dr A. Kipyegon - from the Department of Clinical Studies participated in a herd health community outreach activity in Taita. The activity was kindly sponsored by the KCB foundation in partnership with the College of Agriculture and Veterinary Sciences. Taita Ranch is one of the beneficiaries of KCB Foundation. It has previously received support from the Foundation to raise and sell beef cattle under the Mifugo ni Mali Programme. The team was happy to find the animals in good body condition and health.

During the activity, 800 cattle were vaccinated against Foot and Mouth Disease (FMD), 300 goats were vaccinated against Contagious Caprine Pleuropneumonia (CCPP) while all dogs which accompanied the animal owners were vaccinated against Rabies. During this exercise, the students able to learn and practice among other things, how to: organize and facilitate field activities at community level (choice of vaccination/treatment sites, event communication and publicity, allocation of duties, crowd management and working with local leaders); manage treatment/animal vaccination sites including crush/restraint equipment; provide / offer field extension services and herd health management services (advisory services to farmers on disease prevention, development of vaccination schedules, training farmers on disaster preparedness and also on agribusiness management in livestock production); carry out clinical examination, manage diseases and collect samples; handle, prepare, dispense and store drugs and vaccines; and create linkages with other stakeholders in the livestock industry (linkages with drug manufacturers, community leaders, local stakeholders and administrative arms of both national and county governments).
Achievements of the Taita Ranch herd health visit

The activity in Taita Ranch was a good success as the exposure of the students was practical and it helped enhance their skills as they are prepared for the field where they will face similar situations and conditions. All this could not have been possible without the continued support of the KCB Foundation / Mifugo ni Mali Programme; the hard work of the accompanying veterinary surgeons; the efforts of the local veterinary team in Taita who helped organize the activity; participation of the Directors of the ranch and local farmers; the hard working students and finally but not least; the support from the leadership and staff of the Department of Clinical Studies, the Faculty of
Gilbert Julian Okwaro Agumbah was born on 23rd day of March 1946. He had his secondary and high school education in the prestigious Maseno National School, before proceeding to the University of Nairobi in 1969 to commence his studies for Bachelor of Veterinary Medicine degree, which he attained in 1973.

During his secondary school education in Maseno National School, in 1966, G.J.O. Agumbah was recognized for being the best “O” level student in the school since 1906. Two years later, he went on to yet again be declared the best “A” level student in the Chemistry Research Project, which earned him The Kenya Science Teachers’ Association Award in 1968. That is the stuff G.J.O. Agumbah was made of, even in his younger days.

Following his graduation as a veterinary surgeon in 1973, Dr Agumbah was posted by the government to work as a Veterinary Officer in Machakos District, albeit for a short time, before heading to Kiambu District in the same position, the same year. His call of duty in government was short-lived as in October of 1973, he was recruited by the University of Nairobi to join the Faculty of Veterinary Medicine, Department of Clinical Studies as an assistant lecturer on a staff development programme. It was while he was at this department that he embarked on his postgraduate studies in 1974, which earned him a Master of Science degree in 1978. As Dr Agumbah was pursuing his Masters studies, he received an FAO Fellowship award to study at Royal Veterinary and Agricultural University in Denmark between 1975 and 1976, leading to his attainment of a Diploma in Preventive Veterinary Medicine (DPVM).

Dr Agumbah was promoted to the position of Lecturer in the Department of Clinical Studies in 1977, a position he held until April 1985. In 1978, Dr Agumbah was awarded an Association of Commonwealth University Fellowship to study towards his PhD degree at the University of Glasgow in the United Kingdom, which he attained in 1981. From April 1985 to March 1990, Dr Agumbah held the position of Senior Lecturer in the Department of Clinical studies. From 1987 to 1991, he was the head of the Clinic for Reproduction and Obstetrics. From March 1990 to August 1994, he held the position of Associate Professor and from 1994 to the present, he has been Professor of Veterinary Reproduction and Obstetrics of the university of Nairobi in the Department of Clinical Studies.

