## CURRICULUM VITAE

## **ISAAC ACHEAMPONG**

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#### **Professional Summary**

Self-motivated, proactive, multi-skilled and results oriented practising Medical Laboratory Scientist with technical expertise and interest in Immunology and Chemical Pathology. 11 years of clinical laboratory practice and 5-6 years of medical research. Seeking challenging opportunities that will foster my career ambitions and research expertise with prospects for academic and professional development.

## Current Research Interest

All aspects of immunological and molecular biology research with greater interest in host immunological response and influence on disease pathogenesis, as well as the factors that modulate the nature and development of acquired immunity that may be applicable for therapeutic development. My current research focuses on immune biomarkers and assays for TB diagnosis and treatment response.

Aug 2020 – Date	Ph.D Candidate (Immunology)
	Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana
Aug 2013 – Nov 2016	Master of Philosophy (MPhil) Immunology
	Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana

#### Academic Qualifications

Dissertation	Immunological factors in female infertility: Antithyroid and antiphospholipid antibodies.
Research Supervisor	Prof M.T Frempong (Department of molecular Medicine, SMS, KNUST)
Aug 2006 – Jun 2010	Bachelor of Science (BSc) Medical Laboratory Technology
	Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana
Courses	Pathology, Haematology, Microbiology, Immunology, Chemical Pathology, Histopathology, Instrumentation and Laboratory management, Immunodiagnostic Techniques, Anatomy, Physiology, Medical Genetics, Cell Structures, Biophysics, Biological Chemistry, Physiology, Physiology, Biochemistry, Research Methods, Principles of management, Algebra, Statistical Methods, Communication skills, Literature in English
Dissertation	Prevalence of Obesity among Diabetics
Research Supervisor	Dr R.A Ngala (Department of Molecular Medicine, SMS, KNUST)
Sep 2002 – Jun 2005	West Africa Senior Secondary Certificate Examination (WASSCE).
	Ofori Panin Senior Secondary School, Tafo, Eastern Region, Ghana.
Courses (Electives)	Biology, Chemistry, Physics, Elective Mathematics.

## English Proficiency

IELTS		
July 28 <sup>th</sup> 2018	Overall band Score:	7.5
	Speaking:	7.5
	Listening:	8.5

Reading:	6.5
Writing:	6.5

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Aug 2019- Date	PhD studentship Position
	Kumasi Centre for Collaborative Research (KCCR), (MAP-TB PROJECT)
Core Duties	Research using Immunological assays (IGRA In-vitro, Tam-TB, Ex-vivo, 2-Hit & ELISA) and Fieldwork.
Relevance	Experience from this research work is necessary for my PhD studies and career in immunological research.
Nov 2013 – Date	Principal Medical Laboratory Scientist
	University Health Services, Kwame Nkrumah University of Science and Technology.
Core Duties	Laboratory diagnosis of diseases in a general a laboratory setting comprising Haematology, Chemical Pathology, Microbiology, Serology and Immuno-Haematology.
	Quality assurance (internal and external).
Other duties	Interns and Attachment Training Coordinator.
Achievements	Introduction of new test
	Drafting of Protocols for all test carried out by the laboratory
Relevance	Experience from continues laboratory practice in a clinical laboratory setting involving quality control and assurance, infection prevention and control, specimen handling, pipetting skills, light microscopy, flow cytometry and ELIZA techniques will be applicable in a research laboratory.
Jul 2016 – March 2018	Part-time Lecturer, Clinical Chemistry, and Immunology
	Department of Medical Laboratory Technology, Mountain View Health College, Emena, Kumasi, Ghana.

Duties	Developing lecture contents and plans, class assignments, laboratory practical sessions, mid semester examinations, end of semester examinations based on the approved curriculum.
	Participate in the review and development of curriculum to enhance lecture content.
	Supervise Students' thesis and dissertations.
Achievements	Improved performance of students in clinical chemistry
	Review of curriculum to enhance current training needs of students
Relevance	The presentation skills acquired from continuous student lecturing will be utilised in seminar presentations.

