

## **CURRICULUM VITAE**

**NAME:** ROSE MUYOKA KAKAI  
**CITIZENSHIP:** Kenyan  
**ADDRESS:** Maseno University, P.O. Box 333, Maseno  
**E-mail:** kakairm@yahoo.com

### **EDUCATION BACKGROUND**

1995 PhD. (Medical Microbiology), University of Nairobi  
1984 MSc. (Medical Microbiology), University of London  
1980 BEd (Sc.) University of Nairobi

### **SHORT COURSES**

1997 Certificate in Management and Technology in Microbiological Laboratory  
Diagnosis at Kumamoto, Kyushu, Japan.  
1995 Certificate in counseling from the Kenya Association of Professional Counselors,  
Nairobi.

### **PROFESSIONAL EXPERIENCE**

2013 to date Full Professor, Medical Microbiology, Maseno University  
2010 - 2013 Associate Professor, Medical Microbiology, Maseno University  
2003 - 2010 Senior Lecturer, Medical Microbiology, Maseno University  
1997 - 2003 Lecturer, Medical Microbiology, Moi University  
1989 - 1997 Microbiologist I, Ministry of Health, Kenya. Attached to University of Nairobi,  
Medical Microbiology Department  
1984 - 1989 Microbiologist II, Ministry of Health, Kenya. Attached to Kenya Medical Research  
Institute, Centre for Microbiology Research  
1980 - 1984 Microbiologist III, Ministry of Health, Kenya. Rotated in National Public Health  
Laboratories, KEMRI and Kenyatta National Hospital Microbiology Departments.

### **ADMINISTRATIVE RESPONSIBILITIES**

2013 to date Chairperson, Prevention of Substance and Drug Abuse Committee, Maseno  
University  
2011 to date Chairperson, Medical Microbiology Department, Maseno University  
2009 - 2011 Ag. Coordinatoor, Master of Public Health (MPH) Programme, Maseno University  
2004 - 2004 Coordinator, MPH Programme, Maseno University  
2002 - 2003 Head Department of Medical Microbiology and Parasitology, Moi University

### **ACADEMIC/RESEARCH RESPONSIBILITIES**

2004 - 2011 Board member, School of Public Health & Community Development post graduate  
committee  
2010 to date External Examiner, School of Medicine, Department of Medical Microbiology and  
Parasitology. Moi University.  
2009 to 2012 External Examiner, School of Health Sciences, Department of Medical Laboratory  
Sciences, Kenyatta University.

- 2009 to date Member of the National Working Group, Global Antibiotic Resistance Partnership. The Centre for Disease Dynamics, Economics and Policy. Washington DC.
- 2014 Member of the Kenya Technical Advisory Group (TAG) for Disease-specific Diagnostic Enhancement Program (DDEP) of American Society for Microbiology.

## POSTGRADUATE SUPERVISION

I have successfully supervised theses for 3 PhD and 42 Masters students who have graduated.

