C. A. Adinortey

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PROFILE

Cynthia A. Adinortey, Ph.D., is a senior lecturer in the Department of Molecular Biology and Biotechnology at the University of Cape Coast, where she received her doctorate in molecular biology and biotechnology. In 2022, she was elected as an African Academy of Sciences Affiliate for her meritorious contribution to the progress of science. She is also a member of the inaugural cohort of the ASM mBio Junior Editorial Board.

Adinortey is a passionate STEM advocate and AMR Insights Ambassador. She served as treasurer for the Cape Coast branch of the Ghana Science Association from 2015-2019 and is currently coordinator for international relations of the Ghana Association of University Women, convenor of the Hegg Hoffet Committee of Graduate Women International and a member of the Organization of Women in Science for the Developing World.

RESEARCH

Interests	Microbiology · Molecular Biology · Fish Health · One Health AMR · Food Hygiene and Safety
Areas	Immunology · Surgery · Endocrinology, Diabetes and Metabolism · Epidemiology · Molecular Biology · Plant Science

RESEARCH SUMMARY

35	515	12	15	2.07	13%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 35 publications listed below, 2011–2026. Field-weighted impact is the mean over the 24 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 24 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Senior Lecturer 2020–present
Department of Molecular Biology and Biotechnology, University of Cape Coast, Cape Coast, Ghana

Lecturer 2016–2020
Dept. of Molecular Biology and Biotechnology, University of Cape Coast, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

Post Graduate Diploma in Education (PGDE) 2022
College of Distance and e-Learning (CODeL), University of Education, Winneba, Winneba, Ghana

PhD Molecular Biology and Biotechnology 2009–2015
Dept. of Molecular Blology and Biotechnology, University of Cape Coast, Cape Coast, Ghana

BSc. Molecular Biology and Biotechnology 2002–2006
Dept. of Molecular Biology and Biotechnology, University of Cape Coast, Cape Coast, Ghana

