**DR. ELIEZER KOFI TOGBE**

**CURRICULUM VITAE**

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DR. ELIEZER KOFI TOGBE

DEPARTMENT OF MEDICAL DIAGNOSTICS

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

KUMASI, GHANA

Phone: +233-244-998523

[e-mail:](mailto:E-mail-vmdzomeku@gmail.com) [[ektogbe.chs@knust.ed.gh](mailto:E-mail-vmdzomeku@gmail.com)](mailto:ektogbe.chs@knust.ed.gh)

[[eltogbe@gmail.com](mailto:E-mail-vmdzomeku@gmail.com)](mailto:eltogbe@gmail.com)

**EDUCATION BACKGROUND**

* PhD, Kwame Nkrumah University of Science and Technology, School of Medical Sciences **2017 to 2022**
* MSc. Clinical Biochemistry, Kwame Nkrumah University of Science and Technology, School of Medical Sciences **1997 to 2002**
* BSc. Biochemistry**,** Kwame Nkrumah University of Science and Technology, School of Medical Sciences **1988 to 1992**

**CONTINUING EDUCATION UNDER KNUST, AACC/IFCC AUSPICES 2003 to date**

* Preparing for the next Pandemic- GWAC
* Epidemiological Profile of SARS-CoV-2 among selected regions in Ghana: a retrospective study
* Continued Education in Molecular Biology and Parasitology- Noguchi, Legon
* Managing Change for Laboratory Professionals
* The Natural and Unnatural History of Hepatitis C virus
* The Clinical Laboratory’s Role in Patient Safety
* Quality Management in Clinical Laboratories through ISO Standards, Six Sigma, and Lean Manufacturing Principles
* Pharmacogenonics: Promise Delivered
* Analbuminemia: Clinical and Laboratory Issues of Life without Albumin
* Circulating Nucleic Acids in Plasma: Emerging Tools for Future Molecular Diagnostics
* Pharmacogenomics: Acute Lymphoblastic Leukaemia as a Cancer Paradigm
* Paracrine Mechanisms of Stem Cells in Tissue repair and regeneration
* Point-of Care Testing: Reducing Medical Errors
* Normal Reference Levels: Theory and Practice
* Practical Applications of Point-of-Care Testing: Glucose Control and Patient Safety
* Show me the Money: Understanding the Economics of Pharmacogenomics and Personalised Medicine
* Sequencing the Human Genome: Gateway to a New a New Era in Science
* Novel Visualization and Bioinformatics Techniques in Functional Genomics
* Issues in Paediatric Immunology and Immunodeficiency
* Can that result Be Reported? Using Automated Rules to Aid the Decision
* NACB-Laboratory Medicine Practice Guidelines: Cardiovascular Risk Factors
* Diagnosis and Management of Food Allergies
* The Laboratory’s Role in Outcomes: A Physician’s Perspective

**EMPLOYMENT HISTORY**

* Clinical Biochemistry/Chemical Pathology, Kwame Nkrumah University of Science, College of Health Sciences **2013 to date**
* Komfo Anokye Teaching hospital and KNUST **1992 to 2013**
* Deputy Chief Biomedical Scientist, Ministry of Health **2008**
* Principal Biomedical Scientist, Ministry of Health **2007**
* Senior Clinical Biochemist, Ministry of Health **2002 to 2006**
* Part-time lecturer, School of Medical Sciences, Kwame Nkrumah University of Science and Technology **2006 to date**
* Technical Instructor in Clinical Biochemistry, Komfo Anokye Teaching Hospital / School of Medical Sciences, Kwame Nkrumah University Science and Technology **2000 to 2006**
* Part-time Teaching Assistant Lecturer and Demonstrator in Clinical Biochemistry, Komfo Anokye Teaching Hospital / School of Medical Sciences **1998 to 2000**
* Assistant Clinical Biochemist, Ministry of Health**1994 to 1998**
* Assistant Clinical Biochemist, Ministry of Health**1994 to 1998**
* National Service- Further training and orientation in Clinical Biochemistry **1992 to 1994**

**WORK HISTORY**

**Kwame Nkrumah University of Science**

Lecturer, Clinical Biochemistry/Chemical Pathology **2013 to date**

Department of Medical Diagnostics

Faculty of Allied Health Sciences

College of Health Sciences

**Responsibilities and skills:**

Lecturer in general Chemical Pathology including Kidney Function (Undergraduates)