## PUBLICATIONS:

### Journal articles

1. Onyuka JHO, **Kakai R**, Ofulla AVO (2014). Bacterial contamination dynamics and fungal contamination levels of *Rastrineobola argentea* and *Oreochromis niloticus* fish from Lake Victoria Basin of Kenya. The Journal of Food Technology. Vol. 106, Pages 179 – 188. ISJN 3852 – 1875 Photon.
2. Onyuka JHO, **Kakai R**, Arama PF, Ofulla AVO. (2013). Comparison of antimicrobial activities of brine salting, chlorinated solution and *Moringa oleifera* plant extracts in *Rastrineobola argentea* and *Oreochromis niloticus* fish from Lake Victoria basin of Kenya. *African Journal of Food, Agriculture, Nutrition and Development (AJFAND)* Vol. 13 No. 3 Pages 7772 - 7788. ISSN 1684 5374 (online). Bioline International.
3. Onyango AC, Walingo MK, Mbagaya G, **Kakai R**. (2012). Assessing Nutrient Intake and Nutrient Status of HIV Sero-positive Patients attending Clinic at Chulaimbo Sub-district Hospital, Kenya. *Journal of Nutrition and Metabolism*. Volume 2012 (2012), Article ID 306530, 6 pages. ISSN: 2090-0732 (Online). Hindawi Publishing Corporation, New York, USA. doi:10.1155/2012/306530.
4. Karanja LM, **Kakai R**, Onyango RO. (2012). Participation of clinical officers in preventive health care services at rural health facilities in Kenya. *African Journal of Health Sciences*. Vol. 21 No. 3-4, Pages 21 – 29. ISSN: 1022-9272. Bioline International.
5. Makori RK, Onyango RO, **Kakai R**, Osero JOS. (2011). Community Attitudes Towards Male Involvement in Home Based Care Activities for People Living with HIV and AIDS in Maseno Division, Western Kenya. *Journal of Public Health and Epidemiology* Vol. 3 No. 11, pages. 503 - 512. ISSN 2141-2316. Academic Journals.
6. Onyango MD, **Kakai R**, Waindi EN. (2011). Tetracycline efflux pump in *Salmonella enterica serovar* isolated from diarrhea patients in two rural health centers in Western Kenya. *Iranian Journal of Clinical Infectious Diseases*. Vol. 6, No. 1, Pages 24 - 30 ISSN: 2008-1081. Shahid Beheshti Medical University.
7. Onyuka JHO, **Kakai R**, Onyango DM, Arama PF, Gichuki J, Ofulla AVO. (2011). Prevalence and antimicrobial susceptibility patterns of enteric bacteria isolated from water and fish in Lake Victoria Basin of Western Kenya. *International Journal of Biological and Medical Sciences*. Vol. 1 No. 1, Pages 6 - 13. eISSN 2010-3778. World Academy of Science, Engineering and Technology.  
*Available at: [www.waset.org/journals/waset/v75/v75-138.pdf](http://www.waset.org/journals/waset/v75/v75-138.pdf)*
8. Onyango AC, Walingo MK, Mbagaya G, **Kakai R**. (2011). Body Composition and CD4 Cell Count of HIV Sero-Positive Adults Attending Out-Patient Clinic in Chulaimbo Sub-District