In 1991, Professor Agumbah on a break from the University of Nairobi took up a teaching position in the University of Zimbabwe at Mount Pleasant. While there, apart from student training, supervision and mentorship, he held the position of the Veterinarian in charge, University Dairy Teaching Unit from 1997 to 1999. He also was the coordinator of various academic courses at both undergraduate and postgraduate levels of training. He was to return to his home base - the Department of Clinical Studies of the University of Nairobi almost nine years later in 1999, where he has been based up to now. He also was the coordinator of various academic courses at both undergraduate and postgraduate levels of training. He was to return to his home base - the Department of Clinical Studies of the University of Nairobi almost nine years later in 1999, where he has been based up to now.
As G.J.O. Agumbah earned his academic accolades in the area of specialization close to his heart - reproduction and obstetrics - and rose through the ranks in his employment with the University of Nairobi and University of Zimbabwe, he trained and mentored numerous undergraduate and postgraduate students.

He has always been known to be a hands-on teacher, thorough in his practical sessions, especially during pregnancy diagnosis and fertility clinics. In some of these practical sessions, it is not uncommon for the trainers to remove their shirts to the bare skin, and he never shied away from doing just that.

Professor Agumbah has supervised many students in their undergraduate dissertation projects, especially in the University of Zimbabwe where this unit was established long before the same was started at the Faculty of Veterinary Medicine, University of Nairobi. At postgraduate level, Professor Agumbah has taught and supervised many students at both Masters and Doctorate levels in both the universities of Nairobi and Zimbabwe. Some of these students now hold senior teaching positions, including professorships in not only University of Nairobi, Kenyatta University and University of Zimbabwe, but can also be found in many veterinary schools across the world. Apart from teaching and supervision, Professor Agumbah has been an external examiner for undergraduate students of veterinary science, especially in Sokoine University and University of Zimbabwe as well as participated in the examination of many Masters and PhD students and their works both as an internal and external examiner.

Professor Agumbah has employed his extensive knowledge and experience in his field of expertise to provide not only professional services but also consultancy services in various areas including: Artificial Insemination (AI) and reproductive health / reproductive performance in many domestic animal species; livestock fertility / infertility in large and small scale production systems; stillbirths and abortions in livestock production; and delivery of animal health services in the ASALS. These services have been rendered to a number of clients including the Danish International Development Agency (DANIDA), University of Zimbabwe; Coopers & Lybrand (Kenya); Overseas Development Agency (UK); Swedish International Development Agency (SIDA); African Union-InterAfrican Bureau for Animal Resources (AU/IBAR); Catholic Relief Services; and GTZ, among others, in the last 40 or so years.

Professor Agumbah enjoys membership of various entities including the New York Academy of Sciences (since 1996); American Institute of Ultrasound in Medicine; and International Society for the Study of Leptospirosis. He served as a member of the Task Force for the Harmonization of recommended procedures for Artificial Insemination of livestock in the African continent, under the International Atomic Energy Agency in Vienna. He has also served as a member of a number of Committees of the Faculties of Veterinary Medicine and Veterinary Science of the Universities of Nairobi and Zimbabwe, respectively. He served as the Chairman, Kenya Veterinary Association (KVA) between 2003 and 2004. He is a Founding Member and served as the First Chairman of Kenya Veterinary College of Clinicians (2002 - 2004). He is a member of the Kenya Veterinary Association and is registered with the Kenya Veterinary Board (KVB).

Professor Agumbah’s research interests lie in areas of fertility / infertility in domestic animals; use of technology including ultrasonography as a diagnostic tool in reproductive problems in domestic animals; the spermiogram of the domestic ruminants and dogs; field Artificial Insemination programmes under the African environment; and animal health service delivery systems in the ASALS of Kenya, among others. He continues to provide research leadership in these areas. Professor Agumbah is very well published. He has authored and co-authored numerous scientific papers which have been presented in scientific forums and conferences both locally and internationally, while others have been published in refereed journals. He has authored and co-authored a number of book chapters and contributed to a number of monographs in the area of his specialization - Reproduction and Obstetrics.

“The decision of some past students of the Faculty of Veterinary Medicine to initiate an annual Prize for the best student in Theriogenology and name it after me, was the best time of my life. I knew I had contributed to people’s lives in a positive way.”

Continued on page 12
You have made great achievements in a career spanning over 43 years. What do you owe all these to?

For a start I would say the right choice of the profession; a desire to read more and more on a continuous basis; and then there was always the drive to excel in that profession no matter what obstacles lay along the way, so as to reach its top. This tenacity I learnt from my late father, Reverend Canon Wilson Muma Okwaro and being an Agriculture-based profession, I also got the influence of my late mother, Grace Clara Ondu Muma who kept over 100 indigenous cows which she took care of single-handed, as my father went on his preaching missions across East Africa.

