

## **CURRICULUM VITAE**

Name: **Professor David. O.G. Kihurani, BVM, MSc, PhD.**

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### **PERSONAL BACKGROUND.**

(i) Date of Birth: 20th October, 1959; (ii) Sex: Male  
(iii) Citizenship: Kenyan; (iv) Religion: Christian  
(v) Marital status: Married, with 2 children  
(vi) Languages: Good in English and Swahili, and I have learnt French

### **EDUCATION.**

1990 - 1996 Doctor of Philosophy (Ph.D) degree in Veterinary Medicine, University of Nairobi.  
1984 - 1988 Masters Degree in Veterinary Surgery, University of Nairobi.  
1979 - 1984 Bachelors Degree in Veterinary Medicine, University of Nairobi.  
1973 -1978 O and A levels, Alliance High School, Kikuyu.

### **POSITIONS HELD.**

- 1) 1984-6/4/89 - Assistant Lecturer, Department of Clinical Studies, University of Nairobi, P.O. Box 29053, Nairobi, KENYA.
- 2) 1/9/90 to 1994 - Research Fellow, International Laboratory for Research on Animal Diseases (ILRAD), P.O. Box 30907, Nairobi, KENYA.
- 3) 7/4/89 to 17/7/96 - Lecturer, Department of Clinical Studies, University of Nairobi.
- 4) 18/7/96 to 30/8/04 - Senior Lecturer, Department of Clinical Studies, University of Nairobi.
- 5) 27/4/99 to 30/6/2007 - Consultant, Veterinary Diagnostics and Animal Management (VEDAMAN), P.O. Box 51179, Nairobi.
- 6) 24/5/02 to 31/12/2006 – Consultant Clinical Veterinarian, International Livestock Research Institute (ILRI), P.O. Box 30907, Nairobi, KENYA.
- 7) 31/8/2004 to present – Associate Professor, Department of Clinical Studies, University of Nairobi, KENYA.

### **TEACHING EXPERIENCE**

#### **A) University of Nairobi**

I have taught both undergraduate and postgraduate (M.Sc) students in Veterinary Medicine, since 1984 at the University of Nairobi. This has involved giving lectures, practicals and tutorials on various topics in clinical Veterinary Surgery and Medicine.

## **B) University of Ghana**

I was appointed as Visiting Scholar at the School of Veterinary Medicine, University of Ghana from 1<sup>st</sup> August, 2018 to 31<sup>st</sup> July, 2019. During this period I taught aspects of Veterinary Surgery to Undergraduate students, including Orthopaedics and Surgical conditions in Large and Small animals.

## **CLINICAL EXPERIENCE**

I have worked, since 1984, in the Clinical Studies Dept, **University of Nairobi**. While there, I have acquired experience in the treatment and management of individual sick animals (particularly Dairy cattle and horses), as well as herd health in the areas of Surgery, Medicine and Theriogenology. This has included field visits as well as management of animals admitted to the department.

### Additional experience:

a) For a period of 29 years (1989-2018) I have attended to the health and welfare of the horses and cattle belonging to the **Del Monte Kenya Ltd. company, Thika**. This has involved regular inspection visits, vaccinations as well as the treatment of any sick animals.

## **INTERNATIONAL STUDY VISITS:**

### a) **GERMANY**

I made a DAAD sponsored **3 month** study visit to Germany in 1996 (September to November), where I was attached to the Large Animal Medicine Department, College of Veterinary Medicine, University of Leipzig. I worked with Professor Gerald F. Schusser, the Director of the Department and carried out a research project using Ultrasound. The work was published thereafter (Publication No. 20 below). He also organized a 2 week visit to the "state of the art" Tierklinik Hochmoor, near Dortmund, which handles many horses. While there and also at the University, I was exposed to other diagnostic and therapeutic techniques in equine medicine and surgery. These included endoscopy, arthroscopy, computer tomography (CT scan) and scintigraphy.