* Structure and Physiology of glomerulus, Proximal convoluted tubule, Loop of Henle, Distal convoluted tubule, collecting duct, and Urine formation
* Quality Assurance, Westgard Rules, Materials for Laboratory Control (Undergraduates)
* Supervision of Clinical Biochemistry Practical (Levels 300 and 400)
* Structure and function of Biomolecules (MPhil Haematology-Postgraduates)

**Research Areas**

* Diabetes and Diabetic Nephropathy
* Molecular Biology
* Quality Assurance in the laboratory
* Malnutrition in Children
* Obesity in school going Children
* Metabolic Syndrome

**Service**

* Cognate Member of Faculty of Pharmacy and Pharmaceutical Sciences **2017 to date**
* Moderator of Affiliated University Colleges-Garden City College **2018 to 2021**
* Member of College of Health Sciences Scholarship and Social Funds Management Team **2019 to date**
* Departmental Examination officer **2017-2021**
* Assessor of Ghana Technical Education Commission (formerly National Accreditation Board NAB) **2013 to date**
* Leader/Member of Registered and Midwifery and General Nurses Examinations Invigilation Teams Nationwide **2014 to date**
* Church Health Management and Demonstrator in Current Health Issues **1992 to date**
* Teaching (Part-Time), School Of Medical Sciences and Department of Medical Diagnostics**2000 to 2013**
* Komfo Anokye Teaching Hospitaland Kwame Nkrumah University of Science and Technology (KNUST) **1992 to 2013**

**Department of Clinical Biochemistry**

Clinical Biochemist

**Responsibilities and skills:**

* Examination: in charge of Departmental Examination-2017-2021
* Lecturer in Clinical Biochemistry/Chemical Pathology
* Molecular Medicine
* Diabetic screening and monitoring tests: Oral Glucose Tolerance Test, Fasting Blood Sugar, Random Blood Sugar, DDA Vasopressin test, Glycated haemoglobin
* Liver Function Tests: Total and Direct Bilirubin, Total Protein, Albumin, Transaminases, Alkaline Phosphatase, Gamma Glutamyl Transferase, Hepatitis B Surface Antigen, Urobilinogen,
* Renal Function Tests: Water Deprivation test, Urine and Serum Osmolality, Creatinine Clearance, Microalbuminuria, Urea, Creatinine, Ammonium Chloride Load test, Potassium, Sodium
* Blood Gas analysis: pH, Pco2, bicarbonate, Anion Gap
* Lipid Profile: Total Cholesterol, Triglycerides, High Density Lipoprotein, Low density Lipoprotein
* Cardiac Profile: Lipid Profile, Troponin I, Lactate Dehydrogenase isoenzymes Aspartate aminotransferase, Creatine Kinase
* HIV Screening
* Protein Electrophoresis and interpretation of protein abnormalities
* Haemoglobin genotyping: Haemoglobin A, C, S, F, S Thal
* Anaemia Panel: Haemoglobin, Total Iron Capacity, Ferritin, Serum Iron
* Malnutrition Series: Prealbumin, Anaemia Panel, Albumin
* Prostatism: Acid Phosphatase, Prostatic Specific Antigen
* Pancreatitis: Serum Amylase
* Uric Acid
* Calcium
* Phosphate
* Magnesium
* Urinalysis
* Cerebrospinal Fluid Tests: Total Protein, Glucose levels
* Electrolytes, Serum and Urine: Sodium, Potassium, Chloride, Carbon Dioxide
* Fertility Profile: Follicle Stimulating Hormone, Prolactin, Oestrogen, Progesterone, Testosterone
* Thyroid Function Tests: Triiodothyronine, Thyroxine, Thyroid Stimulating Hormone
* Tumour Markers: Alpha-fetoprotein, Prostatic Specific Antigen, Alkaline Phosphatase isoenzymes, Lactate dehydrogenase isoenzymes, CA-125, CA 19-9, CA 15-3, Carcinoembryonic antigen.
* Evaluation of anterior Pituitary Reserve: Triple Function Test
* Serum Protein electrophoresis
* Pregnosticon Test
* Glutathione Peroxidase
* Superoxide Dismutase
* Special instruments with the required skills in evaluating the above tests include: colorimeter, spectrophotometer, fluorometer, flame photometer, electrophoresis equipment, densitometer, ELISA and microplate readers and washers, adjustable micropipettes, centrifuges, liquid chromatogram, automated random access chemistry analysers e.g. *Cobas Integra by Roche, ATAC 8000* by *Élan Diagnostics, BT 3000* and *AXSYM* by *ABBOTT* and user maintenance skills
* Some of the methods include: end-point chemical reactions, end-point enzymatic reactions, enzymatic kinetic reactions, monoclonal latex agglutination, Microparticle Enzyme Immunoassay, high performance liquid chromatography