- Hospital, Kenya. *Pakistan Journal of Nutrition* Vol. 10 No. 6: 582 – 588. ISSN 1680-5194. © 2011, Asian Network for Scientific Information.
9. Onyango AC, Walingo MK, Mbagaya G, **Kakai R.** (2011). Anthropometric and Dietary Profile of HIV Sero-positive Patients in Chulaimbo Sub-District Hospital, Kenya. *Journal of Pharmacy and Biomedical Science*, Vol. 1 No. 3, Page 34 - 44. ISSN 2090 – 424X © 2010 TextRoad Publication.
  10. Ochieng MA, **Kakai R.**, Abok K. (2011). Knowledge, Attitude and Practice of Condom Use among Secondary School Students in Kisumu District, Nyanza Province. *Asian Journal of Medical Sciences*. Vol. 3 No. 1 Page 32 - 36. ISSN 2040-8773 © 2009, Maxwell Science Publication, UK.
  11. Ochieng MA, **Kakai R.**, Abok K. (2011). The Influence of Peers and Other Significant Persons on Sexuality among Secondary School Students in Kisumu District, Kenya. *Asian Journal of Medical Sciences*. Vol. 3 No. 1 Page 26 - 31. ISSN 2040-8773 © 2009, Maxwell Science Publication, UK.
  12. **Kakai RM.**, Nasimiya J, Odero W. (2011). Low reliability of home-based diagnosis of malaria in a rural community in western Kenya. *The Journal of Infection in Developing Countries*. Vol. 5 No. 1 Page 54 - 58. ISSN 1972-2680, ©2006, Open Learning on Enteric Pathogens (Italy).
  13. Sultanali SK, **Kakai R.**, Onyango RO. (2011). Cryptococcal meningitis among Human Immunodeficiency Virus patients attending major hospitals in Kisumu, western Kenya. *Archives of Clinical Microbiology*. Vol. 2 No. 1.2, Page 10 – 15. ISSN 1989-8436, ©2010, iMedPub Journals.  
Available from: <http://www.acmicrob.com>
  14. Onyango MD, **Kakai R.**, Waindi EN, Ghebremedhin B, König W, König B. (2010). Integron-plasmid mediated antibiotic resistance and virulence factors in clinical *Salmonella enterica* serovars in rural western Kenya. *African Journal of Pharmacy and Pharmacology*. Vol. 4 No. 7 Page 490 – 497. ISSN 1996-0816 ©2010, Academic Journals.
  15. Onyango MD, Ghebremedhin B, Waindi EN, **Kakai R.**, Rabsch W, Tietze E, König W, König B. (2009). Phenotypic and genotypic analysis of clinical isolates *Salmonella* serovar *Typhimurium* in western Kenya. *The Journal of Infection in Developing Countries*. ISSN 1972-2680, Vol. 3 No. 9 Pages 685 - 694.
  16. **Kakai R.**, Menya D, Odero W. (2009). Supporting formal education to improve the quality of health care provided by mothers of children with malaria in rural western Kenya. *The Journal of Infection in Developing Countries*. ISSN 1972-2680, Vol. 3 No. 7 Pages 548 - 553.
  17. Namanda AT, **Kakai R.**, Otsyula M. (2009). The role of unpasteurized “hawked” milk in the transmission of brucellosis in Eldoret Municipality, Kenya. *The Journal of Infection in Developing Countries*. ISSN 1972-2680, Vol. 3 No. 4 Pages 260 – 266.
  18. Onyango MD., Wandili S, **Kakai R.**, Waindi EN. (2009). Isolation of *Salmonella* and *Shigella* from fish harvested from the Winam Gulf of Lake Victoria, Kenya. *The Journal of Infection in Developing Countries*. ISSN 1972-2680, Vol. 3 No. 2 Pages 99 – 104.
  19. Onyango D, Machoni F, **Kakai R.**, Waindi EN. (2008). Multidrug resistance of *Salmonella enterica* serovars typhi and typhimurium isolated from clinical samples at two rural hospitals in Western Kenya. *The Journal of Infection in Developing Countries*. ISSN 1972-2680, Vol. 2 No. 2, Pages 106 – 111.

20. Andhoga J, Macharia AG, Maikuma R, Wanyonyi ZS, Ayumba BR, **Kakai R.** (2002). Aerobic pathogenic bacteria in post operative wounds at Moi Teaching and Referral Hospital. *East Afr. Med. J.* 79(12): 640 – 644.
21. **Kakai R.**, Wamola IA. (2002). Minimising antibiotic resistance to *Staphylococcus aureus* in developing countries. *East Afr. Med. J.* 79(11): 29-34.
22. Nyamogoba HDN, Obala AA, **Kakai R.** (2002). Combating cholera epidemics by targeting reservoirs of infection and transmission routes: A review. *East Afr. Med. J.* 79(3): 37-42.
23. Ayaya SO, Kamar K, **Kakai R.** (2001). Aetiology of tinea capitis in school children. *East Afr. Med. J.* 78(10): 531-535.
24. **Kakai R.** (2001). Laboratory diagnostic services in rural health centres, Western Kenya. *East Afr. Med. J.* 78(7) suppl.: S34-S35.
25. **Kakai R.**, Bwayo JJ, Wamola IA, Ndinya-Achola JO, Plummer FA. (1995). The effect of Human Immunodeficiency Virus on local immunity in children with diarrhoea. *East Afr. Med. J.* 72(11): 699-702.
26. **Kakai R.**, Wamola IA, Bwayo JJ, Ndinya-Achola JO. (1995). Enteric pathogens in malnourished children with diarrhoea. *East Afr. Med. J.* 72(5): 288-289.
27. **Kakai R.**, Wamola IA, Bwayo JJ. (1995). Association of human rotavirus infection and intestinal rotavirus-specific Immunoglobulin A in children with diarrhoea. *East Afr. Med. J.* 72(4): 217-219.
28. **Kakai R.**, Bwayo JJ, Wamola IA, Ndinya-Achola JO, Nagelkerke NJD, Anzala AO, Plummer FA. (1995). Breastfeeding and immunity to intestinal infections. *East Afr. Med. J.* 72(3): 150-154.
29. **Kakai R.**, Mutanda LN, Masudi AM. (1987). Rapid acquisition of resistance to gentamicin and Nalidixic Acid by Enterobacteria in Kenyatta National Hospital. *Medicom* 9: 133-137.
30. Mutanda LN, Kangethe SK, Masudi AM, **Kakai R.**, Gathecha C. (1986). Diarrhoea and *Trichomonas hominis*. *Medicom* 8: 11-13.

