Amma Aboagyewa Larbi

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PROFILE

Dr. Amma Aboagyewa Larbi is a Senior Lecturer in the Department of Biochemistry and Biotechnology, College of Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. She holds a PhD in Immunology, an MSc in Clinical Microbiology, a BSc in Biochemistry, and a Master of Public Health in Global Health from KNUST. Her research focuses on immunology of infectious diseases, antimicrobial resistance, microbiome studies and global health. Her work investigates the biological, microbial, immune, and epidemiological drivers of tropical diseases, with particular interest in malaria and lymphatic filariasis among Ghanaian children. She has served as principal investigator or co-investigator on grants funded by The World Academy of Sciences, KNUST Research Fund, and the Harvey Institute for Global Health.

Dr. Larbi has authored and co-authored peer-reviewed publications in malaria, lymphatic filariasis, microbiome science, immunology, antimicrobial resistance, and biomedical research. She is also involved in academic leadership and inclusion-related service within her university including work with the Gender Inclusivity and Vulnerability Office.

RESEARCH

Interests	Immunology · Infectious diseases · Negleted Tropical diseases · Immunogenetics
Areas	Infectious Diseases · Molecular Biology · Insect Science · Ecology · Epidemiology · Hematology

RESEARCH SUMMARY

31	358	9	9	1.28	13%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 31 publications listed below, 2014–2026. Field-weighted impact is the mean over the 23 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 23 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Senior Lecturer 2020–present
Biochemistry and Biotechnology, Kwame Nkrumah University of Science and Technology
College of Science, Kumasi, Ghana

EDUCATION AND QUALIFICATIONS

MPH Global Health 2025–2026
Global Health, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PhD Immunology 2014–2019
Molecular Medicine, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

MSc Clinical Microbiology 2009–2013
Clinical Microbiology, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

BSc Biochemistry 2003–2007
Biochemistry, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 29

