Prince Amoah Barnie

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PROFILE

Biomedical Researcher

RESEARCH

Interests	Microbiology and Immunology
Areas	Immunology · Infectious Diseases · Molecular Biology · Cancer Research · Oncology · Public Health, Environmental and Occupational Health

RESEARCH SUMMARY

54	843	18	21	1.26	9%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 54 publications listed below, 2012–2026. Field-weighted impact is the mean over the 32 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 32 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

University of Cape Coast
Cape Coast, Ghana

PUBLICATIONS

Journal articles 48

1. Foster Kyei, Clement Napo, Collins Nabawo, Emmanuel Opoku Asante, Benjamin Nyarko, Isaac Kofi Adu, Cara Obenewaa Aidoo, Victoria Essien, **Prince Amoah Barnie**, Emmanuel Owusu Ansah, Kwadwo Fosu (2026). Advancing assisted reproductive technology in Africa: a narrative review on the promising role of molecular biology and molecular techniques. *Reproductive Health*. https://doi.org/10.1186/s12978-026-02410-0
2. **Prince Amoah Barnie**, Karen Pomeyie, Benjamin Amoani, Foster Kyei, Abdala Ussif Mumuni, Justice Afrifa, Samuel Essien-Baidoo, Daniel Boison (2026). CD4+T cell metabolic reprogramming as therapeutic targets in neurodegenerative diseases. *Molecular Brain*. https://doi.org/10.1186/s13041-026-01282-6
3. **Prince Amoah Barnie**, K Pomeyie (2026). Emerging and Re-Emerging Viral. *Viral Infectious Diseases Annual Volume 2025*. https://books.google.com/books?hl=en&lr=&id=8GrCEQAAQBAJ&oi=fnd&pg=PA137&dq=info:39wpVbbsoP4J:scholar.google.com&ots=DMupxt1Hzo&sig=2WG8iodFLMcQOIc4hDix5A30CUs
4. Richmond Kwakye, David Courtin, Samuel Asamoah Sakyi, Faustina Pappoe, Gideon Kwesi Nakotey, Naa Adjeley Frempong, **Prince Amoah Barnie**, Benjamin Amoani (2026). Evaluation of HLA-G and Hematobiochemical levels and their association with malaria and miscarriage among pregnant women: A Ghanaian case-control study. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0355847
5. Gideon Agyare, David Courtin, Samuel Asamoah Sakyi, Gideon Kwesi Nakotey, Naa Adjeley Frempong, **Prince Amoah Barnie**, Samuel Kofi Tchum, Samuel Victor Nuvor, Benjamin Amoani (2026). Malaria-diabetes comorbidity is linked to higher parasitaemia and enhanced IgG response to malaria vaccine

candidate antigens. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0341659

6. Daniel Awuah, Alphonse Hounkpe, Jesse Anane-Asamoah, William Kanmwaa Dakubo, Isaac Kofi Adu, **Prince Amoah Barnie**, Emmanuel Owusu Ansah, Kwadwo Fosu, Cara Obenewaa Aidoo, Victoria Essien, Yakubu Adam, Ernest Ninson, Richard Quansah, Foster Kyei (2026). The use of artificial intelligence in advancing molecular biology in Africa: a narrative review. *Molecular Genetics and Genomics*. https://doi.org/10.1007/s00438-026-02492-2

7. Nicholas Ekow Thomford, Tracy Kellermann, Joel Adu Twum, John Anyimadu, Charné Dixon, Dennis Sappor, Dee Blackhurst, **Prince Amoah Barnie**, Oksana Ryabinina, Samuel Badu Nyarko, Robert Peter Biney, Martins Ekor, George B. Kyei (2025). Drug-drug interaction between dolutegravir and artemether-lumefantrine in HIV and malaria mono- and co-infections: a pharmacogenetic analysis from Ghana. *AIDS Research and Therapy*. https://doi.org/10.1186/s12981-025-00787-9

8. Helena Quayson, Joseph Humphrey Kofi Bonney, Daniel Sam, Gloria Francisca Nuer-Allornuvor, Roland Osei Saahene, Nicholas Ekow Thomford, Benjamin Amoani, Francis Abrokwah, Karen Pomeyie, Musah Kalaamullah Salisu, **Prince Amoah Barnie** (2025). Expression patterns of plasma microRNAs in patients with cervical cancer from two teaching hospitals in Ghana. *Journal of Cancer Research and Clinical Oncology*. https://doi.org/10.1007/s00432-025-06281-z

