



March 2022

## **CURRICULUM VITAE**

### **1.1 PERSONAL PROFILE**

#### **1.1.1 PERSONAL DETAILS**

***Name: Nicholas Kamindu Gikonyo***

Department: Pharmacognosy & Pharmaceutical Chemistry,  
School of Pharmacy,  
Kenyatta University.

Designation: *Associate Professor* Nationality: *Kenyan*

Email: [gikonyo.nicholas@ku.ac.ke](mailto:gikonyo.nicholas@ku.ac.ke); [nkgikonyo@gmail.com](mailto:nkgikonyo@gmail.com)

#### **Area of specialization:**

- ✓ Pharmacognosy and Alternative Medicine

#### **Research Interests:**

- ✓ Development of safe and efficacious herbal products for management of human health.

**Google Scholar:** <https://scholar.google.com/citations?user=gIBJXLQAAAAJ&hl=en>,

**ORCID ID:** <https://orcid.org/0000-0001-7819-486X>

## **SUMMARY**

As an Associate Professor in the School of Pharmacy at Kenyatta University (KU), my expertise is in teaching, research and innovation in the areas of Pharmacognosy, Complementary and Alternative Medicine, Nutrition in therapy and Chemical Ecology.

I am the founding Director of the “National Phytotherapeutics Research Centre” based at Kenyatta University. Previously, I was Director of KU Funeral Home, the founding Chairman of the department of Pharmacy, Complementary and Alternative Medicine (PCAM) at KU (currently the School of Pharmacy), the founding chairman of the KU Ethics Review Committee. I am the Board Chairman of the Chandaria Business Innovation and Incubation Centre (CBIIC) at KU, and previously board member of the KU Research Review and Advisory Board (URRAB), Confucius Institute, KU Funeral Home. I am the Deputy Editor of the Kenya National R&D Journal and an Editor of the East and Central Africa Medical Journal. I am a member of the Traditional and Alternative Medicine Technical Working Group – on the Kenya Health Act no 21 of 2017. In addition to publishing several scientific papers in peer reviewed journals, I have one Patent granted by KIPI.

My passion is use and promotion of natural solutions to health problems.

## 1.1.2. ACADEMIC & PROFESSIONAL QUALIFICATIONS

### 1.1.2.1 ACADEMIC QUALIFICATIONS

- 2000 PhD (Semiochemistry). University of Nairobi (UON).  
1992 Master of Science Degree (Phytochemistry). UON.  
1988 Bachelor of Science Degree (Chemistry). UON.

### 1.1.2.2 PROFESSIONAL COURSES RELATED TO ACADEMIC AREA

- 2021: **Operations and Use of: - Oil Expeller, Essential Oil Distiller, Rotor Mill Grinder, Laboratory Refrigerator & Automatic Autoclave:** National Phytotherapeutics Research Centre -Kenyatta University, Kenya.  
Trainer: Benica East Africa LTD  
24<sup>th</sup> November 2021 to 3<sup>rd</sup> December 2021.
- 2021: **Operations and Use of: - Automatic Autoclave:** National Phytotherapeutics Research Centre -Kenyatta University, Kenya.  
Trainer: The Scientific Group Kenya LTD  
21<sup>st</sup> July 2021 to 26<sup>th</sup> July 2021.
- 2021: **Operations and Use of: - X-Ray Fluorescence & HPTLC Densitometry:** National Phytotherapeutics Research Centre -Kenyatta University, Kenya.  
Trainer: Vision Scientific & Engineering Kenya  
24<sup>th</sup> May 2021 to 28<sup>th</sup> May 2021.
- 2021: **Operations and Use of: - LC-MS/MS, GC-MS, FTIR-ATR & UV-Vis:** National Phytotherapeutics Research Centre -Kenyatta University, Kenya.  
Trainer: Education Scientific & Technical Equipment Company LTD  
15<sup>th</sup> February 2021 to 16<sup>th</sup> March 2021.

- 2013: **Bioethics:** Kenya Aids Vaccine Initiative (KAVI), Institute of Clinical Research - University of Nairobi. Silver Springs Hotel, Nairobi. Kenya. 3<sup>rd</sup> – 5<sup>th</sup> July 2013.
- 2012: **Peer Reviewer of Academic Programmes and Institutions:** Commission for Higher Education. Gigiri, Nairobi, Kenya. 6<sup>th</sup> – 7<sup>th</sup> Nov. 2012.
- 2012: **Biosafety:** Kenyatta University. Kenya. 22<sup>nd</sup> August 2012
- 2012: **Vaccines development:** By Novartis Institute for Biomedical Research (NIBR). Accra, Ghana. Best Western Premier Accra Airport Hotel. Accra, Ghana. 4<sup>th</sup> Aug. 2012.
- 2012: **Clinical Pharmacology:** By Novartis Institute for Biomedical Research. Best Western Premier Accra Airport Hotel. Accra, Ghana. 4<sup>th</sup> Aug. 2012.
- 2012: **Natural Products:** By Novartis Institute for Biomedical Research. Best Western Premier Accra Airport Hotel. Accra, Ghana. 3<sup>rd</sup> Aug. 2012
- 2012 **Bioethics:** Kenya School of Law, Nairobi, Kenya. 16<sup>th</sup> – 18<sup>th</sup> January 2012.
- 2010 **Visiting Research Fellowship:** Novartis Institute for Biomedical Research (NIBR), Massachusetts USA. Department of Developmental & Molecular Pathways (DMP). 2010.
- 2007 **Advanced Training in Research and Development of Medicinal Plants:** Tianjin University of Traditional Chinese Medicine, Tianjin, China. 2007.
- 2001 **Postdoctoral Research Fellowship in Semiochemistry.** International Centre of Insect Physiology and Ecology (ICIPE), Kenya. 2000-2001
- 2004 **Good Laboratory Practice (GLP).** Jakarada Hotel, Nairobi, Kenya. Sponsor: UNDP/WHO/WORLD BANK. 2004.

- 1999      **Doctor of Philosophy:** African Regional Postgraduate Programme in Insect Science (ARPPIS), ICIPE, Kenya. 1996-1999.
- 1997      **Biostatistics:** ARPPIS. ICIPE, Nairobi, Kenya. 1996.
- 1987      **Quality Control of Pharmaceuticals:** Dawa Pharmaceuticals Company Ltd. Nairobi, Kenya. 1987.

### 1.1.2.3      **OTHER PROFESSIONAL COURSES**

- 2021      **Online External Examination Training** Course. University of Nairobi. 28.4.2021
- 2020      **Blended Learning Online Facilitation** Training, Kenyatta University. June-July 2020
- 2013      **Teaching and Examining Methodologies.** Kenyatta University. Kenya
- 2012      **Performance Contracting:** Kenya School of Monitory Studies, Nairobi, Kenya
- 2009      **Management of University Departments /Schools /Directorates.**  
*Sponsor:* Kenyatta University. Kenya
- 2006      **Proposal writing.** NCKK Jumuaia Center – Nakuru, Kenya.  
*Sponsor:* Kenya Agricultural Productivity Project (KAPP).
- 2006      **Proposal writing.** Kenya Utalii College. Nairobi, Kenya. *Sponsor:* KU.
- 2004      **Modern methods for Ecogeographic studies.** AVU, KU. Nairobi, Kenya  
*Sponsor:* IPGRI-SSA.

2003      **Peak Performance (Unleashing Power):** Nairobi, Kenya. *Sponsor:* UoN

1985      **Serviceman:** National Youth Service (NYS). Gilgil, Kenya.  
*Sponsor:* Kenya Government.

### **1.1.3      EMPLOYMENT HISTORY/WORK EXPERIENCE**

Sept. 2011 -----      **Associate Professor:** Department of Pharmacy and  
Complementary /Alternative Medicine. Kenyatta University

Feb. 2006 –Sept. 2011      **Snr Lecturer:** Department of Pharmacy and Complementary  
/Alternative Medicine. Kenyatta University.

June 2000 - Feb 2006      **Lecturer:** Department of Pharmacology and Pharmacognosy,  
Faculty of Pharmacy, UON.

Feb. 2000 - Oct. 2001      **Postdoctoral Fellow:** BCED, ICIPE. Senior

July 1997 – June 2000.      **Tutorial Fellow:** Department of Pharmacology and  
Pharmacognosy, Faculty of Pharmacy, UON.

July 1991- Aug.1996      **Associate Scientific Officer:** BCED, ICIPE.

Jan – June 1991      **Graduate Assistant:** Department of Chemistry, UON.

Jan. 1984 - May 1985      **Teacher:** St Mary's Secondary School - Nyeri.

#### **1.1.4 ACHIEVEMENTS**

- 2020 -2021 **Covid-19 pandemic response:** The chairman of committee of expert mentors who supported 15 KU student innovators of a mechanical ventilator.
- 2019: **Establishing a centre of excellence:** The National Phytotherapeutics Research, Upscaling and Quality Assurance Centre at KU.
- 2017: **Developing a New Academic Programme:** Curriculum for Masters Degree in Medicinal Plants: Pan African University.
- 2013: ... Editor. East and Central Africa Medical Journal
- 2009: ... Deputy Editor. National R&D Journal
- 2010: Spearheading the donation of books from Sabre foundation of MA, USA valued at KSh 300 million to KU.
- 2009: Developing the KU Ethics Review Operational Guidelines for Biomedical Research.
- 2008/9: Establishing the Department of Pharmacy and Complementary /Alternative Medicine at KU.
- 2006 –8: Developing a New Academic Programme: Curriculum for Bachelor of Pharmacy at Kenyatta University.
- 2008: Leading 3 Research Projects as the Principal Investigator at KU.
- 2008: Reviewing KU Strategic and Vision Plan (aligning with Kenya Vision 2030).

- 2007/8: Developing Academic Programmes in 2 Other Universities: Curriculum for Bachelor of Pharmacy.
- 2007: Developing the KU Research Policy
- 2006: Developing a Policy on Traditional Medicine and Traditional Medical Practitioners at Kenyatta University.

