Justice Afrifa

Senior Lecturer · Medical Laboratory Science
University of Cape Coast

ORCID 0000-0003-3399-2969 · Google Scholar scholar.google.com/citations?user=6EDMHGAAAAAJ&hl=en · Profile scholar.ucc.edu.gh/staff/89dc293a-70fb-49eb-b5b8-2a6818ecd084

RESEARCH

Interests	Cancer diagnostics · mitochondria genetics · oxidative stress · toxicology
Areas	Molecular Biology · Endocrinology, Diabetes and Metabolism · Epidemiology · Health, Toxicology and Mutagenesis · Public Health, Environmental and Occupational Health · Infectious Diseases

RESEARCH SUMMARY

52	543	14	16	1.14	7%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 52 publications listed below, 2014–2026. Field-weighted impact is the mean over the 42 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 42 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer 2015–present
Medical Laboratory Technology, University of Cape Coast, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

PHD 2017–2020
Harbin Medical University, Harbin, China

Mphil 2010–2012
Molecular medicine, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

University of Cape Coast 2005–2009
Cape Coast, Ghana

PUBLICATIONS

Journal articles 51

1. Ibrahim Anyass Goumboundi, Samuel Aidoo Bervell Fosu, Nathaniel Laryea Ayerkain, Dion Siame, Blessing Owusu Gyamfi, Richard K. D. Ephraim, **Justice Afrifa** (2026). A systematic review of antioxidant defense mechanisms in bacteria species. *Discover Bacteria.*. https://doi.org/10.1007/s44351-026-00048-8
2. Ibrahim Anyass Goumboundi, **Justice Afrifa**, Richard K. D. Ephraim (2026). Association Between Monocyte-to-High-Density Lipoprotein Ratio and Diabetic Nephropathy: A Systematic Review and Meta-Analysis. *BioMed Research International*. https://doi.org/10.1155/bmri/1097476
3. 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
4. **Justice Afrifa** (2026). Circulating cell-free mitochondrial DNA as a redox-associated marker of mitochondrial homeostasis disruption during gastric carcinogenesis. *Free Radical Biology and Medicine*. https://www.sciencedirect.com/science/article/pii/S0891584926010488

5. Samuel Kwabena Ofosu, Ibrahim Anyass Goumboundi, Moses Tetteh Larnyoh, **Justice Afrifa**, Best Ordinioha, Richard K.D Ephraim (2026). Lifestyle, Demographic and Clinical Correlates of Type 2 Diabetes Mellitus Among Urban and Rural Adults: A Community-Based Cross-Sectional Study. *INQUIRY The Journal of Health Care Organization Provision and Financing*. https://doi.org/10.1177/00469580261471927

6. **Justice Afrifa**, Eric Gyamerah Ofori, Evans Duah, Ibrahim W. Naveh-fio, Gabriel Pezahso Kotam, Yeboah Kwaku Opoku, Addae Boateng Adu-Gyamfi, Helena Acquah, Enoch Essiam, Samuel Essien-Baidoo, Kwame Kumi Asare, Richard K. D. Ephraim (2026). Oxidative Stress in Heat Stress Nephropathy: Crosstalk. *Oxidative Medicine and Cellular Longevity*. https://doi.org/10.1155/omcl/1708417

7. George Nkrumah Osei, Linus Kpelle, Foster Appiah, Kabutey Nartey, Albertha Maku Adu, David Larbi Simpong, **Justice Afrifa** (2026). Peripheral oxidative stress related biomarkers in Alzheimer's disease: A systematic review of their implications for diagnosis and disease monitoring. *Alzheimer s & Dementia Diagnosis Assessment & Disease Monitoring*. https://doi.org/10.1002/dad2.70354

8. Nathaniel Laryea Ayerkain, Dion Siame, Aaron Arthur-Moses, Emmanuella Adu-Ansere Manu, Ibrahim Anyass Goumboundi, **Justice Afrifa**, Richard K.D. Ephraim (2026). Predictors of neonatal hypoglycemia: a systematic review and meta analysis. *BMC Pediatrics*. https://doi.org/10.1186/s12887-026-07527-6