Apr 2013 – Oct 2013	Medical Laboratory Scientist
	Komfo Anokye Teaching Hospital (KATH), Kumasi, Ghana.
Duties	Immunodiagnostics in transfusion medicine (specialised laboratory setting) comprising Blood Grouping, Cross- Matching, direct and indirect antihuman globulin testing, exchange transfusion and serological test for blood safety.
Achievements	Improvement in testing procedures in blood safety.
Relevance	Experience from continues laboratory practice in a specialised clinical immunohematology laboratory setting, quality control and assurance, infection prevention and control, specimen handling, pipetting skills, light microscopy will be applicable in a research laboratory.
Sep 2011 – Mar 2013	Medical Laboratory Scientist on part-time
	University Health Services, Kwame Nkrumah University of Science and Technology
Duties	Laboratory diagnosis of diseases in a general laboratory setting comprising Haematology, Chemical Pathology, Microbiology, Serology and Immuno-Haematology.
Achievements	Improved turn-around time for test.
Relevance	Experience from continues laboratory practice in a clinical laboratory setting such as quality control and assurance, infection prevention and

control, specimen handling, pipetting skills, light microscopy, flow cytometry and ELIZA techniques are applicable in the research laboratory.

Oct 2011 – Dec 2013	Medical Laboratory Scientist
	Oforikrom Hospital, Oforikrom, Kumasi, Ghana.
Duties	Laboratory diagnosis in a general laboratory setting Parasitology, Chemical Pathology and Haematology.
Achievements	Establishment of external quality assurance system for the laboratory.
Relevance	Experience from continues laboratory practice in a generalised private clinical laboratory setting such as quality assurance, infection prevention and control, specimen handling, pipetting skills, light microscopy are applicable in a research laboratory.
Oct 2010 – Aug 2011	Intern Medical Laboratory Scientist
	University Health Services, Kwame Nkrumah University of Science and Technology.
Duties	Observation and training under supervision to carry out test in Haematology, Chemical Pathology, Microbiology, Serology and Immuno-Haematology.
Achievements	Monthly presentations helped improve established protocols for some test in the laboratory.
Relevance	Experience from the laboratory training was requisite for the attaining of my clinical laboratory licence and subsequent practice and such experience will be relevant in a research laboratory.
Jun 2010 – Sep 2010	Remedial Teacher
	Nadenzeng Remedial School, Bolgatanga, Ghana.
Duties	Teaching Biology and Integrated Science
Achievements	General improved student performance

RelevanceThe presentation skills acquired from continuous student lecturing<br/>will be will be utilised in seminar presentations.

# Activities/ Positions of Responsibility

Aug 2018- Date	General Secretary
	Ghana Association of Medical Laboratory Science (GAMLS)- Ashanti Regional Chapter.
Activities	Ensuring the administrative running of the regional chapter of the association including all correspondence in respect of the regional association.
June 2019	<b>Regional Facilitator</b> (Trainer of Trainers), National Malaria Control Program
Activities	Training of district trainers on new guidelines in Malaria Case Management
June 2019	Facilitator, AHPC & GAMLS CPD Program
Activities	CPD training on Quality Control of Serological Test
Jan 2018 – Date	Executive Secretary
Jan 2018 – Date	<b>Executive Secretary</b> Learning-to-Learn Africa (An NGO)
Jan 2018 – Date Activities	-
	Learning-to-Learn Africa (An NGO) Bringing aid to deprived communities in Africa through intervention programs in education, health and sanitation
Activities	Learning-to-Learn Africa (An NGO) Bringing aid to deprived communities in Africa through intervention programs in education, health and sanitation (flagship program: Cancer HopeGH ) Member, Quality Assurance Subcommittee of QAPU, University Health Services, Kwame Nkrumah University of
Activities Oct 2016 – Date	Learning-to-Learn Africa (An NGO) Bringing aid to deprived communities in Africa through intervention programs in education, health and sanitation (flagship program: Cancer HopeGH ) Member, Quality Assurance Subcommittee of QAPU, University Health Services, Kwame Nkrumah University of Science and Technology. Ensuring quality assurance in all units of the University Health