## 1.2 PUBLICATIONS.

### 1.2.1 Refereed journals

- 1 Fidensio K. Ndegwa, Chaitanya Kondam, Samuel Y. Aboagye, Taiwo E. Esan, Zohra Sattar Waxali, Margaret E. Miller, **Nicholas K. Gikonyo**, Paul K. Mbugua, Paul O. Okemo, David L. Williams and Timothy J. Hagen. (2022). Traditional Kenyan herbal medicine: exploring natural products' therapeutics against schistosomiasis. *Journal of Helminthology*. 96, e16, 1–7. <https://doi.org/10.1017/S0022149X22000074>.
- 2 Onyambu Meshack O, **Gikonyo Nicholas K**, Nyambaka Hudson N, Thoithi Grace N & Okumu Tom O. (2021). Development of gas chromatography-mass spectrometry fingerprints for *Warburgia ugandensis* herbal materials. *Malaysian Journal of Pharmaceutical Sciences*, **19(2)**: 23–46. <https://doi.org/10.21315/mjps2021.19.2.2>
- 3 Mbulo, T.M., **Gikonyo, N.K.** and Kabiru, E.M. (2021). Ecologically sustainable mosquito repellence using live *Artemisia annua* Linnaeus plants in boarding schools of Mwea rice irrigation scheme, Kenya. *International Journal of Mosquito Research* **8(2)**: 48-53. DOI:<https://doi.org/10.22271/23487941.2021.v8.i2a.51>



- 4 Njoroge, G.K., Njagi, E.N.M., **Gikonyo, N.K.** and Piero, M.N. (2020). In vivo Glycemic and Toxicity Effects of Aqueous Extracts of *Urtica massaiica*. *International Journal of Medicine and Pharmaceutical Sciences*. **10(3)**: 35-44.
- 5 Onyambu MO, **Gikonyo NK**, Nyambaka HN and Thoithi GN. (2020). Macroscopic and microscopic features of diagnostic value for *Warburgia ugandensis* Sparague leaf and stem-bark herbal materials. *Journal of Pharmacognosy and Phytotherapy*. **12(2)**: 19-27.
- 6 Onyanacha JM., **Gikonyo NK.**, Wachira SW., and Gicheru MM. (2019). An ethnobotanical survey of plants used for the treatment and management of cancer in Embu County, Kenya. *Journal of Medicinal Plants Studies*. **7(4)**: 39-46.
- 7 Onyambu MO, **Gikonyo NK**, Nyambaka HN and Thoithi GN. (2019). A Review of Trends in Herbal Drugs Standardization, Regulation and Integration to the National Healthcare Systems in Kenya and the Globe. *Int. J. Pharmacogn. Chinese Med*. **3(3)**: 000168.
- 8 Onyanacha JM, **Gikonyo NK**, Wachira SW, Gicheru MM. (2019). Isolation and antiproliferative characterisation of bergenin from root extract of *Uvariadendron anisatum* Verdec (Annonaceae). *Drug Discovery*. **13**, 55-78.
- 9 Florence W Ngari, **Nicholas K Gikonyo**, Eliud NM Njagi and Ruth N Wanjau. (2018). The practice of herbal medicine in management of oral health in Nairobi County, Kenya. *International Journal of Herbal Medicine*. **6(5)**, 05-09

- 10 Onyancha, J.M., **Gikonyo, N.K.**, Wachira, S.W., Mwitari, P.G. and Gicheru, M.M. (2018). Anticancer activities and safety evaluation of selected Kenyan plant extracts against breast cancer cell lines. *Journal of Pharmacognosy and Phytotherapy*. **10(2)**, 21-26.
- 11 Everlyne N. Wanzala, **Nicholas K. Gikonyo**, Grace Murilla, Mercy Githua, Ahmed Hassanali. (2017). In vitro and in vivo anti-trypanosomal activities of methanol extract of *Azadirachta indica* stem-bark. *Afr. J. Tradit. Complement. Altern. Med.* **14 (6)**: 72-77
- 12 Kanensi, J. O., Ochola, S., **Gikonyo, N.K.** and Makokha, A (2017). Efficacy of amaranth sorghum grains porridge in rehabilitating moderately acute malnourished children in a low-resource setting in Kenya: A randomized controlled trial. *Integr Food Nutr. Metab.* **4(4)**, 1-7.
- 13 Ndungu, Z. W., Kuria, E. N., **Gikonyo, N. K.** and Mbithe, D. K. (2017). Efficacy of amaranth grain consumption on CD4 count and morbidity patterns among adults living with HIV in Nyeri, Kenya. *J. AIDS HIV Res.* **9(4)**, 81-88.
- 14 Njoroge, G.K., Njagi, E.N.M., **Gikonyo, N.K.** and Piero, M.N. (2017). In vivo antidiabetic potential and safety of aqueous extract of *Triticum aestivum* (wheatgrass). *Int. J. of Med. and Pharm. Sci.* **7(1)**, 77-84.
- 15 Ong'era T.N., Amuka O., Machocho A.K. and **Gikonyo N.K.** (2017). Antimicrobial activities screening of some phytochemicals from the stem bark extracts of *Bersama abyssinica* (Fresen). *Medicinal Plants – Int. J. of Phytomed. & Related Inds.* **9(1)**. 20-28. Print ISSN : 0975-4261. Online ISSN : 0975-6892. Article DOI : 10.5958/0975-6892.2017.00003.X.

- 16 Tonui M. Kipnetich, Ruth N. Wanjau, **Nicholas K. Gikonyo** and Jane Murungi. (2016). Levels of Iodide, fluoride and Chloride in Amaranth grain in Kenya. *Journal of Applied Chemistry*. 9 (10). 97 – 104. Online e-ISSN: 2278-5736. DOI: 10.9790/5736-09100297104.
- 17 Judith Kanensi Okoth, Sophie Atieno Ochola, **Nicholas K. Gikonyo** & Anselimo Makokha. (2016). Development of a nutrient-dense complementary food using amaranth-sorghum grains. *Food Science & Nutrition*. 1-8.
- 18 Justus M. Mbithi, Mohamed M. Awadh, **Nicholas K. Gikonyo**, Paul K. Tarus and Alex K. Machocho. (2016). Phytochemical and Antibacterial Investigation of the Plant *Ochna thomasiana* Engl. & Gilg. *Journal Kenya Chemical Society*, **9**(1), 82-90.
- 19 Kinuthia G.K., Anjili C.O, Kabiru E.W, Kigonde E.M., Ingonga J.M. and **Gikonyo N.K.** (2015). Toxicity and efficacy of aqueous crude extracts from *Allium sativum*, *Callistemon citrinus* and *Moringa stenopetala* against *L. Major*. *Kabarak Journal of Res. & Innov.* **3**(1), 9 – 20.
- 20 Ndungu Z.W., Kuria E., **Gikonyo N.** and Mbithe D. (2014) Contribution of amaranth grain (*A. cruentus*) on dietary intake and nutritional status of adults living with HIV in Mweiga, Nyeri, Kenya. *J. Basic. Appl. Sci. Res.*, 4(4) 196-203.
- 21 Tonui M.K., Wanjau R.N., **Gikonyo N.K.**, Murungi J., Cheruiyot K.N. and Ngeno K.S. (2014). Influence of soil and rain on the levels of inorganic anions in amaranth leaves from selected parts of Kenya. *Food Sci. and Quality Management*. **31**:12-20.

- 22 Ngari, F. W; Wanjau, R. N; Njagi, E. N, and **Gikonyo, N.K.** (2014). Antimicrobial and phytochemical investigation of herbal suspensions used in management of oral health in Nairobi County, Kenya. *Journal of Biology, Agriculture and Healthcare*. **4**(14): 17-22.
- 23 Ngari, F. W; Wanjau, R. N; Njagi, E. N, and **Gikonyo, N.K.** (2014). Herbal materials used in management of oral conditions in Nairobi, Kenya. *Journal of Oral Health and Community Dentistry*. **8**(1): 30-36.
- 24 Kinuthia, G.K, Kabiru, E.W, **Gikonyo, N.K**, Ingonga, J.M, Kigonde, E.M, Anjili, C.O. (2014). In vitro activity of aqueous and methanol extracts of *Callistemon citrinus* (Family Myrtaceae) against *Leishmania major*. *Afr. J. Health Sci*. **27**(2):118-133
- 25 Rugutt, J.K., Okoth, K.O., Wanjau, R.N., **Gikonyo, N.K.** Machocho, A., Rugutt, K.J. Rykhlya, K.Y., Harris, K.B., Wilson, K.R. and Koech. J. (2014). US-Africa Collaboration in a Chemical Education Project Involving Analysis of Amaranthus Grain Oil from Selected Agro-Ecological Zones in Kenya. *The Chemical Educator*. **19**, 50-54.
- 26 Rugutt, J.K., Okoth, K.O., Wanjau, R.N., **Gikonyo, N.K.** Machocho, A., Rugutt, K.J., Obel, M.C. and Mibei, E. (2014). A Quantitative Analytical Chemistry Research-based Experiment Involving Comparative Analysis of Amaranth Grain Oils Extracted from Embu and Meru Districts in Kenya. *The Chemical Educator*. **19**, 91-95.
- 27 Kinuthia G.K., Kabiru E.W, Anjili C.O, Kigonde E.M., Ngure V.N, Ingonga J.M. and **Gikonyo N.K.** (2014). Efficacy of crude methanolic extracts of *Allium sativum* L. and *Moringa stenopetala* (Baker f.) Cufond. against *Leishmania major*. *Int. J. Med. Arom. Plants*. **4** (1), 16 – 25

- 28 Nderitu F.W., **Gikonyo N.K.** and Sinei K.A. (2013) Detection and Management of Adverse Drug Reactions Related to Antiretroviral Drugs among HIV/AIDS Patients in Kiambu Sub-County, Kenya. *East and Centr. Afr. J. Pharm. Sci.* 16, 3-12
- 29 Ngari, F. W., **Gikonyo, N.K.**, Wanjau, R. N. and Njagi, E. M. (2013). Investigation of selected pathogenic microorganisms and toxic elements in herbal materials used in management of oral health in Nairobi County, Kenya. *J. Appl. Environ. Biol. Sci.* **3**(12): 1-7.
- 30 Ngari, F. W., **Gikonyo, N.K.**, Wanjau, R. N. and Njagi, E. M. (2013). Safety and Antimicrobial Properties of *Euclea divinorum* Hiern, Chewing Sticks Used for Management of Oral Health in Nairobi County, Kenya. *J. Pharm. Biomed. Sci.* **3**(3)1-8.
- 31 Kinuthia, G.K., Anjili, C.O., **Gikonyo, N.K.**, Kigonde, E.M., Ingonga, J.M. and Kabiru, E.W. (2013). In vitro and in vivo activities of blends of crude aqueous extracts from *Allium sativum* L, *Callistemon citrinus* (Curtis) Skeels and *Moringa stenopetala* (Baker F) Cufodontis against *Leishmania major*. *Int. J. Med. Arom. Plants.* **3**(2), 234-246
- 32 Kanensi, J. O., Ochola, S., **Gikonyo, N.K.** and Makokha, A. (2013). Effect of Steeping and Germination on the Diastatic Activity and Sugar Content in Amaranth Grains and Viscosity of Porridge. *J. Agric. Food Tech.* **3**(1): 1-7.
- 33 Mburu M.W., **Gikonyo N.K.**, Kenji G.M. and Mwasaru A.M. (2012). Nutritional and functional properties of a complementary food based on Kenyan amaranth grain (*Amaranthus cruentus*). *Afr. J. Food, Agric., Nutr. and Devel.* **12**(2), 5959 – 5977.

- 34 Mburu M. W., **Gikonyo N.K.**, Kenji G.M. and Mwasaru A. M. (2011). Properties of a Complementary Food based on Amaranth Grain (*Amaranthus cruentus*) Grown in Kenya. *J. Agric. Food. Tech.* **1(9)**: 153-178.
- 35 Kanensi, J. O., Ochola, S., **Gikonyo, N.K.** and Makokha, A. (2011). Optimization of the Period of Steeping and Germination for Amaranth Grains. *J. Agric. Food Tech.* 1(6): 101 - 105.
- 36 Kamau, R.T., Mwanzo, I. and **Gikonyo, N.K.** (2010). The Influence of Gender Related Factors on Access to Antiretroviral Therapy in Nairobi, Kenya. *East Centr. Afr. J. Pharm. Sci.* 13: 35-42.
- 37 Innocent, E., Joseph C. Cosam, C.J., **Gikonyo, N.K.**, Nkunya, M.H.H. and Hassanali, A. (2010). Constituents of the essential oil of *Suregada zanzibariensis* leaves are repellent to the mosquito, *Anopheles gambiae s.s.* *J. Insect Sci.* 10:57 (online: [insectscience.org/10.57](http://insectscience.org/10.57))
- 38 Shem, P.M., Shiundu, P.M., **Gikonyo, N.K.**, Hassanali, A. and Saini, R.K. (2009). Release Kinetics of a Synthetic Tsetse Allomone Derived from Waterbuck Odour from a Tygon Silicon Dispenser under Laboratory and Semi Field Conditions. *American-Eurasian J. Agric. & Environ. Sci.*, **6 (6)**: 625-636.
- 39 Innocent, E., Cosam, C.J., **Gikonyo, N.K.**, Nkunya, M.H.H. and Hassanali A. (2009). Larvicidal properties of some Tanzanian plant species against *Anopheles gambiae s.s.* Gile (Diptera:Culicidae) mosquitoes. *Int. J. Biol. Chem. Sci.* **3(2)**: 266-270.

