

Mohamed Mutocheluh, PhD

Associate Professor, Kwame Nkrumah University of Science and Technology,
Ghana

Contact details

Department of Clinical Microbiology
School of Medical Sciences
College of Health Sciences
Kwame Nkrumah University of Science
And Technology,
University Post,
Kumasi, Ghana. E-mail: mmutocheluh.chs@knust.edu.gh ; mutocheluh@gmail.com
Tel: 233-3220-63249
Mobile: 0200504700

Education

2007-2011 PhD. Immunology and Infection
Thesis title: 'Understanding Kaposi's sarcoma associated herpes virus *vIRF-2*-Cell interactions' University of Birmingham, UK
2006-2007 MSc Immunology, University of Birmingham, UK
2002-2003 MSc Molecular Medical Microbiology, University of Nottingham, UK
1991-1994 BSc Medical Laboratory Technology, IPS, Cienfuegos, Cuba

Appointments

01/08/2020 Associate Professor in the Department of Clinical Microbiology
01/08/2020 Head of Department of Clinical Microbiology
04/05/2020 Coordinator of KNUST COVID-19 Clinical Trial (KNC19 Study)
01/08/2015 Senior lecturer, Kwame Nkrumah University of Science & Technology (KNUST)
07/02/2000 Medical Laboratory Technologist in the Department of Clinical Microbiology of the School of Medical Sciences, KNUST

Microbial-Cells Interactions Research Group Leader

2012- Ongoing My research group focuses on translational research related to microbial pathogens and immunity to microbial diseases, with a particular interest in human oncogenic viruses and mycotoxins. Studies focused on the role of innate, as well as adaptive immunity in the establishment, containment and/or progression of microbial infections up to cancer are my goals.

Awards & honours

2017 President of the Convention for Biomedical Research Ghana
2013-2015 Board member of the Convention for Biomedical Research Ghana
2006-2011 KNUST Staff development award for a PhD degree programme in the UK
2002-2003 KNUST Staff development award for a Master degree programme in the UK

Professional service (Academic)

2016 - External examiner in the Department of Biochemistry, Cell and Molecular Biology of the University of Ghana.
External examiner in the Department of Biochemistry and Biotechnology, KNUST.
2017 Chief Invigilator of Examinations for School of Medical Sciences, KNUST
External referee for the assessment of publications for promotion of lecturers – University for Development Studies, Tamale.
2016 Host of external scientific seminar delivered by Professor David Blackburn (University of Surrey, London) to the research community in KNUST.
2016 Visiting Lecturer to the Department of Biochemistry, Cell & Molecular Biology of

the University of Ghana.

- 2015 Visiting Lecturer to the Department of Medical Laboratory Technology, University for Development Studies, Tamale.
- 2013 External Referee for appointments Committee, Garden City University College, Kumasi and Member of the committee that reviewed the curricula of some courses of the Garden City University College, Kumasi.
- 2012-17 Graduate studies coordinator in the Department of Clinical Microbiology, SMS, KNUST

Professional service (Research and Medical Diagnostics)

- 2021 Visiting Professor in the Department of Biochemistry, Cell and Molecular Biology of the University of Ghana.
- 2017 Visiting lecturer at the West African Centre for Cell Biology of Infectious Pathogens (WACCBIP) of the University of Ghana, Legon.
- 2016 Assistant Laboratory Manager, KNUST Central Laboratory.
- 2014 Head of the Virus Research and Molecular Biology Laboratory, SMS, KNUST.
- 2013 - 15 Laboratory consultant; the design, set-up and staff training; the Asafo-Boakye Specialist Hospital Diagnostic Laboratory Department. Call 0207485003

Society membership

- 2013 The African Organization for Research and Training in Cancer (AORTIC)
- 2012 Member of the Convention for Biomedical Research Ghana
- 2008 Member of the Society for General Microbiology
- 2005 Member of the University Teachers Association of Ghana (UTAG)

Editorial responsibilities

- 2019 Chief Editor College of Health Sciences & CoBReG Science Conference Brochure
- 2018 Reviewer of Journal of Advances in Medicine and Medical Research
- 2018 Editorial board member of Annals of Microbiology and Immunology
- 2017 Editorial board member and reviewer of cancerscience@chroniclepublishers.org
- 2015 Reviewer for the Journal of Science & Technology, KNUST

Invitations to participate in international meetings

- 2019 Chair of plenary talk for the WACCBIP Research Conference 2016 (Plasmodia immune response session).
- 2016 Chair of plenary talk for Ghana Biomedical Convention 2016 (Genomics, Molecular Biology, and Cellular Pathology session).

Selected PhD theses and oral examinations

March	2017	James Abugri	University of Ghana
August	2016	Patrick W Narkwa	KNUST, Kumasi
November	2016	Elias Asuming-Brempong	KNUST, Kumasi
May	2014	Michael Owusu	KNUST, Kumasi
February	2013	Charles Torgbor	KNUST, Kumasi

PhD Students trained

1. Dr Patrick W Narkwa. Patrick is now a lecturer in our department.
2. Dr Elias Asuming-Brempong. Elias is now a researcher fellow at CSIR in Ghana.