1. Anton Lavrinienko, Vanni Benvenga, Diana Albertos Torres, Youzheng Teo, Jeanne Tamarelle, Margaux M. Crézé, Yuen Yi Li, Christian Hoffmann, Abdifatah Muhummed, Somphou Sayasone, … **Amma Larbi** and 13 others (2026). A standardized collection of human stool and fermented food microbiomes from the Launch Phase of the Microbiota Vault Initiative. *Scientific Data*. https://doi.org/10.1038/s41597-026-08388-5
2. Alexander Kwarteng, David Amedorme, Humphrey Precious Kwame Addy, Emmanuel Kobla Atsu Amewu, Priscilla Osei-Poku, **Amma Larbi** (2026). Brukina in Focus: A Narrative Review on Metagenomic Approaches to Fermentation and Food Safety. *International Journal of Microbiology*. https://doi.org/10.1155/ijm/6677609
3. Eunice Afia Amponsah, **Amma Larbi**, Moses Etsey, Gifty Yeboah, Linda Nana Esi Aduku, Charles Apprey, Herman Erick Lutterodt, Reginald Adjetey Annan (2026). Genetic diversity and nutritional variation in food crops in Ghana: A systematic review. *Journal of Food Composition and Analysis*. https://doi.org/10.1016/j.jfca.2026.108878
4. **Amma Aboagyewa Larbi**, Moses Etsey, Obed Brew, Bismark Koduah, Rosemond Enam Mawuenyega, Emmanuel Kobla Atsu Amewu, Nehemiah Kweku Essilfie, Solomon Wireko, Alexander Kwarteng, Ben Adu Gyan (2026). Gut microbiome alterations among Ghanaian children with asymptomatic malaria infections. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0348120
5. Nehemiah Kweku Essilfie, Arnold Abakah, Moses Etsey, Daniel Ofori-Amanfo, Kwadwo Boampong, Ben Adu Gyan, Oscar Lukumuena Kashala, Efiba Vidda Senkyire Kwarteng, Samuel Ato Andam-Akorful, Vivian Paintsil, Alexander Kwarteng, **Amma Aboagyewa Larbi** (2026). Impact of Distinct Molecular and Immunological Features of Breast Cancer on the Effectiveness of Therapies in Ghana. *Breast Cancer Basic and Clinical Research*. https://doi.org/10.1177/11782234261451687
6. Eric Kyei-Baafour, D Obiri, **AA Larbi**, Kwadwo Asamoah Kusi, Ben Gyan (2026). Longitudinal Dynamics of Angiopoietin-1, Angiopoietin-2 and Soluble Thrombomodulin During Recovery from Paediatric Cerebral Malaria in Ghana. *Acta Tropica*. https://www.sciencedirect.com/science/article/pii/S0001706X26003979
7. Priscilla Osei-Poku, Mary Boampomaa Wilson, Abdul Latif Koney Shardow, Arnold Abakah, Emmanuel Kobla Atsu Amewu, Cynthia Adu-Asiamah Kyerewaa, **Amma Larbi**, Alexander Kwarteng (2026). Tetracycline Resistance Pattern Among Lymphatic Filariasis-Hyperendemic Communities in Southern Ghana: A Mixed-Method Approach. *Health Science Reports*. https://doi.org/10.1002/hsr2.72242
8. Hetty Asantewaa Mensah, Priscilla Osei-Poku, Isabel Mensah, Righteous Kwaku Agoha, Emmanuel Kobla Atsu Amewu, Solomon Wireko, **Amma Larbi**, Elmer Nayra Ametefe, Melissa B. Manus, Alexander Kwarteng (2025). Antibiotic resistance profile and genomic characterization of Staphylococcus aureus isolates from filarial lymphedema patients in Ghana. *Scientific African*. https://doi.org/10.1016/j.sciaf.2025.e02877
9. **Amma Aboagyewa Larbi**, Caleb Mensah, Rebecca Korankye, Andrew Appiah Darkwah, Esther Boakye Agyemang, Isaac Yao Ayikpah, Alexander Kwarteng (2025). Immunoinformatics-Based Multi-Epitope Vaccine Design Against P. falciparum- Causing Malaria: A Computational Approach. *Health Science Reports*. https://doi.org/10.1002/hsr2.71353
10. Dzidzor Yawa Ayeke, Priscilla Osei-Poku, Drake Byamukama, Emmanuel Kobla Atsu Amewu, Arnold Abakah, Abdul Latif Koney Shardow, Susana Makafui Abla Yeboah, Cindy Antwiwaa, Mary Boampomaa Wilson, Solomon Wireko, **Amma Larbi**, Alexander Kwarteng (2025). Molecular Characterisation of Fungi Populations in the Chronic Wounds of Filarial Lymphedema Patients in Southern Ghana: A Cross-Sectional Study. *Health Science Reports*. https://doi.org/10.1002/hsr2.71552
11. Efiba Vidda Senkyire Kwarteng, **Amma Aboagyewa Larbi**, Nanatte Veronica Anderson, Sheriff Wahab, Yaa Gyamfua Oppong-Mensah, Samuel Ato Andam-Akorful, Alexander Kwarteng, Lawrence Osei-Tutu, Gladys Acquah, Comfort Asoogo, Bernice Eklu, Paul Obeng, Barnabas Manlokiya, Ben Gyan, Vivian Paintsil (2025). Spatial and Temporal Distribution of Pediatric Cancers in Southern Ghana: A Retrospective

Observational Study. *Health Science Reports*. https://doi.org/10.1002/hsr2.70797

12. Maria G. Dominguez-Bello, Dominik Steiger, Manuel Fankhauser, Adrian Egli, Pascale Vonaesch, Nicholas A. Bokulich, Anton Lavrinienko, Christian Hoffmann, Petra Zimmermann, Abdifatah Muhummed, … **Amma Larbi** and 14 others (2025). The microbiota vault initiative: safeguarding Earth's microbial heritage for future generations. *Nature Communications*. https://doi.org/10.1038/s41467-025-61008-5

