

 <i>In Search of Better Health</i>	KENYA MEDICAL RESEARCH INSTITUTE		
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Martin Bundi, PhD

PERSONAL PROFILE		
	ADDRESS:	54840-00200 Nairobi, Kenya
	CURRENT POSITION:	Principal Research Scientist, KEMRI Ag. Director, Research Capacity Building / KEMRI Graduate School
	EMAIL ADDRESS:	mbundi@kemri.go.ke

BIO

Dr. Martin Bundi is a Medical Microbiology researcher with over 16 years of experience in infectious disease research, biosafety, and research capacity building. He is a Principal Research Scientist and serves as the Acting Director, Research Capacity Building at the Kenya Medical Research Institute (KEMRI). He is also a Visiting Scientist at the Institute of Tropical Medicine, Nagasaki University, Japan, and a Postdoctoral Fellow at the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b).

His research focuses on enteric and food-borne pathogens, tuberculosis diagnostics, infection prevention and control, healthcare-associated infections, and biosafety and biosecurity capacity development. Molecular and phenotypic approaches have been applied to study pathogen ecology, virulence, and antimicrobial resistance, with particular emphasis on *Vibrio cholerae*, *Escherichia coli*, and rotavirus.

Dr. Bundi provides leadership in research training and mentorship at KEMRI and the KEMRI Graduate School and serves as the Lead for Curriculum Development for the Leadership Excellence and Accelerating Research on Women's Health (LEA-WH) Program, which focuses on strengthening women's health research leadership across sub-Saharan Africa. He also serves as an Advisory Board Member of the African Genetic Biocontrol Consortium, contributing to guidance on safe, ethical, and Africa-led genetic biocontrol research.

He is a certified Biosafety Professional and a Global Biosafety Mentor under the International Federation of Biosafety Associations (IFBA). He has contributed to training of BSL-3 laboratory users, development of laboratory leadership curricula with Africa CDC, and strengthening of cyberbiosecurity capacity across Africa. He previously served as President and currently serves as a Council Member of the African Biological Safety Association (AfBSA).

EDUCATION QUALIFICATION

- PhD, Medical Science (Microbiology), Nagasaki University, Japan, 2019
- MSc, Biotechnology, Kenyatta University, Kenya, 2013
- BSc, Biochemistry, Kenyatta University, Kenya, 2007

AREAS OF INTERESTS

1. Enteric and Food-Borne Diseases – Epidemiology and molecular characterization of diarrhoeal pathogens.
2. Antimicrobial Resistance (AMR) – Surveillance and molecular determinants of resistance in human pathogens.
3. Infection Prevention and Control (IPC) – Strengthening IPC programmes and prevention of healthcare-associated infections.
4. Biorisk Management – Biosafety, biosecurity, and laboratory risk management capacity building.