PUBLICATIONS

Journal articles 33

1. **C. A. Adinortey** (2026). Genomic determinants of antibiotic resistance for Helicobacter pylori treatment: a retrospective phenotypic and genotypic observational study. *The Lancet Microbe*. https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247(25)00145-4/fulltext
2. Tashie Evangeline Ngwanguong, **Cynthia Ayefoumi Adinortey**, Patrick Opare Sakyi, Gerald Ngo Teke, Lifoter Kenneth Navti, Daniel Boison, Ekow Sekyi Etwire, Eric Gyamerah-Ofori, Rosemary Agbeko, Samuel Kojo Kwofie, Michael Buenor Adinortey (2026). In Silico identification of bioactive compounds from Syzygium guineense (Willd.) DC. var. guineense as potential DNA gyrase inhibitors against Salmonella Typhi. *In Silico Research in Biomedicine*. https://doi.org/10.1016/j.insi.2026.100544
3. Mary Fosuah, Ernest Osei, **Cynthia Ayefoumi Adinortey**, Dickson Kofi Wiredu Ocansey (2026). Patterns of early-life microbial exposure and infection risk in hospital-born neonates in a tertiary hospital setting in Ghana. *BMC Microbiology*. https://doi.org/10.1186/s12866-026-05330-y
4. Onome T. Abiri, Troy D. Moon, John S. Schieffelin, **Cynthia A. Adinortey**, Gustavo Amorim, Isatta Wurie, Donald S. Grant, Babatunde Duduyemi, Mohamed Samai (2025). A study protocol for the assessment of antibiotic use and bacterial antimicrobial resistance among children under five years of age: Implications for a resource-limited setting. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0330402
5. M. Teye, G. S. Lartey, **C. A. Adinortey**, M. B. Adinortey (2025). Cinnamon (Cinnamomum zeylanicum) Bark as a Natural Alternative to Sodium Nitrate in Pork Sausages: Effects on Proximate Composition, Sensory and Shelf Life Analyses. *ACS Food Science & Technology*. https://doi.org/10.1021/acsfoodscitech.5c00043
6. Eric Gyamerah Ofori, Foster KYEI, **Cynthia Ayefoumi Adinortey**, Ansumana Sandy Bockarie, Daniel Boison, Michael Buenor Adinortey (2025). Helicobacter pylori: Detection of dupA, iceA and cagE genes in Ghanaian patients with dyspepsia. *International Journal of Biological and Chemical Sciences*. https://www.ajol.info/index.php/ijbcs/article/view/304061
7. B Amoani, SA Sakyi, D Boison, **CA Adinortey**, JK Turzin, Prince A Barnie (2025). High antibiotic resistance and elevated plasma IFNγ from type 2 diabetes mellitus (T2DM) patients with uropathogens visiting Cape Coast Teaching Hospital. *Health Sciences Investigations Journal*. https://www.ajol.info/index.php/hsij/article/view/307677
8. Matilda Domeyo Ahadjie, Fauzia Nurudeen, **Cynthia Adinortey** (2025). Isolation and Assessment of Antagonistic Microbial Interactions from Environmental Samples. *Advances in life science and technology*. https://doi.org/10.7176/alst/101-07
9. Karen Pomeyie, Francis Abrokwah, Daniel Boison, Benjamin Amoani, Foster Kyei, **Cynthia A. Adinortey**, Prince Amoah Barnie (2025). Macrophage immunometabolism dysregulation and inflammatory disorders. *Biomedicine & Pharmacotherapy*. https://doi.org/10.1016/j.biopha.2025.118142
10. Eric Gyamerah Ofori, Foster Kyei, Emmanuel Ayitey Tagoe, Ansumana Sandy Bockarie, Samuel Mawuli Adadey, Osbourne Quaye, Michael Buenor Adinortey, Gordon Akanzuwine Awandare, **Cynthia Ayefoumi Adinortey** (2025). Mutational analysis of antibiotic resistance genes in Helicobacter pylori from Ghanaian dyspepsia patients: Implications for treatment strategies. *Aspects of Molecular Medicine*. https://doi.org/10.1016/j.amolm.2025.100078
11. Daniel Boison, Prince Amoah Barnie, Michael Buenor Adinortey, **Cynthia Ayefoumi Adinortey** (2025). Providing credence to the ethnomedicinal value of Gomphrena celosioides Mart: a systematic review. *Int. J. Biol. Chem. Sci*. https://scholar.archive.org/work/mg3hegzjv5gbbgnvrjro72aofq/access/wayback/https://www.ajol.info/index.php/ijbcs/article/download/297771/280044
12. Daniel Boison, Derrick Owusu, Robertson Akrofi, Prince Amoah Barnie, Rosemary Agbeko, Felix Fynn, Tashie Evangeline Ngwanguong, Michael Buenor Adinortey, **Cynthia Ayefoumi Adinortey** (2025). Review Paper : Providing credence to the ethnomedicinal value of Gomphrena celosioides Mart: a systematic review. *International Journal of Biological and Chemical Sciences*. https://doi.org/10.4314/ijbcs.v19i1.25
13. Prince Amoah Barnie, Festus Agbatey, Godwin Amponsah Asiamah, William Gyamesi, **Cynthia A. Adinortey**, Foster Kyei (2025). The relevance of biomarkers for diagnosis, monitoring treatment response

and immunity during tuberculosis infections. *Mycobacteria*. https://doi.org/10.1186/s44350-025-00006-5

14. **C. A. Adinortey** (2024). Gene content, phage cycle regulation model and prophage inactivation disclosed by prophage genomics in the Helicobacter pylori Genome Project. *Gut microbes*. https://doi.org/10.1080/19490976.2024.2379440

15. Vivianne Geraldo, Jerry Ampofo-Asiama, **Cynthia A. Adinortey**, Isaac Okyere, Samuel Kofi Tulashie, Alexander Tetteh Kwasi Nuer, Samuel Bridge Nkansah, Selorm Omega, Salifu Seidu-Larry, Nazir Kizzie-Hayford (2024). Implementation of good manufacturing practices (GMP) to improve the quality of smoked fish (Scomber colias). *Heliyon*. https://doi.org/10.1016/j.heliyon.2024.e27401

16. **CA Adinortey**, Barnie (2023). Dipyrromethene boron difluoride induces anti-proliferative effects on cancer cells. *Journal of the Ghana Science Association*.

