Emmanuel Enoch Dzakah

Assistant Lecturer · Molecular Biology & Biotechnology
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RESEARCH

Interests	Medical Biotechnology · Molecular Epidemiology · Infectious Diseases · Ageing · Epigenetic Inheritance
Areas	Immunology · Infectious Diseases · Virology · Epidemiology · Hepatology · Molecular Biology

RESEARCH SUMMARY

37	868	19	26	1.76	19%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 37 publications listed below, 2013–2026. Field-weighted impact is the mean over the 21 works scored for it; 1.00 is the world average for works of the same field, type and year. 4 of the 21 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

PI 2025–present
Clinical Research Centre, Guangdong Clifford Hospital, Guangzhou, China

Senior Lecturer 2018–present
Molecular Biology and Biotechnology, University of Cape Coast, Cape Coast, Ghana

Chief Technology Officer 2022–2025
Research and Development, bioGenous Biotechnology, Inc., Suzhou, China

Postdoctoral Research Fellow 2019–2020
Dermatology Hospital of Southern Medical University, Guangzhou, China

Assistant Lecturer 2014–2018
Molecular Biology and Biotechnology, University of Cape Coast School of Biological Sciences, Cape Coast, Ghana

Technical Advisor/ Regional Manager (West Africa) 2013–2014
R&D, International Sales, Guangzhou Wondfo Biotech Co. Ltd, Guangzhou, China

Research Assistant 2009–2014
Molecular Biology and Biotechnology, University of Cape Coast School of Biological Sciences, Cape Coast, Ghana

Biology Tutor 2008–2009
Canadian Independent College of Ghana, Accra, Ghana

Teaching Assistant 2007–2008
Molecular Biology and Biotechnology, University of Cape Coast School of Biological Sciences, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

PhD (Cell Biology) 2015–2018
School of Life Sciences, University of Science and Technology of China, Hefei, China

MSc. Biochemistry and Molecular Biology 2010–2013
School of Bioscience and Bioengineering, South China University of Technology, Guangzhou, China

BSc. Molecular Biology and Biotechnology 2003–2007
Molecular Biology and Biotechnology, University of Cape Coast School of Biological Sciences, Cape Coast, Ghana

PUBLICATIONS

Journal articles 36

1. **Emmanuel Enoch Dzakah** (2026). Modernizing drug development and ensuring global equity in the organoid revolution. *Communications Biology*. https://www.nature.com/articles/s42003-026-10076-4
2. **Emmanuel Enoch Dzakah** (2025). Molecular basis of backsplicing regulation and its application to manipulate circRNA levels. *RNA biology*. https://doi.org/10.1080/15476286.2025.2525914
3. **Emmanuel Enoch Dzakah** (2025). Vascularized organoid-on-a-chip for centimeter-scale organoid cultivation. *Bio-Design and Manufacturing*. https://doi.org/10.1631/bdm.2400424
4. **Emmanuel Enoch Dzakah** (2025). Whole-process 3D ECM-encapsulated organoid-based automated high-throughput screening platform accelerates drug discovery for rare diseases. *Life Medicine*. https://doi.org/10.1093/lifemedi/lnaf021/63489689/lnaf021
5. **Emmanuel Enoch Dzakah** (2024). Establishment of novel colorectal cancer organoid model based on tumor microenvironment analysis. *Life Medicine*. https://academic.oup.com/lifemedi/article-abstract/3/4/lnae027/7697856
6. Chengfan Jiang, Dong Wang, Chao Ni, Xiao Li, Xinyue Liu, Ximin Ge, Dongmei Chen, **Emmanuel Enoch Dzakah**, Bing Zhao (2023). Generation of cynomolgus monkey airway, liver ductal, and kidney organoids with pharmacokinetic functions. *Organs-on-a-Chip*. https://doi.org/10.1016/j.ooc.2023.100031
7. **Emmanuel Enoch Dzakah** (2023). Multi-lineage human endometrial organoids on acellular amniotic membrane for endometrium regeneration. *Cell transplantation*. https://doi.org/10.1177/09636897231218408
8. **Emmanuel Enoch Dzakah** (2022). Enhanced transmissibility and decreased virulence of HIV-1 CRF07_BC may explain its rapid expansion in China. *Microbiology spectrum*. https://doi.org/10.1128/spectrum.00146-22
9. Yuanhao Liang, Hongqing Lin, **Emmanuel Enoch Dzakah**, Shixing Tang (2022). Influence of Combination Antiretroviral Therapy on HIV-1 Serological Responses and Their Implications: A Systematic Review and Meta-Analysis. *Frontiers in Immunology*. https://doi.org/10.3389/fimmu.2022.844023
10. Xiaolin Wang, Jinghan Hua, Jingxin Li, Jiahui Zhang, **Emmanuel Enoch Dzakah**, Guozhen Cao, Wenchu Lin (2022). Mechanisms of non-coding RNA-modulated alternative splicing in cancer. *RNA Biology*. https://doi.org/10.1080/15476286.2022.2062846
11. Ningjun Ren, Yuansheng Li, Zhengwei Wan, Ruolan Wang, Wenxin Zhang, **Emmanuel Enoch Dzakah**, Junhui Zhang, Ailing Li, Song Fan (2022). Patterns of HIV or AIDS Mortality Among Older People From 1990 to 2019 in China: Age-Period-Cohort Analysis. *JMIR Public Health and Surveillance*. https://doi.org/10.2196/35785
12. Shuyi Chen, Jiqin Wu, Xiaofeng Yang, Qiuli Sun, Su Liu, Farooq Rashid, **Emmanuel Enoch Dzakah**, Haiying Wang, Jufang Wang, Peng Gong, Shixing Tang (2022). RNA-Dependent RNA Polymerase of the Second Human Pegivirus Exhibits a High-Fidelity Feature. *Microbiology Spectrum*. https://doi.org/10.1128/spectrum.02729-22