9. Karen Pomeyie, Joseph Humphrey Kofi Bonney, Benjamin Amoani, Roland Osei Saahene, Nicholas Ekow Thomford, Wishwell Pomeyie, Francis Abrokwah, Helena Quayson, Salisu Kalaamullah Musah, Selina Appiah, Deborah Pratt, Magdalene Sarah Ofori, Alexander Owusu-Ansah, **Prince Amoah Barnie** (2025). HIV-1 diagnostic, prognostic and ART-resistance detection potential of selected MiRNAs. *BMC Infectious Diseases*. https://doi.org/10.1186/s12879-025-11135-7

10. 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

11. 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

12. 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

13. 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

14. **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

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

16. Yatik Konlaan, Samuel Asamoah Sakyi, Kwame Kumi Asare, **Prince Amoah Barnie**, Stephen Opoku, Gideon Kwesi Nakotey, Samuel Victor Nuvor, Benjamin Amoani (2022). Evaluating immunohaematological profile among COVID-19 active infection and recovered patients in Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0273969

17. Daniel Boison, Samuel Addo Akwetey, Silas Acheampong Osei, Samuel Kelechi, **Prince Amoah Barnie** (2022). Nasal colonization of methicillin-resistant Staphylococcus aureus in HIV-infected patients at the Cape Coast Teaching Hospital, Ghana. *Frontiers in Tropical Diseases*. https://doi.org/10.3389/fitd.2022.976567

18. B Amoani, SA Sakyi, **PA Barnie**, K Pomeyie (2021). Effect of ART on cytokine profile amongst HIV

patients: a systematic review and meta-analysis. *Focus Med Sci J*. https://www.researchgate.net/profile/Benjamin-Amoani/publication/358266364_Effect_of_ART_on_Cytokine_Profile_amongst_HIV_Patients_A_Systematic_Review_and_Meta-Analysis/links/61f959ddaad5781d41c4da01/Effect-of-ART-on-Cytokine-Profile-amongst-HIV-Patients-A-Systematic-Review-and-Meta-Analysis.pdf

