Michael B. Adinortey

Professor · Biochemistry
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PROFILE

Michael holds a faculty appointment as a Professor of medicinal biochemistry and clinical biochemistry in the Department of Biochemistry, University of Cape Coast, Ghana. He seeks to translate his understanding of basic cell and molecular mechanisms involved in disease conditions into novel therapeutic approaches. Michael employs biochemical, microbial, molecular, pharmacological and bioinformatics techniques / tools to investigate and understand physiopathological conditions and receptor-ligand interactions, and in the process identify drug targets and discover new therapeutic agents. A major research effort is the development of a novel technique for culturing Helicobacter pylori which was published in the Journal of Tropical Medicine. The use of this technique led to the first successful isolation of Helicobacter pylori in Ghana. This milestone has paved a way for studies regarding drug resistance profile of Helicobacter pylori in Ghana and this could translate into good healthcare service for peptic ulcer patients.

RESEARCH

Interests	Medicinal Biochemistry · Clinical Biochemistry · Phytomedicine
Areas	Plant Science · Endocrinology, Diabetes and Metabolism · Surgery · Molecular Biology · Pharmacology · Biochemistry

RESEARCH SUMMARY

55	980	15	24	1.82	17%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 55 publications listed below, 2011–2026. Field-weighted impact is the mean over the 35 works scored for it; 1.00 is the world average for works of the same field, type and year. 6 of the 35 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Professor 2022–present
Biochemistry, University of Cape Coast, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

PhD 2012–2015
Pharmacology, Kwame Nkrumah University of Science and Technology College of Science, Kumasi, Ghana

MA (Human Resource Development) 2009–2013
Institute for Development, University of Cape Coast, Cape Coast, Ghana

MPhil (Biochemistry) 2003–2006
Biochemistry, University of Ghana, Accra, Ghana

PUBLICATIONS

Journal articles 49

1. Ansumana Bockarie, **Michael Buenor 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. **Michael B Adinortey**, Samuel K Kwofie (2026). Molecular Docking and Molecular Dynamics Simulation Analysis Identify Potential Dual GAA and GFAT Inhibitors From Ethnomedicinal Plants as Antidiabetic Agents. *Journal of Chemistry*. https://doi.org/10.1155/joch/1719882
4. 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
5. 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
6. Dorcas Akuorkor Teiko, Benoit Banga N'guessan, **Michael Buenor Adinortey**, Ifeanyichukwu Benedict Iheagwara, Seth Kwabena Amponsah, Mahmood Abdulai Seidu, Regina Appiah-Opong, Isaac Julius Asiedu-Gyekye (2025). In vivo assessment of chronic, genotoxic, and reproductive toxicity of a combination of Termitomyces schimperi (Pat.) R. Heim (Lyophillacea) and kaolin. *Journal of Ethnopharmacology*. https://doi.org/10.1016/j.jep.2025.119739
7. 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
8. 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
9. 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
10. Isaac Tabiri Henneh, Wisdom Ahlidja, Ernest Amponsah Asiamah, Denzel Opoku-Kwabi, Henry Mensah Korsah, Fynn Malcom, Stephen Mensah Arhin, **Michael Buenor Adinortey**, Francis Ackah Armah (2024). Antinociceptive and anti-ulcerogenic effect of hydroethanolic stem bark extract of Ricinodendron heudelotii (Baill.) Pierre ex. Heckel (Euphorbiaceae): Involvement of the opioidergic pathway and attenuation of oxidative stress. *Journal of Traditional and Complementary Medicine*. https://doi.org/10.1016/j.jtcme.2024.03.007
11. **Michael B. 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
12. 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, … **Michael Buenor**