- 40 Mbiti, E.N., **Gikonyo, N.K.**, Mbugi, J.P. and Mwanzo, I. (2009). Adherence to Artemether- lumefantrine (AL) in the treatment of malaria in children below five years in Embu district, Kenya. *Kenya Nursing Journal*. **38** (2): 5 - 12.
- 41 Innocent, E., Cosam, C.J., **Gikonyo, N.K.**, Nkunya, M.H.H. and Hassanali A. (2008). Growth disruption activity of polar extracts from *Kotschya uguenensis* (Fabaceae) against *Anopheles gambiae* s.s. (Diptera: Culicidae) larvae. *Int. J. Tr. Insect Sci.* 28. 220-224.
- 42 Innocent, E., Joseph C. Cosam, C.J., **Gikonyo, N.K.**, Mainen, M.J., Nkunya, M.H.H. and Hassanali, A. (2008). Mosquito larvicidal constituents from *Lantana viburnoides* ssp *viburnoides* var *kisi* (A. rich) Verdc (Verbenaceae). *J.Vector Borne Dis.* 45. 240–244.
- 43 Mwangi, M.T., **Gikonyo, N.K.** and Ndiege, I.O. (2008). Repellent properties of  $\delta$ -octalactone against the tsetse fly, *Glossina morsitans morsitans*. *J. Insect Sci.*8. 43.
- 44 Innocent, E., **Gikonyo, N.K.** and Nkunya, M.H.H. (2008). Repellency property of long chain aliphatic methyl ketones against *Anopheles gambiae* s.s. *Tanzania Health Research Bulletin*. 10: 50 – 54.
- 45 Guchu, S.M. Yenesew, A. Tsanuo, M.K. **Gikonyo, N.K.** Pickett, J.A. Hooper, A.M. and Hassanali A. (2007). Isoflavonoids from the allelopathic root extracts of *Desmodium uncinatum*. *Phytochemistry*. 68(5), 646 - 651.

- 46        **Gikonyo, N.K.** and Lux, S.A. (2004) Evidence of male attractants for fruit flies in the leaf extract of *Schinus molle*. *East Centr. Afr. J. Pharm. Sci.* 7, 27 - 33.
- 47        **Gikonyo, N.K.**, Lwande, W. Hassanali, A. and Lux, S.A. (2003) Periodicity in the quantity and ratio of pheromone components in volatile emissions from virgin females of the spotted stalk borer moth *Chilo partellus* (Swinhoe). *East Centr. Afr. J. Pharm. Sci.* 6, 36 - 42.
- 48        **Gikonyo, N.K.**, Lux, S.A. and Nemeeye, P.S. (2003) Variation in volatiles from fruits of mango and marula attractive to fruit fly, *Ceratitis cosyra*. *East Centr. Afr. J. Pharm. Sci.* 6, 3 - 8.
- 49        **Gikonyo, N.K.**, Hassanali, A., Njagi, P.G.N. and Saini, R.K. (2003) Responses of *Glossina morsitans morsitans* to blends of electroantennographically active compounds in the odors of its preferred (buffalo and ox) and unpreferred (waterbuck) hosts. *J. Chem. Ecol.* 29, 2331 - 2345.
- 50        **Gikonyo, N. K.**, Hassanali, A., Njagi, P. G. N., Gitu, P. M. and Midiwo, J.O. (2002) Odor composition of preferred (buffalo and ox) and nonpreferred (waterbuck) hosts of some savanna tsetse flies. *J. Chem. Ecol.* 28:969-981.
- 51        **Gikonyo, N. K.**, Hassanali, A., Njagi, P. G. N., and Saini, R. K. (2000) Behaviour of *Glossina morsitans morsitans* Westwood (Diptera: Glossinidae) on waterbuck *Kobus defassa* Ruppel and feeding membranes smeared with waterbuck sebum indicates the presence of allomones. *Acta Tropica.* 77:295-303.



- 52           **Gikonyo, N.K;** Mwangi, R.W. and Midiwo, J.O. (1998). Toxic and growth-inhibitory activity of *Polygonum senegalense* (Mesin) surface exudate against *Aedes aegypti* larvae. *Insect Sci. Applic.* 18:229 - 234.
- 53           Midiwo, J.O; **Gikonyo, N.K;** Wanjau, D.O; Matasi, J.J. and Waterman, P.G. (1992). Flavonoids of *Polygonum senegalense* (Meisn) Part II. More surface and internal tissue flavonoid aglycones. *Bull. Chem. Soc. Ethiop.* 6:119 - 122.

### 1.2.2           **PATENTED INVENTION OR INNOVATION**

1. Kanensi, J. O., Ochola, S., **Gikonyo, N.K.** and Makokha, A. (2014) Complementary food for moderately malnourished children. *Kenya Industrial Property Institute*. Applic. No. KE/U/2013/000334. Date of grant: 2/7/2014.

### 1.2.3           **BOOK CHAPTERS**

1. Innocent, E., **Gikonyo, N.K.**, Moshi, M.J., Nkunya, M. H.H., Cosam, C.J. and Hassanali, A. (2009). Identification of Interaction of Mosquito Larvicidal Compounds from *Lantana viburnoides ssp.viburnoides var. kisi* by Using Subtraction Bioassay. In, *Traditional and Alternative Medicine: Research and Policy Perspectives*. Edited by De Silva, T., Bahorun, T., Sahu, M. and Huong, L. M. Publisher, Daya House, New Delhi. Part II. Phytochemistry. Chapter 38. pp 594. ISBN-81-7035-614-8.
2. **Gikonyo, N.K.** (2009). Dr. Nicholas Kamindu Gikonyo: ARPPIS Alumni – Showing Science Leadership in Africa and Beyond. In, *Building capacity for science-led development in Africa*. Edited by Musewe, V.O. and Odindo, M. Publisher, ICIPE Science Press, Nairobi. Chapter 6. pp 72. ISBN-92-9064-210-6

3. **Gikonyo, N.K.** (2008). Biography. In Nurturing African Talent for Leadership in Insect Science: 25 Years of the ARPPIS Experience. Edited by Ochieng'-Odero, J.P.R., Ng'ang'a, L., Osogo, D., Mating'i, D.T.P and Ogendo, I. Publisher, ICIPE Science Press, Nairobi. Chapter I. pp 55-58. ISBN-92-9064-204-1.
  
4. **Gikonyo, N.K.**, Hassanali, A., Njagi, P.G.N. and Saini, R.K. (2000). Investigations on tsetse repellents from the body surface of waterbuck, *Kobus defassa* Ruppel. Animal Health Management. In 1998/1999 ICIPE Annual Scientific Report. Edited by Ngeny-Mengech A., Osogo, D., Mwanjycky, S. And Ndungu, A.C. Publisher. ICIPE Science Press, Nairobi. pp. 27-29. ISBN-92-9064-134-7.

#### **1.2.4 REFEREED LEARNING MODULES**

1. PPD 321: Fats, Oils and Waxes

#### **1.2.5 REVIEWED CONFERENCE PAPERS**

1. Murigi, E.E., Muathe, S.M.A., Kuria, T.J. and **Gikonyo, N.K.** (2017). Social Marketing Price and Behavioural Change on Substance Users among Youth in the Slums of Nairobi County, Kenya: 12<sup>th</sup> SIMSR Global Marketing Conference. *Compendium of conference proceedings* – ISBN: 9789385537042. 9<sup>th</sup>-10<sup>th</sup> February, 2017. ELK Asia Pacific Journals publishers. pp 119-124.
  
2. **Gikonyo, N.K.** (2009). Tsetse and wild hosts: Lessons from waterbuck on how to protect cattle from tsetse and sleeping sickness. In, Proceedings of the 7<sup>th</sup> ASA Scientific Conference. Edited by Kioko, E.N., Okeyo-Owuor, J.B., Kariuki, S. and Osogo, D. Publisher, ICIPE Science Press, Nairobi. pp 3–18. ISBN-92-9064-211-4

## **1.2.6 OTHER PUBLICATIONS**

### *Theses and Dissertations*

- 1 **Gikonyo, N.K.** (1999). Semiochemical basis of feeding preferences on waterbuck *Kobus defassa*, buffalo *Syncerus caffer* and ox, by some *Glossina morsitans* group of tsetse. PhD Thesis. University of Nairobi.
- 2 **Gikonyo, N.K.** (1991). Hydrophilic flavonoid components of leaves and flower heads of *Polygonum senegalense* and larvicidal and antifeedant activities of its hydrophobic principles. MSc. Thesis. University of Nairobi.
- 3 **Gikonyo, N.K.** (1988). Development of a mini - pilot plant for large-scale extraction of essential oils. BSc. Project dissertation. University of Nairobi.

## **1.2.7 SCHOLARLY PRESENTATIONS AT CONFERENCES/ WORKSHOPS/ SEMINARS**

### **1.2.7.1 Invitation to conferences/workshops/seminars as a Guest Speaker.**

#### *1.2.7.1.1 National.*

2018: Representing KU Vice-Chancellor – Prof. Paul K. Wainaina.

SPHEIR – Led: Launching of SPHEIR Project “Transformation of Pharmacy and Chemistry Degree Provision Project”. Topic: Kenyatta University: Facts and Figures. Sawela Lodge, Naivasha, Kenya. 19<sup>th</sup> – 20<sup>th</sup> March 2018.

2018: National Research Fund: Topic: National Phytotherapeutics Research, Upscaling and Quality Assurance Centre. Presentation to the National Research Fund, Nairobi, Kenya. 11/9/2017

2015: African Science Academies (Amasa 11): Topic: The Role of Traditional Medicine In Prevention and Treatment of Non-Communicable Diseases. The Eleventh Annual Meeting of African Science Academies (Amasa 11). Hilton Hotel, Nairobi. 29<sup>th</sup> November - 2<sup>nd</sup> December 2015.

2015: Nutraceuticals based on amaranth grain for management of nutritional disorders. 1<sup>st</sup> Global Conference on Patient Centered Care: *Kenyatta University Amphitheatre*: 29<sup>th</sup> September – 2<sup>nd</sup> October, 2015

2015: Global Conference on Patient Centered Care: Topic: Amaranth Grain Nutraceuticals for Management of Nutritional Disorders “Utilization of Indigenous Knowledge for Sustainable Economic Development”. Kenya National Academy of Sciences. Laico Regency Hotel, Nairobi. 26<sup>th</sup> June 2015.

