

**DR. PETER BAARO GATHURA**  
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## CURRICULUM VITAE

### PERSONAL DATA

**Date of Birth** : 28<sup>th</sup> March, 1957  
**Place of Birth** : Nyeri  
**Marital Status** : Married  
**Nationality** : Kenyan  
**Profession** : Veterinary Surgeon

### EDUCATION

**1976 -1980** : Faculty of Veterinary Medicine  
University of Nairobi  
Awarded Bachelor of Veterinary Medicine

**1984** : Awarded M.Sc for a thesis entitled  
"Immunodiagnosis of hydatid disease using an  
intradermal test and an enzyme immunoassay"

**1986** : Registered for Ph.D., Department of Public Health,  
Pharmacology and Toxicology.

**1989/1990** : Monoclonal antibody studies, Department of  
Parasitology, Faculty of Veterinary Medicine,  
Hokkaido University, Japan, September 1989 to  
October 1990.

**1992** : Awarded Ph.D for a thesis entitled "The  
epidemiology and immunodiagnosis of hydatid

disease of Kenya”.

**2007** : Registered by National Environmental Management Authority (NEMA) as a Lead expert in EIA/EA

## **WORKING EXPERIENCE**

1. July 1980 - Appointed Tutorial Fellow in the Department of Public Health, Pharmacology and Toxicology. Involved in research for M.Sc degrees, conducting of students' practicals and lectures.
2. September 1985 - was promoted to Lecturer position in the Department after completion of M.Sc. Involved in research for my Ph.D. This involved extensive travel within Turkana District and the rest of Kenya collecting data on hydatid disease. Conducted student practicals and gave lectures on zoonoses and water hygiene.
3. From 1985 to 1989 – was attached to the African Medical and Research Foundation (AMREF) as a researcher in Turkana Hydatid Control project. Involved in hydatidosis control activities and collection of data and development of immunodiagnostic tests for human and livestock.
4. September 1989 - Travelled to Hokkaido University, Sapporo, Japan. Carried out research into the use of monoclonal antibodies in the diagnosis of parasitic diseases. Also carried out research using SCID Mice (Severe Combined Immunodeficiency), prednisolone treated Gerbils and Rats as models for parasitic diseases. Involved in conducting of student practicals.
5. February 1995 - promoted to Senior Lecturer position.

## **Departmental Responsibilities**

1. Sectional Head, Public Health (8/4/97 to 2002)
2. Co-ordination of Meat Inspection practicals
3. Co-ordination of Departmental Seminars
4. Compiling and writing of Departmental Annual reports

5. Co-ordination of the Certificate in Meat Inspection Examination for the Meat Training Institute, Athi River
6. Co-ordination of the Masters in Veterinary Public Health (MVPH) programme
7. Co-ordination, Meat inspection exercise.
8. External examiner, Meat Training institute
9. Co-ordinator, Masters in Veterinary Public Health Programme
10. Departmental representative, Faculty Post-graduate Studies Committee
11. Member, Meat Technology Centre Committee.
12. Director, PHET-CU, Departmental Consultancy unit.
13. Acting Chairman – on several occasions.

### **Faculty Responsibilities**

1. Secretary: Faculty Institute of Primate Research Collaboration Committee.
2. Member: Faculty of Fish Hygiene Committee of Experts.
3. Member: Faculty/KEMRI collaborators committee.
4. Member: Faculty visitation committee - Year 2002.
5. Interim Coordinator, Meat Technology Centre
6. Member, Maragua District Anthrax outbreak investigation team (March, 2006)

### **STUDENTS SUPERVISION/EXAMINATION**

1. Khalid M.A.R. (1993)

Assessment of the microbiological quality of drinking water (boreholes and domestic tanks) in Kikuyu Division of Kiambu District, Kenya.

2. Maichomo, M.W. (1994)

Brucellosis: Differential diagnosis in humans.

