

CURRICULUM VITAE OF DR. SAMUEL BAKER OBAKIRO, Ph.D.

Lecturer and Ag. Head of Department of Pharmacology and Therapeutics, Busitema University
Faculty of Health Sciences; P.o Box 1460 Mbale, Uganda; Telephone (mobile): +256-704946479
/ +256 774505589 Emails: sobakiro@gmail.com / sobakiro@fhs.busitema.ac.ug
[Google scholar](#) [Research gate](#) [Orcid Publons](#)



A. PERSONAL DETAILS

Sex: Male

Date of Birth: 19/06/1986

Place of Birth: Mukono, Uganda

Passport Number: A00784971

Marital Status: Married

Religion: Christian

Nationality: Ugandan

B. PERSONAL STATEMENT

Dr. Samuel Baker Obakiro is a Pharmacologist and Analytical Chemist with special interest in Natural products Research and toxicology. I always find it rewarding working in a multidisciplinary team with senior colleagues where my position grows to be that of support, respect and trust. I love taking on new challenges and work competently and diligently to achieve the set targets. As an innovator, I have developed a natural product "TAZCOV®" for management of acute respiratory illness including Covid-19 and it is undergoing clinical trials in Uganda. As a leader, I am the founder and current Chair of the Busitema University Natural products Research and Innovation Centre based at the Department of Pharmacology and Toxicology where I also serve as the Ag. Head of Department.

C. CAREER GOAL AND OBJECTIVE

To build my capacity and competence in Pharmacology and Toxicology research and Innovations, training and mentoring of biomedical scientists and leadership so as to contribute towards improved health care and community transformation.

D. EDUCATION/ACADEMIC QUALIFICATIONS

Period	Institution	Qualification
2018 – 2022	Moi University Kenya	Ph.D. Analytical chemistry
2011-2014	Makerere University Kampala	MSc. Pharmacology
2013-2014	Kampala International University	Post Graduate Diploma in Education
2006-2009	Makerere University	BSc. (Chemistry & Botany)
2004-2005	Kasawo SSS	Uganda Advanced Certificate of Education
2000-2003	Royal College Bunga	Uganda Certificate of Education

E. SCHOLARSHIPS RECEIVED

Year	Award	Purpose	FUNDER
2020	TWAS-ICCBS	PhD research	TWAS-ICCBS
2018	ACEII-PTRE Scholarship	PhD program	World bank
2013	MEPI-MESAU Fellowship	MSc Program	National Institute of Health (NIH)
2006	Government Scholarship	Bachelors program	Ugandan government

F. GRANTS

Year	Project Title	Amount \$	FUNDER
2021	Formulation and clinical evaluation of Herbal Product(s) for Management of Covid-19.	700,000	Government of Uganda (STI-OP)
2020	Evaluation of the Anti-SARS-CoV-2 Activity of Selected medicinal plants and Formulation of Herbal Product(s) for Management of Covid-19	130,000	Government of Uganda (PRESIDE/MoSTI)
2020	Isolation and characterization of phytochemicals from three selected medicinal plants of family Fabaceae and evaluation of their bioactivity against <i>Mycobacterium tuberculosis</i>	9000	International foundation of Science (IFS), Sweden
2013	Toxicity evaluation of <i>Eucalyptus globulus</i> in animal models	2000	RISE-AFNNET, Carnegie Corporation New York