2015: School of Applied Human Sciences, KU. Topic. Ethical Considerations in Research Involving Humans. To postgraduate supervisors in the School of Applied Human Sciences. Kenyatta University, Main Campus. 19<sup>th</sup> May 2015.

2015: Graduate School, KU. Topic: Research Ethical Concerns (Bioethics) and Clearance for Data Collection. New postgraduate students. KU, SZ39 Hall. 24<sup>th</sup> April 2015.

- 2014: Graduate School, KU. Topic: Ethical and Responsible Conduct of Research. The Role of Bioethics Committees. KUCC, 15th and 16<sup>th</sup> Sept 2014.
- 2014: Graduate School, KU. Topic: Biomedical Research and Institutional Review Board (IRB) application Process at KU. Ethical and responsible conduct of research. KUCC, KU, Nairobi. Kenya. 27<sup>th</sup> -28<sup>th</sup> March 2014.
- 2014: Graduate School, KU. Topic: Topic: Ethical Considerations in Research Involving Human Subjects. New postgraduate students. KU Amphitheatre. 22<sup>nd</sup> Jan 2014.
- 2013: CODESRIA Comparative Research Network. Topic: Ethical Consideration in Research Involving Humans (BIOETHICS). CODESRIA Comparative Research Network, Kenya and Uganda. Emmaus Pastoral Centre, Nairobi. 20/10/2013
- 2013: Graduate School, KU. Topic: Ethical Considerations in Research Involving Human Subjects. Newly graduated PhD staff. KUCC, Kenyatta University. 4/9/2013
- 2013: Graduate School, KU. Topic: Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Migori Campus. 17/8/2013
- 2013: School of Engineering and Technology. Topic: Ethical Considerations in Research Involving Human Subjects. Biomedical Engineering Summer School, KUCC, KU, Nairobi. 14/8/2013
- 2013: Graduate School, KU. Topic: Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Migori Campus. 20/7/2013
- 2013: Graduate School, KU. Topic: Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Nanyuki Campus. 20/7/2013
- 2013: Graduate School, KU. Topic: Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Mombasa Campus. 28/6/2013

- 2013: Graduate School, KU. Topic: Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Nyeri Campus.
- 2013: Graduate School, KU. Topic: Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Nairobi CBD Town Campus.
- 2012: School of Applied Human Sciences. Topic: Ethical Considerations in Research Involving Human Subjects. School of Applied Human Sciences. Kenyatta University, Main Campus
- 2008: Topic: Non-insecticides in Tsetse Control: Solutions from the Wild Animals, Buffalo and Waterbuck. Tsetse suppression methods. 3rd – 4th Dec. 2008. Merica Hotel, Nakuru.

#### *1.2.7.1.2 International*

- 2020: **Federation of African Medical Students Association.** Quality and policy in complementary and alternative medicine (the place of complementary and alternative medicine in UHC). 33<sup>rd</sup> Federation of African Medical Students Association Scientific Conference held on 27<sup>th</sup>-29<sup>th</sup> Feb 2020. Kenyatta University, Nairobi, Kenya,
- 2012: **Ghana Biomedical Convention:** Topic: Grain Amaranth Nutraceuticals for Management of Nutritional Disorders: Ghana Biomedical Convention: 30<sup>th</sup>July - 1<sup>st</sup> August 2012. Noguchi Memorial Institute for Medical Research, Ghana.
- 2012: **Shandong University of Traditional Chinese Medicine.** Topic: Academic Programmes in TRADITIONAL CHINESE MEDICINE: A Proposed Collaboration of Kenyatta University and Shandong University of Traditional

Chinese Medicine: Shandong University of Traditional Chinese Medicine.  
Jinan, China. 23<sup>rd</sup> May 2012.

2006: **ARPPIS Scholars Association (ASA)** Scientific Conference. Topic: Evidence of paraperomones for control of fruit flies based on lessons from volatiles of mango fruits. ASA Scientific Conference. 27<sup>th</sup> -29<sup>th</sup> Nov 2006. Dar es Salaam, Tanzania.

#### *1.2.7.2 Presentations at conferences/workshops/seminars*

2019: KU SPHEIR-LED Curriculum Review Workshop for Bachelor of Pharmacy Program at The School of Pharmacy. Kenyatta University Conference Centre. Nairobi, Kenya. Convener. Topic: Welcome and Introductions to Progress on Bachelor Pharmacy Transformation under SPHEIR project. 16th -18th October, 2019.

2019 Maseno University SPHEIR-Led Curriculum Review Workshop for Chemistry, Pharmacy, Pedagogy for High Education and Gender Mainstreaming Awareness. SIRIKWA HOTEL – ELDORET, Kenya.  
Topic: Kenyatta University Academic Programmes in Pharmaceutical Sciences: Where we are? 21st – 27th July 2019

2019: JKUAT SPHEIR-LED Pharmacy Curriculum Review Workshop. Lake Naivasha Resort – Naivasha, Kenya. Topic: Kenyatta University Academic Programmes in Pharmaceutical Sciences: The journey. 26th – 29th May 2019

2019: KU SPHEIR-LED Curriculum Mapping Workshop for Programs at The School of Pharmacy. Lake Naivasha Resort – Naivasha, Kenya.  
Convener. Topic: Welcome and Introductions to Programs offered by School Pharmacy – KU. 8th - 11th May 2019.

- 2018: Launching of SPHEIR Project. “Transformation of Pharmacy and Chemistry Degree Provision Project”. Topic: Kenyatta University Academic Programmes in Pharmaceutical Sciences and future projections: Sawela Lodge, Naivasha, Kenya. 19th – 20th March 2018.
- 2017: Dar es salaam SPHEIR – LED Kenya Nottingham Partnership Meeting. New Africa Hotel. Dar es salaam, Tanzania. Topic: Kenyatta University Academic Programmes in Pharmaceutical Sciences: Current status. 21st – 26th August, 2017
- 2015: N.K. Gikonyo. Amaranth Grain Nutraceuticals for Management of Nutritional Disorders “Utilization of Indigenous Knowledge for Sustainable Economic Development”. Kenya National Academy of Sciences. National workshop to celebrate the scientific revival day of Africa. Theme “Tapping Africa’s Indigenous Knowledge for Sustainable Economic Development”. Laico Regency Hotel, Nairobi. 26/6/2015.
- 2013: N.K. Gikonyo. Ethical Consideration in Research Involving Humans (BIOETHICS). CODESRIA Comparative Research Network, Kenya and Uganda. Emmaus Pastoral Centre, Nairobi. 20/10/2013
- 2013: N.K. Gikonyo. Ethical Considerations in Research Involving Human Subjects. Newly graduated PhD staff. KUCC, Kenyatta University, Main Campus. 4/9/2013
- 2013: N.K. Gikonyo. Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Migori Campus. 17/8/2013
- 2013: N.K. Gikonyo. Ethical Considerations in Research Involving Human Subjects. Biomedical Engineering Summer School, KUCC, KU, Nairobi. 14/8/2013



- 2013: N.K. Gikonyo. Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Nanyuki Campus. 20/7/2013
- 2013: N.K. Gikonyo. Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Mombasa Campus. 28/6/2013
- 2013: N.K. Gikonyo. Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Nyeri Campus.
- 2013: N.K. Gikonyo. Ethical Considerations in Research Involving Human Subjects. Kenyatta University, Nairobi CBD Town Campus.
- 2012: N.K. Gikonyo. Ethical Considerations in Research Involving Human Subjects. School of Applied Human Sciences. Kenyatta University, Main Campus
- 2012: N.K. Gikonyo. Grain Amaranth Nutraceuticals for Management of Nutritional Disorders: POSTER. Ghana Biomedical Convention: Noguchi Memorial Institute for Medical Research. University of Ghana. Ghana. 30<sup>th</sup> July – 7<sup>th</sup> August 2012.
- 2011: Curriculum review: Department of Pharmacy and Complementary /Alternative Medicine. KUCC. 23rd August 2011. Introduction to Curriculum Review: Pharmacy.
- 2010: N.K. Gikonyo. Environment Friendly Initiatives for Management of Human, Animal and Plant Health. Presented at the Harvard University, MA, USA. 23<sup>rd</sup> July 2010.
- 2010: N.K. Gikonyo. Natural Products for Management of Human and Animal Health. A Poster presented at the Novartis Institute for Biomedical Research, MA, USA. 20<sup>th</sup> August 2010.

- 2008: N.K. Gikonyo. Non-insecticides in Tsetse Control: Solutions from the Wild Animals, Buffalo and Waterbuck. Tsetse suppression methods. 3rd – 4th Dec. 2008. Merica Hotel, Nakuru.
- 2008: N. K. Gikonyo. Tsetse and wild hosts: lessons from waterbuck on how to protect cattle from tsetse and sleeping sickness. ARRPIS Silver Jubilee and conference. . 23 – 25th Sept 2008. ICIPE. Nairobi
- 2008: N. K. Gikonyo. Project Initiation Strategy for Integration of Production, Value Addition and Marketing of Grain Amaranth to Sustainably Manage Household Health including HIV/AIDS in Kenya. 16<sup>th</sup> – 19<sup>th</sup> March 2008. East College. Embu.
- 2007: N. K. Gikonyo. Integration of Production, Value Addition and Marketing of Grain Amaranth to Sustainably Manage household health including HIV/AIDS in Kenya. RESENTATION OF PROPOSAL BEFORE THE KAPP Grants Advisory and Authorizing Committee-GAAC. 16<sup>th</sup> March 2007. NCKK Jumuia Center – Nakuru.
- 2006: N. K. Gikonyo, S. A. Lux and P. S. Nemeje. Evidence of parapheromones for control of fruit flies based on lessons from volatiles of mango fruits. ASA Scientific Conference and General meeting. 27<sup>th</sup> -29<sup>th</sup> Nov 2006, Dar es Salaam, Tanzania.
- 2003: Proposed Master of Science in Pharmacognosy and Alternative Medicine Syllabus. Workshop on Review of the Faculty of Pharmacy Curriculum. 2<sup>nd</sup>-6<sup>th</sup> Nov. 2003. Outspan Hotel, Nyeri.
- 2003: Gikonyo, N.K., Bett, M., Njagi, P.G.N., Saini, R.K. and *Hasssanali*, A. Avoidance of refractory ‘hosts’ by tsetse and identification of the mediating semiochemicals. The 14<sup>th</sup> European Conference of the Society of Vector Ecology. 3<sup>rd</sup> – 6<sup>th</sup> September 2003. Bellinzona, Switzerland.

