



**Prof. Jackson Nyarongi Ombui,**  
Associate Professor  
Department of Public Health Pharmacology and Toxicology

### **CURRICULUM VITAE**

#### **BIODATA**

**Name:** Prof. Jackson Nyarongi Ombui (BVM, MSc, PhD).  
**Present address:** Department of Public Health, Pharmacology and Toxicology,  
College of Agriculture and Veterinary Sciences,  
University of Nairobi, P.O Box 29053, Nairobi, Kenya.  
Mobile: 0724-354865;  
E-mail: jombui@uonbi.ac.ke  
**Place of birth:** Nyamira District, Kenya.  
**Date of birth:** 28/01/1962.  
**Marital status:** Married with two children  
**Profession:** Veterinary Surgeon  
**Occupation:** Associate Professor, Dept. of Public Health, Pharmacology and  
Toxicology, Faculty of Veterinary Medicine, University of Nairobi.

## **EDUCATIONAL ACHIEVEMENTS**

- 1999: PhD (in Veterinary Public Health) University of Nairobi. **Thesis title:** Molecular epidemiology of *Bacillus cereus* food poisoning.
- 1990: Master of Science (MSc. in Veterinary Public Health), University of Nairobi. Thesis title: Occurrence of enterotoxigenic *Staphylococcus aureus* food poisoning bacteria in milk and in Meat.
- 1988: Bachelor of Veterinary Medicine (BVM), University of Nairobi.
- 1982: Kenya Advanced Certificate of Education (K.A.C.E).
- 1980: Kenya Certificate of Education (K.C.E).

## **CAREER GOALS**

To create, advance and disseminate knowledge through research and consultancy, publications, infrastructure development, effective teaching, outreach and community service.

## **WORK EXPERIENCE**

### **November 10, 2009 to date**

Associate Professor, Department of Public Health, Pharmacology and Toxicology, Faculty of Veterinary Medicine, University of Nairobi.

**Duties:** Teaching both Veterinary Public Health to both undergraduate and postgraduate students, supervision of postgraduate students, research and consultancy in various areas of Veterinary Public Health and administrative duties that may be allocated to me.

### **2000 to Oct. 2009**

Senior Lecturer in the Department of Public Health, Pharmacology and Toxicology, Faculty of Veterinary Medicine, University of Nairobi. Duties: are as outlined above.

## **1992- 2000**

Lecturer in the Department of Public Health, Pharmacology and Toxicology, Faculty of Veterinary Medicine, University of Nairobi

## **1989 - 1992**

Assistant Lecturer in the Department of Public Health, Pharmacology and Toxicology, Faculty of Veterinary Medicine, University of Nairobi

## **ADMINISTRATIVE RESPONSIBILITIES**

1. Chairman, Department of Public Health, Pharmacology and Toxicology from August 1, 2010 to July 31, 2016 (Two 3 year terms)
2. Appointed acting Dean in a few occasions
3. Appointed Chairman of tender evaluation committee for supply of tissue processor for the Department of Veterinary Pathology, Microbiology and Parasitology 2014
4. Chairman of tender evaluation committee for supply and installation and commissioning of a milking machine for the Veterinary Farm, UoN. 2014
5. Appointed chairman of staff appointment committee for technical staff for the Department of Clinical Studies, FVM 2014
6. A member of College of Agriculture and Veterinary Sciences Corruption Prevention Committee.
7. I have served as a member of the University Senate and College Management Board 2009-2016,
8. I am a member of the College Academic Board and Faculty of Veterinary Medicine Board.
9. Appointed a member of the Odel Campus Board in 2017 to date.

## **RESEARCH GRANTS AWARDED**

1. Dean's Committee grant of Ksh 250,000/= for the project on characterization, decontamination and modification of chrome leather waste to produce low cost fertilizer; 2014-2015

2. Kenya-South Africa joint research award of Ksh.2,400,000/= for a project on prevalence, virulence characterization and antimicrobial resistance profiling of campylobacter spp. isolates from commercial and small-scale poultry farms in Kenya and in South Africa 2014-2016;
3. International Foundation for Science Research Grant of 71,952 SEK (\$7,915) Grant Agreement No. E2688-3F for the period 2006-2007 for a project on Investigation of the genes responsible for enterotoxigenicity of Bacillus cereus.