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

13. Samuel K. Kwofie, Seth O. Asiedu, Russell Koranteng, Emelia Quarshie, Elvis K. Tiburu, Whelton A. Miller, **Michael B. Adinortey**, Michael D. Wilson (2022). Computer-aided identification of potential inhibitors against Necator americanus glutathione S-transferase 3. *Informatics in Medicine Unlocked*. https://doi.org/10.1016/j.imu.2022.100957
14. Benoit Banga N'guessan, Jessica Sarpongmaa Twumasi-Ankrah, Seth Kwabena Amponsah, Ismaila Adams, Albert Kyei-Kankam Poakwah, Charles Brown, **Michael Buenor Adinortey**, Joseph Adusei Sarkodie, Ofosua Adi-Dako, Isaac Julius Asiedu-Gyekye, Regina Appiah-Opong (2022). Effect of Metaswitch® dietary supplement on anthropometric parameters, serum lipids, glucose level, oxidative stress and in vivo antioxidant properties in high fat diet-induced overweight Sprague Dawley rats. *Biomedicine & Pharmacotherapy*. https://doi.org/10.1016/j.biopha.2022.112892
15. Mustapha A. Ahmed, Elvis O. Ameyaw, Francis Ackah-Armah, Desmond O. Acheampong, Peter K. Gathumbi, **Michael B. Adinortey**, George Ghartey-Kwansah, Hope R. Otsyina, Christian K. Adokoh (2022). In Vitro and In Vivo Toxicological Evaluation of Avicennia africana P: Beauv. (Avicenniaceae) Leaf Extract in a Rat Model. *Journal of Toxicology*. https://doi.org/10.1155/2022/3434383
16. **Michael Buenor Adinortey**, Charles Ansah, Jerry Asiedu-Larbi, Samuel Kojo Kwofie, Ansumana Sandy Bockarie, Precious Barnes, Benjamin Aboagye, Gideon Kofi Helegbe, Daniel Boison, Alexander Kwadwo Nyarko (2022). In vivo inhibition of gastric acid secretions and H+/K+- ATPase activity, and enhancement of mucin activity by Dissotis rotundifolia plant extract. *Scientific African*. https://doi.org/10.1016/j.sciaf.2022.e01317
17. Isaac Tabiri Henneh, Wisdom Ahlidja, John Alake, Augustine Kwabil, Mustapha Abubakar Ahmed, Baffour Kyei-Asante, **Michael Buenor Adinortey**, Martins Ekor, Francis Ackah Armah (2022). Ziziphus abyssinica root bark extract ameliorates paracetamol-induced liver toxicity in rats possibly via the attenuation of oxidative stress. *Toxicology Reports*. https://doi.org/10.1016/j.toxrep.2022.10.012
18. **Michael Buenor Adinortey** (2021). Botanical treatments for snakebite in rural Ghana: A narrative review. *Journal of Ethnopharmacology*. https://doi.org/10.1016/j.jep.2021.114432
19. 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
20. Ibrahim Luru Abdulai, Samuel Kojo Kwofie, Winfred Seth Gbewonyo, Daniel Boison, Joshua Buer Puplampu, **Michael Buenor Adinortey** (2021). Multitargeted Effects of Vitexin and Isovitexin on Diabetes Mellitus and Its Complications. *The Scientific World JOURNAL*. https://doi.org/10.1155/2021/6641128
21. Samuel K. Kwofie, Nigel N. O. Dolling, Emmanuel Donkoh, Godwin M. Laryea, Lydia Mosi, Whelton A. Miller, **Michael B. Adinortey**, Michael D. Wilson (2021). Pharmacophore-Guided Identification of Natural Products as Potential Inhibitors of Mycobacterium ulcerans Cystathionine γ-Synthase MetB. *Computation*. https://doi.org/10.3390/computation9030032
22. **Michael Buenor Adinortey**, Charles Ansah, Benjamin Aboagye, Justice Kwabena Sarfo, Orleans Martey, Alexander Kwadwo Nyarko (2020). Flavonoid-Rich Extract of Dissotis rotundifolia Whole Plant Protects against Ethanol-Induced Gastric Mucosal Damage. *Biochemistry Research International*. https://doi.org/10.1155/2020/7656127
23. Precious Barnes, F. A. Yeboah, Jinling Zhu, Roland Osei Saahene, Christian Obirikorang, **Michael Buenor Adinortey**, Benjamin Amoani, Foster Kyei, Patrick Akakpo, Yaw Asante Awuku (2020). Prognostic Worth of Epidermal Growth Factor Receptor (EGFR) in Patients with Head and Neck Tumors. *Journal of Cancer Epidemiology*. https://doi.org/10.1155/2020/5615303
24. **Michael B. Adinortey** (2020). Rebamipide with Proton Pump Inhibitors (PPIs) versus PPIs Alone for the Treatment of Endoscopic Submucosal Dissection-Induced Ulcers: A Meta-analysis. *BioMed Research International*. https://doi.org/10.1155/2020/7196782