- 2003: Gikonyo, N.K. Tsetse locate and discriminate bloodmeal sources by use of chemosignals in the host's body odours. The 15<sup>th</sup> Conference of the African Association of Insect Scientists and the Entomological Society of Kenya. 9<sup>th</sup> – 13<sup>th</sup> June 2003. ICIPE. Nairobi.
- 2002: Gikonyo, N.K; Hassanali, A; Njagi, P.G.N; Saini, R.K; Gitu, P.M. and Midiwo, J.O. Repellents and new attractants for *Glossina* spp from wild animals. The 4<sup>th</sup> Kenya Chemical Society International Conference. 19<sup>th</sup> – 23<sup>rd</sup> August 2002. Egerton University.
- 2002: Nemeje, P.S., Lux, S.A., Gikonyo, N.K. and Kaddu, J.B. Courtship patterns, periodicity of mating behaviour and the role of host plants in reproductive behaviour of three African fruit flies: *Ceratitidis cosyra*, *C. fasciventris* and *C. capitata*. The 6<sup>th</sup> International Symposium on Fruit Flies of Economic Importance. Nov. 2002. Stellenbosch, South Africa.
- 2001: Gikonyo, N.K. Lux, S.A and Nemeje, P.S. Evaluation of commercially available attractants for fruit flies. The 4<sup>th</sup> African Fruit Fly Initiative (AFFI) Workshop. 26-29<sup>th</sup> March 2001. Nairobi and Nguruman.
- 2001: Gikonyo, N.K. and Lux, S.A. Advanced training in fruit fly management: building capacity in African countries in acquiring and updating technology of fruit fly management. The 4<sup>th</sup> African Fruit Fly Initiative (AFFI) Workshop. 26-29<sup>th</sup> March 2001. Nairobi and Nguruman.
- 2000: Gikonyo, N.K. and Lux, S.A. Exploration of new attractants for fruit fly management: Progress in the study on chemical signals involved in host-pest communication. Technical Review Workshop of the African Fruit Fly Initiative. 27<sup>th</sup> Oct. – 7<sup>th</sup> Nov. 2000. Nairobi, Nguruman.

- 2000: Gikonyo, N.K. Semiochemical basis of feeding preferences on waterbuck *Kobus defassa*, buffalo *Syncerus caffer* and ox, by some *Glossina morsitans* group of tsetse. Public presentation of PhD Thesis. 21<sup>st</sup> June 2000. University of Nairobi.
- 2000: Gikonyo, N.K; Hassanali, A; Njagi, P.G.N; Saini, R.K; Gitu, P.M. and Midiwo, J.O. Allomones for defence from body surface of waterbuck *Kobus defassa* Ruppel (an unpreferred host of tsetse flies). DAAD seminar on scholarly writing. 19<sup>th</sup> – 21<sup>st</sup> Jan. 2000. University of Nairobi.
- 1999: Gikonyo, N.K; Hassanali, A; Njagi, P.G.N; Saini, R.K; Gitu, P.M. and Midiwo, J.O. Tsetse repellents from body surface of waterbuck *Kobus defassa* Ruppel (an unpreferred host of tsetse)”. The 25<sup>th</sup> Meeting of the International Scientific Council for Trypanosomiasis Research and Control (ISCTRC). 27<sup>th</sup> Sep. – 1<sup>st</sup> Oct. 1999. Whitesands Hotel, Mombasa, Kenya.
- 1999: Gikonyo, N.K. Semiochemical basis of feeding non-preference on waterbuck *Kobus defassa* Ruppel by *Glossina morsitans morsitans* and *G. pallidipes*. 22<sup>nd</sup> July 1999. ICIPE. Nairobi.
- 1998: Gikonyo, N.K. Investigations of allomones for tsetse flies (Diptera: Glossinidae) from waterbuck *K. defassa* (a tsetse nonhost). 8<sup>th</sup> April 1998. ICIPE. Nairobi.
- 1996: Gikonyo, N.K. Semiochemical basis of nonpreference in some wild animals by the *Glossina morsitans* group of tsetse. (Defence of PhD proposal). Nov. 1996. UON. Nairobi.
- 1993: Gikonyo, N.K. Periodicity in the frequency of calling and quantity of pheromone in volatile emissions of the spotted stalk borer moth, *Chilo partellus*. Kenya Chemical Society Inaugural Conference. 7<sup>th</sup> June 1993. UON. Nairobi.
- 1993: Gikonyo, N.K. Biotic and abiotic factors that influence the emission and reception

of semiochemicals in insects. 22<sup>nd</sup> April 1993. ICIPE. Nairobi.

1992: Gikonyo, N.K., Midiwo, J.O. and Mwangi R.W. Exudate and tissue flavonoids from *Polygonum senegalense* and their biological activities. 4<sup>th</sup> June 1992. ICIPE. Nairobi.

1988: Gikonyo, N.K., Munavu, R.M. and Desai, N.C. Development of a mini - pilot plant for large-scale extraction of essential oils. 17<sup>th</sup> May 1988. UON. Nairobi.

### ***1.2.8.3 Participation /Attendance of Conference /Workshops/Seminars***

2021: Online External Examination Training Course. University of Nairobi. 28.4.2021

2021: Operations and Use of: - LC-MS/MS, GC-MS, FTIR-ATR & UV-Vis: National Phytotherapeutics Research Centre -Kenyatta University, Kenya. 15th February 2021 to 16th March 2021.

2020: Blended Learning Online Facilitation Training Workshop. Kenyatta University. June-July 2020

2020: CUE / SPHEIR-LED workshop. Competence-Based Curriculum (CBC) with special emphasis to Pharmacy and Chemistry. CUE's Main Board Room, Nairobi, Kenya. 27th January, 2020.

2019: SPHEIR KENYA-NOTTINGHAM PARTNERSHIP FORUM. Lake Naivasha Resort – Naivasha, Kenya. 24th - 28th June 2019

2015: Kenya National Academy of Sciences. National workshop to celebrate the scientific revival day of Africa. Theme “Tapping Africa’s Indigenous Knowledge for Sustainable Economic Development”. Laico Regency Hotel, Nairobi. 26/6/2015.

- 2013: Doctor of Pharmacy Curriculum Development: KU. KUCC. 25th–26th April 2013.
- 2013: Bioethics: Kenya Aids Vaccine Initiative (KAVI), Institute of Clinical Research - University of Nairobi. Silver Springs Hotel, Nairobi. Kenya. 3rd – 5th July 2013.
- 2013 Teaching and Examining Methodologies. Kenyatta University. Kenya
- 2012: Peer Reviewer of Academic Programmes and Institutions: Commission for Higher Education. Gigiri, Nairobi, Kenya. 6<sup>th</sup> – 7<sup>th</sup> Nov. 2012.
- 2012: **Biosafety** Sensitization workshop. Organised by Institutional Biosafety Committee. KUCC, KU. 22<sup>nd</sup> Aug. 2012.
- 2012: **Clinical Pharmacology workshop**. Hosted by Novartis Institute for Biomedical Research. Best Western Premier Accra Airport Hotel. Accra, Ghana. 4<sup>th</sup> Aug. 2012.
- 2012: **Vaccines workshop**. Hosted by Novartis Institute for Biomedical Research. Best Western Premier Accra Airport Hotel. Accra, Ghana. 4<sup>th</sup> Aug. 2012.
- 2012: **Natural Products workshop**. Hosted by Novartis Institute for Biomedical Research. Best Western Premier Accra Airport Hotel. Accra, Ghana. 3<sup>rd</sup> Aug. 2012.
- 2012: **Ghana Biomedical Convention**: Noguchi Memorial Institute for Medical Research. University of Ghana. Ghana. 30<sup>th</sup> July – 2<sup>nd</sup> Aug. 2012.

- 2012: **Bioethics Training workshop:** Organised by KNH/UON ERC. Kenya School of Law, Nairobi, Kenya. 16<sup>th</sup> – 18<sup>th</sup> Jan. 2012
- 2012        **Performance Contracting:** Kenya School of Monitory Studies, Nairobi, Kenya
- 2011: Curriculum review: Department of Pharmacy and Complementary /Alternative Medicine. KUCC. 23rd – 25th Aug. 2011.
- 2011: Curriculum review: Dept of Nursing Sciences. KUCC. 11th – 13th July 2011
- 2010: Open access Africa Conference: KU. KUCC. 10th – 11<sup>th</sup> Nov. 2010.
- 2010: A series of workshops organised by Seeding Labs Organisation and Novartis Institute for Biomedical Research, MA, USA. June –Aug. 2010.
- 2010: Monitoring and Evaluation: Skills building workshop. Kunste Hotel, Nakuru. 29<sup>th</sup> March – 1<sup>st</sup> April 2010.
- 2010: Workshop on writing the Strategic Plan for the Confucius Institute: North Coast Beach Hotel. Mombasa. 21<sup>st</sup> -24<sup>th</sup> Feb 2010.
- 2009: Workshop for KU senators on Team building: North Coast Beach Hotel. Mombasa. Dec. 2009.
- 2009: Symposium on Integrative Medicine. Aga Khan University, Nairobi. 29<sup>th</sup> May 2009.
- 2009: National R&D Journal Stakeholders' Forum. KICC, Nairobi. 22<sup>th</sup> – 22<sup>nd</sup> May 2009.
- 2008: Tsetse Suppression Methods. 3<sup>rd</sup> – 4<sup>th</sup> Dec. 2008. Merica Hotel, Nakuru.

- 2008: Workshop on writing the “Operational Guidelines for Biomedical Research” for the Ethics Review Committee of Kenyatta University. Merica Hotel, Nakuru
- 2008: Workshop on Revising the Strategic and Vision Plan for Kenyatta University. Merica Hotel, Nakuru
- 2008: Workshop on Revising the Strategic and Vision Plan for Kenyatta University. KUNSTE Hotel, Nakuru
- 2008: ARRPI Silver Jubilee /ASA Conference. 23 – 25<sup>th</sup> Sept. 2008. ICIPE. Nairobi.
- 2008: Project Initiation Workshop. Poverty Reduction, Household Food and Nutrition Security. KU VC Grant: 24<sup>th</sup> May 2008. Mweiga, Nyeri.
- 2008: Project Inception workshop at East College. KAPP. 16<sup>th</sup> – 19<sup>th</sup> March 2008. Embu.
- 2007: Conference Planning Meeting. ASA. 15<sup>th</sup> – 16<sup>th</sup> May 2007. ICIPE. Nairobi
- 2007: Proposal writing workshop. KAPP. Partners’ meeting. 14<sup>th</sup> – 17<sup>th</sup> Feb 2007. NCKK Jumuia Center . Nakuru.
- 2007: Proposal writing workshop. KAPP. Stakeholders’ meeting. 12<sup>th</sup> – 13<sup>th</sup> Feb 2007. NCKK Jumuia Center. Nakuru.
- 2007: Proposal writing workshop. KAPP. 10<sup>th</sup> – 19<sup>th</sup> Jan 2007. NCKK Jumuia Center – Nakuru.
- 2006: ASA Scientific Conference and General Meeting. 27-29<sup>th</sup> Nov 2006. Dar es Salaam, Tanzania.



- 2006: Launch of Public Debate on Traditional Medicine and Medicinal Plants Draft Policy for Kenya. 17<sup>th</sup> Nov. 2006. Treasury house, Nairobi.
2006. Proposal writing workshop. 2006. Kenya Utalii College.
- 2006: Kenyatta University Research Policy workshop.2006. Kenya Utalii College. Nairobi
- 2005: African Genome Initiative. A Time to Heal: The Science of and Investments in Cracking Africa's Killer Diseases. 21<sup>st</sup> – 24<sup>th</sup> Mar. 2005. Windsor Hotel, Nairobi.
- 2004: Training Workshop. Modern Methods for Ecogeographic Studies. IPGRI-SSA. 2<sup>nd</sup> -6<sup>th</sup> Aug. 2004. KU. Nairobi.
- 2004: Training Workshop on Good Laboratory Practice (GLP). UNDP/WHO/WB. April 2004. Jakarada Hotel, Nairobi.
- 2003: Workshop on Review of the Faculty of Pharmacy Curriculum. 2<sup>nd</sup>-6<sup>th</sup> Nov. 2003. Outspan Hotel, Nyeri.
- 2003: Peak Performance (Unleashing Power) Workshop. Oct. 2003. Nairobi.
- 2003: The 15<sup>th</sup> Conference of the African Association of Insect Scientists & The Entomological Society of Kenya. ICIPE. . 9<sup>th</sup> – 13<sup>th</sup> June 2003. Nairobi.
- 2002: The 4<sup>th</sup> International Conference of the Kenya Chemical Society. 19<sup>th</sup>–23<sup>rd</sup> Aug. 2002. Egerton University.
- 2001: The 4<sup>th</sup> African Fruit Fly Initiative Workshop. ICIPE. 26<sup>th</sup> -29<sup>th</sup> March 2001. Nairobi and Nguruman, Kenya.