### **PUBLICATIONS IN REFEREED JOURNALS**

1. Musafiri K; Beniamino, T; Cenci-Goga, Alice Prosperi, Eric Etter, Said El-Ashram; Cheryl McCrindle, **Ombui JN** and Allan Karake (2019). Prevalence and risk factors associated with *Campylobacter spp.* occurrence in healthy dogs visiting four rural community veterinary clinics in South Africa. *Ondersport Journal of Veterinary Research*,
2. Ngotho-Esilaba R.N., Onono J.O., **Ombui J.N.**, Lindahl J.F., Wesonga H.O. (2019) Perceptions of Challenges Facing Pastoral Small Ruminant Production in a Changing Climate in Kenya. In: Leal Filho W. (eds) Handbook of Climate Change Resilience. Springer, Cham
3. Muloi D., Pablo A, **Ombui JN.**, Ngeiywa JK., Bulle Abdullahi, Muinde, P, Karani MK., Rushton Jonathan and Eric Fevre (2018). Value chain analysis and sanitary risks of the camel milk system supplying Nairobi city, Kenya. *Prev. Vet. Med.* 159: 203-210
4. Mageto LM. **Ombui, JN.** and Mutua FK (2018). Prevalence and risk factors for campylobacter infection of chicken in peri-urban areas of Nairobi, Kenya. *J. Dairy, Veterinary and Animal Research* 7(1): 00184.
5. Ondieki G. K; **Ombui JN**; Obonyo, M; Gura Z; Githuku J; Orinde A.B and Gikunju, JK (2017) Antimicrobial residues and compositional quality of informally marketed raw cow milk, Lamu West Sub-County, Kenya, **2015.**, *The Pan African Medical Journal.* 2017;28 (Supp 1):5.

6. Njue LG., **Ombui JN.**, Kanja LW; Gathumbi JK and Midiwo JO. (2017). Identification of antimicrobial compounds in garlic grown in Laikipia county. *Journal of Agricultural research and review*, 5(5): 636-643
7. Njue LG., **Ombui JN.**, Kanja LW and Gathumbi JK. (2017): Assessment of effectiveness of garlic extract from Laikipia County on shelf life of meat. *Journal of Agricultural Economics, Extension and Rural Development*, 5(5): 632-641
8. Ngugi, A., **Ombui JN.**, Gathuma. JM., Lwevo E., Kuria, A and Wairimu M. (2016). Evaluation of Economic losses from the hides and skins subsector in Wajir County, Kenya. *Journal of Agriculture and Veterinary Science* 9(7):41-44
9. Kuria Alex, **Ombui JN** and Onyuka A., (2016). Quality evaluation of leathers produced by selected vegetable tanning materials from Laikipia County, Kenya. *IOSR Journal of Agriculture and Veterinary Sciences*, 9(4): 13-17
10. Kuria Alex, **Ombui JN** and Onyuka A (2016). Tannin analysis of selected plants from Laikipia County, Kenya. *Journal of the Society for Leather Technologists and Chemists*, 100:73-76
11. Kipronoh A.K., **Ombui JN.** Binopal YS.,H.O Wesonga, E.K. Gitonga., Thurania and Kiara, HK.(2016). Risk factors associated with contagious caprine pleuropneumonia in goats in pastoral areas in Rift Valley region of Kenya. *Preventive Veterinary Medicine* 132:107-112.
12. Kipronoh A.K., Kiara, HK., Binopal YS.,Thurania and **Ombui, J. N.**(2016). Pastoralists perception of constraints affecting goat production in Rift Valley Region of Kenya. *Livestock Research for Rural Development* 28(3): 2016.
13. Kipronoh A.K., **Ombui, J. N.**, Kiara, HK., Binopal YS., Gitonga E., and Wesonga HO (2015): Prevalence of contagious caprine pleura-pneumonia in pastoral flocks of goats in the rift valley region of Kenya. *Tropical Animal Health and Production*, 48(1):151-155
14. Sirma A J; Ouko E. O., Gatwiri M., Mburugu C., Mapenay I., **Ombui J.N.**, Korhonen H and Kangæthe E. K (2015). Prevalence of Aflatoxin contamination in cereals in Nandi County, Kenya. *International journal of Agricultural Sciences and Veterinary Medicine*, 3(3):55-63