19. Meiyun Wang, Zhaoliang Su, **Prince Amoah Barnie** (2020). Crosstalk among colon cancer-derived exosomes, fibroblast-derived exosomes, and macrophage phenotypes in colon cancer metastasis. *International Immunopharmacology*. https://doi.org/10.1016/j.intimp.2020.106298
20. **Prince Amoah Barnie** (2020). Fibroblast transdifferentiation promotes conversion of M1 macrophages and replenishment of cardiac resident macrophages following cardiac injury in mice. *European journal of immunology*. https://doi.org/10.1002/eji.201948414
21. **Prince Amoah Barnie** (2019). Dual faced HMGB1 plays multiple roles in cardiomyocyte senescence and cardiac inflammatory injury. *Cytokine & growth factor reviews*. https://www.sciencedirect.com/science/article/pii/S1359610119300231
22. Elvis Quansah, **Prince Amoah Barnie**, Desmond Omane Acheampong, Dorcas Obiri-Yeboah, Richael Odarkor Mills, Ebenezer Asmah, Obed Cudjoe, Isaac Dadzie (2019). Geographical Distribution of β-Lactam Resistance among Klebsiella spp. from Selected Health Facilities in Ghana. *Tropical Medicine and Infectious Disease*. https://doi.org/10.3390/tropicalmed4030117
23. **Barnie, Prince Amoah** (2019). HMGB1 as A Therapeutic Target in Autoimmune Diseases: The Journey So Far. *Canadian Journal of Applied Science and Technology - Canadian Journal of Applied Science and Technology*.
24. **Edem Martin Demanya. Prince Amoah Barnie** (2019). Knowledge, Attitude and Adherence to Biosafety Practices among Clinicians of Tertiary Hospitals in Ghana. *EUROPEAN JOURNAL OF CONTEMPORARY RESEARCH*.
25. **Prince Amoah Barnie**, Samuel Addo Akwetey, Murjana Hussein Swallah, Desmond Omane Acheampong, Godwin Kwakye-Nuako (2019). OCCURRENCE AND DISTRIBUTION OF BACTERIAL UROPATHOGENS AMONG ANTIRETROVIRAL THERAPY USERS AND NON-USERS, CAPE COAST TEACHING HOSPITAL. *Canadian Journal of Applied Science and Technology - Canadian Journal of Applied Science and Technology*.
26. **P Amoah Barnie**, D Omane Acheampong (2019). Odarkor Mills, R. *Asmah, E*. https://scholar.google.com/scholar?cluster=9730309703568908974&hl=en&oi=scholarr
27. **P Amoah Barnie**, D Omane Acheampong (2019). Odarkor Mills, R.; Asmah, E.; Cudjoe, O.; Dadzie, I. Geographical Distribution of β-Lactam Resistance among Klebsiella spp. from Selected Health Facilities in Ghana. *Trop. Med. Infect. Dis*. https://scholar.google.com/scholar?cluster=8141331073410430114&hl=en&oi=scholarr
28. Hongxia Wu, Zhaoliang Su, **Prince Amoah Barnie** (2019). The role of B regulatory (B10) cells in inflammatory disorders and their potential as therapeutic targets. *International Immunopharmacology*. https://doi.org/10.1016/j.intimp.2019.106111
29. Desmond Acheampong, Richard Opoku, Alex Boye, Daniel Agyirifo, Isaac Dadzie, **Prince Barnie**, Godwin Kwakye-Nuako, Francis Nyandzi (2018). Diagnosis and Treatment Outcome of Smear Positive Pulmonary Tuberculosis: Retrospective study in Kpando Municipal, Ghana. *Journal of Advances in Medicine and Medical Research*. https://doi.org/10.9734/jammr/2018/40156
30. Dapeng Li, Jiawei Yue, Yan Wu, **Prince Amoah Barnie**, Yumin Wu (2018). HtrA1 up-regulates expression of MMPs via Erk1/2/Rock-dependent pathways. *PubMed*.
31. Yumin Wu, Jiawei Yue, Juncheng Wu, Wei Zhou, Dapeng Li, Kai Ding, **Prince Amoah Barnie**, Xu Xu, Huaxi Xu, Weifeng Shi (2018). Obesity May Provide Pro-ILC3 Development Inflammatory Environment in Asthmatic Children. *Journal of Immunology Research*. https://doi.org/10.1155/2018/1628620
32. **Prince Amoah Barnie** (2017). Enhanced circulating ILC2s and MDSCs may contribute to ensure maintenance of Th2 predominant in patients with lung cancer. *Molecular Medicine Reports*. https://doi.org/10.3892/mmr.2017.6537
33. Qingli Bie, Bin Zhang, Caixia Sun, Xiaoyun Ji, **Prince Amoah Barnie**, Chen Qi, Jingjing Peng, Danyi Zhang, Dong Zheng, Zhaoliang Su, Shengjun Wang, Huaxi Xu (2017). IL-17B activated mesenchymal stem cells

enhance proliferation and migration of gastric cancer cells. *Oncotarget*. https://doi.org/10.18632/oncotarget.14835