G. PROFESSIONAL AND CAREER DEVELOPMENT COURSES COMPLETED

- i. **Good Clinical Practice (GCP):** 5th – 10th March 2020; NIDA Clinical Trials Network; National Institute of Health, Department of Health and human Services
- ii. **Data or specimens only research:** 20th - 27th February 2020; Kenya Medical research Institute, Scientific Ethics Research Unit (SERU) Nairobi, Kenya
- iii. **Biomedical responsible conduct of research:** 20th - 27th February 2020; Kenya Medical research Institute, Scientific Ethics Research Unit (SERU) Nairobi, Kenya
- iv. **LC – MS Training: A hands on Approach;** 1st - 5th July 2019; Jomo Kenyatta University of Agriculture and Technology, Department of Chemistry, Kenya.
- v. **Qualitative Research methods and data analysis;** 5th - 9th August 2019; Mbarara University of Science and Technology; Faculty of Medicine, Uganda.
- vi. **Scientific Writing, communication and Publication;** 5th - 7th June 2019; Busitema University Faculty of Health Sciences, Uganda.
- vii. **Responsible conduct of research training;** 18th - 22nd April 2016; Mbarara University of science and technology (MUST) Faculty of Medicine, Uganda.
- viii. **Public administration and management course;** 18th august to 18th September 2015; Kampala International University (KIU), Faculty of business and management, Uganda
- ix. **Administrative law course;** 18th May to 18th June 2015; Kampala International University (KIU), Faculty of business and management, Uganda
- x. **PK/PD modelling and its application in infectious diseases;** 21st - 25th July 2014; Makerere University College of Health sciences (MAKCHS), Uganda
- xi. **Good laboratory practices (GLP) training;** 14st - 18th July 2014; Makerere University College of Health Science, (MAKCHS), Uganda
- xii. **Computer applications in Microsoft word, Excel and Power point;** 25th February to 25th April 2008; Eastern Computer Centre Jinja, Uganda

pg. 2

Samuel Baker Obakiro 1st July 2022



H. WORKING EXPERIENCE

Period	Position	Department	Institution	Other responsibilities
2018 - date	Lecturer	Pharmacology and Therapeutics	Busitema University	Acting. Head of Pharmacology Department; Member of the Faculty of Health Sciences Board; Secretary and member of Faculty curriculum committee; Member of the Faculty ICT committee; Block II (Pathology and Pharmacology courses) Coordinator; Course coordinator for Endocrine and metabolic disorders (MED 3201) and Chemotherapy (MED 3105), Chair and Principal Investigator, Busitema University Natural Products and Drug Research group (BUNaPREG)
2016 - 2017	Assistant Lecturer	Pharmacology and Therapeutics	Gulu University	Departmental Examination Coordinator
2013 - 2015	Graduate trainee	Pharmacology and Toxicology	Kampala International University	Coordinator of Teaching and Learning, Chairperson Journal club, Coordinator Pharmacology laboratory
2010 - 2016	Education officer	Biology	St. Joseph's SS Naggalama, Buloba High Sch, St. Balikuddembe SS Kisoga	Head of Biology Department, Class Teacher, Sports teacher, Patron Biology club, Science Teachers representative

I. AREAS OF RESEARCH INTEREST

- Drug discovery and development from natural products (Ethnopharmacology, medicinal chemistry, Nanotechnology)
- Analysis of drugs including poisons and their metabolites in biological samples, food stuffs and environment (Analytical chemistry and toxicology).
- Medicine access and utilization (Rational drug use)

J. RESEARCH WORK UNDERTAKEN

Period	Project title	Status
2020 - date	Evaluation of the Anti-SARS-CoV-2 Activity of <i>Tephrosia Linearis</i> , <i>Zanthoxylum Chalybeum</i> and <i>Albizia Coriaria</i> and Formulation of Herbal Product(s) for Management of Covid-19	Ongoing
2021- 2022	Prevalence of and factors associated with use of both conventional and herbal medicines among caretakers of children with sickle cell disease at Jinja Regional Referral Hospital	Completed
2019 - 2022	Antimycobacterial activity, phytochemistry and toxicity profiles and of <i>Erythrina abyssinica</i> , <i>Entada abyssinica</i> and <i>Albizia coriaria</i>	completed



2019	Prevalence and factors associated with herbal medicine use among pregnant women attending Mbale regional referral hospital	Completed
2017-2018	Tracking and mapping drivers of antimicrobial resistance in Eastern Uganda	Completed
2013-2014	Toxicity Evaluation of the methanolic leaf extract of <i>Eucalyptus globulus</i> in Wistar albino rats	Completed
2008 - 2009	Analysis of anthocyanin containing food stuffs sold in Kampala capital city and potential application in the food and medical industry	Completed

