

# C. A. Adinortey

Senior Lecturer · Molecular Biology & Biotechnology  
University of Cape Coast

ORCID [0000-0001-8569-8433](https://orcid.org/0000-0001-8569-8433) · Google Scholar [scholar.google.com/citations?user=xGj0hfQAAAAJ&hl=en](https://scholar.google.com/citations?user=xGj0hfQAAAAJ&hl=en) · Profile [scholar.ucc.edu.gh/staff/0e6f6ab7-69a5-4b6b-a883-c0ab68de8528](https://scholar.ucc.edu.gh/staff/0e6f6ab7-69a5-4b6b-a883-c0ab68de8528)

## 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

|              |            |           |           |                       |               |
|--------------|------------|-----------|-----------|-----------------------|---------------|
| <b>35</b>    | <b>514</b> | <b>12</b> | <b>15</b> | <b>2.07</b>           | <b>13%</b>    |
| 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

|                                                                                                                          |              |
|--------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Senior Lecturer</b><br>Department of Molecular Biology and Biotechnology, University of Cape Coast, Cape Coast, Ghana | 2020–present |
| <b>Lecturer</b><br>Dept. of Molecular Biology and Biotechnology, University of Cape Coast, Cape Coast, Ghana             | 2016–2020    |

## EDUCATION AND QUALIFICATIONS

|                                                                                                                                                  |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Post Graduate Diploma in Education (PGDE)</b><br>College of Distance and e-Learning (CODeL), University of Education, Winneba, Winneba, Ghana | 2022      |
| <b>PhD Molecular Biology and Biotechnology</b><br>Dept. of Molecular Biology and Biotechnology, University of Cape Coast, Cape Coast, Ghana      | 2009–2015 |
| <b>BSc. Molecular Biology and Biotechnology</b><br>Dept. of Molecular Biology and Biotechnology, University of Cape Coast, Cape Coast, Ghana     | 2002–2006 |

## 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](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.insr.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 IFN $\gamma$  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 Abrokwa, 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 pylori* Infection, Virulence Genes' Distribution and Accompanying Clinical Outcomes: The West Africa Situation. *BioMed Research International*. <https://doi.org/10.1155/2019/7312908>
24. Alexander Weremfo, Michael Buenor Adinortey, Charles Ansah, Cynthia Ayefoumi Adinortey, Genevieve Etornam Adukpo, Elvis Ofori Ameyaw, Alexander Kwadwo 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](https://doi.org/10.4103/jnsbm.jnsbm_22_17)
25. Michael Buenor Adinortey, Charles Ansah, Cynthia Ayefoumi Adinortey, Justine McGiboney, Alexander Nyarko (2018). In vitro H<sup>+</sup>/K<sup>+</sup>-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](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 (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=scholar>
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 *Launaea 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..](https://asm.org/magazine/2023/fall/wastewater-as-a-key-driver-of-amr#:~:text=Wastewater—used%20water%20resulting%20from,AMR)%20genes%20in%20the%20environment..)