### **Thesis/dissertation**

1. **Kakai R.** (1994). A study of factors associated with intestinal immunoglobulin A in children with diarrhoea only and those with diarrhoea and malnutrition. PhD thesis, University of Nairobi.
2. **Kakai R.** (1984). Immunology of viral gastroenteritis with special reference to Rotavirus. MSc. dissertation, London School of Hygiene and Tropical Medicine, University of London.

### **Text Books**

1. Oduasi G, Onyango RO, **Kakai R.** (2011). Malaria and Nutritional Status among Under-fives. LAP Lambert Academic Publishing. ISBN 13: 9783844313635, Paperback 120 pages.
2. **Kakai R.**, Wakhungu H. (2010). A poet's impression of HIV and AIDS: Challenges and Opportunities. LAP Lambert Academic Publishing. ISBN 978-3-8433-6989-3, Paperback, 64 pages.
3. **Kakai R.**, Otieno-Nyunya B. (2010). Mother-to-Child Transmission of HIV in Limited Resource Settings: The Role of Breastfeeding. LAP Lambert Academic Publishing. ISBN 978-3-8433-6989-3, Paperback, 80 pages.

## Other articles

1. Kariuki S, Gichia M, **Kakai R**, Kusenererwa D, Macharia W, Menge T, Morpeth S, Mwabu G, Ndegwa L, Olack B, Orwa J, Pandit, J, Revathi G, Winters C, Gelband H, Laxminarayan R. (2011). Situation analysis: Antibiotic Use and Resistance in Kenya. Global Antibiotic Resistance Partnership – Kenya country report.  
Available at: [www.resistancestrategies.org](http://www.resistancestrategies.org)
2. **Kakai R**. (2004). Innovative Academic model for training environmental health scientists. In. Status of Environmental Health Education in the Eastern Africa Region: Opportunities, Challenges and the Way Forward. Ed. Keraka MN, Akunga DN. Kenyatta University. Joypet Services and Printers Ltd. Nairobi. ISBN 0001 – 0001 – 1. Pages 22-24.
3. Oloo AJ, Nangami MN, **Kakai R**, Kamar KK, Yebei V. Mutai K. (2003). Standard Operating procedures for Institutional Research and Ethics Committee (Sops for IREC). Moi University, College of Health Sciences/Moi Teaching and Referral Hospital.  
**Available at: [www.bioethics.iu.edu/IREC.doc](http://www.bioethics.iu.edu/IREC.doc)**