K. COMMUNITY AND PROFESSIONAL CONTRIBUTION

Date	Activity/ contribution	Output
18 th -22 nd July 2022	Coordinated a benchmarking mission at University of Free state South Africa	One memorandum of Understanding signed between Busitema University and University of Free state
23 rd - 25 th May 2022	Participated in a three day workshop to forecast the Uganda pathogen economy at Hotel African	Uganda Pathogen Economy R&D agenda and plan developed.
12 th -13 th May 2022	Participated in a two day symposium of the Uganda Pathogen Economy at Imperial Royale Hotel. Restructuring R & D Ecosystem of the pathogen economy opportunities for national socio-economic transformation	50 participants oriented in the Uganda Pathogen economy agenda
28 th Feb – 10 th March 2022	Participated in the WHO – TM mission to Uganda	Collaborations with WHO and local partners initiated
27 th -28 th July 2020	Organized a two day training at Busitema University formulation and regulation of herbal products in collaboration with National drug Authority and Pharm Biotechnology and Traditional Medicine Centre, MUST	10 natural product scientists were trained at the faculty of Health Sciences
20 th June – 30 th July 2021	Coordinated the operationalization of the Busitema University Faculty of Health Sciences Website by mobilizing content from staff members and uploading it onto the website	An active website for the faculty of Health Sciences was created which increased the visibility of the University and hence its ranking
15 th June 2021	Organized a one day scientific engagement between Busitema University academic staffs and Ministry of Science, Technology and Innovation and the Presidential Scientific Initiative on epidemics (PRESIDE)	125 academic staffs were sensitized about the future of science, technology and innovation in R&D in Uganda
10 th and 15 th January 2020	Organized two sensitization conferences about antibiotic prescription practices of health workers in Eastern Uganda and prevalence of antibiotic resistance pathogens among patients attending Mbale and Soroti	100 health care professionals were sensitized about the irrational antibiotic practices and its contribution to antibiotic resistance



	Regional Referral Hospital at Mt. Elgon Hotel Mbale and Soroti Hotel.	
4 th – 6 th June 2019	Organized a workshop in collaboration with a team from the University of Antwerp, Belgium on Scientific writing, communication and publication at Mbale and Soroti Regional Referral Hospitals.	50 participants were trained in grant proposal writing and best publication practices
18 th April 2019	Organized a workshop in collaboration with the Uganda Cancer Institute on cancer awareness and recent approaches in cancer management at Mbale Regional Referral Hospital.	100 health care professionals were sensitized about the cancer burden, prevention and treatment options
1 st February – 30 th June 2019	Participated in the review of MBChB curriculum of Busitema University Faculty of Health Sciences. I was the secretary to the review committee	MBChB curriculum was reviewed and approved by NCHE
3 rd November 2019 – 30 th January 2020	Participated in the Development of BSc. Medical Education Curriculum of International Institute of Health Sciences and Busitema University Faculty of Health Sciences. I was the secretary to the committee	BSc. Medical Education curriculum was developed and approved by NCHE
December 2018 – June 2019	Developed a pharmacology department practical manual for conducting pharmacology practicals for undergraduate students	One practical manual was developed to facilitate teaching and Learning of practicals

L. SKILLS AND COMPETENCIES

Teaching skills, Skills in good laboratory practices (GLP), Chromatography, Spectroscopy, Ethnobotanical surveys, Extraction of phytochemicals, Bioassays, Laboratory animal handling, Systematic reviews, scientific writing, Computer skills, Good communication and presentation skills, Leadership and interpersonal skills.

M. SCIENTIFIC AND PROFESSIONAL MEMBERSHIP

I am a member of the following bodies;

- Royal Society of chemistry (RSC)
- Natural Product Research Network for East and Central Africa (NAPRECA)
- Uganda Pharmacological Society (UPharS)
- Natural Products Industry Advancement Network Africa (NAPIANA)
- Curriculum committee of Faculty of Health Sciences Busitema University
- Uganda Pathogen Economy Think Tank

N. CONFERENCE PRESENTATIONS AND PARTICIPATION

1. Obakiro SB: **Ethnobotany, ethnopharmacology and phytochemistry of traditional medicinal plants used in the management of symptoms of tuberculosis in East Africa: a systematic review**; At the first International conference on Reimagining the Natural Products Industry in Africa 2021; 5th -7th July 2021; Imperial Royal Hotel Kampala Uganda

2. Obakiro SB: **Exploring Uganda's Medicinal plants for COVID-19 therapies:** At the International Level Webinar on COVID -19 Outbreak, Global Scenario on 23rd June 2020, Deogiri College, Aurangabad, Maharashtra, India
3. Obakiro SB, Bunalema L, Ndukui J, Waako JP, Nyatia E. **Sub-chronic toxicity profile of *Eucalyptus globulus* methanolic leaf extract in Wistar rats.** At NAPRECA Uganda Conference on 5th April 2019; Makerere University Kampala.
4. Obakiro SB: **Uganda' medicinal plants hold a solution for the multidrug resistant tuberculosis;** At the Pharm Development International conference 2018; 28 -29th November 2018, Moscow, Russia