15. Njue L., Kanja L.W, **Ombui J.N.**, Nduhiu J.G and Obiero D, (2014). Efficacy of antimicrobial activity of garlic extracts on Bacterial pathogens commonly found to contaminate meat. *East African medical Journal.*, **91**(12):442-448.
16. **Ombui J.N**, Mogoia G.E and Matete G.A (2014). Assessment of performance and competitiveness of Somaliland livestock sector using value chain analysis. *International Journal of Agricultural Science and Veterinary Medicine*, **2** (1):1-17
17. Massimo C., Wamalwa K., Njue, S., Gathuma J, **Ombui J.N** and Ogara, W (2013). Opportunities and challenges of setting up an articulate HACCP system in export slaughterhouses in countries emerging from Conflicts: An appraisal of North Western Somalia. *Food and Nutrition Sciences*, **4**: 126-130.
18. Mogoia, EGM; Wamalwa, K; Massimo Castiello; Munyua, SJM, Goad, AR; Gathuma JM and **Ombui, JN (2012)**. Commercialization of meat trade; potential role of private sector and capacity building in quality assurance in meat export trade from regions of Somalia. *International. Research Journal of Microbiology*, 3(3):86-93.
19. Gathogo S. M, Kuria J.N and **Ombui, J.N (2012)**. Prevalence of bovine tuberculosis in slaughter cattle in Kenya: A post-mortem microbiological and DNA molecular study. *Tropical Animal Health and Production Online publication on April, 15, 2012*.
20. Gakuya, F, **Ombui, JN**, Maingi N, Muchemi GM, Ogara W.O and Samer Alasaad (2012). Sarcoptic Mange and Cheetah conservation in Masai Mara Kenya: Epidemiological Study in Wildlife/livestock system. *Parasitology*, 139 (12)1587-95
21. Gakuya, F, **Ombui, JN**, Jorg H. Maingi N, Muchemi GM, Ogara WO, D. Mijeje and Samer Alasaad (2012). Knowledge of mange among Maasai pastoralists in Kenya. *PLOS One* 7(8):e43242. [www.plosone.org](http://www.plosone.org)
22. Wamalwa, K., M. Castiello., **J. N. Ombui** and J. M. Gathuma (2011). Capacity Building: Benchmark for production of meat with low levels of bacterial contamination in local slaughterhouses in Somaliland. *Tropical Animal Health and Production*, (July 2011)
23. Gakuya, F., Rossi, L., **Ombui, JN.**, Maingi, N., Muchemi, G., Ogara, **W.O.**, Soriguer, R. C and Samer A. (2011). The curse of the prey: Sarcoptes mite molecular analysis reveals potential prey-to-predator parasitic infestation in wild animals from Masai Mara, Kenya, *Parasites and Vector*, **4**: 193.