What drives you?

The love for detail in whatever I do! I also strongly believe that you only get the results of what you strive for. I was described by some of my supervisors as an IDEALIST! I know it is hard to be an idealist and as you strive towards idealism, it is possible that in that process, you may come across many obstacles and among human beings you meet, you may get on the path of "wakina papa na nyangumi" as you sail through the wide ocean that is life. They too exist, you must just navigate carefully - "live and let live" if you can, and if not, "live and let die".

Given a career path, will you take the same / similar career path, all over again?

Absolutely! Perhaps seeing my father stitching the rumen of his favourite ewe torn up by a hyena, brought me face to face with my first witness of the repair of a "RUMENOTOMY"! At that time, never did I ever think I would be taught how to do it better! When I first learnt about this surgical technique while pursuing my undergraduate studies, I went back to my father and told him that I could now carry out repair of a torn rumen professionally. His response was from a man quite satisfied and at ease - "now hyenas can no longer kill my ewes". We laughed over it. Later when he paid me a visit at the Department of Clinical studies - probably in 1975 (2 years after my graduation), I was delighted to take him to our surgical unit where we had done Caesarean sections on several cows with my late colleague, Professor Jude Ogaa, just for him to see the work of our hands!

Any one thing you could have done differently?

Yes, I could have been less truthful or never religiously pursued or believed in "nothing but the truth". I realized many "friends" never liked this approach and perhaps I could have had many more people around me than I have attracted. This apparently "bad" side of me let me openly tell off such people, with many resorting to telling weird stories about me! Truth, it seems has many enemies as the old adage goes. But, somebody with very intensely truthful parents as I had, could not have learnt anything else!

Any one thing you could have done better?

If I had a free hand in designing Masters programmes in my area of specialization, I would have preferred a species oriented specialization e.g., Masters in Theriogenology (Small Animal Option), etc. This would eventually create specialists at the University teaching level to provide such manpower. It may be argued that our production (animal) system does not or cannot provide meaningful engagement for such people. It must be remembered that specialization of that nature would eventually lead to specialized farming systems, e.g., a "poultry Theriogenologist" can create a new poultry industry based for example on new, locally bred breeds using new breeding technologies.

The greatest moment of your life?

This must be the day I just finished the oral examination / defence of my PhD Thesis at Glasgow University in the United Kingdom. The first question put to me by the external examiner, a renowned Theriogenologist from the University of Dublin in Ireland made a cold sweat run through my spine! The question was - If I were to start my PhD studies all over again, what would I alter in the work I was presenting for examination? I was prepared to defend this work to the hilt, even to the extent of explaining the mathematical elements of the study, whenever that need arose. When at the end of the examination the external examiner rose up and told me "congratulations, I read your thesis several times and I found no single mistake", the joy in my heart was the deepest I have ever experienced. I remember calling home with the words "The Eagle Has Landed". Funnily enough, two months after returning to Kenya, I found a spelling mistake in the thesis!!
What is the best thing to have happened in your life thus far?

The decision of some past students of the Faculty of Veterinary Medicine to initiate an annual Prize for the best student in Theriogenology and name it after me, was the best time of my life. I knew I had contributed to people's lives in a positive way. The Prof Agumbah trophy has already been delivered to the Department of Clinical Studies for its first award to that deserving student in the Bachelor of Veterinary Medicine Class of 2015/2016. Together with my children, friends and well wishers, we intend to have the trophy for no less than 50 years, if not forever! With the support of the administration in ensuring the funds meant for this purpose are deposited in the relevant University of Nairobi account, this wish should be realized.

One major lesson you have learnt along the way?

No matter how educated or how good you or other people think you are, you can never know everything, even in your own speciality. You have to consult with other colleagues at all times, especially when in doubt, and more so at a critical time! Failure to do so because of self pride is suicidal!

What has given you the MOST satisfaction professionally?