During this visit, as well as on a 2<sup>nd</sup> in January, 2004, I gave a **seminar and lectures** to staff and students (4th and 5th year Veterinary Medicine students) of the University of Leipzig, Germany. This was on "Tropical diseases of horses and donkeys".

In addition, I attended and presented at **5 different Conferences** in Leipzig, Germany, at the invitation of Prof. G. Schusser, from 2004 to 2014. The topics included Trypanosomiasis in horses, African Horse Sickness in horses and donkeys, as well as Ultrasonography and Endoscopy. The conference proceedings are indicated in publications 22, 23, 24, 26, 27 and 28 below.

### b) **SOUTH AFRICA**

While on Sabbatical leave, I made a **6 months** visit (March to August, 2008) to the University of Pretoria, Department of Companion Animal Clinical Studies. I attended a 4 month postgraduate course on Medical Imaging techniques, including Ultrasound, Computer Tomography, Scintigraphy and Magnetic Resonance Imaging. During this period, I also carried out a research project entitled "Trans-cutaneous ultrasonographic evaluation of the air filled equine stomach and duodenum following endoscopy in horses, and pre and post surgical colic". The work was subsequently published (Publication No. 25 below). I was also exposed, during this period, to varied clinical cases of both large and small animals as well as wildlife, where diagnostic procedures in Ultrasound, Computer Tomography with a sliding gantry, and Scintigraphy were performed using "state of the art" equipment within the Department. The information gained has proved invaluable in conducting undergraduate and postgraduate courses at the University of Nairobi, as well as in the use of the Ultrasound machine I obtained for the department of Clinical Studies, as indicated below.

## RESEARCH GRANTS

- 1) Project: Investigation of African Horse Sickness in Donkeys in Kiambu, Kenya. Period: 2009 to 2010. Funding Organization: Donkey Sanctuary, Kenya. Amount = Kshs 950,000/-
- 2) Project: Genetic Improvement of East African Zebu Cattle for Milk Production in ASALs. Period: 2013 to 2016. Funding Organization: East African Agricultural Productivity Project (EAAPP). Amount: Kshs 3.4 million
- 3) Project: Smallholder Farmers Access to Improved Cattle Genetics in Kenya: An Accelerated Dairy Heifers Delivery Model Utilizing Reproductive Technologies. Period: 2018-2019. Funding Organization: National Research Fund. Amount: Ksh 9 million.

## EQUIPMENT OBTAINED FOR UNIVERSITY OF NAIROBI

- 1) I applied for and received a grant in October 2006 from the German organization DAAD, to purchase an **Ultrasound machine**. The Kontron Digital Ultrasound Unit with accessories (two multi-frequency convex and linear array probes, printer and trolley) was worth about 14,000 Euros. DAAD funded 90% of the cost of the machine while the University of Nairobi met the balance of 10%.
- 2) Large animal **Endoscope** unit comprising a 2 meter chip endoscope a TV Monitor, Light source and Processing unit, Printer, Pump and Carrying Case. These were donated in January, 2014, following my request, from the Medicine Department, Faculty of Vet. Medicine, University of Leipzig, Germany.

## ADMINISTRATIVE RESPONSIBILITIES

- 1) Acting Chairman, Clinical Studies Dept., 3<sup>rd</sup> to 21<sup>st</sup> November, 1997.
- 2) Chairman, Utafiti School Management Committee, April 2001 to March, 2004.
- 3) Coordinator, Postgraduate and Staff seminars, and Undergraduate Clinical Case presentations in Clinical Studies Dept., 2002 to May, 2004.
- 4) Head, Surgery Section, Clinical Studies Dept., April 2004 to November, 2012. This involved the coordination of undergraduate and postgraduate teaching and examination in Large and Small animal Surgery. I also oversaw the Clinical services in the Large Animal unit where animals were admitted for therapeutic surgical operations.
- 5) Departmental representative, Faculty Postgraduate Studies Committee, Faculty of Veterinary Medicine, April 2009 to present.