**Special Accomplishments:**

* Assessor of GTEC (formerly NAB) **2012 to date**
* Obtain six academic project work full papers in peer reviewed international journals **2019 to 2022**
* Obtain publication of academic project work by the International Journal of Molecular Diagnostics and Laboratory Medicine – *Clinical Chemistry* of AACC in **June, 2010**
* Do two academic presentations at the 2010 Annual Meeting of American Association for Clinical Chemistry (AACC) in Anaheim, California, USA
* Obtain the prestigious award of *Certificate of Performance*, of the Department of Clinical Biochemistry, Komfo Anokye Teaching Hospital, Kumasi, Ghana
* Did two academic presentations at the 2007 Annual Meeting of American Association for Clinical Chemistry (AACC) in San Diego California, USA
* Obtain two publications of academic project work by the International Journal of Molecular Diagnostics and Laboratory Medicine – *Clinical Chemistry* of AACC pp A 47 & A 48; 2007
* Do academic presentation at the XIX International Congress of Clinical Chemistry (IFCC) and the 2005 Annual Meeting of American Association for Clinical Chemistry (AACC) in Orlando, Florida USA
* Obtain publication of academic project work by the International Journal of Molecular Diagnostics and Laboratory Medicine – *Clinical Chemistry* of AACC in June, 2005: p A192
* Obtain a Van Slyke Foundation International Travel Award to US, by AACC, 2007
* Obtain a Van Slyke Foundation International Travel Award to US, by AACC, 2005
* Obtain a Van Slyke Foundation International Travel Award to US, by AACC, 2003
* Obtain a Gallwas membership of AACC, 2002; membership ID: 75485
* Obtain publication of academic project work by an international scientific magazine- UK, *Proceedings of Association of Clinical Biochemists National Meeting,* *Focus 2001:* p 57
* Publish academic work that seemed to have a higher sensitivity at diagnosing moderately malnourished children than WHO established indices; UK, *Proceedings of Association of Clinical Biochemists National Meeting,* *Focus 2001:* p 57
* Received Students’ *favourite lecturer* award, 2001
* Successfully retrain colleagues to operate autoanalyzer always maintaining a cordial atmosphere
* Effectively coordinate staff in-service training seminars
* Coordinate staff and Administration business
* Efficiently combine hospital duty with academic work (MSc) as well as teach medical students by employing stringent time schedules

## CAREER OBJECTIVE

Lecturer in Clinical Biochemistry

### SUMMARY OF PROFESSIONAL STRENGTHS

A highly experienced, motivated, energetic individual with over a decade and half of professional experience in a major teaching hospital with proven competence in clinical chemistry and now university lecturing experience and development of student in Clinical Biochemistry. Over the years the following skills have been developed:

* University Lecturing Practice
* Research
* Assessment and Moderation of Tertiary Curricular
* Student and Staff training
* Academic Project supervision
* Student Mentoring
* Clinical Biochemistry Assay Skills-Automation and Manual
* Interpretation of Clinical Biochemistry Laboratory results
* Ability to function in a large teaching hospital network
* Patient Referrals
* Quality Assurance Procedures-including External Quality Assurance
* Working Knowledge of Microsoft Word, Excel and SPSS