2000: Technical Review Workshop of the African Fruit Fly Initiative. 27<sup>th</sup> Oct. – 6<sup>th</sup> Nov. 2000. ICIPE. Nairobi and Nguruman, Kenya.

2000: International Group Training Workshop on Tsetse Management: Sept. – Oct. 2000. ICIPE. Nairobi.

2000: DAAD Workshop on Scholarly Writing. 19<sup>th</sup> – 21<sup>st</sup> Jan. 2000. UON. Nairobi.

1999: Planning Workshop for the African Fruit Fly Initiative. 15<sup>th</sup> – 21<sup>st</sup> Nov. 1999. ICIPE, Nairobi and Diani Reef Hotel, Mombasa.

1999: 25<sup>th</sup> Meeting of the International Scientific Council for Trypanosomiasis Research and Control. 27<sup>th</sup> Sept.– 1<sup>st</sup> Oct. 1999. Whitesands Beach Hotel, Mombasa, Kenya.

1993: Inaugural Scientific Conference of the Kenya Chemical Society. 7<sup>th</sup> June 1993. UON. Nairobi .

#### **1.2.8.4                    *Exhibitions***

2008: The KU School of Health Sciences. Inter-Universities Exhibition. 6<sup>th</sup> – 8<sup>th</sup> March 2008. KU Mombasa Campus. Mombasa.

#### **1.2.8.5                    **Convening and Coordinating Conferences/workshops/seminars****

2021: Training on Operations and Use of: - LC-MS/MS, GC-MS, FTIR-ATR & UV-Vis: National Phytotherapeutics Research Centre -Kenyatta University, Kenya. 15th February 2021 to 16th March 2021.

2019: Curriculum Review Workshop. KU SPHEIR-LED Curriculum Review Workshop

- for Bachelor of Pharmacy Program at The School of Pharmacy. KUCC. Nairobi, Kenya. Convener. 16<sup>th</sup>-18<sup>th</sup> October, 2019.
- 2019: Curriculum Mapping Workshop. KU SPHEIR-LED Curriculum Mapping Workshop for Programs at The School of Pharmacy. Lake Naivasha Resort – Naivasha, Kenya. 8<sup>th</sup> - 11<sup>th</sup> May 2019.
- 2011: Curriculum review: Department of Pharmacy and Complementary /Alternative Medicine. KUCC. 23<sup>rd</sup> – 25<sup>th</sup> August 2011.
- 2008: ARRPI Silver Jubilee and ASA Conference. 23 – 25<sup>th</sup> Sept. 2008. ICIPE. Nairobi.
- 2008: Project Initiation Workshop. Poverty Reduction, Household Food and Nutrition Security. KU VC Grant: 24<sup>th</sup> May 2008. Mweiga, Nyeri.
- 2008: Project Inception workshop KAPP. Project Initiation Strategy for Integration of Production, Value Addition and Marketing of Grain Amaranth to Sustainably Manage Household Health including HIV/AIDS in Kenya. 16<sup>th</sup> – 19<sup>th</sup> March 2008. East College. Embu.
- 2007: Proposal writing workshop for Collaborators and Stakeholders. Integration of Production, Value Addition and Marketing of Grain Amaranth to Sustainably Manage Household Health including HIV/AIDS in Kenya. 12<sup>th</sup> – 13<sup>th</sup> Feb 2007. NCCK Jumuia Center. Nakuru.
- 2003: Workshop on Review of the Faculty of Pharmacy Curriculum. 2<sup>nd</sup>-6<sup>th</sup> Nov. 2003. Outspan Hotel, Nyeri.
- 2001: The 4<sup>th</sup> African Fruit Fly Initiative Workshop. ICIPE. 26<sup>th</sup> -29<sup>th</sup> March 2001. Nairobi and Nguruman, Kenya.

### **1.3 QUALITY TEACHING, LEARNING AND MENTORSHIP**

#### **1.3.1 Student evaluation**

20121 – 2021 PPD Units - Grade A

#### **1.3.2 TRAINING IN HIGHER EDUCATION**

- 2021      **Online External Examination Training** Course. University of Nairobi.  
28.4.2021
- 2021      Operations and Use of: - LC-MS/MS, GC-MS, FTIR-ATR & UV-Vis:**  
National Phytotherapeutics Research Centre -Kenyatta University, Kenya.  
15th February 2021 to 16th March 2021.
- 2020      **Blended Learning Online Facilitation** Training, Kenyatta University. June-  
July 2020
- 2013:      **Bioethics:** Kenya Aids Vaccine Initiative (KAVI), Institute of Clinical  
Research - University of Nairobi. Silver Springs Hotel, Nairobi. Kenya. 3<sup>rd</sup> –  
5<sup>th</sup> July 2013.
- 2013      **Teaching and Examining Methodologies.** Kenyatta University. Kenya
- 2012:      **Peer Reviewer of Academic Programmes and Institutions:** Commission  
for Higher Education. Gigiri, Nairobi, Kenya. 6<sup>th</sup> – 7<sup>th</sup> Nov. 2012.
- 2012:      **Biosafety:** Kenyatta University. Kenya. 22<sup>nd</sup> August 2012

- 2012: **Vaccines development:** By Novartis Institute for Biomedical Research (NIBR). Accra, Ghana. Best Western Premier Accra Airport Hotel. Accra, Ghana. 4<sup>th</sup> Aug. 2012.
- 2012: **Clinical Pharmacology:** By Novartis Institute for Biomedical Research. Best Western Premier Accra Airport Hotel. Accra, Ghana. 4<sup>th</sup> Aug. 2012.
- 2012: **Natural Products:** By Novartis Institute for Biomedical Research. Best Western Premier Accra Airport Hotel. Accra, Ghana. 3<sup>rd</sup> Aug. 2012
- 2012 **Bioethics:** Kenya School of Law, Nairobi, Kenya. 16<sup>th</sup> – 18<sup>th</sup> January 2012.
- 2010 **Cancer Research:** Novartis Institute for Biomedical Research (NIBR), Massachusetts USA. Department of Developmental & Molecular Pathways (DMP). 2010.
- 2007 **Advanced Training in Research and Development of Medicinal Plants:** Tianjin University of Traditional Chinese Medicine, Tianjin, China. 2007.
- 2006 **Proposal writing.** NCKK Jumuia Center – Nakuru, Kenya.  
*Sponsor:* Kenya Agricultural Productivity Project (KAPP).
- 2006 **Proposal writing.** Kenya Utalii College. Nairobi, Kenya. *Sponsor:* KU.
- 2004 **Good Laboratory Practice (GLP).** Jakarada Hotel, Nairobi, Kenya.  
*Sponsor:* UNDP/WHO/WORLD BANK. 2004.
- 2001 **Postdoctoral Research in Semiochemistry.** International Centre of Insect Physiology and Ecology (ICIPE), Kenya. 2000-2001

### 1.3.3 ONGOING SUPERVISION

## PhD

### 1. **Fidensio Kinyamu Ndegwa**

Phytochemistry and pharmacology of medicinal plants used by the Ameru of Kenya. PhD in Pharmacognosy. Department of Pharmacy and Complementary /Alternative Medicine, KU.

### 2. **Gladys W. Mwangi**

Antivenin activity of commonly used African herbs on venom of *Dendroaspis polylepis* (Black Mamba) at the neuromuscular junction. PhD in Pharmacology and Drug Design. KU.

### 3. **Pauline Wairimu Ikumi. (Progress: data collection)**

Nutritional, physical and functional properties of Chia seeds (*Salvia hispanica* L.) grown in Kenya. PhD in Food Science and Technology in the Institute of Food Bioresources Technology, Dedan Kimathi University of Technology.

### 4. **Rotich Winnie. (Progress: proposal development).**

Evaluation of Antiviral Activity and Safety of a Herbal Product Used for the Management of HIV in Kenya Using HIV-2 Infected Kenyan Baboons. PhD in Pharmacology. Department of Pharmacology and Clinical Pharmacy, KU.

## Master

### 5. **Jane Githinji**

An investigation of the factors influencing the management of type 2 diabetes in Thika and Kirwara hospitals in Kenya. MPH. School of Public Health, KU.

### 6. **Stephen Omondi. (Progress: proposal development).**

Disposal of pharmaceutical waste in Bomet County community pharmacies.

7. **Martha Gacuiga. (Progress: data collection)**

Assessment of emerging psychoactive substances and drugs abused in some secondary schools in Kiambu County. MSc, KU.

8. **John Jarha Tola (Progress: data collection)**

The Socio-Economic Factors Contributing to Inappropriate Use of Emergency Contraceptive Pills by the Youth in Mombasa County. MPH, KU.

9. **Betty Opuodho (Progress: Data Collection).**

Use of Herbal Medicine for Non-Communicable Diseases among Adults in Kisumu East, Kisumu County. MPH, KU.

10. **Stewart Kabaka (Progress: Data Collection).**

Assessing salt iodine content at production, household levels and determining the iodine status of the population in Gongoni location, Malindi Sub-county. MPH, KU.

11. **Maima Austine Juma (Progress: Data Collection).**

Extent of counterfeit antimalarial drugs in the treatment of malaria in Nairobi County. MPH, KU.

12. **Ombong'o Maurice Juma (Progress: data collection)**

Evaluation of protein food allergies using compounds present in *Thunbergia alata* Bojer Ex Sims. MSc. Department of Chemistry, KU.

1.3.4 Supervision of Postgraduate Students

1.3.4.1 Masters

**Successful Master's Theses**

1. **Yahuza Nantomah Abdulai (2019)**

Anti-inflammatory and wound healing assessment of two Ghanaian mushrooms: preliminary formulation of a topical ointment against wounds and wound infections. Pan African University. University of Ibadan, Nigeria.

2. **Mbulo Thomas Mutua (2017)**

Effect of *Artemisia annua* L. as a mosquito repellent in schools in Mwea Rice Scheme, Kirinyanga County, Kenya. MPH. School of Public Health, KU.

3. **Tabitha Nyanchoka Ong'era (2016)**

Screening for antimicrobial compounds present in *Bersama abyssinica* Fresen. MSc. Department of Chemistry, KU.

4. **David Mwikya Nzuki (2016)**

Use of herbal medicine among children under 5 years in Chogoria Hospital, Maara District, Kenya. MPH. School of Public Health, KU.

5. **Mbithi Justus Muema (2015)**

Phytochemical investigation of the antimicrobial activity of *Ochna thomasiana* Engl. & Gilg. MSc. Department of Chemistry, KU.

6. **Peter Kaguru Githinji (2015)**

Determination of organic contaminants in selected alcoholic beverages consumed in Muthithi location in Muranga County, Kenya. MSc. Dept. of Chemistry, KU.

