

DR. AMBROSE KIPYEGON NG'ENO (BVM, MSC, PHD, CLINICAL STUDIES)

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CURRICULUM VITAE FOR DR. AMBROSE KIPYEGON NG'ENO (PHD, UNIVERSITY OF NAIROBI)

PROFILE

I am a veterinary surgeon with 15 years' teaching and research experience in the Department of Clinical studies, Faculty of Veterinary Medicine, University of Nairobi. For these years, theriogenology (veterinary reproduction and obstetrics) has been my area of specialization. I hold a Doctor of Philosophy (PhD) in Clinical studies, Master of Science (MSc) in clinical studies, and Bachelor of Veterinary Medicine degree of the University of Nairobi.

As a scholar, I have conducted high quality research and published widely in international peer reviewed journals, conference proceedings and seminars. I have supervised, examined and mentored a number of postgraduate and undergraduate students.

I am a registered surgeon with the Kenya Veterinary Board (KVB) and a member of the Kenya Veterinary Association (KVA). I actively give back to the society through leadership and community outreach.

Results of this year's appraisal rates my performance as exceeding expectations.

PERSIONAL DATA

Name: Ambrose Kipyegon Ngeno

Date of birth: 1st March 1981

County of Birth: Bomet

Nationality: Kenyan

Marital status: Married

Languages: Kipsigis, English, Kiswahili.

ACADEMIC BACKGROUND

2013-2017: Doctor of Philosophy (PhD) in Clinical studies, University of Nairobi.

Thesis: Effects of two endocrine disrupting compounds (17B-estradiol and alkylphenol) in Nairobi river-water on boar testicular descent and seminiferous epithelium.

2009-2011: Master of Science (MSc) in Clinical Studies, University of Nairobi.

Thesis: Effects of ripe papaya (Carica papaya) seed powder on the seminiferous epithelium of the Boar testis.

2002-2007: Bachelor of Veterinary Medicine (BVM), University of Nairobi,

1996-2000: Kenya Certificate of Secondary Education (KCSE), Mother of Apostles Seminary- Eldoret

1984-1995: Kenya Certificate of Primary Education (KCPE), Kimyoasis Primary School -Nandi

Other trainings acquired

June 2019: East Africa Community (EAC) Cross border field outbreak simulation exercise in Arusha and Namanga.

September 2015: University of Nairobi, Central Catering Unit. Pedagogy and Andragogy training.

October 2014: KVB, Nairobi: Training of trainers' course in harmonised Artificial insemination curriculum and refresher modules

2012: FAO livestock emergency guidelines and standards (LEGS) training.

2011: ILRI, Nairobi: Hands-on techniques on In-vitro Embryo Production, Embryo Transfer, Semen processing and Evaluation, genetic resource preservation and imports.

2011: University of Nairobi, FVM. Use of Mobile Technologies to Support Disease Surveillance, Education and Knowledge Sharing in the Veterinary Sector.

2011: Training centre in communication, Nairobi. Scientific communication and publishing training.

2010): World Society for Protection of Animals "Animal disaster management and risk reduction Consultative workshop".

2007: Institute of Primate Research- U.O.N. Veterinary and Comparative Pathology workshop

WORK AND RESEARCH EXPERIENCE

During my thirteen years of teaching experience at university level, I have been involved in providing academic leadership, and instruction of undergraduate and postgraduate students.

March 2018-Present: Lecturer, University of Nairobi, Faculty of veterinary medicine, Department of Clinical studies.

Responsibilities: Teaching undergraduate and post graduate courses in Theriogenology, student supervision, research and other departmental roles assigned.

April 2009-March 2018: Tutorial Fellow, University of Nairobi, Faculty of veterinary medicine, Department of Clinical studies

Responsibilities: Teaching undergraduate and post graduate courses in Theriogenology, student supervision and other departmental roles assigned.

2019 and 2020: Post Doc Visiting Research fellow, Lilongwe University of Agriculture and Natural Resources (LUANAR) and University of Ghana: Research in Smallholder dairy Cooperatives in Addressing Sustainable Development Goals in ODA Countries.

2017: PhD. Research project on effects of two endocrine disrupting compounds (17B-estradiol and alkylphenol) in Nairobi river-water on boar testicular descent and seminiferous epithelium.