SELECTED PUBLICATIONS

1. Mghase, A., Brighton, M., Cheyo, H., Mrema, E., Mkoma, I., Were, V., **Bundi, M.**, et al. (2025). Health system factors influencing availability and access to comprehensive care for cleft lip, palate, and craniofacial anomalies in Dar es Salaam, Tanzania. *Plastic and Reconstructive Surgery – Global Open*, 13(11), e7280. <https://doi.org/10.1097/GOX.0000000000007280>
2. Rahman, S. I. A., Firoj, M. G., Park, S. E., Khanam, F., Agampodi, S., Haile, K., **Bundi, M.**, et al. (2025). Comparative epidemiology of *Salmonella enterica* serovars Paratyphi A and Typhi causing enteric fever, Bangladesh, 2018–2020. *Emerging Infectious Diseases*, 31(10), 1922–1934. <https://doi.org/10.3201/eid3110.241601>
3. **Mwebia, M. B.**, Chowdhury, F., Islam, M. T., Ahmmed, F., Akter, A., Im, J., Rickett, N. Y., et al. (2025). Epidemiological and clinical features of enterotoxigenic *Escherichia coli* diarrhea in an urban slum in Dhaka, Bangladesh. *Open Forum Infectious Diseases*. <https://doi.org/10.1093/ofid/ofaf375>
4. Ongadi, B. A., Aziz, A. B., Mbae, C. K., Mwangi, M., Kering, K., Khan, A. I., **Bundi, M.**, et al. (2025). Shigellosis in an urban slum in Kenya: Risk factors and antimicrobial resistance. *Open Forum Infectious Diseases*, 12(2), ofaf026. <https://doi.org/10.1093/ofid/ofaf026>
5. Khanam, F., Rickett, N. Y., Ahmmed, F., Islam, M. T., Mbae, C. K., Im, J., Aziz, A. B., **Bundi, M.**, et al. (2025). Evaluation of naturally occurring IgG anti-Vi antibody titers as predictors and correlates of typhoid fever in Dhaka, Bangladesh. *BMC Infectious Diseases*, 25, 149. <https://doi.org/10.1186/s12879-025-10548-8>
6. Muriithi, B., **Bundi, M. M.**, Moriyasu, T., Ahmed, A., Mwamzuka, M., Karama, M., & Kaneko, S. (2025). Applicability of TB-LAMP test for diagnosis of pulmonary tuberculosis among HIV-positive individuals. *IJTLD Open*, 2(1), 26–32. <https://doi.org/10.5588/ijtldopen.24.0410>

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7. Aziz, A. B., Ahmmed, F., Haile, K., Kering, K., Dudman, S., Halle-Julin, C., **Bundi, M.**, et al. (2025). Risk factors for spontaneous abortion following hepatitis E vaccination during and shortly before pregnancy. *BMC Infectious Diseases*. <https://doi.org/10.1186/s12879-025-10548-8>
8. Shah, M. M., **Bundi, M.**, Kathiiko, C., Guyo, S., Galata, A., Miring'u, G., Ichinose, Y., et al. (2023). Antibiotic-resistant *Vibrio cholerae* O1 and its SXT elements associated with cholera outbreaks in Kenya, 2007–2016. *Microbiology Spectrum*, 11(3), e04140-22. <https://doi.org/10.1128/spectrum.04140-22>
9. **Bundi, M.**, Shah, M. M., Odoyo, E., Kathiiko, C., Wandera, E., Miring'u, G., Guyo, S., et al. (2019). Characterization of *Vibrio cholerae* O1 isolates responsible for cholera outbreaks in Kenya between 1975 and 2017. *Microbiology and Immunology*, 63(9), 350–358. <https://doi.org/10.1111/1348-0421.12731>
10. Wandera, E. A., Komoto, S., Mohammad, S., Ide, T., **Bundi, M.**, Nyangao, J., et al. (2019). Genomic characterization of uncommon human G3P[6] rotavirus strains after vaccine introduction in Kenya. *Infection, Genetics and Evolution*, 68, 231–248. <https://doi.org/10.1016/j.meegid.2018.12.004>
11. Muriithi, B., **Bundi, M.**, Galata, A., Miring'u, G., Wandera, E., Kathiiko, C., Odoyo, E., et al. (2018). Biosafety and biosecurity capacity building: Insights from implementation of the NUITM-KEMRI biosafety training model. *Tropical Medicine and Health*, 46, 30. <https://doi.org/10.1186/s41182-018-0108-7>
12. Wandera, E. A., Mohammad, S., **Bundi, M.**, Nyangao, J., Galata, A., Kathiiko, C., et al. (2018). Impact of rotavirus vaccination on rotavirus hospitalisation rates in rural western Kenya. *Tropical Medicine & International Health*, 23(4), 425–432. <https://doi.org/10.1111/tmi.13040>
13. Wandera, E. A., Mohammad, S., **Bundi, M.**, Komoto, S., Nyangao, J., Kathiiko, C., et al. (2017). Impact of rotavirus vaccination on rotavirus and all-cause gastroenteritis in peri-urban Kenyan children. *Vaccine*, 35(38), 5217–5223. <https://doi.org/10.1016/j.vaccine.2017.07.096>
14. Miring'u, G., **Bundi, M.**, Muriithi, B. K., Apondi, E. W., Galata, A. A., Kathiiko, C. N., et al. (2017). Knowledge and practices regarding usage of biological safety cabinets. *Applied Biosafety*, 22(1), 38–43. <https://doi.org/10.1177/1535676016685790>
15. Ochi, S., Shah, M., Odoyo, E., **Bundi, M.**, Miring'u, G., Guyo, S., et al. (2017). Outbreak of diarrhea in Mandera, Kenya caused by enteroaggregative *E. coli*. *American Journal of Tropical Medicine and Hygiene*, 96(2), 457–464. <https://doi.org/10.4269/ajtmh.16-0310>
16. Shah, M., Odoyo, E., Wandera, E., Kathiiko, C., **Bundi, M.**, Miring'u, G., et al. (2017). Burden of rotavirus and enteric bacterial pathogens among hospitalized children in Kenya. *Japanese Journal of Infectious Diseases*, 70(4), 442–447. <https://doi.org/10.7883/yoken.JJID.2016.398>