Dec 2013 – Date	<b>Malaria Microscopy Facilitator</b> of Malaria Control Program, University Health Services, KNUST.
Activities	Malaria microscopy training and update for laboratory staff
Feb 2016 – Apr 2016	<b>Project Manager</b> , HIV mentored pilot research project, Medical Education Partnership Initiative, KNUST.
Activities	Managed the success completion of a pilot project on "Determinants of the outcome of PMTCT measures at three ART centres in Kumasi over a three-year period.
Dec 2014 – Date	<b>Member, Ebola Rapid Response Team</b> , University Health Services, KNUST.
Activities	On-call for rapid response in any suspended case of Haemorrhagic viral disease.
Jan 2015	<b>District Facilitator</b> , 2 <sup>ND</sup> edition, IDSR, EVD, Cholera, Meningitis Surveillance, Ghana Health Service
Activities	Training of district health service practitioners in the Ashanti region on surveillance and outbreak response for Viral Haemorrhagic fevers, Cholera and Meningitis.
Aug 2008 – Jun 2010	<b>Student Volunteer</b> , Centre for the development of deprived communities, Kumasi Branch.
Activities	Health education and screening for deprived communities in the Ashanti region on infectious diseases.
Jan 2007 – June 2010	<b>Student Member</b> , Students against HIV/AIDS (SAA), Kwame Nkrumah University Of Science And Technology, Kumasi.
Activities	Education of students on sexually transmitted infections and free HIV screening for students.

# Seminars/ Conferences/ Workshops/Professional Development Training

14/12/2021-16/12/2021	1 <sup>st</sup> Conference on Public Health in Africa (CPHIA)
Organisers	African Union, African Centre for Disease Control and Prevention
Relevance:	Africa's response to the COVID-19 pandemic, explore how digitisation, modelling and analytics can be deployed to advance public health goals and discover what it means to take a whole-of- society approach to combatting emerging infectious diseases and future pandemics.
29/09/2021-30/09/2021	9 <sup>th</sup> Biennial Conference of the College of Health Sciences, KNUST, Kumasi
Organisers	College of Health Sciences, KNUST, Kumasi.
Relevance:	I did a poster presentation of my Research on "Identification of predictive biomarkers for tuberculosis treatment response using integrated analysis and data visualization tools."
1/08/2021-5/08/2021	11 <sup>th</sup> African congress of Immunology-Poster Presenter
Organisers	African Congress of Immunology
Relevance:	I did a Poster Presentation of my Research on "Diagnostic utility of short-term IFN- $\gamma$ based in-vitro assay for tuberculosis (TB) in a high-burden clinical setting"
10/06/2021	Certificate-Implementation Research in Infectious Disease of Poverty.
Organisers	World Health Organisation/ TDR, ARTC-UG
Relevance:	Modular course and training on Implementation Research
28/03/2021	Professional Certificate-Monitoring and Evaluation in Global Health
Organisers	University of Washington
Relevance:	Program Monitoring and Evaluation in Health and Research

30/08/2018	Advancing medical laboratory practice through skills and technology (2018 Regional Scientific Congress)
Organisers	Ghana Association of Medical Laboratory Scientist, Haematology Department, Komfo Anokye Teaching Hospital and Sysmex WCA.
Relevance:	Presentation of abstracts and refresher training on Disorders of WBC morphology and clinical implications; acute and chronic myeloproliferative disorders.
17/08/2017	Haematology results interpretation training
Organisers	Sysmex WCA Accra, Komfo Anokye Teaching Hospital
Relevance	Interpretation of haematology results in disease diagnosis.
26/07/2017	Blood transfusion safety, "serious hazards of transfusion"
Organisers	National blood service, Ghana, Komfo Anokye Teaching Hospital
Relevance	Refresher training on serious hazards of blood transfusion and blood safety practices in transfusion medicine.
8/06/2017	Basic life support according to American Heart Association Model
Organisers	Africa Partners Medical, Ghana, Ghana Health Service, Ghana Medical and Dental Council.
Relevance	Refresher training on CPR by the health professional
30/05/2017	<b>Blood transfusion safety,</b> "right blood, right patient, right time, right place"
Organisers	National Blood Service, Ghana, Ghana, Komfo Anokye Teaching Hospital
Relevance	Refresher training on choosing the right blood component for the right patient at the right time to save lives.