25. 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

26. 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

27. **MB Adinortey** (2019). Kaempferol and niazirin derivatives as potential inhibitors of Helicobacter pylori urease: an in silico approach. *31st Biennial Conference of Ghana Science Association*.

28. **Michael Buenor Adinortey**, Rosemary Agbeko, Daniel Boison, William Ekloh, Lydia Enyonam Kuatsienu, Emmanuel Ekow Biney, Obed O. Affum, Jeffery Kwarteng, Alexander Kwadwo Nyarko (2019). Phytomedicines Used for Diabetes Mellitus in Ghana: A Systematic Search and Review of Preclinical and Clinical Evidence. *Evidence-based Complementary and Alternative Medicine*. https://doi.org/10.1155/2019/6021209

29. 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

30. **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

31. **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

32. **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

33. **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

34. **MB Adinortey** (2017). Biochemicophysiological Mechanisms Underlying Signs and Symptoms Associated with Diabetes mellitus. *Advances in Biological Research*. https://ir.ucc.edu.gh/server/api/core/bitstreams/44d92c81-b00a-4f2b-993e-1076abaaee99/content

35. Lydia Enyonam Kuatsienu, Charles Ansah, **Michael Buenor Adinortey** (2017). Toxicological evaluation and protective effect of ethanolic leaf extract of Launaea taraxacifolia on gentamicin induced rat kidney injury. *Asian Pacific Journal of Tropical Biomedicine*. https://doi.org/10.1016/j.apjtb.2017.06.011

36. Charles Ansah, **Michael Buenor Adinortey**, Jerry Asiedu-Larbi, Benjamin Aboagye, Du-Bois Asante, Alexander Kwadwo Nyarko (2016). In vivo assessment of the toxic potential of Dissotis rotundifolia whole plant extract in Sprague–Dawley rats. *Asian Pacific Journal of Tropical Biomedicine*. https://doi.org/10.1016/j.apjtb.2016.04.010

37. Emmanuel Kwasi Abu, **MB Adinortey**, I. K. Amponsah (2014). Is there any Association between Serum Lipids and Diabetic Retinopathy in Type 2 Diabetic Patients in Ghana? *International Journal of TROPICAL DISEASE & Health*. https://doi.org/10.9734/ijtdh/2014/4183

38. **Michael Buenor Adinortey**, Charles Ansah, Isaac Galyuon, Alexander Nyarko (2013). In VivoModels Used for Evaluation of Potential Antigastroduodenal Ulcer Agents. *Ulcers*. https://doi.org/10.1155/2013/796405

39. W Ekloh, **Michael B Adinortey** (2013). Susceptibility of Culex quinquefasciatus populations to deltamethrin in the Sefwi area of the western region of Ghana. *Eur J Exp Biol*. https://scholar.google.com/scholar?cluster=9211158639292569273&hl=en&oi=scholarr

40. **MichaelBuenor Adinortey**, IsaacK Galyuon, NicholasOteng Asamoah (2013). Trema orientalis Linn. Blume: A potential for prospecting for drugs for various uses. *Pharmacognosy Reviews/Bioinformatics Trends/ Pharmacognosy review*. https://doi.org/10.4103/0973-7847.112852

41. **MB Adinortey**, JK Sarfo, GE Adukpo, MA Ahmed (2012). Acute and sub-acute oral toxicity assessment of hydro-alcoholic root extract of Paullinia pinnata on haematological and biochemical parameters. *Biology and medicine*. https://go.gale.com/ps/i.do?id=GALE%7CA357969045&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=09748369&p=AONE&sw=w