**PUBLICATIONS**

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| 1. Evaluation of the Three Main Estimated Glomerular Filtration Rate (eGFR) Equations in a Black African Population; A Cross-Sectional Study Among Type 2 Diabetes Patients in Ghana**. Eliezer Togbe** 1, Max Efui Annani-Akollor2, Sampson Donkor2 International Journal of Nephrology. (2022) 2. Assessment of Bovine Serum as an Internal Quality Control Material in a Clinical Chemistry Laboratory Set-Up at the Komfo Anokye Teaching Hospital in Ghana. **Togbe E.** Quaryetey, D. International Journal of Innovative Science and Research Technology 7 (10) 250-254. (2022) 3. Interplay between foetal haemoglobin, micronutrients and oxidative stress biomarkers in sickle cell anaemia children. AG Owusu-Poku, D Gyamfi, **E Togbe**, S Opoku, RKD Ephraim, JG Asibey, Human Nutrition & Metabolism, 200173(2022) 4. Plasmodium falciparum histidine-rich protein 2 (PfHRP2) diversity in Ghana. (malariajournal.biomedcentral.com). Addai-Mensah O, Dinko B, Noagbe M, Ameke S.L,Mensah K, Tackie, **Togbe E** (2020). 5. Evaluation of metabolic syndrome and its associated risk factors in type 2 diabetes: a descriptive cross-sectional study at the Komfo Anokye Teaching Hospital BioMed research (Hindawi.com). Yeboah F.A, Eghan B.A.J, Annani-Akollor M.E, **Togbe E** (2019) 6. Waist circumference and hip circumference as potential predictors of visceral fat estimate among type 2 diabetic patients at the Komfo Anokye Teaching Hospital. Alexandria Journal of Medicine. Eghan B.A, Agyemang-Yeboah F, **Togbe E** (2019). 7. Association of Renal Function and Visceral and Subcutaneous Adiposity in Type II Diabetes Mellitus. **Togbe E.K.** and Eghan B.A. (2014) Clin Chem Supplement 60(S6). 8. A Comparative Study of Visceral Fat and anthropometric measurements of waist, hip and waist-to-hip ratio among Diabetic and Hypertensive Patients at the Komfo Anokye Teaching Hospital, Kumasi, Ghana. **Togbe E.**, Eghan B., Korsah. N, Kwame J. and Adjei F.R. (2010a). Clin Chem Supplement 56(S6). 9. Target Groups for Nutritional Intervention in Ghana. Clin Chem Supplement 56(S6). **Togbe E.**, Yeboah F.A. and Agyei-Frempong M.T. (2010b) 10. Sociodemographic Factors and their impact on the nutritional status of Ghanaian Children. **Togbe E.**, Yeboah F.A. and Adjei-Frempong M.T. (2007a). Clin Chem Supplement 57(S6). 11. Assessment of nutritional status among children and adults using a common nutritional risk index. **Togbe E**., Yeboah F.A. and Agyei-Frempong M.T. (2005) Clin Chem Supplement 57(S6). 12. Assessment of nutritional status among children and adults using a common nutritional risk index. **Togbe E.**, Yeboah F.A. and Agyei-Frempong M.T. (2005) Clin Chem Supplement 57(S6). 13. Assessment of nutritional status among Ghanaian children using body composition measurements. **Togbe E.**, Yeboah F.A. and Agyei-Frempong M.T. (2005) Clin Chem Supplement 55(S6). 14. **Togbe, E.** (2003). Manual of Chemical Pathology Practicals for Medical Laboratory Technology and Medical Student. 15. Assessment of Protein Energy Malnutrition among Ghanaian Children using a modified nutritional risk index . **Togbe E.**, Yeboah F.A. and Agyei-Frempong M.T. (2001) 16. Proceedings of Association of Clinical Biochemists National Meeting. **Togbe E**., Yeboah F.A. and Agyei-Frempong M.T. (2001) (Focus 2001,UK) |

**REFEREES:**

**Prof. F. Agyemang Yeboah (Former Vice Dean and Head)**

School of Medicine & Dentistry

Department of Molecular Medicine

KNUST, Kumasi

0245005500

[fayeboah@yahoo.co.uk](mailto:fayeboah@yahoo.co.uk)

**Prof. B.A. Eghan**

School of Medicine & Dentistry

Department of Molecular Medicine

KNUST, Kumasi

0244626602

[eghanben@gmail.com](mailto:eghanben@gmail.com)

**Prof. Otchere Addae Mensah** **(Former Dean and Head)**

Faculty of Allied Health Sciences

Department of Medical Diagnostics

0240779977

[email-drmedmozart@yahoo.com](mailto:email-drmedmozart@yahoo.com)