17. Shah, M., Kathiiko, C., Wada, A., Odoyo, E., **Bundi, M.**, Miring'u, G., et al. (2016). Prevalence, seasonal variation, and antibiotic resistance of enteric bacterial pathogens in central Kenya. *Tropical Medicine and Health*, 44, 39. <https://doi.org/10.1186/s41182-016-0038-1>
18. Inoue, S., **Bundi, M.**, Miring'u, G., Muriithi, B., Ashur, S., Wandera, E., et al. (2015). Evaluation of a BSL-3 laboratory biosafety training program in Kenya. *Journal of Biotechnology and Biosafety*, 3(4), 288–296. http://jobb.co.in/docs/vol3_issue4/paper4.pdf
19. Ichinose, Y., Inoue, S., Shimada, M., Miring'u, G., Muriithi, B., Makumi, A., **Bundi, M.**, et al. (2015). Operations at biosafety level III: The P3 laboratory. In *Epidemiology II: Theory, Research and Practice*. iConcept Press. <https://pdfs.semanticscholar.org/6ea5/5893a6fbd688b8bbe8814a6113d3d57415aa.pdf>
20. **Bundi, M.**, Miring'u, G., Inoue, S., Muriithi, B., Ashur, S., Wandera, E., et al. (2014). BSL-3 laboratory user training program at NUITM-KEMRI. *Tropical Medicine and Health*, 42(4), 171–176. <https://doi.org/10.2149/tmh.2014-08>
21. **Mwebia, M. B.** (2013). *Characterization of toxigenic Vibrio cholerae isolates from Kenya, 2007–2010* (MSc thesis). Kenyatta University. <http://ir-library.ku.ac.ke/handle/123456789/6975>
22. Inoue, S., Wandera, E., Miring'u, G., **Bundi, M.**, Narita, C., Ashur, S., et al. (2013). The NUITM-KEMRI P3 laboratory in Kenya. *Tropical Medicine and Health*, 41(1), 27–37. <https://doi.org/10.2149/tmh.2013-01>
23. Taniguchi, K., Apondi, E. W., Ogino, M., Nyangao, J., Suka, S., **Bundi, M.**, et al. (2012). Distribution of G and P types of human rotavirus in Kenya. *Journal of Gastroenterology and Hepatology*, 27(Suppl.), 68. <https://www.researchgate.net/publication/296925303>
24. Ichinose, Y., **Bundi, M.**, Makumi, A., Miring'u, G., Karama, M., Suka, S., et al. (2011). Etiological investigation of diarrheal diseases in the suburbs of Nairobi, Kenya. *Tropical Medicine & International Health*, 16(Suppl.), 258. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1365-3156.2011.02861.x>

RELEVANT LINKS

ORCID iD: <https://orcid.org/0000-0001-9932-2453>