9. **Justice Afrifa**, Kennedy Asum, Samuel Aidoo Bervell Fosu, Blessing Owusu Gyamfi, Nathaniel Laryea Ayerkain, Michael Gyamfi Oti, Stephanie Taylor, Perditer Okyere, Ibrahim Anyass Goumboundi, Richard K. D. Ephraim (2026). Prevalence and Causes of Acute Kidney Injury and Chronic Kidney Disease in Ghana: A Systematic Review and Meta-Analysis. *Journal of Epidemiology and Global Health*. https://doi.org/10.1007/s44197-026-00531-0

10. **Justice Afrifa**, Godfred Appiah Kubi, Richard Armah, Eric Ofori Gyamerah, Sandra Ofori, Ibrahim Neveh-Fio, Gabriel Pezahso Kotam, Enoch Essiam, Helena Acquah, Ibrahim Anyass Goumboundi, Samuel Essien-Baidoo, Richard Kobina Dadzie Ephraim (2026). Reduced Pseudocholinesterase Levels Are Associated With Alterations in Lipid Biomarkers and Liver Enzymes Among Ghanaian Male Cocoa Farmers Using Organophosphate Pesticides. *The Scientific World JOURNAL*. https://doi.org/10.1155/tswj/5926091

11. Ibrahim Anyass Goumboundi, Stephanie Taylor, Nathaniel Laryea Ayerkain, Kennedy Asum, Michael Gyamfi Oti, **Justice Afrifa**, Richard K. D. Ephraim (2026). Snake envenomation and acute kidney injury: a systematic review and meta-analysis. *BMC Nephrology*. https://doi.org/10.1186/s12882-026-04823-2

12. Jonas Afful, Kirsten Nana Ama Anyomi, Emmanuel Duku, Ray Opoku Amaniampong, Daniel Damoah, Apenyine Okai Mary, Philemon Akwah, Joseph Cobbinah, Millicent Asare, Safuratu Zigani, Further Joy Hills, Gabriel Pezahso Kotam, Ibrahim Anyass Goumboundi, Tetteh Attoh, Asantewaa Agyen, Felix A. Botchway, **Justice Afrifa**, Richard K. D. Ephraim (2026). Socio-demographic and clinical determinants of dyslipidaemia in hypertensive patients at the Effia Nkwanta Hospital; a cross-sectional study. *Scientific Reports*. https://doi.org/10.1038/s41598-026-55619-1

13. Ibrahim Anyass Goumboundi, **Justice Afrifa**, P Okyere, Dion Siame, Yaa Boahemaa Gyasi Aderoju, Richard KD Ephraim (2026). Spectrum of Kidney Involvement in Sickle Cell Disease: A Systematic Review and Meta-Analysis. *International Journal of Clinical Practice*. https://doi.org/10.1155/ijcp/5170253

14. **Justice Afrifa**, Eric Gyamerah Ofori, Yeboah Kwaku Opoku, Kwame Kumi Asare, Rosemary Doe Sorkpor, Ibrahim W. Naveh-Fio, Richard Armah, Sandra Ofori, Richard K. D. Ephraim (2024). Oxidative Stress and Cancer Risk in Schistosomiasis. *Oxidative Medicine and Cellular Longevity*. https://doi.org/10.1155/omcl/9701021

15. Paul Ekow Duntu, **Justice Afrifa**, Yeboah Kwaku Opoku, Kwame Kumi Asare (2023). Plasmodium Falciparum Rifins: Role in malaria pathogenesis. *Integrated Health Research Journal*. https://doi.org/10.47963/ihrj.v1i2.1375

16. Mainprice Akuoko Essuman, Nii Armah Addy, Samuel Essien-Baidoo, Irene Esi Donkoh, Felix A. Botchway, **Justice Afrifa**, Prince Agyeman, Leticia Awontayami Amaama, Samuel Amoah, Felix B. K. Sorvor, Richard K. D. Ephraim (2023). Self-reported continuing professional development needs of medical laboratory professionals in Ghana. *Human Resources for Health*. https://doi.org/10.1186/s12960-023-00859-9

17. P Okyere, P Adoba, **J Afrifa**, Richard KD Ephraim (2023). The dilemma of chronic kidney disease of unknown origin. *Integrated Health Research Journal*. https://journal.ucc.edu.gh/index.php/ihrj/article/view/1374