17. Kaisa Thorell, Zilia Y. Muñoz-Ramírez, Difei Wang, Santiago Sandoval-Motta, Rajiv Boscolo Agostini, Silvia Ghirotto, Roberto C. Torres, Judith Romero-Gallo, Uma Krishna, Richard M. Peek, … **Cynthia Ayefoumi Adinortey** and 89 others (2023). The Helicobacter pylori Genome Project: insights into H. pylori population structure from analysis of a worldwide collection of complete genomes. *Nature Communications*. https://doi.org/10.1038/s41467-023-43562-y

18. Rosemary Agbeko, Denis W. Aheto, Daniel K.A. Asante, Noble K. Asare, Alex A. Boateng, **Cynthia A. Adinortey** (2022). Identification of molecular determinants of antibiotic resistance in some fish farms of Ghana. *Heliyon*. https://doi.org/10.1016/j.heliyon.2022.e10431

19. **Cynthia A. Adinortey**, Gabriel B. Kwarko, Russell Koranteng, Daniel Boison, Issaka Obuaba, Michael D. Wilson, Samuel K. Kwofie (2022). Molecular Structure-Based Screening of the Constituents of Calotropis procera Identifies Potential Inhibitors of Diabetes Mellitus Target Alpha Glucosidase. *Current Issues in Molecular Biology*. https://doi.org/10.3390/cimb44020064

20. Samuel Kojo Kwofie, Dorothy Gyamfua Annan, **Cynthia Ayefoumi Adinortey**, Daniel Boison, Gabriel Brako Kwarko, Rachel Araba Abban, Michael Buenor Adinortey (2021). Identification of novel potential inhibitors of varicella-zoster virus thymidine kinase from ethnopharmacologic relevant plants through an in-silico approach. *Journal of Biomolecular Structure and Dynamics*. https://doi.org/10.1080/07391102.2021.1977700

21. **Cynthia Ayefoumi Adinortey**, Denis Worlanyo Aheto, Alex Asomeni Boateng, Rosemary Agbeko (2020). Multiple Antibiotic Resistance-Coliform Bacteria in Some Selected Fish Farms of the Central Region of Ghana. *Scientifica*. https://doi.org/10.1155/2020/6641461

22. Daniel Boison, **Cynthia Ayefoumi Adinortey**, Godwin Kweku Babanyinah, Olga Quasie, Rosemary Agbeko, Gilbert Kofi Wiabo-Asabil, Michael Buenor Adinortey (2019). Costus afer: A Systematic Review of Evidence-Based Data in support of Its Medicinal Relevance. *Scientifica*. https://doi.org/10.1155/2019/3732687

23. Eric Gyamerah Ofori, **Cynthia Ayefoumi Adinortey**, Ansumana Sandy Bockarie, Foster Kyei, Emmanuel Ayitey Tagoe, Michael Buenor Adinortey (2019). Helicobacter pyloriInfection, Virulence Genes' Distribution and Accompanying Clinical Outcomes: The West Africa Situation. *BioMed Research International*. https://doi.org/10.1155/2019/7312908

24. Alexander Weremfo, MichaelBuenor Adinortey, Charles Ansah, **CynthiaAyefoumi Adinortey**, GenevieveEtornam Adukpo, ElvisOfori Ameyaw, AlexanderKwadwo Nyarko (2018). DNA damage protecting activity and antioxidant potential of Launaea taraxacifolia leaves extract. *Journal of Natural Science Biology and Medicine*. https://doi.org/10.4103/jnsbm.jnsbm_22_17

25. MichaelBuenor Adinortey, Charles Ansah, **CynthiaAyefoumi Adinortey**, Justine McGiboney, Alexander Nyarko (2018). In vitro H+/K+-ATPase Inhibition, Antiradical effects of a flavonoid-rich fraction of Dissotis rotundifolia, and In silico PASS Prediction of its isolated compounds. *Journal of Natural Science Biology and Medicine*. https://doi.org/10.4103/jnsbm.jnsbm_104_17