2011: MSc Research student: Project title: Effects of ripe papaya (Carica papaya) seed powder on the seminiferous epithelium of the Boar testis. Master of Science (MSc) Thesis, University of Nairobi. Responsibilities: Principal Researcher, collecting data, entry, analysis and reporting.

TRAINING AND EDUCATIONAL GRANTS

2024: Veterinary Student Scholar award (VSS). By Morris Animal Foundation (MAF) small research grants

2023: Bovine theriogenology model: funded by veterinarians international

2022: Veterinary Student Scholar award (VSS). By Morris Animal Foundation (MAF) small research grants

2022: Kenya Climate Smart Agriculture Project (KCSAP). Under the training component 4 MSc studies in the fields of animal resilience building against disasters and institutional preparedness were funded. Each of the students received support up to Kshs 4 million. I successfully assisted the students in putting together winning proposals for this funding

2022: Co-Principal Investigator (PI) of the Ksh 50M UoN-IAEA International Technical Cooperation Project dubbed "Using Nuclear and Related Technologies for Sustainable Livestock Productivity in Kenya" aims to build capacity on the current state of art science technology and skills in reproductive technologies for enhanced breeding, nutrition and reproductive technology extension services in the department of Clinical Studies, Theriogenology Section.

2019: World University Network- Bristol University- University of Western Australia- University of Nairobi- University of Ghana and Lilongwe University of Agriculture and Natural resources. Research in Smallholder dairy Cooperatives in Addressing Sustainable Development Goals in ODA Countries. Travel grants

STUDENT SUPERVISION RECORDS

Thesis Examination

I have so far also served as an Internal examiner of one PhD and four MSc thesis

- 1. Kenana Jacquiline Kisianan. Toxicological and Phytochemical evaluation of Uvariodendron kirkii. MSc Pharmacology & Toxicology
- 2. Linet Mwende Kaaria. Evaluation of Asparagus racemosus from Nakuru County, Kenya on selected female reproductive parameters. MSc. Comparative Animal Physiology
- 3. Nancy Mulwa. "Survey of endoparasites and associated lesions in donkeys in selected abattoirs in Kenya". Master of Science in Veterinary Pathology and diagnostics

- 4. Valence Mutwedu. Investigation of the pharmacological effects of moringa Oleifera aqueous extract on oxidative damages and Reproductive performances induced by heat stress in female Rabbit. Doctor of Philosophy, University of Nairobi (Pharmacology and Toxicology)
- 5. Abdideeq yusuf mohamed. Assessment of bacteriological and Physicochemical quality of drinking water in Hargeisa city, Somaliland. Master of Science in Veterinary Public Health

Completed Graduate Supervision

- 1. Wilkister Nabulindo. Spermatogonial stem cell culture, transfection and Intra-testicular transplantation as a preliminary tool towards obtaining genetic modification of Kenyan galla goat. **PhD Clinical Studies**, University of Nairobi.
- 2. Emily Kilonzi. Governance and management of chemical waste in small holder dairy farms: a case of Kabete sub-county, Kiambu county. **MSc Environmental Governance**, University of Nairobi.
- 3. Edward Njenga. Repeat breeding in Bos Taurus in Makueni, Kakamega and Nandi counties, Kenya. **MSc theriogenology**, University of Nairobi.
- 4. Ascah Jesang. Reducing synchronizing Prostaglandin f2α dosage in dairy goats for enhanced Artificial insemination uptake in Kenya. MSc. Theriogenology, University of Nairobi.
- 5. Nickson Langat. Assessment of rift valley fever surveillance and control strategy in Marigat sub county, Baringo county, Kenya. MSc. Environmental Governance, University of Nairobi.
- 6. Peterkin Nzomo. Effects of bull characteristics and testicular attributes on semen parameters in Kenyan AI station bulls. MSc. Theriogenology, University of Nairobi.
- 7. Isaiah Oruene Sotonye. Age-related evaluation of peripheral basal hormone and GnRH-stimulated effects on testicular size and histology in the west African dwarf buck. MSc. Theriogenology, University of Nairobi.
- 8. Patriciah Chege. Utilizing county-based artificial insemination services for enhanced cattle breeding. MSc. Theriogenology, University of Nairobi.