18. Samuel Essien-Baidoo, Mainprice Akuoko Essuman, Joseph Tee, Richard K. D. Ephraim, Loretta Betty Blay Mensah, Seth Boakye Amponsah, **Justice Afrifa** (2023). Toward schistosomiasis control: Assessment of infection-associated voiding symptoms, quality of life and the impact of exercise coupled with water intake on egg recovery in an endemic community in Ghana. *PLOS Global Public Health*. https://doi.org/10.1371/journal.pgph.0002514

19. Shadrack O Sowah, Leticia A. Amaama, Perditer Okyere, Prince Adoba, **Justice Afrifa**, Irene Donkor, Samuel Ametepe, Richard KD Ephraim (2023). dilemma of chronic kidney disease of unknown origin. *Integrated Health Research Journal*. https://doi.org/10.47963/ihrj.v1i2.1374

20. Richard K. D. Ephraim, Frederick Ahordzor, Kwame Kumi Asare, Evans Duah, Ibrahim W. Naveh-Fio, Grace Essuman, **Justice Afrifa** (2022). Abnormal Obesity Phenotype Is Associated with Reduced eGFR among Diabetes Mellitus and Hypertensive Patients in a Peri-Urban Community in Ghana. *International Journal of Nephrology*. https://doi.org/10.1155/2022/2739772

21. Kwame Kumi Asare, Samuel Amoah, Cornelius Agyeman Coomson, Cecil Banson, Derrick Yaro, Jennifer Mbata, Rudolf Aaron Arthur, Peter Bilatam Mayeem, **Justice Afrifa**, Felicity Bentsi-Enchill, Yeboah Kwaku Opoku (2022). Antibiotic-resistant pathogenic bacterial isolates from patients attending the outpatient department of university of Cape Coast hospital, Ghana: A retrospective study between 2013–2015. *PLOS Global Public Health*. https://doi.org/10.1371/journal.pgph.0000417

22. Juliana Attoh, Enoch Aninagyei, Godwin Kwakye-Nuako, Mavis Dakorah Puopelle, Isaac Tukwarlba, **Justice Afrifa**, Desmond Omane Acheampong (2022). Immunochromatographic and microscopic detection of Plasmodium falciparum in recipients of P. falciparum-infected donor blood. *Parasitology Research*. https://doi.org/10.1007/s00436-022-07476-w

23. Yeboah Kwaku Opoku, Kwame Kumi Asare, George Ghartey-Quansah, **Justice Afrifa**, Felicity Bentsi-Enchill, Eric Gyamerah Ofori, Charles Kwesi Koomson, Rosemary Kumi-Manu (2022). Intestinal microbiome–rheumatoid arthritis crosstalk: The therapeutic role of probiotics. *Frontiers in Microbiology*. https://doi.org/10.3389/fmicb.2022.996031

24. **Justice Afrifa** (2022). Prevalence of Hepatitis B, C and HIV infections among haemodialysis patients at the Cape Coast Teaching Hospital, Ghana; A retrospective study. *Annals of Medical Laboratory Science*. https://doi.org/10.51374/annalsmls.2022.2.1.0057

25. **Justice Afrifa** (2022). The promoter methylation drives down-regulation mode of HIC1 in gastric cancer, its molecular characteristics and downstream functional pathways. *Gene*. https://www.sciencedirect.com/science/article/pii/S0378111922001998

26. Guangyu Wang, Sutong Yin, **Justice Afrifa**, Guihong Rong, Shaofeng Jiang, Haonan Guo, Xianliang Hou (2021). Effect of UBR5 on the tumor microenvironment and its related mechanisms in cancer*. *Oncology and Translational Medicine*. https://doi.org/10.1007/s10330-021-0515-5

27. Richard Kobina Dadzie Ephraim, Evans Duah, Charles Nkansah, Samuel Amoah, Emmanuel Fosu, **Justice Afrifa**, Felix Botchway, Perditer Okyere, Samuel Essien-Baidoo, Kofi Mensah, Dorcas Serwaa, Samuel Asamoah Sakyi, Prince Adoba, Linda Ahenkorah Fondjo, Jerry Paul Ninnoni, Yaa Boahemaa Gyasi Aderoju (2021). Psychological impact of COVID-19 on diabetes mellitus patients in Cape Coast, Ghana: a cross-sectional study. *PubMed*. https://doi.org/10.11604/pamj.2021.40.76.26834