## CONSULTANCIES

### A) At the **International Livestock Research Institute (ILRI)**

I was appointed at the Institute as Consultant Clinical Veterinarian on various occasions from 1995 to December, 2006. My responsibilities were provision of animal health care including treatment of sick animals, performing routine and experimental surgeries (e.g. carotid cannulations, liver biopsies, splenectomies, broncho-alveolar lavage, liver and lymph node biopsies) in cattle for various research projects. In addition, I regularly visited the ILRI owned Kapiti Plains estate, a 33,000 acre ranch at Machakos, to examine and treat the cattle (Beef and Dairy breeds) and sheep in the sick herd.

I also performed **Embryo Transfer (ET)** services at ILRI to generate calves with specific genetic traits important for research in the disease East Coast Fever, as well as to propagate the N'dama cattle herd. This was following training by Dr Peter Elsdon at the National Embryo Transfer School, Senatobia, USA, in January, 2003. My ET services have also been used outside the institute to produce high yielding Dairy cattle for different private organizations.

## B) Other Consultancies

- i) Participation in drawing up plans for a Dairy unit and milk processing plant for Kitamaiyu farm (belonging to Hon. Maina Wanjigi), as a member of the Animal Industry Consultancy Unit (Clinical Studies Dept. consultancy unit). Period - December, 1995 to June, 1996.
- ii) Investigation, with a team of ILRI scientists, of a trypanosomiasis outbreak in horses belonging to "Offbeat Safaris" and used for Maasai Mara safaris. Period - November, 1995 to June, 1996.
- iii) Member of a workshop to provide input and review the tsetse distribution map of Kenya, held at KETRI on 17th and 18th April, 1996.
- iv) Promoting more effective, community based diagnosis of trypanosomosis in camels in Isiolo district, through the use of the diagnostic test Suratex<sup>®</sup>. Funding agency – Drought Preparedness, Intervention and Recovery Programme (DPIRP). Period – April-August, 2000.
- v) I am the Technical Facilitator of the East African Semen and Embryo Transfer Association (EASETA) involved in conducting training workshops in the art of Embryo Transfer in cattle. These began in 2005, initially with up to two workshops per annum. Participants have come from Uganda, Kenya and Zambia.

## DEVELOPMENT ENTERPRISE

I ran a personal Dairy enterprise for 7 years (1997-2004) where I was involved in milk production and marketing. This also involved assisting small-scale Dairy farmers in the local community gain access to the urban market with the objective of poverty alleviation.

## PUBLICATIONS.

- 1) **Kihurani, D.O. (1987):** MSc. Thesis entitled "The effects of using antiseptics on the healing of dehorning wounds in cattle" pp 142.
- 2) **Kihurani, D.O., Mbiuki, S.M. and Ngatia, T.A. (1989):** Healing of dehorning wounds. *British Veterinary Journal*, 145:580-585
- 3) **Kihurani, D.O., Ngatia, T.A. and Nguhiu-Mwangi, J.A. (1989):** Anorectal squamous cell carcinoma in a cow and incidence of bovine intestinal tumours in Kabete, Kenya. Proceedings of the first annual scientific conference of the Faculty of Veterinary Medicine, University of Nairobi. Bulletin of Animal Health and Production in Africa. Special issue. p. 103-105.
- 4) Nguhiu-Mwangi, J.A., Gathumbi, P.K., **Kihurani, D.O.**, Mbithi, P.M.F. and Mbiuki, S.M. (1989): Atypical (cutaneous) Actinobacillosis in cattle: Clinical observations, diagnosis and treatment in eighteen cases. Proceedings of the first annual scientific conference of the Faculty of Veterinary Medicine, University of Nairobi. Bulletin of Animal Health and Production in Africa. Special issue. p. 119-121
- 5) **Kihurani, D.O. (1990):** Surgical conditions of the urinary tract in cattle. *The Kenya Veterinarian*, 14:5-6.
- 6) Nguhiu-Mwangi, J.A., **Kihurani, D.O.**, Mbithi, P.M.F. and Mbiuki, S.M. (1990): Prognosis indicators and economic implications of advanced bovine ocular squamous cell carcinoma after radical surgery, *The Kenya Veterinarian*, 14:23-25.
- 7) Nguhiu-Mwangi, J.A., **Kihurani, D.O.**, Mbithi, P.M.F. Mbiuki, S.M. and Mogo, E.G.M. (1991): Factors used to predict prognosis and economic outcome of surgery for advanced ocular squamous cell carcinoma. Bulletin of Animal Health and Production in Africa. 39:435-439