13. Emmanuel Nji, Aurélien F. A. Moumbock, Katharina C. Cramer, Nicolas V. Rüffin, Jamaine Davis, Oluwatoyin A. Asojo, Julia J. Griese, **Amma A. Larbi**, Michel N. Fodje (2024). Supporting structural biologists in Africa requires resources and capacity building. *Nature Structural & Molecular Biology*. https://doi.org/10.1038/s41594-024-01438-9

14. Nembot Fogang Brice Armel, Solomon Wireko, Priscilla Osei-Poku, Samuel O. Asiedu, Emmanuel K. A. Amewu, Ebenezer Asiedu, Ernest Amanor, Caleb Mensah, Mary B. Wilson, **Amma Larbi**, Kennedy G. Boahen, Augustina A. Sylverken, Katherine R. Amato, Alexander Kwarteng (2023). Antibiotic resistance and mecA characterization of Staphylococcus hominis from filarial lymphedema patients in the Ahanta West District, Ghana: A cross-sectional study. *Health Science Reports*. https://doi.org/10.1002/hsr2.1104

15. William Kwaku Agbozo, Ernest Amanor, Eugene Owusu Acheampong, Brenda Kotei, Leslie Nii Attoh, David Yeboah, Prince Odonkor, Seth Obiri, Alexander Kwarteng, **Amma Larbi** (2023). Assessing knowledge of sickle cell disease and health beliefs on premarital genetic screening among healthcare trainees at a tertiary institution: A cross-sectional study. *Health Science Reports*. https://doi.org/10.1002/hsr2.1128

16. Alexander Kwarteng, Priscilla Osei-Poku, Daniel Antwi-Berko, Augustina Sylverken, **Amma Larbi**, Kwabena Nsiah (2023). Blood collection tubes impact expression of activated CD4+ and CD8+ T cells in human whole blood assay. *Scientific African*. https://doi.org/10.1016/j.sciaf.2023.e01797

17. Benjamin Ahenkorah, Samuel Asamoah Sakyi, Gideon Helegbe, Eddie-Williams Owiredu, Linda Ahenkorah Fondjo, Winfred Ofosu, Edmund Muonir Der, Benjamin Amoani, **Amma Aboagyewa Larbi**, Susanna Cheetham, Priscilla Arthur-Johnson, Grant Jenny Kwablah, Ben Gyan (2022). Foeto-maternal complications associated with low birth weight: A prospective multicenter study in northern Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0266796

18. Ernest Amanor, Alexander Kwarteng, **Amma Larbi**, Fatima Amponsah Fordjour, Kelvin Kwaku Koranteng, David Sebbie Sackey, Emmanuel Bannor, Francis Adjei Osei, Aliyu Mohammed, Ezekiel Bonwin Ackah, Samuel Frimpong Odoom, Samuel Blay Nguah, Vivian Paintsil, Alex Osei-Akoto (2022). Iron stores in steady-state sickle cell disease children accessing care at a sickle cell disease clinic in Kumasi, Ghana: A cross-sectional study. *Health Science Reports*. https://doi.org/10.1002/hsr2.934

19. Samuel A. Sakyi, Michael D. Wilson, Bright Adu, Stephen Opoku, Antwi Brewoo, **Amma Larbi**, Emmanuel K. Baafour, Samuel K. Tchum, Roland O. Saahene, Wilfred Aniagyei, Christian Sewor, David Courtin, Michael Cappello, Ben Gyan, Benjamin Amoani (2022). Plasmodium falciparum coinfection is associated with improved IgE and IgG3 response against hookworm antigens. *Health Science Reports*. https://doi.org/10.1002/hsr2.672