In my teaching career, I have come across some exceptionally gifted students and encouraged them - despite negative persuasion from other sources - to join the academic ranks. To date, I can recall such three Kenyans and a Zimbabwean. One of the Kenyans came from a poor family and on graduation went on to join the field veterinary services but unfortunately, passed away. Two of the Kenyans are resident in North America where one of them, I am made to understand, presented the best PhD Thesis in his field (Biological Science), at the time of his graduation. On the other hand, the Zimbabwean, whom I had the privilege of mentoring in Theriogenology, is currently a Professor of Theriogenology in one of the European universities. At least, I never made a selection / appraisal mistake. I have a feeling that we lost some of the best Kenyan brains, whom I would have been proud to leave here in this Faculty, this Department, this Discipline!

Any regrets so far?

When sent by the University of Zimbabwe to European Veterinary Schools to negotiate for sponsorship for their students for higher degrees (PhDs), I met Professor R.H.F. Hunter of the Bülowsvej Veterinary School in Copenhagen. I do not know whether he will remember this, were he to read it. He asked me to take over the revision and authorship of a book. I returned to Zimbabwe and later to Kenya where I was not able to undertake this great assignment as resources to do a good job would not have been available to me. Not long after my return to Kenya, I was the victim of a murder attempt and this dampened my outlook on a whole range of things and interfered with my health.

Some of the people who have left an indelible mark in your life?

Yes. My father, the Reverend Canon Wilson Muma, for being such a true Christian and for teaching me that honesty pays, even if later! Then there was my standard 8 primary school teacher, Mr Charles Auma Apunda, for being such a dedicated teacher who woke up so early - probably at 4am - to set for us examinations which always started at 6am. His efforts led to my excelling in school to the point that I (and other friends) was able to join the prestigious Maseno School. Finally but not least, the late Professor Jude Saul Ogaa who taught me right here in this Veterinary School and whose excellence in Obstetrics I aimed to achieve.
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A word of wise counsel for the young veterinary professionals?
Strive to attain the highest standards in whatever area of the profession you pursue. If you are a general practitioner, please make profit for your clients in large animal practice and make your small animal clients proud to let you handle their pets. Approaches to treatment of animals are very dynamic and change fast so that what you knew on your graduation may be obsolete within or in less than 10 years of your field practice.
Genuinely pursue new knowledge every day. I am aware that the Kenya Veterinary Association and Kenya Veterinary Board have educational programmes aimed at this, but they are, in my opinion, NOT advanced knowledge acquisition endeavours. I mean, acquire current hands-on knowledge.

Your advice for the current and potential students of veterinary medicine / science?
The profession you have chosen is the mother of medicine! Get to know what 'to vet' means in English. It is however a Universal medicine - "all creatures great and small" - all will be assumed to be your patients. It certainly is a mammoth task being their doctor. That requires constant and wide readership. Fortunately, if you thoroughly know one disease, you know the whole of medicine. Let these principles guide you during your college and working days. The wife of a fellow veterinarian once asked why (or was it complained to me) her husband never stayed in the house without a book to read!

Your future plans?
I have a little plot to which I will eventually retire. I will however be available to continue providing teaching and training services (as and when these services are required of me) to whoever may hire me for the next 4 years. When fully retired, I will spend more time ensuring that my grandchildren get the best education possible. I will also offer my professional services to any of my willing neighbours, to raise good quality dairy cows - which I personally may not be able to raise.

You are a family man. Anything you want to share with us on that?
I am blessed with six children, two boys and four girls. That they have attained college education is satisfying. Five of them have university degrees; one girl is studying for her PhD in Anaesthiesiology, one is an accountant, another is an Administrative Linguist at the UN Headquarters in New York. On the other hand, one boy is an engineer and the other one a marketer. Under great tribulations, their mother and I have struggled to educate them thereby placing them above the ground and not below, as both of us had started life. I have three grandchildren, all of whom seem to be on-course!

Your parting words?
The road has been long and windy. Many obstacles - both natural and man-made - have crossed my path. I had set a goal to be where I am today - to be a Professor in Veterinary Medicine. Two people, one a friend with whom I joked about that goal and the other, a detractor intent on killing my dream, heard that "lengo" and although the detractor passed on sometimes back, the friend is still alive and has been a witness to my achievement. If you work day and night towards your set goal, you certainly will succeed. To my many students at the Faculty of Veterinary Medicine of the University of Nairobi and those in Central and Southern Africa, I thank you all for the faith you have had in me. The many "thank you letters" I have received from you let me believe in myself and I could have never been here if I had not benefitted from and got mentored by some of you. Thanks, we have run a long race together and have finally reached (attained) our GOAL! May God bless this Faculty and Department, for many years to come.