26. Michael Buenor Adinortey, Justice Kwabena Sarfo, **Cynthia Ayefoumi Adinortey**, Eric Gyamerah Ofori, Jeffrey Kwarteng, Justice Afrifa, Fobi Adjei Owusu (2018). Inhibitory effects of Launaea taraxacifolia and Strychnos spinosa leaves extract on an isolated digestive enzyme linked to type -2 -diabetes mellitus. *Journal of Biology and Life Science*. https://doi.org/10.5296/jbls.v9i2.12649

27. Michael Buenor Adinortey, Charles Ansah, **Cynthia Ayefoumi Adinortey**, Ansumana Sandy Bockarie, Martin Tangnaa Morna, Damian H. Amewowor (2018). Isolation of Helicobacter pylori from Gastric Biopsy of Dyspeptic Patients in Ghana and In Vitro Preliminary Assessment of the Effect of Dissotis rotundifolia Extract on Its Growth. *Journal of Tropical Medicine*. https://doi.org/10.1155/2018/8071081

28. Michael Buenor Adinortey, Justice Kwabena Sarfo, Jeffery Kwarteng, **Cynthia Ayefoumi Adinortey**, William Ekloh, Lydia Enyonam Kuatsienu, Alexander Kwadwo Nyarko (2018). The Ethnopharmacological and Nutraceutical Relevance of Launaea taraxacifolia (Willd.) Amin ex C. Jeffrey. *Evidence-based Complementary and Alternative Medicine*. https://doi.org/10.1155/2018/7259146

29. **C.A. Adinortey**, D.H.A.K. Amewowor, E.P. Otwe, I.K.A. Galyuon, D.K.A. Asante (2017). Antibiotic Susceptibility Profile and Occurrence of Escherichia coli Isolated from Clinical and Environmental Samples in Cape Coast, Ghana. *Research Journal of Microbiology*. https://doi.org/10.3923/jm.2017.170.176

30. DW Aheto, **CA Adinortey**, J Adjei, E Kwarteng (2017). Microbiological and polycyclic aromatic hydrocarbons (PAHs) analysis of fish from selected areas from central and western regions of Ghana. *The USAID/Ghana Sustainable Fisheries Management Project (SFMP)*. https://scholar.google.com/scholar?cluster=11383025854995630585&hl=en&oi=scholarr

31. **Cynthia Ayefoumi Adinortey** (2014). Antibiotic resistance, phylogenetic grouping and virulence potential of Escherichia coli isolated from clinical and environmental samples from the Cape Coast metropolis of the …. *University of Cape Coast*. https://ir.ucc.edu.gh/server/api/core/bitstreams/55a0cedb-9e00-4cd6-8d14-6178e6a22fdd/content

32. Enoch Thaddaeus Quayson, A Weremfo, **CA Adinortey**, W Ekloh (2012). Phytochemical screening, proximate and mineral composition of Launaeae taraxacifolia leaves. *Research Journal of Medicinal Plant*.

33. **CA Adinortey**, MB Adinortey (2011). The Ghanaian Currency notes and Coins: A Medium of Exchange for pathogenic microbes. *Journal of Ghana Science Association*. https://ir.ucc.edu.gh/server/api/core/bitstreams/1319d243-acc1-4d9f-b0c6-8c5e4484d55d/content

Book chapters 1

1. **Cynthia Ayefoumi Adinortey**, Michael Wilson, Samuel Kojo Kwofie (2022). Honey as a Natural Product Worthy of Re-Consideration in Treating MRSA Wound Infections. *IntechOpen eBooks*. https://doi.org/10.5772/intechopen.104219

Reports 1

1. **CA. Adinortey** (2023). Wastewater as a key driver of AMR. *https://asm.org/magazine/2023/fall/wastewater-as-a-key-driver-of-amr#:~:text=Wastewater—used%20water%20resulting%20from,AMR)%20genes%20in%20the%20environment.*.