24. Maloba, F., Kagira, J.M., Gitau G., **Ombui, JN.**, Hau J and Ngotho M. (2011). Astrocytosis as a biomarker for late stage human African Trypanosomiasis in the vervet monkey model. *Scientia Parasitologica* **12**(2): 53-59.
25. Kikuvi, G.M., **Ombui, JN.**, Mitema, S.M. (2010). Serotypes and antimicrobial resistance profiles of *Salmonella* isolates from pigs at slaughter in Kenya. *J. Infect. Dev. Ctries*, **4**(4): 243-248.
26. Wamalwa K., Castiello M., **Ombui, JN** and Gathuma, J.M (2010). Investigation of hygiene standard of carcasses slaughtered in five local slaughterhouses of Somaliland, Somalia. *Proceedings of the 7th Biannual Scientific Conference, Sept-8<sup>th</sup> - 10<sup>th</sup> 2010*
27. Gitahi J. N; **Ombui JN** and Nduati D. W. (2009). Genetic characterization of food borne *Bacillus cereus* strains from milk, cheese and rice by multiplex PCR assay. *International Journal of Integrative Biology*, **5** (2): 82-86.
28. **Ombui, JN, Gitahi, JN and Gicheru, MM (2008)**. Direct detection of *Bacillus cereus* enterotoxins in food by multiplex polymerase chain reaction. *International Journal of Integrative Biology*, **2** (3): 172-181.
29. **Kikuvi, GM., Ombui, JN., Mitema, ES, Schwarz, S. (2007)**. Antimicrobial resistance in *Salmonella* serotypes from slaughter animals in Kenya. *E. Afr. Med. J.*, **84**(5): 103-109
30. **Kikuvi, GM, Schwarz, S, Ombui, JN, Mitema, ES and Kehrenberg, C (2007)**. Streptomycin and chloramphenicol resistance genes in *Escherichia coli* isolates from cattle, pigs and chicken in Kenya. *Microbial Drug Resistance*, **13** (1):62-68
31. **Kikuvi, GM, Ole-Mapenay I. M, Mitema, ES and JN. Ombui (2006)**. Antimicrobial resistance in *Escherichia coli* isolates from faeces and carcass samples of cattle, swine and chicken at slaughter in Kenya. *Israel Journal of Veterinary Medicine*, **61**(3-4):82-87
32. **Mapenay, IM. Kikuvi, GM., Mitema SE and Ombui, JN. (2006)**. Antibiotic resistance of *Escherichia coli* isolated from healthy food animals in Kenya. *The Kenya Veterinarian*, **30**(1): 22-26.
33. **Ombui, J. N and Nduhiu, JG. (2005)**. Prevalence of enterotoxigenic *Bacillus cereus* and its enterotoxins in milk and milk products in and around Nairobi. *E. Afr. Med. J.* **82** (6): 280-284.
34. **Ombui, J. N., Kimotho, A. M and Nduhiu, JG (2000)**. Antimicrobial resistance patterns and plasmid profiles of *Staphylococcus aureus* isolated from milk and meat. *E. Afr. Med. J.*, **77**(9):463-467

35. **Ombui, J. N; Schmieger, H., Kagiko, M. M and Arimi, S. M (1997).** *Bacillus cereus* may produce two or more diarrhoeal enterotoxins. *FEMS Microbiol. Lett.* **149**: 245- 248
36. **Ombui, J. N., Arimi, S. M., McDermott J. J., Mbugua, S. K., Gitua, A and Muthoni, J. (1995).** Quality of raw milk collected and Marketed by Dairy Cooperative Societies in Kiambu District. *Bull. Anim. Hlth Prod. Afr.* **43**: 277 -294.
37. **Ombui, J. N. (1994).** Antibiotic resistance in milk received by Dairy Cooperative Societies in Kiambu District, Kenya. *E. Afr. Med. J.* **71**:628-630.
38. **Ombui, J. N., Arimi, S. M and Kayihura, M (1992).** Beef and dressed chickens as sources of enterotoxigenic *Staphylococcus aureus* in Nairobi. *E. Afr. Med. J.* **69**(11): 606-608.
39. **Ombui, J. N., Arimi, S. M and Kayihura, M (1992).** Raw milk as a source of staphylococcal enterotoxins in consumer milk. *E. Afr. Med. J.* **69**(3):123-125.

### **CONSULTANCY ACTIVITIES**

1. A short-term consultancy for African Technology Foundation (AATF) to facilitate African Codex Experts on food hygiene held in Accra, Ghana from 10-15<sup>th</sup> September 2018, in preparation for the 50<sup>th</sup> Session of the Codex Committee on Food Hygiene(CCFH 50) Panama City, Panama 12-16 November 2018.
2. Won an AU-IBAR consultancy to carry out training of Veterinary Staff from six countries of the Horn of Africa including Kenya, Uganda, Tanzania, South Sudan, Ethiopia and Djibouti on Surveillance and Epidemiology of Trade-related Trans-boundary Animal Diseases from November 16, 2015 to February 26, 2016, in Nairobi, Kenya.
3. Won an AU-IBAR consultancy to carry out training of Veterinary Staff from six countries of the Horn of Africa including Kenya, Uganda, Tanzania, South Sudan, Ethiopia and Djibouti on Surveillance and Epidemiology of Trade-related Trans-boundary Animal Diseases from February 24 to May 22, 2014, in Nairobi, Kenya.
4. Facilitated an FAO funded training of Meat Inspectors for Ministry of Livestock in Somaliland and Puntland 2012-2013.
5. Conducted an FAO funded value chain analysis for the somaliland livestock and meat industry (March-April 2011).
6. Facilitated a study tour in Kenya of FAO sponsored Somalia Meat Industry players in April 2009



7. Carried out an assessment of food and dairy oriented analytical laboratories in Kenya December 1, 2008- January 29, 2009 for LandO Lakes Inc.