20. Ebenezer Asiedu, **Amma Larbi**, Ernest Adankwah, John Kanyiri Yambah, Samuel Asamoah Sakyi, Efiba Vidda Senkyire Kwarteng, Dorcas Obiri-Yeboah, Alexander Kwarteng (2022). Transcriptomic profiling identifies host-derived biomarker panels for assessing cerebral malaria. *Gene Reports*. https://doi.org/10.1016/j.genrep.2022.101650

21. Emmanuel Nji, Joseph Kazibwe, Thomas Hambridge, Carolyn Alia Joko, **Amma Aboagyewa Larbi**, Lois Afua Okyerewaa Damptey, Nana Adoma Nkansa-Gyamfi, Cecilia Stålsby Lundborg, La Thi Quynh Lien (2021). High prevalence of antibiotic resistance in commensal Escherichia coli from healthy human sources in community settings. *Scientific Reports*. https://doi.org/10.1038/s41598-021-82693-4

22. Alexander Kwarteng, Ebenezer Asiedu, Augustina Sylverken, **Amma Larbi**, Yusif Mubarik, Charles Apprey (2021). In silico drug repurposing for filarial infection predicts nilotinib and paritaprevir as potential inhibitors of the Wolbachia 5′-aminolevulinic acid synthase. *Scientific Reports*. https://doi.org/10.1038/s41598-021-87976-4

23. Alexander Kwarteng, Ebenezer Asiedu, Augustina Angelina Sylverken, **Amma Larbi**, Samuel Asamoah

Sakyi, Samuel Opoku Asiedu (2021). Molecular characterization of interactions between the D614G variant of SARS-CoV-2 S-protein and neutralizing antibodies: A computational approach. *Infection Genetics and Evolution*. https://doi.org/10.1016/j.meegid.2021.104815

24. Fatima Amponsah Fordjour, Ebenezer Asiedu, **Amma Larbi**, Alexander Kwarteng (2021). The role of nuclear factor kappa B (NF-κB) in filarial pathology. *Journal of Cell Communication and Signaling*. https://doi.org/10.1007/s12079-021-00607-5

25. **A. Larbi**, M. Frempong, B. Gyan (2020). Evaluation of endothelial biomarkers in the pathogenesis of cerebral malaria in Ghanaian children. *International Journal of Infectious Diseases*. https://doi.org/10.1016/j.ijid.2020.09.878

26. **A Larbi** (2014). Dosage of X-linked Toll-like receptor 8 determines gender differences in the development of systemic lupus erythematosus (BA4P. 216). *The Journal of Immunology*. https://academic.oup.com/jimmunol/article-abstract/192/Supplement_1/46.7/7992398

27. **A Larbi** (2014). Dosage of X-linked Toll-like receptor 8 determines gender differences in the development of systemic lupus erythematosus. *European journal of immunology*. https://doi.org/10.1002/eji.201344283

28. **A Larbi** (2014). Effect of compensation management on employee performance at the St. Michael's Catholic Hospital, Pramso. *Human Resource and Organizational Development,(July), 1*. https://www.academia.edu/download/50350074/-submit.pdf

29. **A Larbi** (2014). Production of IgG autoantibody requires expression of activation-induced deaminase in early-developing B cells in a mouse model of SLE. *European journal of immunology*. https://doi.org/10.1002/eji.201344282

Conference papers 1

1. **A Larbi**, Michael Ofori, Ben Gyan (2017). ASSESSMENT OF ENDOTHELIAL PROGENITOR CELLS IN HYPERTENSIVE DISORDERS OF PREGNANCY. *AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE*. https://scholar.google.com/scholar?cluster=5910614945301327634&hl=en&oi=scholarr

Reports 1

1. K Badu, **AA Larbi**, K Boampong (2021). Malaria Elimination: The Role and Value of Sero-Surveillance. *IntechOpen*. https://books.google.com/books?hl=en&lr=&id=gbg6EAAAQBAJ&oi=fnd&pg=PA57&dq=info:a_rzop0PQn0J:scholar.google.com&ots=6IDDXX8bPD&sig=opSYrZ7v4PUtMpGPrpyEogIUTFY