3. Simiyu, K.W. (1997)  
An evaluation of the bacteriological and some physico-chemical qualities of water in the upper Athi-River Basin, Kenya.
4. Chemuliti, J.K. (1999)  
Assessment of the bacteriological quality of drinking water in Kibera sub-location of Nairobi City, Kenya.
5. Langat, C.K. (1999)  
An abattoir survey on the occurrence and prevalence of swine parasitic helminthes of public health and economic importance over a ten-year period (1988-1997) in Kenya.
6. Gakuya, F.M. (2000)  
Molecular epidemiology of antimicrobial resistant E.coli isolated from wild and domestic rats trapped in and around Nairobi, Kenya.
7. Bett, B. (2002)  
Investigation into the drug use strategies and animal health care systems associated with the control of bovine trypanosomosis in Busia District, Western Province of Kenya.
8. Anyango, T.O.  
Comparison of the conventional most probable number (MPN) with coliphage, presence/absence and hydrogen sulphide tests as water quality tests in Kiambu District, Kenya.
9. Ndirangu, P.N. (2001)  
The prevalence of hydatidosis in livestock and the potential role played by these intermediate hosts in the transmission of hydatidosis in Kenya".
10. Koech, R.K. (2001)  
Epidemiology of bovine tuberculosis in Narok District, Kenya.
11. Mwenda Mbaka (2003)

An assessment of the bacteriological quality with special emphasis on the presence of E.coli in roof – collected rainwater from some peri-urban areas of Nairobi, Kenya.

12. P.K. Kamau

Bacteriological quality of piped water stored in various containers in food kiosks, in Huruma sub-location, Kasarani Division, Nairobi, Kenya. MSc in Microbiology and Infectious Diseases, Kenyatta University.

13. Karanja, A.N.

An Assesment of factors associated with high diary calf morbidity and mortality at Kilifi plantations, Kilifi District, Kenya. MVEE, University of Nairobi.

#### **ON GOING MSC STUDENT SUPERVISION**

1. Thaiya

An assessment of effluent treatment works in abattoirs in and around Nairobi. Kenya. M.V.P.H. University of Nairobi.

2. Manga

Development of a pilot geographical information system for transboundary livestock diseases in Northern Turkana. MVEE, University of Nairobi.

3. Anyango, T.O.

Comparison of the conventional Most Probable Number (MPN) with coliphage presence or absence and Hydrogen sulphide tests as water quality tests in Kiambu Districst, Kenya.

4. Otieno, M.O.

Prevalence of the diarrhoeic Bacillus cereus in some Kenyan foods.

### **Supervision of PhD students currently**

1. Massimo Costello  
Study constraints and opportunities in the set up of appropriate standards in support to the nascent meat industry in Somalia.
2. Ithondeka P.M.  
Global sanitary measures on the Kenya Livestock and livestock products and export industry.

### **Examinations**

1. Internal Examinations for MSc.
2. Board member – several MSc/PhD examinations panels.

### **EXTRA-CURRICULAR ACTIVITIES**

1. Member, Board of Governors, Munyaka Secondary School, P.O. Box 54, Naro Moru
2. Chairman, Parents Teachers Association, Toi Primary School Unit
3. Secretary, Nairobi Branch of the Kenya Society for the Mentally Handicapped.

### **PUBLICATIONS**

#### **Thesis**

1. M.Sc 1984: Immunodiagnosis of hydatid disease using an intradermal test and an enzyme immunoassay.
2. Ph.D 1992: The epidemiology and immunodiagnosis of hydatid disease in Kenya.