Ongoing Graduate Supervision

- Alex Kimeli The effects of timed heat inseminations on sex ratios of calves in dairy cows.
 University of Nairobi, Department of Clinical Studies
- 2. Erick Korir Semen quality of Holstein Friesian and Ayrshire bulls at Kenya animal genetic resources centre. MSc. Theriogenology, University of Nairobi.

ADMINISTRATIVE RESPONSIBILITIES

2018 - Present: Theriogenology section Head

Main responsibilities: I effectively manage day-to-day sectional activities as per policy, oversee teaching of reproduction curriculum for 3rd, 4th, 5th year students and post graduates, oversee Curriculum reviews and development

2016 – Present: Chairperson, Faculty of veterinary Medicine attachment Co-coordinator

Main responsibilities: Organizing for placement of undergraduates in the faculty, organizing for field attachment supervision by staff in the faculty, providing letters of support to students for field attachment applications, entoring students on internship opportunities and networking

Achievement: Developed an innovative way of evaluation students' attachment to utilize our alumni

2017 to 2020: Departmental Examination Officer

2022: Faculty of Veterinary Medicine Alumni Champion

ISO Technical committee member

PUBLICATIONS

Thesis

A.N KIPYEGON (2017). Effects of two endocrine disrupting compounds (17B-estradiol and alkylphenol) in Nairobi river-water on boar testicular descent and seminiferous epithelium. Doctor of Philosophy (PhD) Thesis, University of Nairobi

A.N KIPYEGON (2011). Effects of ripe papaya (Carica papaya) seed powder on the seminiferous epithelium of the Boar testis. Master of Science (MSc) Thesis, University of Nairobi.

Publications in Peer Reviewed Journals

- 1. Peterkin Nzomo Munywoki, **Ambrose Kipyegon Ng'eno**, Wilkister Nakami Nabulindo, Roselyne Wambugu, and David Kios. (2024). Relationship between bull signalment and testicular attributes in a Kenyan bull station. Veterinary World. www.veterinaryworld.org
- 2. Kibegwa M. Felix, Kirui Gilbert, **Kipyegon A. Ng'eno**, Kellen Karimi, Susan Keino, Hellen Kipkulei, Sam Wanjohi. (2024). Harnessing information communication and technology in enhancing one health interventions among the university students in Kenya", Research Directions: One Health
- **3.** Kirui, G.K., **Kipyegon, A.N**., Abuom, T.O., Masudi, P.S. (2024). One Health knowledge, attitudes and practices among abattoir workers in Narok, Kenya. Global Journal for Research Analysis 13(1)

4. Oruene I.S, Mutembei H.M, **Kipyegon A.N** and Rekwot P.I. (2023). Effects Of Exogenous GnRH Stimulation on Testicular Spermatogenesis and Characteristics of The West African Dwarf Buck. Nigerian Veterinary Journal 44(3): 9-21

- 5. Oruene I.S, Mutembei H.M & Kipyegon A.N. (2023). Age-related changes in hormonal profiles and testicular diameter of West African Dwarf buck treated with gonadotropin-releasing hormone. Sokoto Journal of Veterinary Sciences, Volume 21 (3).
- **6.** Kilonzi E, **Kipyegon** A, Mutembei HM & Muthee J. (2023). Towards Understanding Agrochemical Waste Management in Smallholder Dairy Farming. A Study of Peri Urban Kiambu in Kenya. Acta Scientific Veterinary Sciences 5. 9: 22-26
- 7. Nakami, W. N., Nguhiu-Mwangi, J., **Kipyegon, A. N.**, Ogugo, M., Muteti, C. Tiambo C, Oatley, Oatley & Kemp, S. (2022). Culture of Kenyan goat (Capri hircus) undifferentiated spermatogonia in feeder-free conditions. Front. Vet. Sci. in press. doi: 10.3389/fvets.2022.894075
- **8.** Jesang A, **Kipyegon AN**, Mutembei HM, Mugube EO. 2022 Farm-level factors affecting dairy goat artificial insemination in Kenya East African Agricultural and Forestry Journal. Special Issue Volume 85: 250- 261
- **9.** Nakami, W. N., Nguhiu-Mwangi, J., **Kipyegon, A. N.,** Ogugo, M., Muteti, C., & Kemp, S 2022. Comparative Efficiency for in vitro Transfection of Goat Undifferentiated Spermatogonia Using Lipofectamine Reagents and Electroporation Stem cells and cloning: advances and applications. 15: 11–20
- **10.** Nakami W, **Kipyegon AN**, Nguhiu-Mwangi J, Tiambo C, Kemp S. 2021. Culture of spermatogonial stem cells and use of surrogate sires as a breeding technology to propagate superior genetics in livestock production: A systematic review. Veterinary World. 14(12): 3235-3248.
- **11.** Njoroge EN, Mutembei HM, **Kipyegon AN**, Kimeli P, Olum MO. (2020). "Prevalence of Repeat Breeding Syndrome in Dairy Cattle in Selected Regions of Kenya." *International Journal of Veterinary Science*. 10(2):144-118.
- **12. Kipyegon AN,** HM Mutembei, VT Tsuma, JA Oduma. (**2017**). Effects of exposure to effluent contaminated river water on boar reproduction. Inter J Vet Sci, 6(1): 49-52.
- **13.** Mutembei HM, **AN Kipyegon**, ERMutiga. (2017). Environmental Estrogen-Like Endocrine Disrupting Compounds and the Dangers they pose on Male Fertility: Review Case of Nairobi River Water. Journal of Physical Science and Environmental Studies 3 (3): 25-29.