6/05/2017	Laboratory Quality Management Systems Workshop.
Organisers	Ghana Association of Medical laboratory Scientist, Allied Health Professions Council, Ghana Health Service.
Relevance	<i>Training on how to fully implement quality management systems (ISO 15189:2012) in the laboratory for certification.</i>
5/05/2016	Medical Laboratory Science: key to evidence based medicine (2016 annual regional congress and scientific conference)
Organisers	Ghana Association of Biomedical Laboratory Scientist
Relevance	<i>Establishing quality assurance systems in the laboratory for quality service delivery.</i>
8/10/2015	<b>The emerging threat of antimicrobial resistance; the role of</b> <b>the biomedical scientist</b> (2015 annual regional congress and scientific conference
Organisers	Ghana Association of Biomedical Laboratory Scientist
Relevance	Abstract presentations, curtailing antimicrobial resistance in Ghana.
21/09/2015	HIV research workshop
Organisers	Medical Education Partnership Initiative (KNUST), Komfo Anokye Teaching Hospital, Ghana College of Physicians and Surgeons, University of Michigan, Republic of Ghana.
Relevance	HIV epidemiology, research ethics, quantitative and qualitative research methods, research design, mentored research exercises, grant proposal writing, collaborating in research.
18/08/2015	Sustainable development of tertiary institutions in Ghana amidst economic and security challenges (5 <sup>th</sup> summer school)
Organisers	Quality assurance and planning unit, Kwame Nkrumah, University of Science and Technology
Relevance	Ensuring quality delivery services for the tertiary institution.
29/05/2015	Biostatistics and computer-aided research application

Organisers	Department of Molecular Medicine, School of Medical Sciences, Kwame Nkrumah University of Science and Technology.
Relevance	Training in the use of statistical tools for data analysis (SPSS 22, GraphPad Prism 5)
18/08/2014	Advancing Science and Technology through effective communication (4 <sup>th</sup> KNUST Summer School Workshop)
Organisers	Quality Assurance and Planning Unit (Kwame Nkrumah University of Science and Technology)
Relevance	Effective communication in a tertiary institution
13/08/2014	<b>Ebola Workshop</b> , Preparing the Health Workers in the Ashanti Region for a possible Ebola outbreak
Organisers	Ghana Health Service, Regional Health Directorate
Relevance	Trained as a facilitator to train district hospitals on Ebola, Meningitis and Cholera surveillance and rapid response.
18/12/2013	Refresher training for malaria diagnosis
<b>18/12/2013</b> Organisers	<b>Refresher training for malaria diagnosis</b> Ghana Health Service, Presidential Malaria Initiative, Centre for Disease Control/ USAID, USA.
	Ghana Health Service, Presidential Malaria Initiative, Centre
Organisers	Ghana Health Service, Presidential Malaria Initiative, Centre for Disease Control/ USAID, USA. Trained as a microscopist for the introduction of the malaria
Organisers Relevance	Ghana Health Service, Presidential Malaria Initiative, Centre for Disease Control/ USAID, USA. Trained as a microscopist for the introduction of the malaria speciation and parasite count to replace the plus system. <b>Regional scientific conference</b> (Upholding ethical standards
Organisers Relevance 19/07/2013	<ul> <li>Ghana Health Service, Presidential Malaria Initiative, Centre for Disease Control/ USAID, USA.</li> <li>Trained as a microscopist for the introduction of the malaria speciation and parasite count to replace the plus system.</li> <li><b>Regional scientific conference</b> (Upholding ethical standards and promoting quality medical laboratory practice in Ghana)</li> </ul>
Organisers Relevance <b>19/07/2013</b> Organisers	<ul> <li>Ghana Health Service, Presidential Malaria Initiative, Centre for Disease Control/USAID, USA.</li> <li>Trained as a microscopist for the introduction of the malaria speciation and parasite count to replace the plus system.</li> <li><b>Regional scientific conference</b> (Upholding ethical standards and promoting quality medical laboratory practice in Ghana)</li> <li>Ghana Association of Medical Laboratory Scientist</li> <li>Scientific abstract presentations and refresher training on</li> </ul>