### **STUDENT SUPERVISION RECORD**

I have supervised to completion both PhD and Master students as follows

<b>PhD STUDENTS SUPERVISION RECORD IN THE LAST 8 YEARS</b>			
<b>S/No.</b>	<b>NAME</b>	<b>THESIS TITLE</b>	<b>STATUS</b>
1	Wamalwa Kinyanjui	Assessing the impact of training and marketing infrastructure development on the meat sector in Somaliland (Supervisors: JM. Gathuma, JN Ombui., SM Munyua and EGM. Mogo).	Completed 2017
2	Alexander K. Kipronoh.	Mycoplasma capricolum capripneumonia field strain diversity and epidemiology of Contagious Caprine Pleuropneumoniae in Kenyan Pastoral systems (Supervisors: Jackson N. Ombui, Henry Kiara and Binepal Yatinder)	Completed 2017
3	Lucy Njue	A study of antimicrobial compounds in garlic (Allium Sativa), its antimicrobial activity, safety and effect on shelf life of meat. (Supervisors: JN Ombui; LW. Kanja and JK. Gathumbi)	Completed in 2016
4	Massimo Castiello	Assessment of constraints and opportunities in setting up hygiene standards in Somalia meat industry. (Supervisors: J. M. Gathuma, J.N. Ombui ; W.O. Ogara and S.O. Okuthe.)	Completed in 2015
5	Francis M. Gakuya	Epidemiology and species characterization of mange in cheetahs, Thompson Gazelles and domestic animals in a wildlife-livestock interface in Samburu and Maasai Mara National Reserves (Supervisors: N. Maingi JN. Ombui and GM Muchemi)	Completed in 2011
6	Isaac Mapenay	Genetic basis of tetracycline, ampicillin and sulphonamide resistance (Supervisors: SE Mitema and JN Ombui)	Completed in 2007
7	Gideon Kikuvi	Molecular Characterization of Aminoglycosides and chloramphenicol resistance in E. coli and salmonella isolates from food animals (Supervisors: SE Mitema and JN Ombui)	Completed in 2006

<b>MASTERS STUDENTS SUPERVISION RECORD IN THE LAST 8 YEARS</b>			
<b>SNo.</b>	<b>Name of Student</b>	<b>Thesis title</b>	<b>Status</b>
1	Richard Onduso	Market performance and the risk of spread of Foot and Mouth Disease through cattle marketing activities in western Kenya (Supervisors: Prof. JN Ombui and JO Onono).	Completed 2018
2	James Macharia	Prevalence, pathotypes and antimicrobial resistance of Escherichia coli Isolated from Livestock and Rats in Korogocho and Viwandani slums of Nairobi County (Supervisors: Prof. JN Ombui, Prof EK Kangæthe, & Dr Eric Fevre.	Completed in 2018
3	Paul Shukuru Ramtu	Hides and skins defects and associated income losses at Aziz Tanneries, Nairobi County, Kenya. (Supervisors: Prof. JN. Ombui & Authur Onyuka)	Completed in 2018
4	Laban Makau Ngunga	Prevalence and risk factors of mastitis in dairy goats in Machakos County (Supervisors: Prof. PM. Kitale and Prof. JN. Ombui)	Completed 2017
5	Lydia M. Mageto	Prevalence, risk factors and virulence characterization of campylobacter species isolated from poultry in peri-urban areas of Nairobi County (Supervisors: Prof. JN. Ombui and Dr. FK. Mutua)	Completed 2017
6	Khansa Taha Seddig Ahmed	Epidemiology of Babesia infection in sheep in Kajiado Central Sub County, Kenya (Supervisors: Prof. JN. Ombui and Dr. GO Aboge)	Completed 2017
7	Dennis K. Obiero	Evaluation of tannin content in Plectranthus barbatus and its potential use as a vegetable tanning agent in Nyamira county, Kenya (Supervisors: JN Ombui and Authur Onyuka).	Completed in 2016
8	Mercy N. Gachuyia	Epidemiology and antimicrobial resistance of salmonella in Livestock in Korogocho and Viwandani slums, Nairobi( Supervisors: Prof: E.K Kangetge, Prof. JN Ombui and Dr. Eric Fevre)	Completed in 2016
9	Anthony W. Ngugi	Economic impact of uncollected hides and skins produced in the pastoral communities of Wajir County, Kenya (Supervisors: Prof. JN. Ombui	Defended thesis in October 2016