7. **Francis Githinji (2014)**

Factors driving the utilisation of herbal medicine in Githunguri division, Kiambu County, Kenya. MPH. School of Public Health, KU.



**8. Bibiana Kanduka Njue (2013)**

Quality assessment of four fixed dose combination anti-tuberculosis drugs in government facilities in Coast and Nairobi provinces. MPH. School of Health Sciences, KU.

**9. Kipyegon Ngeno (2012)**

Determination of selected essential and non essential trace-elements in *Amaranthus cruentus* and *Amaranthus hypochondriacus* species from different areas of Kenya. MSc. Department of Chemistry, KU.

**10. Ndungu Zipporah Wanjiru, 2012**

Use of amaranth grain to improve health and nutrition status among PLWHA in Mweiga home based care group– Nyeri district. MSc. Department of Foods, Nutrition and Dietetics. KU.

**11. Margaret C. Mburu, 2012**

Evaluation of GenoType® MTBDRplus assay as a screening tool for Multi-drug-Resistant tuberculosis surveillance among patients at high risk in Nairobi. MPH. School of Health Sciences, KU.

**12. Florence Nderitu, 2011**

Detection and management of adverse drug reactions related to ARVs among HIV/AIDS patients in Kiambu district, Kenya. School of Health Sciences, Kenyatta University.

**13. Okoth Kevin Otieno, 2011**

Analysis of amaranthus oil from different agro-ecological zones in Kenya. MSc. Department of Chemistry, KU.

**14. Cheruiyot Nicholas, 2011**

Determination of levels some vitamins in amaranth leaves and grains from selected regions of Kenya. MSc. Department of Chemistry, KU.

**15. Tonui Mathew Kipngetich, 2011**

Determination of some inorganic anions in amaranthus from selected parts of Kenya. MSc. Department of Chemistry, KU.

**16. Philimon Majwa Omondi, 2010**

A comparison of the use of long lasting insecticide treated nets in the Control of Malaria among children under five years in Kisumu district, Kenya. MPH. School of Health Sciences, KU.

**17. Richard Kamau Thuo, 2009**

The influence of gender related factors on access to art in selected treatment sites in Nairobi, Kenya. MPH. Dept. of Public Health. KU.

**18. Ng'ang'a Monica Wanjiku, 2009**

Nutritional and functional properties of grain amaranth (*Amaranthus cruentus*) complementary food. MSc. Department of Food Science and Nutrition. Jomo Kenyatta University of Agriculture and Technology (JKUAT).

**19. Elijah Njeru Mbiti, 2009**

Adherence to antimalarial combination therapy with Artemether-Lumefantrine in children below five years in Embu District. MPH. Dept of Public Health. KU.

**20. Patrick Musyoki Shem, 2006**

Kinetics of the release of waterbuck-repellent blend for tsetse flies from different dispensers under field conditions. MSc. Department of Chemistry. UON.

**21. Martin Thuo Mwangi, 2002**

Enantioselective synthesis of (R)- and (S)- $\delta$ -octalactone and their effects on *Glossina morsitans morsitans* host seeking behaviour. MSc. Department of Chemistry. KU.

#### 1.3.4.2 PhD

##### **Successful PhD Theses**

1. **Titus M. Kahiga. (2021)**

Evaluation of anti-ulcer activity and safety of Mupal<sup>®</sup>: A herbal product used for the management of peptic ulcer disease in Kenya. PhD in Pharmacology. Department of Pharmacology and Clinical Pharmacy, KU.

2. **Njoroge G. Kimani. (2021)**

Antidiabetic activities of *Triticum aestivum*, *Hordeum vulgare*, *Urtica massaica* and *Cynanchum viminale*. PhD in Biochemistry. Department of Biochemistry, Microbiology and Biotechnology, KU.

3. **Onyancha Misonge Jared (2020)**

Evaluation of Antitumour Activity of Selected Kenyan Medicinal Plants used Ethnomedically to Manage Cancer. PhD in Pharmacognosy. Department of Pharmacy and Complementary /Alternative Medicine, KU.

4. **Gordon Oluoch Ogweno (2016)**

The effects of crystalloid solutions on the human coagulation system. PhD in Medical Physiology. Department of Medical Physiology, KU.

5. **Meshak Ondora Onyambu (2016)**

- Development of a chromatographic fingerprint and other quality control methods for *Warbugia ugandensis* herbal materials. PhD in Pharmacognosy. Department of Pharmacy and Complementary /Alternative Medicine, KU.
6. **Murigi Elishiba Muthoni (2016)**  
Social marketing mix and behavioural change on substance users among youth in the slums of Nairobi County, Kenya. PhD in Marketing, KU.
7. **Everlyne N. Wanzala (2015)**  
Identification of antitrypanosomal constituents of some Meliaceae species and screening of selected structural variants by *in vitro* and *in vivo* assays. PhD in Pharmaceutical Chemistry. Department of Pharmacy and Complementary /Alternative Medicine, KU.
8. **Judith Kanensi Okoth (2014)**  
Development and utilization of amaranth-sorghum grains product to enhance nutritional status of malnourished children in Thika district, Kenya. PhD in Foods, Nutrition and Dietetics. Department of Foods, Nutrition and Dietetics, KU.
9. **Geoffrey Kariuki Kinuthia, 2013**  
Efficacy of combined crude extracts from selected plants of Kenya against *Leishmania major*. PhD in Medical Parasitology. Dept. of Pathology, Kenyatta University (KU).
10. **Florence Wanja, 2013**  
Quality and Safety of Herbal Products Used in Oral Health by Traditional Medical Practitioners in Nairobi, Kenya. PhD in Pharmacognosy. Department of Pharmacy and Complementary /Alternative Medicine, KU.
11. **Salome Muthoni Guchu, 2007**  
Studies on *Desmodium* species for the allelochemicals involved in *Striga* suppression. PhD in Chemistry. Department of Chemistry. University of Nairobi (UON).

## 12. Ester Innocent, 2007

Bio-prospecting for botanical larvicides and repellents for the malaria vector, *Anopheles gambiae* Giles. PhD in Chemistry. Department of Chemistry. University of Dar Es Salaam.

### Successful Undergraduate Project supervision

2014 - 2020 Thirty (30) B. Pharm undergraduate projects. KU

2007-2009 Ten (10) Bachelor of Science in Public Health (B.Sc. PH) projects at KU.

1997-2005 Nine (9) B. Pharm projects. UON.

## 1.4 PROFESSIONAL/CONSULTANCY

### 1.4.1 NETWORKING /COLLABORATION

#### 1. Collaborating in Research

1. Kenya Industrial Research and Development Institute (KIRDI)
2. National Aids and STI Control Program, NASCOP- Kenyatta Hospital
3. Kenya Agricultural Research Institute- KARI
4. Strategic Poverty Alleviation Systems (SPAS)
5. Allgrain Company Ltd
6. Farm Concern International (FCI)
7. Institute of Primate Research (IPR)
8. International Centre of Insect Physiology and Ecology (ICIPE),  
Behavioural and Chemical Ecology Department (BCED).
9. Jomo Kenyatta University of Agriculture and Technology (JKUAT),  
Department of Food Science and Post-Harvest Technology.
10. Makerere University, Uganda.
11. Kenya Medical Research Institute (KEMRI)
12. Embu University

13. Moi University

14. The Technical University of Kenya

**2. Establishment of Departmental Library (Donation of Books and Journals)**

- i. Harvard University, Department of Chemistry and Chemical Biology.  
MA, USA
- ii. Abha Light Foundation, Kenya
- iii. Seeding Labs Organisation. MA, USA.

**3. Equipping laboratories (2009-2010)**

- i. Seeding Labs Organisation, USA.  
- Equipment valued at about KSh. 63 Million

**4. Quality Assurance**

- i. Kenya Bureau of Standards
- ii. Pharmacy and Poisons Board

**1.4.2 EDITORIAL BOARDS/REFEREE FOR PROFESSIONAL PERIODICALS**

2013 ----: Editor. East and Central Africa Medical Journal

2009: Deputy Editor: Ministry of Higher Education: National R&D Journal Editorial Board

**1.4.3 CONSULTING FOR INTERNATIONAL/NATIONAL BOARDS**

**2018: Member of the Traditional and Alternative Medicine Technical Working Group – on the Kenya Health Act no 21 of 2017. 2018: Ministry of Health, Kenya**

**2018 - - Visiting Professor.** Pan African University based at University of Ibadan, Nigeria. 2021, 2020, 2019, 2018:

**2017: Visiting Professor.** Catholic University of Health and Allied Sciences. Mwanza, Tanzania.

2015-2019: Chairman, Board of Management: Mweiga High School, Mweiga, Nyeri

2011: Board of Governors Member: Mweiga High School, Mweiga, Nyeri

2009: Technical Committee Member: Pharmaceutical and Alternative Medicine: Kenya Bureau of Standards. 31<sup>st</sup> March 2009 – 30<sup>th</sup> March 2012

2001 – 2002: **Visiting Scientist.** International Centre of Insect Physiology and Ecology (ICIPE), Kenya. 2001-2002

2001: Board of Governors Member: Amboni Secondary School, Nyeri. 2001 – 2007.

#### **1.4.4 CONSULTING FOR ORGANISATIONS/INSTITUTIONS**

2017. **Commission for University Education (CUE):** Resource person for “reviewing proposed degree programmes”.

2015. **Commission for University Education (CUE):** Resource person for “reviewing proposed degree programmes”.

2015. **Commission for University Education (CUE):** Resource person for “verification of academic resources to support academic programmes”.

2011-2012. **Commission for Higher Education (CHE):** Resource person for “reviewing proposed degree programmes”.

2012. **Commission for Higher Education (CHE):** Resource person for “verification of academic resources to support academic programmes”.

#### **1.4.5 MEMBERSHIP OF ACADEMIC /PROFESSIONAL BODIES**

- 1) Member of the ARPPIS Scholars Association (ASA).
  - Vice – president from 29/11/06 – September 2008
- 2) Member of the African Association of Insect Scientists (AAIS)
- 3) Member of the Natural Product Research in East and Central Africa (NAPRECA)
- 4) Founding member of The Kenya Chemical Society (KCS),
  - Member of KCS Inaugural Governing Council from 1992 to 1998
- 5) Member of Nature Kenya: (Kenyan section of East Africa Natural History Society)

#### **1.4.6 ANY OTHER (EDITORSHIP/PEER REVIEW, EXTERNAL EXAMINER, ETC)**

##### **1.4.6.1 External Examiner in Other Universities**

2021. **University of Nairobi.**  
External Examiner – Undergraduate and Postgraduate. Organic Chemistry.

2020. **Catholic University of Health and Allied Sciences.** Mwanza, Tanzania.  
External Examiner – Pharmacognosy



- 2015- **Mt. Kenya University, Thika, Kenya**  
External Examiner - Pharmacognosy
- 2014- **Kenya Methodist University, Meru, Kenya.**  
External Examiner – Pharmacognosy and Pharmaceutical Chemistry.
- 2014-2017 **Catholic University of Health and Allied Sciences.** Mwanza, Tanzania.  
External Examiner - Pharmacognosy
- 2013- **University of Nairobi.**  
External Examiner – Postgraduate thesis. Pharmacy, Chemistry, Dental Sciences.
- 2009-2013. **Jomo Kenyatta University of Agriculture and Technology.**  
External Examiner – Postgraduate thesis.