34. Desmond O. Acheampong, Christian K. Adokoh, Du-Bois Asante, Ernest A. Asiamah, **Prince A. Barnie**, Dan O.M. Bonsu, Foster Kyei (2017). Immunotherapy for acute myeloid leukemia (AML): a potent alternative therapy. *Biomedicine & Pharmacotherapy*. https://doi.org/10.1016/j.biopha.2017.10.100
35. **Prince Amoah Barnie** (2016). Decreased Rac1 expression leads to upregulation of ILC2-related cytokines and aggravation of airway inflammation in allergic asthma mice. *Int. J. Clin. Exp. Pathol*. https://www.academia.edu/download/82697364/ijcep0025949.pdf
36. **Prince Amoah Barnie**, Pan Zhang, Hongxiang Lv, Dan Wang, Xiaolian Su, Zhaoliang Su, Huaxi Xu (2016). Myeloid-derived suppressor cells and myeloid regulatory cells in cancer and autoimmune disorders. *Experimental and Therapeutic Medicine*. https://doi.org/10.3892/etm.2016.4018
37. **Prince Amoah Barnie** (2015). Characterization and distribution of drug resistance associated β-lactamase, membrane porin and efflux pump genes in MDR A. baumannii isolated from Zhenjiang, China. *International journal of clinical and experimental medicine*. https://pmc.ncbi.nlm.nih.gov/articles/PMC4658917/
38. **Prince A Barnie**, Xin Lin, Yueqin Liu, Huaxi Xu, Zhaoliang Su (2015). IL-17 producing innate lymphoid cells 3 (ILC3) but not Th17 cells might be the potential danger factor for preeclampsia and other pregnancy associated diseases. *PubMed*.
39. **B. Prince Amoah**, H. Yang, P. Zhang, Z. Su, H. Xu (2015). Immunopathogenesis of Myocarditis: The Interplay Between Cardiac Fibroblast Cells, Dendritic Cells, Macrophages and CD 4+T Cells. *Scandinavian Journal of Immunology*. https://doi.org/10.1111/sji.12298
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41. **PA Barnie** (2014). Development of efflux pumps and inhibitors (EPIs) in A. baumanii. *Clinical Microbiology*. https://ir.ucc.edu.gh/server/api/core/bitstreams/031d501e-99c3-466a-8d1e-84889dca8643/content
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43. **P Amoah Barnie** (2014). Exogenous High-Mobility Group Box 1 Inhibits Apoptosis and Promotes the Proliferation of Lewis Cells via RAGE/TLR 4-Dependent Signal Pathways. *Scandinavian journal of immunology*. https://doi.org/10.1111/sji.12174
44. **Prince Amoah Barnie** (2014). Infiltration of alternatively activated macrophages in cancer tissue is associated with MDSC and Th2 polarization in patients with esophageal cancer. *PloS one*. https://doi.org/10.1371/journal.pone.0104453
45. **Prince Amoatt Barnie** (2014). Local delivery of T-bet shRNA reduces inflammation in collagen II-induced arthritis via downregulation of IFN-γ and IL-17. *Molecular medicine reports*. https://doi.org/10.3892/mmr.2014.1893
46. **Prince Amoah Barnie** (2014). The expression of Toll-like receptor 8 and its relationship with VEGF and Bcl-2 in cervical cancer. *International journal of medical sciences*. https://pmc.ncbi.nlm.nih.gov/articles/PMC4003546/
47. **Prince Amoah Barnie** (2014). The interplay between Cardiac Fibroblast, Dendritic cells and CD4 T Cells in the Pathogenesis of Experimental Autoimmune Myocarditis. *第九届全国免疫学学术大会论文集*. https://scholar.google.com/scholar?cluster=15174391566378406589&hl=en&oi=scholarr
48. **P. Amoah Barnie**, R. Harry Asmah, S. Damanka, T. Adiku (2012). Possible reassortment of rotaviruses in communities where humans and domestic animals live closely together in Accra, Ghana. *International Journal of Infectious Diseases*. https://doi.org/10.1016/j.ijid.2012.05.166

Book chapters 5

1. **Prince Amoah Barnie**, Evans Tumawu, Festus Agbatey, Godwin Amponsah Asiamah, William Gyamesi, Karen Pomeyie, Helena Quayson (2026). Emerging and Re-Emerging Viral Infections: Trends in Africa. *Infectious diseases*. https://doi.org/10.5772/intechopen.1014144
2. **Prince Amoah Barnie**, Daniel Boison, Benjamin Amoani, Su Zhaoliang (2025). Biomarkers in Colon Cancer Metastasis. *Handbook of Cancer and Immunology*. https://doi.org/10.1007/978-3-032-00763-6_151
3. **Prince Amoah Barnie**, Daniel Boison, Benjamin Amoani, Su Zhaoliang (2023). Biomarkers in Colon Cancer Metastasis. *Handbook of Cancer and Immunology*. https://doi.org/10.1007/978-3-030-80962-1_151-1
4. **Prince Amoah Barnie**, Justice Afrifa, Eric Ofori Gyamerah, Benjamin Amoani (2022). Extracellular Vesicles as Biomarkers and Therapeutic Targets in Cancers. *Physiology*. https://doi.org/10.5772/intechopen.101783
5. **Prince Amoah Barnie**, Xia Lin, Su Zhaoliang (2022). Innate lymphoid cells as therapeutic targets in autoimmune diseases. *Elsevier eBooks*. https://doi.org/10.1016/b978-0-12-824390-9.00020-7

Theses 1

1. **Prince Amoah Barnie** (2015). HMGB1 参与 EAM 心肌纤维化的机制及对固有免疫细胞功能的影响. *江苏大学*. https://scholar.google.com/scholar?cluster=16294886865530528488&hl=en&oi=scholarr