28. **Justice Afrifa**, Justice Africa, Jennifer Mbata, Yeboah Kwaku Opoku (2021). The emergence of chloroquine-sensitive Plasmodium falciparum is influenced by selected communities in some parts of the Central Region of Ghana. *Malaria Journal*. https://doi.org/10.1186/s12936-021-03985-8

29. Zhao, Tie, **Afrifa, Justice**, Wang, Dong, Yu, Jingcui (2020). Association between HIC1 promoter methylation and solid tumor: A meta-analysis. *PubMed*. https://doi.org/10.17179/excli2020-1102

30. **Justice Afrifa** (2020). Competitive endogenous network of lncRNA, miRNA, and mRNA in the chemoresistance of gastrointestinal tract adenocarcinomas. *Biomedicine & Pharmacotherapy*. https://www.sciencedirect.com/science/article/pii/S0753332220307630

31. Opoku, Yeboah Kwaku, Liu, Zhihang, **Afrifa, Justice**, Kumi, Asare Kwame, Liu, Han, Ghartey-Kwansah, George, Koranteng, Harriet, Jiang, Xinghao, Ren, Guiping, Li, Deshan (2020). Fibroblast growth factor–21 ameliorates hepatic encephalopathy by activating the STAT3-SOCS3 pathway to inhibit activated hepatic stellate cells. *PubMed*. https://doi.org/10.17179/excli2020-1287

32. YK Opoku, **Justice Afrifa** (2020). Fibroblast growth factor–21 ameliorates rheumatoid arthritis by maintaining articular integrity. *International Journal of Peptide Research and Therapeutics*. https://doi.org/10.1007/s10989-019-09872-w

33. YK Opoku, **Justice Afrifa** (2020). Therapeutic role of fibroblast growth factor 21 (FGF21) in the amelioration of chronic diseases. *International Journal of Peptide Research and Therapeutics*. https://doi.org/10.1007/s10989-019-09820-8

34. Samuel Essien-Baidoo, Dorcas Obiri-Yeboah, Yeboah Kwaku Opoku, Elvis Ayamga, Kevin Hodi Zie, Daniel Attoh, Evans Obboh, Anna Hayfron Benjamin, **Justice Afrifa** (2019). ART Regimen and Other Sociodemographics Do Not Affect Cytokine Expression in HIV Patients in Ghana. *Canadian Journal of Infectious Diseases and Medical Microbiology*. https://doi.org/10.1155/2019/2730370

35. **Justice Afrifa**, Felix A. Botchway, Yeboah Kwaku Opoku, Joyce Badohu, Henrietta Ekua Ocran, Kwame Kumi Asare, Samuel Essien-Baidoo (2019). Assessment of cardiovascular risk in post-menopausal women in Ghana. *F1000Research*. https://doi.org/10.12688/f1000research.19447.1

36. Kwame Kumi Asare, Yeboah Kwaku Opoku, Alberta Serwah Anning, **Justice Afrifa**, Eric Ofori Gyamerah (2019). Case Report: A case of dipylidiasis in a first-trimester pregnant woman attending a routine antenatal clinic at Elmina health centre, Ghana. *F1000Research*. https://doi.org/10.12688/f1000research.19081.1

37. **Justice Afrifa** (2019). Circulating mitochondria DNA, a non-invasive cancer diagnostic biomarker candidate. *Mitochondrion*. https://www.sciencedirect.com/science/article/pii/S1567724918301235

38. **Justice Afrifa** (2019). Decreased expression levels of DAL-1 and TOB1 are associated with clinicopathological features and poor prognosis in gastric cancer. *Pathology-Research and Practice*. https://www.sciencedirect.com/science/article/pii/S0344033818315747

39. Eben Godsway Dzodanu, **Justice Afrifa**, Desmond Omane Acheampong, Isaac Dadzie (2019). Diagnostic Yield of Fluorescence and Ziehl-Neelsen Staining Techniques in the Diagnosis of Pulmonary Tuberculosis: A Comparative Study in a District Health Facility. *Tuberculosis Research and Treatment*. https://doi.org/10.1155/2019/4091937