## Publications in referred journals

1. Gathura P.B., Gathuma, J.M. and Lindqvist K.J. (1987): The use of an intradermal test (Casoni) for the diagnosis hydatid disease in livestock. *Bull. An Hlth. Prod.* 35: 304 – 307.
2. Gathura P.B. and Gathuma J.M. (1980): An inhibition enzyme immunoassay for the diagnosis of hydatid disease in cattle based on the arc-5 antigen. *Bull. An. Hlth. Prod.* **37**: 351-355.
3. Gathura P.B., Njeruh F.M., Gathuma J.M. and Okelo G.B.A. (1990): A ten-year review of human hydatid cases seen at the Kenyatta National Hospital (Kenya). *Discovery and Innovation* 2:
4. Gathura P.B. and Kamiya M. (1990). Echinococcosis in Kenya: Transmission characteristics incidence and control measures. *Jpn. J. Vet. Res.* **38**: 107-116.
5. Gathura P.B. and Gathuma J.M. (1991). An evaluation of economic losses resulting from condemnation of cattle and smallstock livers due to the presence of hydatid cysts in Kenya. *Bull. An. Hlth. Prod.* **39**: 225-229.
6. Gathura and Gathuma J.M. (accepted). The prevalence of hydatid disease in pgis in Kenya. *E. Afr. Agric. Forest. J.*
7. T. Ngatia, Kuria J.K.N. and Gathura P.B. (1996). Causes of kidney condemnations in slaughtered cattle around Nairobi area, Kenya. *Bull. Anim. Hlth. Prod. Afri.* **44**: 189-191.
8. Maichomo M.W., McDermott J.J., Arimi S.M. and Gathura P.B. Muriuki S.M.K. and Mugambi T.J. The utility of clinical signs, symptoms and simple laboratory tests for didderentiting brucellosis an dothe rflu-like diseases in a pastorals area. *J. of Afric. Hlth. Sci.*
9. Maichomo M.W., McDermott J.J., Arimi S.M. and Gathura P.B. (1998). Assessment of rose-bengal plate test for the diagnosis of human brucellosis in health facilities in Narok District, Kenya. *E. Afr. Med. J* **75**: 219-222.
10. Simiyu K.W., Gathura. P.B., Kyule M.N., Kanja L.w. and Ombui J.M. toxin production and frequency of antimicrobial resistance of E. coli strains isolated from river water. *E. Afri. Med. J.*

11. Gakuya, F.M., Kyule, M.N., Gathura, P.B. and Kariuki, S.M. (2001): Antimicrobial susceptibility and plasmids isolated from *Escherichia coli* isolated from rats. *E.A.M.J.* **78**: 518-522
12. Gakuya, F.M., Kyule, M.N., Gathura, P.B. and Kariuki, S.M. (2001): Antimicrobial resistance of bacterial organisms isolated from rats. *E.A.M.J.* **78**: 646-649
13. Gikunju, J.K.S., Simiyu, K.W. and Gathura, P.B. ( ): Fluoride levels in Central Kenya. *Fluoride* **35**: 193-196
14. Chemuliti, J.K., Gathura, P.B., Kyle, M.N. and Njeruh, F.M. (2002): Bacteriological qualities of indoor and outdoor drinking water in Kibera sub-location of Nairobi, Kenya. *E.A.M.J.* **79**: 271-273
15. Njoroge, E.N., Mbithi, P.M., Gathuma, J.M., Wachira, T.M., Gathura, P.B., Magambo, J.K. and Zeyhle, E. ( ): A study of cystic echinococcosis in slaughter animals in three selected areas of northern Turkana, Kenya.
16. Gathura P.B., Kariuki S.M., and Mathenge J.M. (2004). The microbiological quality and some physico-chemical aspects of river, tap and recreational water samples from Nairobi City (Keya) Kenya *Veterinarian* **27**: 61-64.
17. Bett, B., Machila, N., Gathura P.B., McDermott, J.J. and Eisler, M.C. (2004). Characterisation of shops selling veterinary medicines in a tsetse infested area of Kenya. *Preventive Vet. Med.* (Accepted)
18. Mochabo, M.O., Kitala, P.M., Gathura, P.B., Ogara, W.O., Catley, A., Eregae, E.M. and Kaitho, T.D. (2005). Participatory estimation of the incidence and mortality of camel trypanosomosis in Lapur Division of Turkana District, Kenya. *Tropical Animal Health and Production*, **37**: 187 - 204.
19. Mochabo, M.O., Kitala, P.M., Gathura, P.B., Ogara, W.O., Catley, A., Eregae, E.M. and kaitho, T.D. (2005). The socio-economic impact of important camel diseases as perceived by a pastoralist community in Kenya. *Onderstepoort Journal of Veterinary research.* (Accepted)
20. Ogara O.W., Gathura P.B., and Kyle M.N. (1988). The role of the veterinarian in the fisheries industry in Kenya. *Proceeding of the Biennial Scientific Conference of the Faculty of Veterinary Medicine, University of Nairobi, Kenya, 5<sup>th</sup> – 7<sup>th</sup>, August 1998.*