“No matter how educated or how good you or other people think you are, you can never know everything, even in your own speciality. You have to consult with other colleagues at all times, especially when in doubt, and more so at a critical time! Failure to do so because of self pride is suicidal!”

Compiled by Dr. Eddy Mogoa
The Newsletter is grateful to Prof. G.J.O. Agumbah for sharing this with us.

The Chief Editor.
Bachelor of Veterinary Medicine Students deworm a steer during field training visit and community outreach at Kib-

Members of Department of Clinical Studies welfare Group during the 2016 Annual General Meeting

Veterinary Students Pre-Field based placement training program course training program: 23rd - 27th May 2016
Featured Research: Effects of contaminated river water on boar reproduction

Researcher:
Dr Ambrose Kipyegon Ngeno (BVM, MSc Theriogenology); Department of Clinical Studies

Background: Endocrine Disrupting Compounds (EDCs) have been detected in urban draining rivers globally and shown to have adverse effects on the reproductive system of animals. In Kenya, previous studies by a number of scholars on urban draining rivers have revealed heavy contamination by microbial organisms, heavy metals and pesticides. These contaminants emanate from informal settlements, surface run off from the city, urban farmlands and light industries like garages along the banks of the rivers. Free ranging pigs that roam in search of food along drainage canals and water ways are exposed to a cocktail of contaminants in the water through ingestion.

Little is documented about endocrine disruption compounds in relation to the fertility of the pig, with over 80% genomic similarity with man.

The objective of the study was to investigate the possible reproductive effects of exposure to contaminated river water on the boar (Sus scrofa domestica) in peri-urban Nairobi.

The methodology of the study involved purchase of five adult boars reared since birth along the river riparian which were then castrated under general anaesthesia and their testes harvested.

These testes were subjected to histopathological examination. Histopathological findings revealed evidence of vacuolated seminiferous epithelium, sloughing off of germ cells and depletion of the seminiferous epithelium. The interstitial tissue appeared unaffected. The findings are indicative of environmental endocrine toxicity pointing towards effects of estrogens on the testicular tissue. This invariably leads to infertility due to a decrease in the number of spermatogonia produced. Further analyses are needed to identify the toxicants. The findings are however a major indication of infertility due to disruption of testicular function. The study concluded that exposure of pigs to wastewater results in testicular disruption. The results add to the existing knowledge of how exposure of animals to environmental contaminants contributes to disruption of reproductive function. In the study, strong associations are drawn between the effects seen and certain chemicals present in effluents, based on findings in the published literature.

- The Editor.
### Important Dates: October—December 2016 (Compiled by Dr. Muasya)

#### October
- 1st - World habitat day
- 4th—World Animal Day
- 6th—World Wildlife Day

#### November
- 3rd—World one health day
- 7th—World Cancer Awareness Day
- 8th—World Radiology Day
- 17th—International Students Day
- 21st—World Fisheries Day

#### December
- 1st - World AIDS Day
- 9th—International Anticorruption Day
- 25th—Christmass Day

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#### Appreciation Corner

In our Department, there are those we would like to appreciate over and over again, because of the role they play in making this 'huge' Department keep moving at the right speed and in the right direction. In this Issue of the Newsletter, the staff in the office of the Chairman of Department win our hearts for their commitment and dedication, which sometimes goes beyond the call of duty, as we try to serve our clients 24/7. We salute you. Keep up the good work ladies.

Since this segment was written for this Issue of the Newsletter, both Evalyne and Caroline have moved to other stations within the College. We wish you all the best in your new assignments - Chief Editor.

*Prepared by Dr. Peter Kimeli*
DEPARTMENT OF CLINICAL STUDIES

Vision
To be a leading centre of excellence in training (undergraduate, postgraduate and continuing education), research, clinical investigations, animal care, consultancy and outreach programmes.

Mission
To provide a leadership role in veterinary clinical and biomedical training, policy research, clinical investigation, patient care, wildlife health, environment and sustainable resource management, consultancy and community outreach programmes.

Core Values
The department of clinical studies endeavours to satisfy the expectations of all the stakeholders in order to realize the stated vision and mission. This will be guided by its stated core values.

Our Location taken from Google maps

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