## RECENT CONFERENCE/MEETING PRESENTATIONS

1. Symekher SML, Bulimo WD, **Kakai R**, Simwa J, Sang A, Magana J. Epidemiology and molecular characterization of Influenza viruses isolated from children admitted at Kenyatta National Hospita in April to July 2008. Second Medical & Veterinery Symposium (MVVR-2). Sarova Panafric Hotel, Nairobi, Kenya. 18 – 19 October **2012**.
2. **Kakai RM**, Nasimiyu J, Odero W. (2011). Low reliability of home-based diagnosis of malaria in a rural community in western Kenya. Abstr. # 267. Third International Conference for Improving Use of Medicines (ICIUM2011). Kervansaray Lara Hotel, Antalya Turkey. 13<sup>th</sup> to 19<sup>th</sup> November **2011**.
3. **Kakai R**, Onyango MD, Waindi EN. Poster # 39. Sentinel sites surveillance of tetracycline efflux pump as a strategy to prevent the spread of salmonella antibiotic resistance In Western Kenya. First Global Forum on Bacterial Infections. India Habitat Centre. New Delhi, India. 3<sup>rd</sup> to 5<sup>th</sup> October, **2011**.
4. Onyuka JHO, **Kakai R**, Onyango DM, Arama PF, Gichuki J, Ofulla AVO. Poster # 115. Antibiotic susceptibility of enteric bacteria isolated from unprocessed fish sold at beaches along Lake Victoria Basin, Western Kenya. First Global Forum on Bacterial Infections. India Habitat Centre. New Dheli, India. 3<sup>rd</sup> to 5<sup>th</sup> October, **2011**.
5. Marieta E, **Kakai R**, Onyango RO. Uptake of Prevention of Mother to Child Transmission of HIV among Women Attending Antenatal Clinic in Pumwani Maternity Hospital, Nairobi, Kenya. First National HIV and AIDS Biennial Conference, Kenya School of Monetary Studies, Nairobi, Kenya. 18th-20<sup>th</sup> May, **2011**.
6. Kutai AV, Onyango RO, **Kakai RM**. Barriers to antiretroviral therapy adherence among people living with HIV and AIDS attending New Nyanza Provincial General Hospital, Kisumu, Kenya. First National HIV and AIDS Biennial Conference, Kenya School of Monetary Studies, Nairobi, Kenya. 18th-20<sup>th</sup> May, **2011**.
7. **Kakai R**, Wakhungu H. A poet's impression of HIV and AIDS. Health Africa Development Co-operation (HADCO) Network Intensive course and meeting. Kisumu Hotel, Kisumu, Kenya. 25<sup>th</sup> to 30<sup>th</sup> October **2010**.

8. Ogada IA, Onyango RO, **Kakai R.** The Influence of Nutrition Counselling on the Nutritional Knowledge, Attitude and Practice of Women Living With HIV and AIDS in Budalangi Division, Busia District, Kenya. 4th Africa Nutritional Epidemiology Conference (ANEC - IV), Nairobi, Kenya. Kenya Medical Research Institute. 4 – 8<sup>th</sup> October **2010.**
9. **Kakai R.** Antibiotic resistance in Western Kenya. Global Antibiotic Resistance Partnership (GARP) inaugural meeting. Fairview Hotel Nairobi, Kenya. 6<sup>th</sup> – 7<sup>th</sup> Aug **2009.**
10. Kakai R. Education System in Kenya Today. Health Africa Development Co-operation (HADCO) Network Intensive course and meeting. Kisumu Hotel, Kisumu, Kenya. 27<sup>th</sup> to 1<sup>st</sup> April **2009.**
11. **Kakai R.** Education systems in Kenya. Health Africa Development Co-operation (HADCO) Network Intensive course and meeting. Kampala, Uganda. 15<sup>th</sup> to 19<sup>th</sup> September **2008.**
12. Ochieng MA, **Kakai R.**, Abok K. The influence of peers and other significant persons on sexuality among secondary school students in Kisumu district. First Joint EAPHA/TPHA Scientific Conference. Arusha International Conference Centre, Arusha, Tanzania 4<sup>th</sup> to 9<sup>th</sup> November, **2007.**
13. Karanja LM, Onyango RO, **Kakai R.** Participation of clinical officers in preventive health care services at rural health facilities. First Joint EAPHA/TPHA Scientific Conference. Arusha International Conference Centre, Arusha, Tanzania 4<sup>th</sup> to 9<sup>th</sup> November. **2007.**
14. **Kakai R.** Innovative Academic Model for Training Environmental Health Scientists. International Workshop on Environmental Health Education. Kenyatta University, 24<sup>th</sup> to 26<sup>th</sup> March, **2004**