O. LIST OF PUBLICATIONS

1. **Obakiro S.B,** K'Owino, Kigonde E., Andima M., Owor R.O., Kiprop A., (2022). Molecular Docking Interactions with Mycobacterial ATP and Polyketide-13 Synthase Enzymes of Phytoconstituents Isolated from Entada abyssinica Stem Bark. *Biointerface research in applied chemistry* (in press).
2. Omara, T., Odero, M.P. & **Obakiro, S.B.** Medicinal plants used for treating cancer in Kenya: an ethnopharmacological overview. *Bull Natl Res Cent* **46**, 148 (2022). <https://doi.org/10.1186/s42269-022-00840-x>
3. Kiyimba K, Ayikobua ET, Mwandah DC, **Obakiro SB** (2022). Assessing the protective effect of Crassocephalum vitellinum against Rifampicin- induced hepatotoxicity in Wistar rats. *Afri Health Sci*. 2022;22(1):352-60. <https://dx.doi.org/10.4314/ahs.v22i1.43>
4. **Obakiro, S. B.,** Kiprop, A., Kigonde, E., K'owino, I., Kiyimba, K., Drago Kato, C., & Gavamukulya, Y. (2021). Sub-Acute Toxicity Effects of Methanolic Stem Bark Extract of Entada abyssinica on Biochemical, Haematological and Histopathological Parameters in Wistar Albino Rats. *Frontiers in Pharmacology*, 12(September), 1–9. <https://doi.org/10.3389/fphar.2021.740305>
5. **Obakiro SB,** Ambrose Kiprop, Isaac K'Owino, Moses Andima, Richard Oriko Owor, Robi Chacha, and Elizabeth Kigonde. 2022. "Phytochemical, Cytotoxicity, and Antimycobacterial Activity Evaluation of Extracts and Compounds from the Stem Bark of Albizia Coriaria Welw Ex. Oliver." *Evidence-Based Complementary and Alternative Medicine* 2022. <https://doi.org/10.1155/2022/7148511>.
6. **Obakiro, S. B.,** Napyo, A., Wilberforce, M. J., Adongo, P., Kiyimba, K., Anthierens, S., Kostyanev, T., Waako, P., & Van Royen, P. (2022). Are antibiotic prescription practices in Eastern Uganda concordant with the national standard treatment guidelines? A cross-sectional retrospective study. *Journal of Global Antimicrobial Resistance*, xxx. <https://doi.org/10.1016/j.jgar.2021.11.006>
7. **Obakiro, S.B.,** Kiyimba, K., Paasi, G., Napyo, A., Anthierens, S., Waako, P., Royen, P. Van, Iramiot, J. S., Goossens, H., & Kostyanev, T. (2021). Prevalence of antibiotic resistant bacteria among patients in two tertiary hospitals in Eastern Uganda. *Journal of Global Antimicrobial Resistance*, 25, 82–86.
8. Kagoya, E. K., Royen, K. Van, Waako, P., Royen, P. Van, Iramiot, J. S., **Obakiro, S. B.,** Kostyanev, T., & Anthierens, S. (2021). Experiences and views of healthcare professionals on the prescription of antibiotics in Eastern Uganda. A qualitative study. *Journal of Global Antimicrobial Resistance*, 25, 66–71.
9. **Obakiro, S.B.,** Kiyimba, K., Napyo, A., Kanyike, A. M., Mayoka, W. J., Nnassozi, A. G., Aguti, B., Akech, G. M., & Waako, J. P. (2021). Appropriateness and affordability of prescriptions to diabetic patients attending a tertiary hospital in Eastern Uganda: A retrospective cross-sectional study. *PLoS ONE*, 16(1 January),