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

43. **Michael B. Adinortey**, Ben E. Gyan, Jonathan Adjimani, Philomena Nyarko, Charity Sarpong, Francis Y. Tsikata, Alexander K. Nyarko (2011). Dyslipidaemia Associated with Type 2 Diabetics with Micro and Macrovascular Complications among Ghanaians. *Indian Journal of Clinical Biochemistry*. https://doi.org/10.1007/s12291-010-0101-3

44. **MB Adinortey**, Isaac Galyuon (2011). G-6-PD deficiency-a potential risk factor for development of diabetes mellitus. *Journal of Medicine and Medical Sciences*. https://www.academia.edu/download/49247417/G-6-PD_deficiency_-a_potential_risk_fact20160930-31052-5rkuzs.pdf

45. A Weremfo, **MB Adinortey** (2011). Haemostatic effect of the stem juice of Musa paradisiaca L.(Musaceae) in Guinea pigs. *Advances in biological research*. https://scholar.google.com/scholar?cluster=16950826709315683931&hl=en&oi=scholarr

46. **Michael B. Adinortey**, Ben A. Gyan, Jonathan P. Adjimani, Philomena E. Nyarko, Charity Sarpong, Francis Y. Tsikata, Alexander K. Nyarko (2011). Haptoglobin Polymorphism and Association with Complications in Ghanaian Type 2 Diabetic Patients. *Indian Journal of Clinical Biochemistry*. https://doi.org/10.1007/s12291-011-0141-3

47. 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

48. **MB Adinortey** (2011). The significance of Glucose-6-Phosphate Dehydrogenase Deficiency in plasmodium falciparium Malaria: A case study of patients visiting the Central regional hospital, Cape Coast …. *World Journal of Medical Sciences*. https://scholar.google.com/scholar?cluster=13454641107533586650&hl=en&oi=scholarr

49. Alexander Weremfo, Alexander Nii Moi Pappoe, **Michael Buenor Adinortey** (2011). Wound Healing Potential of Musa paradisiaca L. (Musaceae) Stem Juice Extract Formulated into an Ointment. *Research Journal of Topical and Cosmetic Sciences*.

Book chapters 2

1. **Michael Buenor Adinortey**, Benoit Banga N'guessan (2022). H+/K+-ATPase Inhibitors from Plants: A Potential Source for Drug Discovery. *Natural Products as Enzyme Inhibitors*. https://doi.org/10.1007/978-981-19-0932-0_5

2. SK Kwofie, **Michael B Adinortey** (2021). Molecular informatics of trypanothione reductase of leishmania major reveals novel chromen-2-one analogues as potential leishmanicides. *Leishmaniasis-General Aspects of a Stigmatized Disease*. https://www.intechopen.com/chapters/79718

Conference papers 2

1. **MB Adinortey** (2019). An in vitro assessment of the inhibitory effects of root extract of anthocleista nobilis on α-glucosidase isolated from guinea pig intestine. *31 st Biennial conference of Ghana Science Association*.

2. **MB Adinortey** (2018). Inhibition of gastric H+/K+-ATPase and Helicobacter pylori growth, and enhancement of mucin activity by a flavonoid-rich fraction of Dissotis rotundifolia plant. *WACCBIP*

Research Conference.

Reports 1

1. Daniel Boison, **Michael Buenor Adinortey** (2019). A Systematic Review of Evidence-Based Data in support of Its Medicinal Relevance. *University of Cape Coast*. https://ir.ucc.edu.gh/items/8119920e-75dc-431e-bd2b-b402bee2b26a

Theses 1

1. **MB Adinortey** (2015). Pharmacological and toxicological evaluation in rats of Dissotis rotundifolia: A medicinal plant traditionally used in Ghana for the management of peptic ulcer. *PhD Dissertation, Kwama Nkrumah University of Science and Technology, Kumasi, Ghana*. https://scholar.google.com/scholar?cluster=16649157074501340128&hl=en&oi=scholarr