Scientific research grant review responsibilities

CRICK AFRICAN NETWORK – Africa career accelerator Award
KNUST Research Fund (KReF) Award
WACCBIP DELTAS post-doctoral fellowship Awards. See this link;
(<http://www.waccbip.org/2015/12/09/deltas-phd-fellowships/>)

Capacity building workshops

2016 I led a group of experts to perform the maiden workshop on Western blot technique in my university for junior/faculty researchers and postgraduate students; see this link <https://www.knust.edu.gh/news/news-items/maiden-workshop-on-western-blot-opened>

2015 In collaboration with Prof Blackburn's research group we performed the first ever capacity building workshop on tissue culture and reporter gene assay in my university for junior researchers/faculty and postgraduate students; see this link <https://www.knust.edu.gh/news/news-items/department-ofclinicalmicrobiology-holds-training-workshop-on-molecular-biology>

Research grants

Leverhulme-Royal Society Post Doctoral Award

2019 – 2020 £40,000 Post doc fellowship awarded to Dr Patrick Narkwa to train by me in my laboratory

WACCBIP Doctoral training programme

2017 – 2021 \$77,000 to train two PhD students (Mr Ahmed Rufai and Mr Seth Domfeh)

The Leverhulme-Royal Society Africa Award

2012-2015 The role of aflatoxins in modulating the type I interferon response. £180,000 (joint with Professor David J Blackburn, University of Surrey, UK).

BSU/KNUST

2013 To understanding mycotoxin-cell interactions. \$10,000 was awarded to my research team.

2013 To mentor Dr Abotsi Wonder in tissue culture and molecular techniques. \$3000 was awarded to my research team.

Collaborative Research (North – South)

The Leverhulme-Royal Society Africa Award II

2013-2016 The Africa Award grant resulted in the establishment of the Virus Research and Molecular Biology Laboratory in KNUST. Prof Blackburn donated mammalian cells, plasmids, some reagents and offered some technical expertise to the project. He visited the lab on 2 occasions, one to perform a workshop.

The services of laboratory include training in DNA/RNA extraction and quantification, PCR, Cell culture, Luciferase Gene Reporter assay, ELISA, Virus culture, Cloning of plasmid DNA, Western Blot assay etc.

The lab currently hosts a PhD student from the University of Ghana, two MPhil students from the department of Biochemistry & Biotechnology from KNUST.

Collaborative Research (South – South)

Research Training Partnership Agreement with the West African Centre for Cell Biology of Infectious Pathogens (Waccbip) of the University of Ghana

In 2017, Waccbip and our department signed an MOU for the training of some of their students in our Virus Research and Molecular Biology laboratory. One of two PhD students completed his lab work and proceeded to write up stage while the other is starting his second year of research.