21. Kitala P.M., Kyle M.N. and Gathura P.B. (1998). A survey of the level of rabies vaccination of dog populations of Machakos and Makueni Districts, Kenya.
22. Gathura P.B., Kyle M.N., Kagiko M.M., Ogara O.W. and Njeruh F.M. (1998). Water supply and quality control in Kenya: the past, present and future.
23. Njeruh F.M., Gathuma J.M., Gathura P.B., Kyle M.N. and Hammerbergh B. (1998). The application of monoclonal antibodies of a hydatid cyst antigen found in boiled sera from individuals with hydatid disease and its significance in diagnosis of hydatid disease caused by *E. granulosus* in man.
24. Simiyu K.W., Gthura P.B., Kyule M.N., Kanja L.W., Ombui J.N. and Kagiko M.M. (1998). Toxin production and frequency of antimicrobial resistance of *E. coli* strains isolated from river water. 3<sup>rd</sup> Biennial Scientific Conference, Faculty of Veterinary medicine, University of Nairobi.
25. Mbaka, M., Gathura, P.B. (2002) Njeruh F.M. and Mbaria M.N. Assessment of the presence of *E.coli* in roof-harvested rainwater from some areas around Nairobi.
26. Gathura, P.B. (2006) Hydatidosis in Kenya: A general overview paper presented at 5<sup>th</sup> Biennial Conference of Faculty of Veterinary Medicine.

### **Conference Papers**

1. Macpherson, C.N.L., Wachira T.M., Gathura P.B. et al., (1985). Echinococcosis: Research for appropriate control techniques for Turkana. Proc. 9<sup>th</sup> Annual Medical Scientific Conference, Nairobi, Kenya. pp.230.
2. Gathura P.B., Njeruh F.M., Gathuma J.M., Okelo J.B.O. and Tumbo-Oeri A.G. (1989): A comparative study of the enzyme linked immunosorbent assay (ELISA) using the two most immunoreactive antigens of hydatid fluid. Proc. 9<sup>th</sup> Annual Medical Scientific Conference, Nairobi, Kenya. pp. 513-518.
3. Gathura P.B., Njeruh F.M., Gathuma J.M., Okelo G.B.A. (1988). An evaluation of the diagnostic value of double diffusion (DD) test based

- on "antigen 880" and Arc-5 in human hydatidosis. Proc. 10<sup>th</sup> Annual Medical Scientific Conference, Nairobi, Kenya. pp 175.
4. Gathura P.B. and Gathuma J.M. (1989). Recent trends in the incidence of livestock and human hydatid disease in Kenya. Proc. of 1<sup>st</sup> Annual Scientific Conference of Faculty of Veterinary Medicine, University of Nairobi, pp. 159.
  5. Gathura P.B. (1990). An enzyme-linked immunosorbent assay (ELISA) for the diagnosis of hydatid disease in livestock in Kenya. The annual congress of Japanese Veterinary Society, Tokyo, Japan, April, 1990.
  6. Gathura P.B. (1990). Dot-ELISA for the detection of hydatid in cattle. The 9<sup>th</sup> Annual meeting of the Japanese Society of Parasitology, Fukuoka, Kita-Kyushu, Japan, May, 1990.
  7. Kamiya M., Sato H., Ishiwata K., Ikamoto M., Oku Y. and Gathura P.B. (1990). Development of taeniid tapeworms including Echinococcus into the adult stage into the adult stage in rodents, especially cricetid. The 59<sup>th</sup> Annual meeting of the Japanese Society of Parasitology, Fukuoka, Kita-Kyushu, Japan, May, 1990.
  8. Gathura P.B. and Gathuma J.M. (1992). The characterization and use of heat stable *Cysticercus tenuicollis* fluid antigen for the diagnosis of human hydatidosis. The 5<sup>th</sup> International Congress for Infectious Diseases, Nairobi, Kenya, 7<sup>th</sup> - 11<sup>th</sup> June, 1992.
  9. Kyule M.N., Gathura P.B., Gathuma J.M., McDermott J.J. and Okello G.B.A. (1992). Patterns of human hydatid disease in Kenya (1979-1988). The 5<sup>th</sup> International Congress for Infectious Diseases, Nairobi, Kenya, 1992.
  10. Wachira T.M., Marketa J., Gathura P.B., Njenga M.K. and Zehyle E. (1992). The role of abattoirs in control of hydatidosis in Kenya. The 5<sup>th</sup> International Congress for Infectious Diseases, Nairobi, Kenya, 7<sup>th</sup> - 11<sup>th</sup> June 1992.
  11. Gathura, P.B., Munyua, T. and Karanja, K. (1994). The microbiological quality of stored rainwater. The 4<sup>th</sup> African Water Conference, Nastrec, Johannesburg.
  12. Gathura P.B., Chemuliti J.K., Kyle M.N., Arimi S.M. and Njeruh F.M. (1998). A comparison of between the bacteriological quality of out-house tank and stand-pipe) in Kibera sub-location of Nairobi, Kenya. The Water Africa 98 Conference, 30<sup>th</sup> June - 2<sup>nd</sup> July 1998, Nairobi, Kenya.