14. Kipyegon AN, HM Mutembei, VT Tsuma, JA Oduma, P Kimeli. (**2016**). Knowledge and Practices of the residents living along the Nairobi River Riparian on the use of the contaminated river for farming and its effects on animal reproduction. J Agric and Vet Sci. 9(8) Ver. I: 59-61.

- **15. Kipyegon AN,** HM Mutembei, VT Tsuma, JA Oduma. **(2016).** Effects of Effluent Contaminated River Water on Testicular Histology of Mice.Sch J Agric Vet Sci; 3(6):411-415.
- **16. Kipyegon AN,** HM Mutembei, VT Tsuma, JA Oduma. (**2016**). Levels Of 17β Steroid and Alkylphenol Estrogenic Endocrine Disrupting Compounds in Nairobi River. Journal of Physical Science and Environmental Studies. 2 (3): 46-49.
- **17.** Kimeli P, Mbugua SW, Cap RM, Kirui G, Abuom TO, Mwangi WE, **Kipyegon AN**,Mande JD. (**2015**). A retrospective study on findings of canine hip dysplasia screening in Kenya. Veterinary World 8(11):1326-1330.
- **18.** Mutembei HM, AE Cook, Muraya J, Makau DN, Aleri J, **Kipyegon AN**, Mulei CM. (**2015**). A One-Health Approach to Control the Incidence of Rabies in the Slums of Nairobi. Journal of Medical and Biological Science Research Vol. 1 (9):130-133.
- **19.** Kimeli p, Amuti S, **KipyegonAN**, Mbugua S.W. **(2015).** Acute abdominal aortic rupture in a mare on transit. international journal of agricultural science and veterinary medicine 3(2): 20-22
- **20.** Juma PO, **Kipyegon AN,**Muraya J, V Tsuma, 2015. Successful Use of Dexamethasone, Vitamin B12 and Vitamin E Selenium in Management of Bilateral Obturator Nerve paralysis in a Cow. Inter J Vet Sci, 4(3): 158-160
- **21.** Kimeli P, **Kipyegon AN**, Mwangi WE, Mande JD, 2014. A case of Trypanosoma congolense savannah type infection and its management in a dog. J. Adv. Vet. Anim. Res., 1(4): 232-234. http://bdvets.org/JAVAR
- **22.** Kimeli P, Mogoa EM, Mwangi WE, **Kipyegon AN**, Kirui G, Muasya DW,Mande JD, Kariuki E, Mijele D, 2014. Use of brachial plexus blockade and medetomidine-ketamine-isoflurane anaesthesia for repair of radio-ulna fracture in an adult cheetah (acinonyxjubatus). BMC Veterinary Research, 10:249
- **23.** Kimeli P, **AN Kipyegon**, DN Karanja, 2014. Fatal obstructive urolithiasis in a 5-month-old buck: a case report. Inter J Vet Sci, 3(1): 40-42. www.ijvets.com