Publications

Selected peer-reviewed publications of original articles

1. Kubi JA, **Mutocheluh M**, Bonney JHK, Ampofo WK, Odoom JK. Molecular detection of enterovirus D68 among children with acute respiratory tract infection in Ghana. *Afr J Lab Med*. 2019;8(1), a732. <https://doi.org/10.4102/ajlm.v8i1.732>
2. Boateng R, **Mutocheluh M**, Dompreeh A, Obiri-Yeboah D, Odame Anto E, Owusu M, et al. Sero-prevalence of Hepatitis B and C viral coinfections among HIV-1 infected ART-naïve individuals in Kumasi, Ghana. (2019) *PLoS ONE* 14(4):e0215377. <https://doi.org/10.1371/journal.pone.0215377>
3. Dorcas Obiri-Yeboah, Patrick K. Akakpo, **Mohamed Mutocheluh**, Emmanuel Adjei-Danso, Gloria Allornuvor, Daniel Amoako-Sakyi et al.,. Epidemiology of cervical human papillomavirus (HPV) infection and squamous intraepithelial lesions (SIL) among a cohort of HIV-infected and uninfected Ghanaian women. *BMC Cancer* (2017) 17:688. DOI 10.1186/s12885-017-3682-x
4. Benedict Osei-Tawiah, Theophilus B Kwofie, **Mohamed Mutocheluh**, Richard Ephaim and Emmanuel Awusah Blay. Prevalence of HIV, Hepatitis B, Hepatitis C and Syphilis Infections among Patients in a Psychiatric Hospital in Ghana. *Int J Virol AIDS*6:050. doi.org/10.23937/2469-567X/1510050.
5. **Mohamed Mutocheluh** and Patrick W Narkwa. Aflatoxin B1 Inhibits the Replication of Chandipura Virus in Human Hepatoma Cells. *Annals of Microbiology and Immunology*. 2018; 1(2):1008.
6. Gilbert Kotei Ashie, **Mohamed Mutocheluh**, Michael Owusu, Theophilus Benjamine Kwofie, Samuel Akonor, Patrick Williams Narkwa et al. Microbial pathogens associated with acute childhood diarrhoea in Kumasi, Ghana. *BMC Research Notes* (2017) 10:264. DOI 10.1186/s13104-017-2578-9.
7. Elvis K. Tiburu, **Mohamed Mutocheluh**, Patrick K. Arthur, Patrick Williams Narkwa, Ali A. Salifu,, Michael Anim Agyei et al. Antifungal and Anti-Proliferative Effects of Zeolites A and X on Yeast Pathogenic and Cancer Cells In Vitro. *Journal of Biomaterials and Tissue Engineering*; vol. 7, 544-555 (2017).
8. Patrick W. Narkwa, David J. Blackbourn and **Mohamed Mutocheluh**. Aflatoxin B1 inhibits the type 1 interferon response pathway via STAT1 suggesting another mechanism of hepatocellular carcinoma. *Narkwa et al. Infectious Agents and Cancer* (2017) 12:17.
9. Bernice Ameyaw, **Mohamed Mutocheluh**, Michael Owusu, Alhassan Abiba Khalifah, Richard Vikpebah Duneeh and Patrick Williams Narkwa. Performance of First Response® and CareStart™ Malaria Rapid Diagnostic Tests for the Detection of Plasmodium falciparum in a Tertiary Hospital in Ghana. *British Journal of Medicine & Medical Research*19(8): 1-7, 2017; Article no. BJMMR.30892.
10. P. W. Narkwa, **M. Mutocheluh**, T. B. Kwofie, M. Owusu, A. Annan, I. Ali and J. K. Boamah. Dengue virus exposure among blood donors in Ghana. *Journal of Medical and Biomedical Sciences* (2016) 5(2): 30-35. doi: <http://dx.doi.org/10.4314/jmbs.v5i2.5>.
11. **M. Mutocheluh**, L. Hindle, C. Areste, S.A. Chanas, L.M. Butler, K.Lowry, K. Shah, D.J. Evans and David J. Blackbourn. Kaposi's Sarcoma-associated herpesvirus viral interferon regulatory factor-2 inhibits type 1 interferon signalling by targeting interferon-stimulated gene factor-3. *Journal of General Virology*; 2011 October; 92 (Pt 10): 2394-8. Epub 2011 Jun 22.
12. Theophilus B. Kwofie, Michael Owusu, **Mohamed Mutocheluh**, Samuel Blay Nguah, Joseph Obeng-Baah, Charlotte Hanson and Albert Dompreeh. Pattern and predictors of immunologic recovery in HIV infected patients. *Biomed Central Research Article. BMC Research Notes* (2015)8:413.
13. Cristina Aresté, **Mohamed Mutocheluh** and David J Blackbourn. Identification of caspase-mediated decay of interferon regulatory factor-3, exploited by a Kaposi's Sarcoma-associated herpesvirus immunoregulatory protein. *Journal of Biological Chemistry*; 2009 August 28;284(35):23272-85. Epub 2009 Jun 24.

14. Theophilus B. Kwofie, Frederick Ayensu, **Mohamed Mutocheluh**, Patrick Narkwa, Samuel B. Nguah, Cornelius A. Turpin, Michael Owusu. Seroprevalence of Rubella Virus, Cytomegalovirus and Herpes Simplex Virus–2 among Pregnant Women at the Komfo Anokye Teaching Hospital, Ghana. *Journal of Public Health in Developing Countries*; 2015 Nov. Vol. 1, No. 2, pp. 56-63.
15. Theophilus Benjamin Kwofie and **Mohamed Mutocheluh**. Behavioural Practices Associated with Occurrence of HIV among University Students in Ghana. *British Journal of Medicine & Medical Research*10(10): 1-11, 2015 Sept, Article no. BJMMR.18827.
16. **Mohamed Mutocheluh** & Kwaku Kwateng. Knowledge and Occupational hazards of barbers in the transmission of hepatitis B and C was low in Kumasi. *The Pan African Medical Journal*. 2015; 20:260.
17. **Mohamed Mutocheluh**, Michael Owusu, Theophilus B Kwofie, Tahiru Akadigo, Emmanuel Appau and Patrick W Narkwa. Risk factors associated with hepatitis B exposure and the reliability of five rapid kits commonly used for screening blood donors in Ghana. *Biomed Central Research Article. BMC Research Notes* 2014, 7:873.
18. Tanko Rufai, **Mohamed Mutocheluh**, Kwaku Kwarteng, Elliot Dogbe. The prevalence of hepatitis B virus E antigen among Ghanaian blood donors. *PanAfrican Medical Journal* (2014); 17:53.
19. E.M. Der, R.K. Gyasi, **M.Mutocheluh** and J.T. Anim. HIV co-infection and mortality pattern purulent meningitis: A 5 year retrospective autopsy study at the Korle-bu Teaching Hospital. *Journal of Medical and Biomedical Sciences* (2012)1(4):13-20.