		and Prof. JM Gathuma)	
10	Kiraithe Zaverio Nkiria	Efficacy of Muguga cocktail ECF vaccine at a cattle- Buffalo interface in Laikipia County, Kenya.(Supervisors: JN Ombui and PM. Kitala).	Completed in 2015
11	Alex N. Kuria	Evaluation of tannin content and tanning strength of selected vegetable tanning materials used in Laikipia County, Kenya (Supervisors: JN Ombui and Authur Onyuka).	Completed in 2015
12	Anima J. Sirma	A study of the level of human exposure to aflatoxin in Nandi County (Supervisor: E.K Kangøethe and JN Ombui)	Completed in 2013
	Stephen M. Gathogo	Prevalence of Bovine Tuberculosis in slaughter cattle in Kenya: A pathological and microbiological study.(Supervisors: JN. Kuria and JN. Ombui )	Completed in 2011
	Allan E. Azegele	Quantification of sulphadimidine residues levels in poultry eggs sold in Nairobi (Supervisors: Prof. JN. Ombui, Prof. WO. Ogara and Dr. Isaac O.Mapenay)	Completed in 2010

## **SCIENTIFIC CONFERENCES AND WORKSHOPS ATTENDED/READ PAPERS**

1. I attended a workshop on communication of research findings and open dialogue on Livestock value chains operating in Nairobi held on 4-5<sup>th</sup> June 2019 at ILRI Campus , Nairobi Kenya.
2. I attended a Joint Codex Coordinating Committee for Africa and U.S Codex Committee Colloquium and African Expert Meeting on development of Food Hygiene Standards held in Accra Ghana on 12<sup>th</sup> to 14 September 2018.
3. **Ombui JN. (2017).** Building a globally competitive regional agro-processing sector: A case of the Kenya's Leather sub-sector. Presented in a workshop on Agenda for Civil Society: A business critique on shaping South Africa's regional role organized by the Centre for Conflict Resoultion. Held in Cape Town South Africa on 19-20 October 2017.
4. **Ombui JN and Musafiri K., (2016).** Prevalence of Campylobacter in chickens and in ready-to-eat meat. A paper presented in NRF funded South Africa óKenya Joint Researchers Workshop Held in Cape Town South Africa on 20-22 September 2016.
5. Attended a workshop on applying for research funding jointly organized by Africa Academy of Sciences, International foundation for Science and Institut de recherche pour le development held at the African Academy of Sciences, Nairobi Kenya between 28<sup>th</sup> May to 1<sup>st</sup> June **2012**.
6. Edulink funded Symposium on Joint Masters in Trans-boundary Animal Disease Management held at the Faculty of Veterinary Medicine, University of Addis Ababa, Debre Zeit, Ethiopia, between 20-21 December, **2011**
7. **Ombui, J. N., Nduhiu J. G. and M. M. Gicheru (2006).** Direct detection of *Bacillus cereus* enterotoxin genes in food by multiplex polymerase chain reaction. *FoodMicro2006 Conference in Bologna, Italy 28<sup>th</sup> August -3<sup>rd</sup> September 2006*

8. **Ombui JN., Otieno M. O., Nduhiu J.G and Macharia, J. K (2003).** Detection of food borne *Bacillus cereus* in food. *Food Africa Initiative, International Working Meeting, 5-9 May 2003, Yaounde, Cameroon.*
9. **Ombui JN (2000).** The role of private sector in strengthening livestock development in Kenya. *Proceedings of a seminar on food security in Kenya organized by Berlin Alumni Network in Nairobi, Kenya on 22-24 November 2000.*
10. **Ombui, J. N. (1994).** Quality control of raw milk by Cooperative Societies in Kiambu District: Estimation of economic losses due to milk rejection and cost of quality tests *Food Science and Technology for Development conference, Nairobi, November 7-9, 1994.*