13. Khalif M.A.R., Gathura P.B., Kyle M.N., Kagiko M.M., Ogara O.W. and Njeruh F.M. (1998). Assessment of the microbiological quality of drinking water (Boreholes and domestic tanks) in Kikuyu Division of Kiambu District, Kenya.
14. Gathura, P.B., Kariuki, S.M., and Mathenge, J.M. The (2000) Microbiological quality and some physio-chemical aspects of river, tap and recreational water samples from Nairobi City (Kenya). 3<sup>rd</sup> Biennial Scientific Conference, Faculty of Veterinary medicine, University of Nairobi.
15. Ndirangu, P.N., Njeruh, F.M., Gathura, P.B. and Kyule, M.N. (2000). The potential role played by various livestock intermediate hosts in the transmission of hydatidosis in Kenya. 3<sup>rd</sup> Biennial Scientific Conference, Faculty of Veterinary medicine, University of Nairobi.
16. Ndirangu, P.N., Njeruh, F.M., Gathura, P.B. and Kyule, M.N. (2000). The prevalence of hydatidosis in livestock in Kenya over a ten year period (1987-1998). 3<sup>rd</sup> Biennial Scientific Conference, Faculty of Veterinary Medicine, University of Nairobi.
17. Gakuya, F.M., Kyule, M.N., Gathura, P.B. and Kariuki, S.M. (2000). Bacterial isolation, antimicrobial susceptibility and plasmids from E.coli isolated from rats. 3<sup>rd</sup> Biennial Scientific Conference, Faculty of Veterinary Medicine, University of Nairobi.
18. Kimani, V.W. and Gathura, P.B. (1996). Short communication on an ad hoc cholinesterase test of farm pesticide handlers. Proceedings of the Kenya Agricultural Research Institute Animal Scientific Conference.

### **Papers Submitted for Publication**

1. Koech R.K., Kyule, M.N., Arimi, S.M., Njeruh, F.M., Omere, A.O., McDermott, J.J. and Gathura, P.B.: Investigation of Mycobacteria bovis from human tuberculosis cases in Narok District, Kenya.
2. Koech R.K., Kyule, M.N., Arimi, S.M., Njeruh, F.M., Omere, A.O., McDermott, J.J. and Gathura, P.B.: Occurrence of human

extrapulmonary tuberculosis and its possible link with livestock production systems in Kenya.

3. Gathura P.B., Gathuma, J.M., E. Njoroge and E. Zeyhle: Chemical qualities of borehole water from Lokichogio town, Turkana District, Kenya.