1–12. <https://doi.org/10.1371/journal.pone.0245036>

10. **Obakiro, S.B.**, Kiprop, A., Kowino, I., Kigundu, E., Odero, M.P., Omara, T., Bunalema, (2020) Ethnobotany, ethnopharmacology and phytochemistry of traditional medicinal plants used in the management of symptoms of tuberculosis in East Africa: a systematic review. *BMC Tropical medicine and Health* 48 (68).
11. **Obakiro SB**, Kiprop A, Kigundu E, et al. Traditional Medicinal Uses, Phytoconstituents, Bioactivities, and Toxicities of *Erythrina abyssinica* Lam. ex DC. (Fabaceae): A Systematic Review. *Evid based Complement Altern Med - Hindawi*. Published online 2021:1-43. doi:10.1155/2021/5513484.
12. Bunalema L, **Obakiro S**, Tabuti RS, Waako JP (2014) Knowledge on plants used traditionally in treatment of Tuberculosis in Uganda. *Journal of ethnopharmacology* vol. 151; 999-1004.
13. Omara, T., Kiprop, A. K., Wangila, P., Wacoo, A. P., Kagoya, S., Nteziyaremye, P., Peter Odero, M., Kiwanuka Nakiguli, C., & **Obakiro, S.B** (2021). The Scourge of Aflatoxins in Kenya: A 60-Year Review (1960 to 2020). *Journal of Food Quality*, 2021. <https://doi.org/10.1155/2021/8899839>.
14. Muhwana, I., **Obakiro, S. B.**, Ibanda, I., Crucifix, P. G., Afodun, A. M., & Odoma, S. (2020). Antinociceptive and anti-inflammatory activities of the aqueous leaf extract of *Erlangea tomentosa* (Asteraceae) in rats and mice. *Journal of Pharmacy & Bioresources*, 17(1), 19–23. <https://doi.org/10.4314/jpb.v17i1.4>
15. **Obakiro, S B**, Bunalema, L., Nyatia, E., & Waako, J. P. (2018). *Ulcerogenic Potential of Eucalyptus globulus L. Leaf Extract in Wistar Albino Rats*. <https://doi.org/10.3923/jpt.2018.Research>

P. STUDENTS SUPERVISION AND MENTORSHIP

1. Ms. Consiliate Apolot (Masters of Public Health0) Busitema University Faculty of Health Sciences – Supervision completed in 2022
2. Dr. Isaac Muhwana (Bachelor of Pharmacy); Kampala International University – Supervision completed in 2017
3. Dr. Bruno SSerunkuma (Bachelor of medicine and Bachelor of Surgery); Kampala International University - Supervision completed in 2015
4. Ms. Daphine Mugala (Bachelors of Science in Nursing); Busitema University Faculty of Health Sciences – Supervision completed in 2020
5. Mr. Kennedy Kiyimba (MSc. Pharmacology); Kampala International University – Mentorship ongoing
6. Dr. Timothy Wamukota (MSc. Clinical Pharmacy); Mbarara University of Science and Technology – Mentorship ongoing

Q. THESIS AND DISSERTATIONS EXAMINED

1. Charles Benard Okalebo (BU/GS16/MPH/017). Prescription practice and potential drug to drug interactions in the management of childhood malaria at Mbale Regional Referral Hospital: Across sectional study. Dissertation for the award of a Masters of Public Health degree of Busitema University
2. Mary Gorret Atim (BU/GS15/MPH/04). Antibiotic Use in Children Under Five Years with Febrile Illness at Soroti Regional Referral Hospital: Is the Malaria Test and Treat Policy

working? Dissertation for the award of a Masters of Public Health degree of Busitema University

R. LANGUAGE PROFICIENCY

Language	Listening	Writing	Speaking
English	Excellent	Very good	Very good
Luganda	Excellent	Very good	Excellent

S. INTERESTS AND HOBBIES

- Sharing educational experiences particularly on drug and natural product research
- Religious camps, football, swimming, volley ball, travelling and touring

T. REFEREES

NAME	RESPONSIBILITY	CONTACT
Prof. Paul Waako	Professor of Pharmacology and Therapeutics and Vice chancellor Busitema University Uganda	+256-772468458 paulwaako@yahoo.com
Prof. Ambrose Kiprop	Professor of Organic Chemistry and Dean, School Biological and Physical Sciences Moi University, Kenya	+254719241704 Ambkiprop@gmail.com
Dr. John Wasswa	Senior Lecturer and Chair, Chemistry department Makerere University College of Natural Sciences	+256-772504657 jnwasswa@yahoo.co.uk



Dr. Samuel Baker Obakiro. Ph.D.

Date: 1st July 2022