- 8) Mbithi, P.M.F., Mbiuki, S.M., Nguhiu-Mwangi, J.A., and **Kihurani, D.O. (1991)**: Non fracture lameness in cattle: A retrospective study. *Bulletin of Animal Health and Production in Africa*. 39;307-309.
- 9) **Kihurani, D.O.**, Masake, R., Nantulya, V.M. and Mbiuki, S.M. (1993): Epidemiology and diagnosis of Trypanosoma congolense, Trypanosoma vivax and Trypanosoma brucei infections in horses on the Del Monte Farm in Thika. *ILRAD 1992: Annual Scientific Report of the International Laboratory for Research on Animal Diseases*. Nairobi: International Laboratory for Research on Animal Diseases, p. 51.
- 10) **Kihurani, D.O.**, Nantulya, V.M., Mbiuki, S.M. and Masake, R. (1993): Diagnosis and treatment of Trypanosoma congolense, T. vivax and T. brucei infections in horses on a farm in Kenya. Proceedings of the 3rd Geneva Congress of Equine Medicine and Surgery, and 3rd Congress of the World Equine Veterinary Association (WEVA), Geneva, 7-11 December, 1993, *Swiss Vet 11-S/ 1993*, p. 184.
- 11) **Kihurani, D.O.**, Masake, R., Nantulya, V.M. and Mbiuki, S.M. (1994): Characterization of Trypanosoma congolense, parasites isolated from horses on the Del Monte Farm in Thika. *ILRAD 1993: Annual Scientific Report of the International Laboratory for Research on Animal Diseases*. Nairobi: International Laboratory for Research on Animal Diseases, p. 49.
- 12) **Kihurani, D.O.**, Nantulya, V.M., Mbiuki, S.M., Mogo, E., Nguhiu-Mwangi, J.A. and Mbithi, P.M.F. (1994): Trypanosoma brucei, T. congolense and T. vivax infections in horses on a farm in Kenya. *Tropical Animal Health and Production*, 26 (2); 95-101.
- 13) **Kihurani, D.O. (1995)**: Ph.D. Thesis entitled "A clinico-pathological study of equine trypanosomiasis", pp 315.
- 14) **Kihurani, D.O.**, Masake, R.A., Nantulya, V.M. and Mbiuki, S.M. (2000): Characterization of trypanosome isolates from naturally infected horses on a farm in Kenya. *Veterinary Parasitology*, 89: 173-185.
- 15) **Kihurani, D.O. (2000)**: Suratex<sup>®</sup>; a diagnostic test for camel trypanosomiasis. Proceedings of the 6<sup>th</sup> Kenya Camel Forum, Maralal, Samburu District, 7<sup>th</sup>-11<sup>th</sup> March, 2000, p. 43-45.
- 16) Ndeereh, D.R., Mbithi, P.M.F. and **Kihurani, D.O. (2000)**: The evaluation of 4-Aminopyridine for the reversal of Xylazine sedation in goats. *Israel Journal of Veterinary Medicine*, 55 (1): 23-26.
- 17) Ndeereh, D.R., Mbithi, P.M.F. and **Kihurani, D.O. (2001)**: The reversal of xylazine hydrochloride by yohimbine and 4-aminopyridine in goats. *Journal of the South African Veterinary Association*, 72 (2): 64-67.
- 18) Mogo, E.G.M., Mbithi, P.M.F., Nguhiu, J.M. and **Kihurani, D.O. (2001)**: Alpha-2-Adrenoceptor agonists in Veterinary practice. *The Kenya Veterinarian*, 22: 82-90.
- 19) **Kihurani, D.O. (2001)**: Economics of early diagnosis of camel trypanosomiasis using Suratex<sup>®</sup>. Proceedings of the 7<sup>th</sup> Kenya Camel Forum, Nanyuki, Laikipia district, 13<sup>th</sup> to 16<sup>th</sup> March, 2001, p. 46-47.
- 20) **Kihurani, D.O.** and Schusser, G. (2001): The use of Ultrasound in distinguishing complications of the Jugular vein arising from intravenous catheters and injections in horses. *The Kenya Veterinarian*, 21; 16-19.