40. Emmanuel K. Dadzie, Richard K.D. Ephraim, **Justice Afrifa**, Richard Quaicoe, Benjamin S. Bediako, Benedict I. Duku, Townshed Adjetey, Isaac Dadzie (2019). Persistent exposure to wood smoke is associated with variations in biochemical and hematological indices among regular wood burners in the Cape Coast metropolis, Ghana. *Scientific African*. https://doi.org/10.1016/j.sciaf.2019.e00100

41. **Justice Afrifa**, Yeboah Kwaku Opoku, Eric Ofori Gyamerah, George Ashiagbor, Rosemary Doe Sorkpor (2019). The Clinical Importance of the Mercury Problem in Artisanal Small-Scale Gold Mining. *Frontiers in Public Health*. https://doi.org/10.3389/fpubh.2019.00131

42. Richard KD Ephraim, SA Sakyi, LA Fondjo, **J Afrifa** (2018). Determinants of isolated systolic hypertension among HIV/AIDS on highly active antiretroviral therapy: a cross sectional study in the GA South metropolis. *Annals of Medical and Health Sciences Research| Volume*. https://ir.ucc.edu.gh/server/api/core/bitstreams/7737c40c-9542-4029-af7b-43db762bf417/content

43. 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

44. Essien-Baidoo Samuel, Ansah Agyei Benjamin, Hayfron Benjamin Anna, Betty Blay Mensah Loretta, **Afrifa Justice** (2018). Nosocomial infections are still a major concern in peri-urban polyclinics in Ghana. *African Journal of Microbiology Research*. https://doi.org/10.5897/ajmr2017.8773

45. **Justice Afrifa**, Wisdom Djange Ogbordjor, Ruth Duku-Takyi (2018). Variation in thyroid hormone levels is associated with elevated blood mercury levels among artisanal small-scale miners in Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0203335

46. **Justice Afrifa**, Samuel Essien-Baidoo, Albert Baffour Gyau, Richard Kobina Dadzie Ephraim (2017). Evaluation of Renal Function in Pregnant Women with Malaria: A Case-Control Study in a Mesoendemic Area. *Obstetrics and Gynecology International*. https://doi.org/10.1155/2017/6030943

47. **Justice Afrifa**, Desmond Gyedu, Eric Ofori Gyamerah, Samuel Essien-Baidoo, Isaac Mensah-Essilfie (2017). Haematological Profile and Intensity of Urogenital Schistosomiasis in Ghanaian Children. *Journal of Environmental and Public Health*. https://doi.org/10.1155/2017/4248325

48. **Justice Afrifa**, Samuel Essien-Baidoo, Richard K.D. Ephraim, Daniel Nkrumah, Daniel Osei Dankyira (2017). Reduced egfr, elevated urine protein and low level of personal protective equipment compliance among artisanal small scale gold miners at Bibiani-Ghana: a cross-sectional study. *BMC Public Health*. https://doi.org/10.1186/s12889-017-4517-z

49. **Justice Afrifa**, Samuel Essien-Baidoo, Eric Ofori, Albert Abaka-Yawson (2017). Trace Elements Levels and Blood Pressure in Ghanaian Women Using Depot Medroxyprogesterone Acetate Contraceptive. *Journal of Advances in Medicine and Medical Research*. https://doi.org/10.9734/bjmmr/2017/32565

50. **Justice Afrifa**, SethA Gyekye, WilliamKBA Owiredu, RichardKD Ephraim, Samuel Essien-Baidoo, Samuel Amoah, DavidL Simpong, AaronR Arthur (2015). Application of sigma metrics for the assessment of quality control in clinical chemistry laboratory in Ghana: A pilot study. *Nigerian Medical Journal*. https://doi.org/10.4103/0300-1652.149172

51. **Justice Afrifa** (2014). Effects of Body Mass Index and Age on Prostate Specific Antigen: A Study on Men Attending a Tertiary Hospital in Ghana. *Journal of Advances in Medicine and Medical Research*. https://doi.org/10.9734/bjmmr/2014/7569

Book chapters 1

1. ERIC GYAMERAH OFORI, **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