13. Zhengwei Wan, Ping Sun, **Emmanuel Enoch Dzakah**, Liping Huang, Ping Shuai, Yuping Liu (2022). Reinfection rate of hepatitis C in HIV-1 positive men who have sex with men: A systematic review and meta-analysis. *Frontiers in Public Health*. https://doi.org/10.3389/fpubh.2022.855989

14. Shuyi Chen, Haiying Wang, **Emmanuel Enoch Dzakah**, Farooq Rashid, Jufang Wang, Shixing Tang (2022). The Second Human Pegivirus, a Non-Pathogenic RNA Virus with Low Prevalence and Minimal Genetic Diversity. *Viruses*. https://doi.org/10.3390/v14091844

15. Jianhui Zhao, Cailing Ao, Zhengwei Wan, **Emmanuel Enoch Dzakah**, Yuanhao Liang, Hongqing Lin, Haiying Wang, Shixing Tang (2021). A point-of-care rapid HIV-1 test using an isothermal recombinase-aided amplification and CRISPR Cas12a-mediated detection. *Virus Research*. https://doi.org/10.1016/j.virusres.2021.198505

16. **Emmanuel Enoch Dzakah**, Jiacong Zhao, Liuyan Wang, Farooq Rashid, Ru Xu, Ligang Yang, Zhengwei Wan, Liping Huang, Haiying Wang, Shuyi Chen, Wujian Ke, Foster Kyei, Kai Deng, Shixing Tang (2021). Chlamydia trachomatis Stimulation Enhances HIV-1 Susceptibility through the Modulation of a Member of the Macrophage Inflammatory Proteins. *Journal of Investigative Dermatology*. https://doi.org/10.1016/j.jid.2021.09.020

17. **Emmanuel Enoch Dzakah**, Liping Huang, Yaohua Xue, Shuai Wei, Xiaolin Wang, Hongliang Chen, Jingwei Shui, Foster Kyei, Farooq Rashid, Heping Zheng, Bing Yang, Shixing Tang (2021). Host cell response and distinct gene expression profiles at different stages of Chlamydia trachomatis infection reveals stage-specific biomarkers of infection. *BMC Microbiology*. https://doi.org/10.1186/s12866-020-02061-6

18. Farooq Rashid, Muhammad Suleman, Abdullah Shah, **Emmanuel Enoch Dzakah**, Haiying Wang, Shuyi Chen, Shixing Tang (2021). Mutations in SARS-CoV-2 ORF8 Altered the Bonding Network With Interferon Regulatory Factor 3 to Evade Host Immune System. *Frontiers in Microbiology*. https://doi.org/10.3389/fmicb.2021.703145

19. Farooq Rashid, Muhammad Suleman, Abdullah Shah, **Emmanuel Enoch Dzakah**, Shuyi Chen, Haiying Wang, Shixing Tang (2021). Structural Analysis on the Severe Acute Respiratory Syndrome Coronavirus 2 Non-structural Protein 13 Mutants Revealed Altered Bonding Network With TANK Binding Kinase 1 to Evade Host Immune System. *Frontiers in Microbiology*. https://doi.org/10.3389/fmicb.2021.789062

20. Farooq Rashid, **Emmanuel Enoch Dzakah**, Haiying Wang, Shixing Tang (2021). The ORF8 protein of SARS-CoV-2 induced endoplasmic reticulum stress and mediated immune evasion by antagonizing production of interferon beta. *Virus Research*. https://doi.org/10.1016/j.virusres.2021.198350

21. Huanchang Yan, Weiyun He, Liping Huang, Hao Wu, Yuanhao Liang, Qingmei Li, Jingwei Shui, Cheng Wang, **Emmanuel E Dzakah**, Zhigang Han, Shixing Tang (2020). The Central Role of Nondisclosed Men Who Have Sex With Men in Human Immunodeficiency Virus-1 Transmission Networks in Guangzhou, China. *Open Forum Infectious Diseases*. https://doi.org/10.1093/ofid/ofaa154