- 21) **Kihurani, D.O. (2001):** Computer tomography: a novel diagnostic technique used in horses. *The Kenya Veterinarian*, 21; 32-33.
- 22) **Kihurani, D.O., Nantulya, V.M. and Masake, R.A. (2004):** Skin reactions in horses infected with *Trypanosoma congolense*. Proceedings of the First Scientific Symposium of the European College of Equine Internal Medicine. In *Tierarztliche Praxis*, 32; 80-81.
- 23) **Kihurani, D.O. (2008):** Equine Trypanosomosis: clinical signs, diagnosis and possible spread to Europe. LBH: Proceedings of the 4th Leipziger Tierärztekongress, Germany. ISBN: 978-3-934178-80-9; pp. 78-79.
- 24) **Kihurani, D.O. (2008):** African Horse Sickness: more than an African disease. LBH: Proceedings of the 4th Leipziger Tierärztekongress, Germany. ISBN: 978-3-934178-80-9; pp. 80-81.
- 25) **Kihurani, D.O., Carstens, A., Saulez, M. and Donnellan, C. (2009)** Trans-cutaneous ultrasonographic evaluation of the air-filled equine stomach and duodenum following gastroscopy. *Veterinary Radiology and Ultrasound*, 50(4): 429-432.
- 26) **Kihurani, D.O., Carstens, A., Saulez, M. and Donnellan, C. (2010).** The effect of gastroscopy on the ultrasonographic appearance of the equine stomach and duodenum. LBH: Proceedings, 5. Leipziger Tierärztekongress. ISBN 978 3 86583 401 0. pp. 151-154.
- 27) **Kihurani, D.O.G. (2012).** Symptoms, diagnosis and clinical pathological data of an outbreak of African Horse Sickness in horses and donkeys. LBH: 6. Leipziger Tierärztekongress – Tagungsband 2. ISBN 978-3-86541-470-0. Pp 106-113.
- 28) **Kihurani, D.O. (2014):** The classification of naturally occurring Trypanosoma infections in horses in Kenya. LBH:7. Leipziger Tierärztekongress-Tagungsband 2, Germany, ISBN 978-3-86541-573-8; pp. 73-77.
- 29) Mburu J.N, Mbuku S.M, Ngige M, **Kihurani D**, Katiku P.N and Kosgey I.S (2014). Genetic Improvement of East African Zebu Cattle for Milk Production in ASALs: Preliminary evaluation of production objectives and management strategies. Proceedings of the EAAPP Scientific Conference, Morendat Training and Conference Centre, Naivasha, 13-15<sup>th</sup> November, 2013.
- 30) Wamaitha, Moses N, **David O. Kihurani**, Peter Kimeli, Willy E Mwangi, and John D Mande (2015). Surgical management of agenesis of the vulva with atresia ani-et-distal recti in a heifer calf: A case report. *Journal of Advanced Veterinary and Animal Research* 2(3): 369-372, September 2015. (Online First: 08 Jul, 2015. Web. 20 Jul 2015 doi:10.5455/javar.2015.b95).
- 31) **Kihurani, D.**, Mburu, J., Kosgei, I., Mbuku, S., Ngigi M., Katiku, P. and Wambulwa, L. (2015). The use of Assisted Reproductive Techniques in multiplication of Small East African Zebu cattle in Makueni County, Kenya. EAAPP End of Phase I Conference and Exhibition, Kenya National Farmers Federation Conference Centre, September 14-18 2015, Nairobi KENYA.
- 32) Mary Gichure, Philip Kitala, **David Kihurani**, John Mande and Njenga Munene (2020). Sero-prevalence and risk factors of African Horse Sickness among donkeys in a highland area of Kenya. *Journal of Veterinary Medicine and Animal Health*, 12(3): 125-131.