### **Conferences/Workshops attended**

1. "International Course on Parasitic Immunology" held at ILRAD Nairobi, September, 1980. Sponsored by UNESCO.
2. 3<sup>rd</sup> Annual Medical Scientific Conference (KEMRI/KETRI), February, 1982, Nairobi, Kenya. Theme: Current Research in Eastern and Central Africa with emphasis on zoonoses and water borne diseases.
3. 6<sup>th</sup> Annual Medical Scientific Conference (KEMRI/KETRI), February, 1985, Nairobi, Kenya. Theme: Recent advances in the management and control of infections in Eastern Africa.
4. 8<sup>th</sup> Annual Medical Scientific Conference (KEMRI/KETRI), February, 1987, Nairobi Kenya. Theme: Recent advances in medical research with a symposium on appropriate technology in disease in disease control.
5. 9<sup>th</sup> Annual Medical Scientific Conference (KEMRI/KETRI), February, 1988, Nairobi, Kenya. Theme: Recent advances in medical research with a symposium on appropriate technology in disease control.
6. 10<sup>th</sup> Annual Medical Scientific Conference (KEMRI/KETRI), February, 1989, Nairobi, Kenya. Theme: Recent advances in medical research with a symposium on Environmental and Occupational Health.
7. 1<sup>st</sup> Annual Scientific Conference of the Faculty of Veterinary Medicine, University of Nairobi, September, 1989.
8. 60<sup>th</sup> Annual Congress of Japanese Veterinary Society Tokyo, Japan, April, 1990.
9. 59<sup>th</sup> Annual meeting of the Japanese society of Parasitologists, Fukuoka, Kyushu, Japan, May, 1990.

10. 5<sup>th</sup> International Congress for Infectious Diseases Nairobi, Kenya, June, 7<sup>th</sup> - 11<sup>th</sup>, 1992.
11. International Symposium on Veterinary Public Health, Kibbutz, Shefayim, Tel-Aviv, Israel, July, 1992.
12. First South Africa Water and Wastewater Conference, Johannesburg, South Africa, September 21 - 24, 1993.
13. International Symposium of Veterinary Epidemiology and Economics, Nairobi, Kenya, August, 15 - 19<sup>th</sup>, 1994.
14. Second Biennial Scientific Conference of Faculty of Veterinary Medicine, University of Nairobi, 5<sup>th</sup> - 7<sup>th</sup> August, 1998.
15. Second Biennial Scientific Conference of Faculty of Veterinary Medicine, University of Nairobi, 3<sup>rd</sup> - 7<sup>th</sup> August, 2000.
16. 21<sup>st</sup> International Congress of Hydatidology held at Hilton Hotel, Kenya from 16<sup>th</sup> - 21<sup>st</sup> August, 2004.
17. Co-curricula E-learning course 14<sup>th</sup> - 21<sup>st</sup> April 2007, Faculty of Veterinary Medicine Nairobi University/Tufts

## **CONSULTANCY**

1. August 2001 travelled to Rumbek and Yambio in Southern Sudan to set-up the first Water Quality Laboratory in Southern Sudan for Operation Live Line Sudan Water and Sanitation Project of UNICEF. The project also involved training of the Laboratory Technicians to man the Laboratory.
2. Design/Commissioning of the Lokichogio slaughterhouse consultancy for AMREF/Terra-Nuova. Carried out the Environmental Impact Assessment for the project.
3. Environmental impact assessment for a borehole at Meat Training Institute, Athi River.
4. Current-Design, equipment and commissioning of water quality laboratory at Juba, Southern Sudan for Africa Water Services

## **MEMBERSHIP OF ASSOCIATIONS/PROFESSIONAL BODIES**

Member of the International Association for Infectious Diseases.

Member of Kenya Bureau of Standards technical committee on drinking water quality.

Member of Kenya Veterinary Association.

Member of Kenya Rainwater harvesting Association.

### **CURRENT RESEARCH ACTIVITIES/COLLABORATION**

1. Dr. S.M. Kariuki – Centre for Microbiology Research KEMRI – Molecular epidemiology of non-typhi Salmonella in Kenya.
2. Dr. Wangeci Gatei – CMR KEMRI – Cryptosporidiosis in Livestock.
3. Dr. Ombui – Water quality testing in rural Kenya.
4. AMREF/TERRA NUOVA – Livestock diseases and natural resources in Northern Turkana District.

### **REFEREES**

1. **Prof. T. E. Maitho, (Full Professor),**  
Department of Public Health,  
Pharmacology and Toxicology,  
Faculty of Veterinary Medicine,  
P.O. Box 29053,

**NAIROBI.**

2. **Prof. J. M. Gathuma (Full Professor),**  
Department of Public Health,  
Pharmacology and Toxicology,  
Faculty of Veterinary Medicine,  
P.O. Box 29053,  
**NAIROBI.**
  
3. **Prof. P.N. Mbugua, (Associate Professor),**  
Department of Animal Production,  
Faculty of Veterinary Medicine,  
P.O. Box 29053,  
**NAIROBI.**