22. Yu Wang, **Emmanuel Enoch Dzakah**, Ye Kang, Yanxue Cai, Peidian Wu, Bo Tang, Run Li, Xiaowei He (2019). A sensitive and rapid chemiluminescence immunoassay for point-of-care testing (POCT) of copeptin in serum based on high-affinity monoclonal antibodies via cytokine-assisted immunization. *International Journal of Nanomedicine*. https://doi.org/10.2147/ijn.s200556

23. Yu Wang, **Emmanuel Enoch Dzakah**, Ye Kang, Yanxue Cai, Peidian Wu, Yue Cui, Youzhen Huang, Xiaowei He (2019). Development of anti-Müllerian hormone immunoassay based on biolayer interferometry technology. *Analytical and Bioanalytical Chemistry*. https://doi.org/10.1007/s00216-019-01928-6

24. **Emmanuel Enoch Dzakah** (2019). LACTATE DEHYDROGENASE: A BIOMARKER FOR DISEASE DIAGNOSIS. *Lactate Dehydrogenase (LDH): Biochemistry, Function and Clinical Significance*. https://scholar.google.com/scholar?cluster=13750098938515339333&hl=en&oi=scholarr

25. Shuai Wei, He Chen, **Emmanuel Enoch Dzakah**, Bin Yu, Xiaolin Wang, Tao Fu, Jingxin Li, Lei Liu, Shucheng Fang, Weihong Liu, Ge Shan (2019). Systematic evaluation of C. elegans lincRNAs with CRISPR knockout mutants. *Genome biology*. https://doi.org/10.1186/s13059-018-1619-6

26. **Emmanuel Enoch Dzakah**, Ahmed Waqas, Shuai Wei, Bin Yu, Xiaolin Wang, Tao Fu, Lei Liu, Ge Shan (2018). Loss of miR-83 extends lifespan and affects target gene expression in an age-dependent manner in Caenorhabditis elegans. *Journal of genetics and genomics/Journal of Genetics and Genomics*. https://doi.org/10.1016/j.jgg.2018.11.003

27. **Emmanuel Enoch Dzakah** (2018). Targetable long non-coding RNAs in cancer treatments. *Cancer letters*. https://www.sciencedirect.com/science/article/pii/S0304383518300648

28. **Emmanuel Enoch Dzakah** (2017). Convergent transcriptional programs regulate cAMP levels in C. elegans GABAergic motor neurons. *Developmental Cell*. https://www.cell.com/developmental-cell/fulltext/S1534-5807(17)30765-7

29. **Emmanuel E Dzakah** (2016). Development of monoclonal antibodies against HIV-1 p24 protein and its application in colloidal gold immunochromatographic assay for HIV-1 detection. *BioMed research international*. https://doi.org/10.1155/2016/6743904

30. Keren Kang, **Emmanuel E. Dzakah**, Yongping Huang, Mingquan Xie, Xiaochun Luo, Wenmei Li, Jihua Wang (2015). Development and performance evaluation of a novel immunofluorescence chromatographic assay for histidine-rich protein 2 of Plasmodium falciparum. *Malaria Journal*. https://doi.org/10.1186/s12936-015-0740-1

31. **Emmanuel E Dzakah** (2015). Development of a fluorescent immnunochromatographic assay for the procalcitonin detection of clinical patients in China. *Clinica Chimica Acta*. https://www.sciencedirect.com/science/article/pii/S0009898115000467

32. Keren Kang, **Emmanuel E Dzakah**, Wenmei Li, Mingquan Xie, Xiaochun Luo, Hui Liu (2015). Novel monoclonal antibodies against Plasmodium falciparum histidine-rich protein 2: development and application in rapid diagnostic tests of malaria in hyperendemic regions of China and Myanmar. *BMC Microbiology*. https://doi.org/10.1186/s12866-015-0429-1

33. **Emmanuel E Dzakah**, Keren Kang, Chao Ni, Shixing Tang, Jihua Wang, Jihua Wang (2014). Comparative performance of aldolase and lactate dehydrogenase rapid diagnostic tests in Plasmodium vivax detection. *Malaria Journal*. https://doi.org/10.1186/1475-2875-13-272

34. **EE Dzakah** (2014). Development of rapid immunochromatographic test for hemagglutinin antigen of H7 subtype in patients infected with novel avian influenza A (H7N9) virus. *PLoS One*. https://doi.org/10.5555/20143193749

35. **EE Dzakah** (2014). Synthesis of furaltadone metabolite, 3-amino-5-morpholinomethyl-2-oxazolidone (AMOZ) and novel haptens for the development of a sensitive enzyme-linked immunosorbent assay (ELISA). *Analytical Methods*. https://doi.org/10.5555/20143169938

36. **Emmanuel E Dzakah** (2013). Plasmodium vivax aldolase-specific monoclonal antibodies and its application in clinical diagnosis of malaria infections in China. *Malaria journal*. https://doi.org/10.1186/1475-2875-12-199

Book chapters 1

1. **Emmanuel Enoch Dzakah** (2019). Lactate Dehydrogenase: A Biomarker for Disease Diagnosis and Prognosis. *Lactate Dehydrogenase (LDH) Biochemistry, Function and Clinical Significance*.