- 33) Makanya, A., Kavoi, B. and **Kihurani, D.** (2020). Slight volume changes in the duck lung do not imply a fundamental change in the structure of the parenchyma. Accepted for publication at "Anatomia, Histologia, Embryologia" on 21<sup>st</sup> August, 2020. Manuscript ID: AHE-06-19-OA-124 at <https://mc.manuscriptcentral.com/ahe> .

### **SEMINARS PRESENTED.**

<u>DATE</u>	<u>SEMINAR</u>	<u>PLACE</u>
25 - 26/8/88	Cosmetic dehorning for pedigree and show cattle (photo display)	Kenya Veterinary Association Conference, Mombasa
2-3/2/89	Surgical conditions of the urinary tract in cattle.	Kenya Veterinary Association Conference, Egerton University.
1/3/89	The role of Osteoclasts in osteosis and bone healing.	Clinical Studies Dept., University of Nairobi.
19 - 21/4/89	Recurrent frothy bloat in cattle.	Kenya Veterinary Association Conference, K.E.T.R.I. Muguga.
9/4/91	<u>Trypanosoma brucei</u> , <u>T. congolense</u> and <u>T. vivax</u> infections in horses on the Del Monte farm, Thika.	Centre for Tropical Veterinary Medicine, University of Edinburgh, Scotland.
10/3/93	Equine trypanosomiasis on the Del Monte Farm, Thika.	ILRAD, Nairobi.
7th to 11/12/94	Diagnosis and treatment of <u>T. congolense</u> , <u>T. vivax</u> and <u>T. brucei</u> infections in horses on a farm in Kenya. (Poster session)	3 <sup>rd</sup> Geneva Congress of Equine Medicine and Surgery, and 3 <sup>rd</sup> Congress of the World Equine Veterinary Association (WEVA), Geneva, Switzerland
24th to 26/4/95	The spread of trypanosomiasis to Thika.	Kenya Veterinary Association Conference, Kabete Campus.
20/6/95	Equine trypanosomiasis: a correlation between the natural and experimental infection.	K.E.T.R.I., Muguga.
19/9/96	Trypanosomiasis in horses.	Leipzig University, Equine Medicine Dept., Germany.
23rd to 25/4/97	The clinical course of <i>T. congolense</i> infection in experimentally infected horses.	Kenya Veterinary Association Conference, Kisumu.
23rd to 25/4/97	The use of the ultrasound technique in distinguishing complications of the jugular vein arising from intravenous catheters and injections in horses.	Kenya Veterinary Association Conference, Kisumu.
22nd to 24/4/98	Computer Tomography: A novel diagnostic technique used in horses.	Kenya Veterinary Association Conference, Embu.
20th to	Symbiotic relationship between	KVA-CVA conference,

23/4/99	trypanosomes and horses.	Nairobi.
26 <sup>th</sup> to 28/4/2006	Equine Practice: The challenges and Opportunities	Kenya Veterinary Association Conference, Mombasa.
26 <sup>th</sup> to 27/4/2007	Embryo Transfer: A new initiative in Eastern Africa.	Kenya Veterinary Association Conference, Eldoret.
26 <sup>th</sup> to 27/4/2007	Ultrasonography: An invaluable diagnostic technique	Kenya Veterinary Association Conference, Eldoret.
25 <sup>th</sup> to 28/4/2018	Use of Heifer-plus <sup>®</sup> to enhance Heifer calf pregnancies: a preliminary study in Kenya.	Kenya Veterinary Association Conference, Nyeri