Relevance	Scientific presentation on advances in new technologies for malaria diagnosis
26/04/2012	<b>2<sup>nd</sup> scientific conference</b> (confronting emerging challenges in Ghana's health care delivery; the role of the medical laboratory scientist)
Organisers	Ghana Association of Medical Laboratory Scientist
Relevance	Abstract presentations and refresher training on how to handle emerging challenges in the health care delivery system of Ghana.
06/07/2011	Global management of communicable diseases, the role of the laboratory scientist
Organisers	Komfo Anokye Teaching Hospital (KATH), Ghana Association of Medical Laboratory Scientist
Relevance	Handling infectious diseases in the laboratory, quality assurance, infection prevention and control
26/01/2011	Malaria vaccine development
Organisers	Dr Rolf Fendel, Fraunhomer IME, RWTH, AACHEN, Kumasi Centre for Collaborative Research (KCCR)
Relevance	Update on advances in the malaria vaccine development
19/01/2011	How to write a good grant application
Organisers	Kumasi Centre for Collaborative Research, Royal Society of London
Relevance	Training on how to write a good grant application.
01/2010	Investment, planning, entrepreneurship and corporate excellence seminar
Organisers	Legacy and Legacy (Springboard)
Relevance	Workshop on how to emerge and advance as an entrepreneur and ensure corporate excellence

3/02/2009	<b>Professional development seminar in clinical parasitology</b> (Protozoa, Helminths, Case study reports-parasitic diseases)
Organisers	Komfo Anokye Teaching Hospital, University of Utah, USA
Relevance	Case study reports on protozoans and helminths.

## **Professional Associations**

- Ghana Association of Medical Laboratory Scientist (GAMLS)
- ✤ African Society for Laboratory Medicine (ASLM)
- ✤ Validate Network
- Immunology Society of Ghana

#### Grant

Team Members:	Dr Ayisi-Boateng, <b>Mr Isaac Acheampong</b> , Mr Isaac Nkrumah
Mentors:	Dr Anthony Enimil, Dr Osei Kwaku Wusu-Ansah
My Role in the Project:	Project Manager
Project Title:	<i>Determinants of the outcome of PMTCT measures at three art centres in Kumasi over a three-year period</i>
Grant Amount:	GH¢ 10,000
Period/ Status:	Feb – Apr 2016 (completed in time)

#### Entrepreneurship Venture

- Grace-Care laboratory Supply and Services
- ✤ Learning-to-Learn Africa (CancerHope GH), NGO

#### Publications

Obirikorang, C., Fondjo, L., Adomako, S., Bio, F., and Acheampong, I. (2015). Iron Deficiency among Pregnant Women Attending Antenatal Clinic at the KNUST Hospital, Kumasi, Ghana. Br. J. Med. Med. Res. 6: 823–832.

- Obirikorang, C., Quaye, L., and Acheampong, I. (2012). Total lymphocyte count as a surrogate marker for CD4 count in resource-limited settings. BMC Infect. Dis. 12: 128.
- Obirikorang, C., Quaye, L., Bio, F.Y., Amidu, N., Acheampong, I., and Addo, K. (2012). Asymptomatic Bacteriuria among Pregnant Women Attending Antenatal Clinic at the Uni-versity Hospital, Kumasi, Ghana. J. Med. Biomed. Sci. 1: 38–44.
- Frimpong, C., Agyemang-yeboah, F., Obirikorang, C., Hardy, Y., Nyame, K., Acheampong, I., Kwame, O., Donkor, S., Afranie, B. O., & Amoah, B. (2020). Procalcitonin as a Surrogate Marker of Sepsis in People Living with HIV / AIDS : Journal of Clinical Chemistry and Procalcitonin as a Surrogate Marker of Sepsis in People Living with HIV / AIDS : A Case Study at Komfo Anokye Teaching Hospital , Ghana. J. Clin. Chem. Lab. Med. 3, 1–7.

#### Scholarship

2002 - 2005

**Government of Ghana scholarship for brilliant students** Ofori Panin Secondary School

#### Computer Skills

Statistical Software	SPSS, GraphPad Prism 5
Referencing Software	Zotero, Mendeley
Computer Software	MS Word, PowerPoint, MS Excel, Excellent Tying Skills

#### References

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