#### **RECENT WORKSHOPS/MEETINGS/CONFERENCES ATTENDED**

1. Disease-specific Diagnostic Enhancement Program (DDEP), Technical Advisory Group (TAG) workshop. Silver Springs Hotel, Nairobi. 18<sup>th</sup> February, **2014.**
2. Global Antibiotic Resistance Partnership (GARP), National Working Group (NWG) Research workshop. Kenya Medical Research Centre, Nairobi, Kenya. 15<sup>th</sup> August **2012.**
3. Third International Conference for Improving Use of Medicines (ICIUM). Kervansaray Lara Hotel, Antalya Turkey. 14<sup>th</sup> to 18<sup>th</sup> November **2011.**
4. First Global Forum on Bacterial Infections. India Habitat Centre. New Delhi, India. 3<sup>rd</sup> to 5<sup>th</sup> October, **2011.**
5. Global Antibiotic Resistance Partnership (GARP), Stakeholders policy workshop. Sarova Panafric Hotel, Nairobi, Kenya. 23<sup>rd</sup> to 25<sup>th</sup> August **2011.**
6. Global Antibiotic Resistance Partnership (GARP), Policy Development Workshop. Sarova Panafric Hotel, Nairobi, Kenya. 2<sup>nd</sup> March **2011.**
7. Global Antibiotic Resistance Partnership (GARP), National Working Group (NWG) meeting. Panafric Hotel, Nairobi, Kenya. 2<sup>nd</sup> March **2011.**
8. Health Africa Development Co-operation (HADCO) Network Intensive course and meeting. Kisumu Hotel, Kisumu, Kenya. 25<sup>th</sup> to 29<sup>th</sup> October **2010**
9. Training Stakeholders Meeting. National AIDS Control Programme (NAS COP). Intercontinental Hotel, Nairobi, Kenya. 25<sup>th</sup> Sept. **2010.**
10. Training Stakeholders Meeting. National AIDS Control Programme (NAS COP). Panafric Hotel, Nairobi, Kenya. 18<sup>th</sup> March **2010.**
11. Global Antibiotic Resistance Partnership (GARP) inaugural meeting. Fairview Hotel Nairobi, Kenya. 6<sup>th</sup> – 7<sup>th</sup> August **2009.**

12. Health Africa Development Co-operation (HADCO) Network Intensive course and meeting. Kisumu Hotel, Kisumu, Kenya. 27<sup>th</sup> to 1<sup>st</sup> April **2009.**
13. Health Africa Development Co-operation (HADCO) Network Intensive course and meeting. Kampala, Uganda. 15<sup>th</sup> to 19<sup>th</sup> September **2008.**
14. The North-South-South Higher Education Institution Network Exchange Programme. Finland, 13<sup>th</sup> May 2008 to 6<sup>th</sup> June **2008.**
15. Research Ethics Training Workshop. Kenya Medical Research Institute, Kisumu, Kenya. 12<sup>th</sup> to 13<sup>th</sup> July **2006.**
16. Seventh Annual K-MET Providers' network meeting. Imperial Hotel, Kisumu, 24 – 26<sup>th</sup> August **2004.**
17. First International Workshop on Environmental Health Education. Kenyatta University, 24<sup>th</sup> to 26<sup>th</sup> March, **2004.**