### **POSTGRADUATE SUPERVISION / EXAMINATION**

I have supervised four postgraduate (MSc) students in Veterinary Surgery in the University of Nairobi, in 1998 (Dr. Ndeereh), 2007 (Dr Ndurumo), 2010 (Dr Gichure) and 2013 (Dr Mathai). In addition, I have been an Internal examiner for an MSc student in Veterinary Pharmacology in 1999, and a PhD student in Veterinary Epidemiology (2007). As a member of the Board of Examiners, University of Nairobi, I have examined another MSc student in Public Health (2003), as well as 3 PhD students in Veterinary Pharmacology (2000), Veterinary Anatomy (2002) and Public Health (2003).

### **EXTERNAL EXAMINATION**

During the period 2015 to 2017 I was an External Examiner at the University of Ghana, Accra. Ghana. This involved evaluating undergraduate students during their final year (6<sup>th</sup>) exams. It included a review of Written exam papers and Oral examination of students in Veterinary Surgery.

### **COLLABORATIVE RESEARCH:**

#### **A) At the International Livestock Research Institute (ILRI)**

My research activities at the institute were linked to the Ph.D. studies whose project was entitled "A clinico-pathological study of equine trypanosomiasis". This research was jointly sponsored by ILRI and DAAD (German Academic Exchange Service). At ILRI, I used various laboratory techniques to support the field study on natural infections of Trypanosoma congolense, T. vivax and T. brucei in horses. The procedures used included :-  
 i) The standard parasitological trypanosome detection methods; and the antigen and antibody detection enzyme immunoassays (ELISA).  
 ii) Dissection of tsetse flies and use of the DNA probes technique to detect and identify trypanosomes in the vector.  
 iii) Characterization of T. congolense isolates from the horses using Recombinant DNA hybridization probes; cloning of the trypanosomes and determining their molecular karyotype using Orthogonal Field Alternation Gel Electrophoresis (OFAGE).

#### **B) At the Kenya Trypanosomiasis Research Institute (KETRI)**

This involved training staff there in the handling, feeding, examination and treatment of horses infected with the parasite Trypanosoma evansi. The trypanocidal drug, Cymelarsen, was evaluated with regard to its effectiveness against this parasite. Period – January to April, 2004

#### **c) Wild Life Research**

In 1981, for a period of 2 months, I was attached to the Wildlife section of the Veterinary Laboratories, Kabete, and participated in a research project carried out at the Maasai Mara game reserve. The project's objective was to trace the life cycle of a tapeworm whose adult form was in the Hyaena, and relate it to the intermediate (cyst) stage in the Wildebeest.



## **PROFESSIONAL ASSOCIATIONS.**

- 1) Registered by the Kenya Veterinary Board to practice as a Veterinary Surgeon and Licensed to run a Private Practice.
- 2) Member, Kenya Veterinary Association
- 3) Member, Kenya Camel Association.
- 4) Member, East African Semen and Embryo Transfer Association.

## **INTERNATIONAL COURSES AND TRAINING**

- 1) The 6<sup>th</sup> CTVM Recent Advances and Current Concepts in Tropical Veterinary Medicine Course, at the University of Edinburgh, Scotland. Period: 1-12 April, 1991.
- 2) Bovine Embryo Transfer and Splitting Course, at the National Embryo Transfer School, Senatobia, USA. Period: 14-20<sup>th</sup> January, 2003.
- 3) Postgraduate course on Medical Imaging techniques, including Ultrasound, Computer Tomography, Scintigraphy and Magnetic Resonance Imaging; University of Pretoria, Faculty of Veterinary Science, Republic of South Africa. Period: March to June, 2008.
- 4) Training in Embryo Flushing and Transfer, Artificial Insemination, Semen Collection and Semen Freezing in cattle at Embrio plus, Brits, South Africa, in December, 2015 and February, 2016.