- **24.** Kimeli P, **Kipyegon AN**, Mwangi WE, Mogoa EGM, DN Karanja, 2014. Diffuse peritonitis associated with ventral hernia in an adult doe: Case report. Journal of agriculture and veterinary sciences 7(1): 53-55. www.iosrjournals.org
- **25. Kipyegon AN**, HM Mutembei, VT Tsuma, JA Oduma, 2012. Effects of ripe Carica Papaya seed powder on testicular histology of boars. *Inter J Vet Sci*, 1(1): 1-4.
- **26.** JW Aleri, TO Abuom, JM Kitaa, **AN Kipyegon**, CM Mulei, 2012. Clinical Presentation, Treatment and Management of Some Rabbit Conditions in Nairobi. *Bulletin of Animal Health and Production in Africa* > *Vol* 60, *No* 2
- **27.** Aleri, J.W., **Kipyegon, A.N**., Mande, J.D., Mulei, C.M, Karanja, D.N. An acute respiratory distress syndrome due to Babesiosis in a Dog. *Research journal of animal sciences***5** (2): 14-16, 2011.

Conference Presentation/ Proceedings

- 1. **Kipyegon, A.N.**, Nakami. W., Kirui, G., Mathai, L., Mbugua, S.W and Okumu P.O. Animal Welfare Challenges; Penile Amputation during Castration Malpractice in a 2-Month-old Puppy. *KVA 49th annual scientific conference 2015*.
- 2. **Kipyegon AN**, HM Mutembei, VT Tsuma and JA Oduma. Seminiferous epithelium response to dietary papaya seed administration. *KVA 48th annual scientific conference 2014*.
- 3. Muraya J, **Kipyegon AN,**Mogoa EM, and Kirui KG. Partial mastectomy for management of chronic gangrenous mastitis in an adult lactating cow. *Kenya Veterinary Association 47th annual scientific conference2013*.
- 4. **Kipyegon AN.** Effects of ripe papaya seed powder on the seminiferous epithelium of the boar testis-abstract qualifies for presentation during the 17th international congress on animal reproduction Vancouver Canada. 2012.
- 5. Aleri, J.W., Abuom, T.O., Kitaa J.M., **Kipyegon, A.N**., and Mulei, C.M. An overview of rabbit conditions presented to the small animal clinic, University of Nairobi Kenya. *Kenya Veterinary Association 45th annual scientific conference2011*.
- 6. **Kipyegon, A.N.**, Abuom, T.O., Aleri, J.W. and Mulei, C.M. Traumatic Diaphragmatic Hernia in 3 Canines: Case report. *Faculty of veterinary medicine 7th Biennial conference 2010*.
- 7. Bundi, R.M., Gakuya, D.W., **Kipyegon, A.N**. andMuthee, J.K. An outbreak of Sheep and Goat Pox in a Farm in Kiambu west District. *Faculty of veterinary medicine 7th Biennial conference 2010*

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Technical Reports

- 1. Technical Report on One Health Training Needs Assessment of Middle Level Training Institutions in Kenya. Technical support to AFROHUN-KE, 2021.
- 2. Technical report on the Training Needs Assessment of Frontline Workers within Health Care Sector in Kenya. Technical support to AFROHUN-KE, 2020.

Manuals Developed

AFROHUN (2021). Student one health innovation club (SOHIC) guide.

AFROHUN KENYA (2022). Student field Experiential learning guide

A competence-based curriculum (CBC) aligned One-Health manual for primary schools

COMMUNITY OUTREACH

Community Trainings and Engagements Conducted

- 1. November 2018: Farmer group training on aspects of dairy production sponsored by Caritas under its "Tulinde ukulima wetu, tuhakikishe uhai wetu" Program.
- 2. Annual community outreach to sensitize on Rabies and control of reproduction in small animals
- 3. **2011:** Team lead; UON Veterinary Response Team against Drought in Mwingi.
- 4. **2013:** participant; UON Veterinary Response team in Tana River inter-ethnic conflicts

PROFESSIONAL ENGAGEMENTS

I have applied my professional knowledge and skills to better the society and improve animal and human welfare through the following key activities.

- 1. The embryo transfer project in OlPejeta conservancy
- 2. Goat embryo manipulation and transfer in ILRI
- 3. Community One Health sensitization with AFROHUN
- 4. Registered member Kenya Veterinary Board
- 5. Registered member Kenya Veterinary Association

REFERENCES

1. Prof. Daniel Gakuya,

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