#### **1.4.6.2 Internal Examination at KU**

2009-2018: Postgraduate Theses

#### **1.4.6.3 Peer reviewer**

2015 – 2019: **Pre-qualified Peer reviewer.** Commission for University Education, Kenya

2017. **Muhimbili University of Health and Allied Sciences,** Dar es salaam,  
Tanzania.  
External Peer Review for Promotion of a staff to Associate Professor

2016. **Makerere University, Kampala, Uganda:**

External Peer Review for Promotion of a staff to Associate Professor

2012. **Masinde Murilo University of Science and Technology (MMUST)**  
External Peer Reviewer for Promotion of a staff to Associate Professor.

## **1.5 ADMINISTRATIVE AND RESPONSIBILITIES**

### **1.5.1 RECOGNISED UNIVERSITY ADMINISTRATIVE POSITIONS**

#### **1.5.1.1 Kenyatta University (KU).**

2019: **Director:** National Phytotherapeutics Research Centre. Oct 2019

2017: **Director:** KU Funeral Home. Sept 2017 – August 2019:

2017: ---- **Chairman of Board:** Chandaria Business Innovation and Incubation Centre

2015: **Board Member:** KU Funeral Home. 2015 - August 2019:

2013: **Board Member:** Board of Postgraduate studies. 2013 ---- 2015

2013: **Board Member:** University Research Review and Advisory Board. 2013–  
2016.

2008: **Chairman:** KU Ethics Review Committee. 2008 – 2015

2009: **Chairman:** Dept. of Pharmacy and Complementary /Alt. Medicine. 2009 – 2013

2008: **Board Member:** Confucius Institute. 2008 - 2012

### 1.5.1.2 University of Nairobi (UON).

- 2001 - 2006      **Section Head** - Pharmacognosy: Department of Pharmacology and Pharmacognosy. School of Pharmacy.
- 2002 – 2003      **Chairman:** Curriculum Review Committee. School of Pharmacy.
- 2003              **Member:** Faculty of Pharmacy Committee on Sharing of Module II Income
- 2002 – 2003      **Member:** Faculty of Pharmacy Committee on Attachments
- 2001- 2006      **Acting Chairman** (on short periods) Department of Pharmacology and Pharmacognosy. School of Pharmacy.

### 1.5.2 RECOGNISED INTERNATIONAL RESEARCH ORGANISATION ADMINISTRATIVE POSITIONS

- 2000 – 2001:      **International Centre of Insect Physiology and Ecology (ICIPE).**  
**Section Head:** Semiochemistry Section. African Fruit fly Initiative.

### 1.5.3 OTHER RESPONSIBILITIES IN THE UNIVERSITY

- 2020: **Member:** Committee to plan for the production, sales and marketing of KU Tiba Vent medical ventilators and nasopharyngeal swabs. August 2020:
- 2020: **Chairman:** Committee to Support Development and Production of Ventilators for the Management of Patients with Severe Covid-19 Disease. April 2020 -

- 2012 --- **Editor:** East and Central Africa Medical Journal
- 2012 **Member:** Students Disciplinary Re-Appeals Committee.
- 2012 **Member:** KU Open Access Policy Committee
- 2012: **Member:** Establishment of Molecular Diagnostic Laboratory Committee.
- 2011- **Member:** KU Teaching and Referral Hospital Equipment Committee
- 2011 **Member:** Intra-ACP Grant Application Committee
- 2010 - **Member:** Industrial and Research Park Committee
- 2010 **Member:** Committee to receive books from Sabre Foundation, MA, USA.
- 2009 **Member:** Science and Technology Park – KU Proposal Sub-Committee
- 2009 **Member:** Committee on Israel Collaboration
- 2009 **Member:** Committee on official opening of facilities at KU
- 2008 **Member:** Committee to review the KU Strategic and Vision Plan.
- 2008 **Member:** Kenyatta University Website Development Committee
- 2007 **Member:** KU Documentation Committee.
- 2007 **Member:** Rapid Results Initiative (RRI) of Kenyatta University

2007 **Member:** Review of the Medical Practitioners and Dentists Board Act

2006 **Member:** KU Research Policy Committee.

## **1.6 COMMUNITY ENGAGEMENTS AND OTHER CONTRIBUTIONS**

### **1.6.1 RESEARCH FUNDING**

#### **1.6.1.1 As the Principal Investigator (PI)**

##### **1. National Phytotherapeutics Research, Upscaling and Quality Assurance Centre. 2019 - 2022**

**Donor:** National Research Fund: Government of Kenya: **Value:** \$700,000.

##### **2. Integration of Production, Value Addition and Marketing of Grain Amaranth to Sustainably Manage household health including HIV/AIDS in Kenya. 2008 - 2012**

Kenya Agricultural Productivity Project (KAPP)

**Donor:** Kenya Government and World Bank: **Value:** \$110,000

#### **Collaborators:**

- i. Kenya Industrial Research and Development Institute (KIRDI)
- ii. National Aids and STI Control Program, NASCOP- Kenyatta Hospital
- iii. Kenya Agricultural Research Institute- KARI
- iv. Strategic Poverty Alleviation Systems (SPAS)
- v. Allgrain Company Ltd
- vi. Farm Concern International (FCI)

**3. Poverty Reduction, Household Nutritional Security and Sustainable HIV/AIDS Management through Grain Amaranth. 2008.**

**Donor:** Kenyatta University (Vice – Chancellor’s Research Grant)

**Value:** KSh. 300,000

**Collaborator:** Strategic Poverty Alleviation Systems (SPAS)

**1.6.1.2 As the Co-Investigator (CoPI)**

**4. Mass production of scarce cancer drugs vinblastine and vincristine from Madagascar periwinkle cultivated in Kenya; their Nano formulation, preclinical studies, and economic viability.** Donor: NRF. Value: KSh. 50,000,000. 2021.

**5. Upscaling Production of a low-cost Mechanical Ventilators (TIBA-VENT<sup>R</sup>) for Managing Patients with Severe COVID -19 Disease.** Donor: GCA. Value: KSh. 22,000,000. 2021

**6. Electronic (E-VAXI) Application/Platform: Enhancing Coverage, Timeliness and Completeness of Routine Immunizations in Kenya Through Technology.** Donor: NRF. Value: KSh. 19, 999, 950. 2021

**7. Transformation of Pharmacy and Chemistry Degree Provision Project.**  
Donor: UK Department for International Development (DFID) - SPHEIR. Value: £4 million. From 2017 – 2021

**8. The role of language and culture in screening, prevention and management of cancer in Kenya. 2014 - 2015**

**Donor:** Kenyatta University (Vice – Chancellor’s Research Grant)

**Value:** KSh. 1,500,000

**9. Scaling up production of a nutrient dense complementary food based on amaranth-sorghum grains. 2014 - 2017**

**Donor:** Jomo Kenyatta University of Agriculture and Technology

**Value:** KSh. 4,500,000

**10. Testing the efficacy and safety of cheetan and cheetan/cfc by assessing the CD4 counts, viral load, liver, renal, bone marrow functions using HIV infected baboons. From 2009**

**Donor:** National Council for Science and Technology. Kenya.

**Value:** KSh. 2,983,530

**Collaborator:** Institute of Primate Research (IPR)

**1.6.1.3 Student Grants – as a Mentor**

11. The effects of crystalloid solutions on the human coagulation system.

**Student:** Gordon O. Ogweno (PhD).

**Donor:** National Council for Science and Technology (NCST). Kenya. 2010/2011

12. Identification of antitrypanosomal constituents of some Meliaceae species and screening of selected structural variants by in vitro and in vivo assays.

**Student:** Everlyne N. Wanzala (PhD)

**Donor:** National Council for Science and Technology (NCST). Kenya. 2012/2013

13. Quality and Safety of Herbal Products Used in Oral Health by Traditional Medical Practitioners in Nairobi, Kenya.

**Student:** Florence Wanja (PhD).

**Donor:** National Council for Science and Technology (NCST). Kenya. 2009/2010

### **1.6.2 COMMUNITY OUTREACH**

2021: Medicinal trees planting. Mount Kenya University, Thika, Kenya. 21/4/2021.

2019 (to date): Production and Value Addition of Medicinal Plants: Amboni, Nyeri, Kenya.

2016 (to date): Kahawa Sukari Taveta Road Friends Welfare Association, Nairobi, Kenya: Training on herbs used to manage cancer.

2015: Invitation as Chief Guest. Mount Kenya University, Thika, Kenya. Occasion: Medicinal trees planting day. 30/4/2015.

2008: Campaign on Poverty Reduction, Household Food and Nutrition Security. Mweiga in Nyeri and Laikipia. 2008 – 2009:

2002 (to date): St Joseph Kahawa Sukari Catholic Men Association (CMA), Nairobi, Kenya. Training on Family life.

2015-2019: Chairman, Board of Management: Mweiga High School, Mweiga, Nyeri

2011: Board of Governors Member: Mweiga High School, Mweiga, Nyeri

2001: Board of Governors Member: Amboni Secondary School, Nyeri. 2001 – 2007.

### **1.6.3 PROFESSIONAL AFFILIATION & PORTFOLIOS**

**2018: Ministry of Health, Kenya: Member of the Traditional and Alternative Medicine Technical Working Group – on the Kenya Health Act no 21 of 2017. 2018:**



**2015 – 2019: Commission for University Education, Kenya.** Pre-qualified Peer reviewer.

2009 --: **Kenya Bureau of Standards.** Technical Committee Member:

Pharmaceutical and Alternative Medicine: 31<sup>st</sup> March 2009 – 30<sup>th</sup> March 2012

2006: **Vice – President of the ARPPIS Scholars Association.** 2006 - 2008

1992: Governing Council Member: Kenya Chemical Society. 1992 - 1998

#### **1.6.4 RECOGNITIONS AWARDS AND HONOURS**

2012 -: **Peer Reviewer of Academic Programmes and Institutions:** Commission for Higher Education. Gigiri, Nairobi, Kenya.

2010: **Visiting Research Fellowship:** Novartis Institute for Biomedical Research (NIBR) in

Massachusetts USA, in the department of Developmental & Molecular Pathways.

2007: **Fellowship:** Advanced Training Program of Research and Development of Medicinal Plants at Tianjin University of Traditional Chinese Medicine in China. Sept. 2007.

2003: **Best Scientific Conference Paper.** Certificate and Cash Award: African Association of Insect Scientists Conference. Best Scientific Conference Paper. 13<sup>th</sup> June 2003.

2002: **Visiting Scientist:** Behavioural and Chemical Ecology Department (BCED). ICIPE.

2000: **Postdoctoral Fellowship:** African Fruit Fly Initiative, ICIPE. 1<sup>st</sup> Feb 2000–Oct 2001.

1996: **Scholarship for PhD:** African Regional Postgraduate Programme in Insect Science (ARPPIS) and German Academic Exchange Service (DAAD) tenable at The International Centre of Insect Physiology and Ecology (ICIPE). September 1996 – November 1999.

1990 **Project Evaluation Intern:** UNESCO, ROSTA, Nairobi.

1988: **Scholarship for MSc:** German Academic Exchange Service (DAAD). Tenable at the University of Nairobi. Sept 1988 – Oct 1990.

1981: **Kenya National Student's Science Congress.** Certificate: Design and Fabrication of an Automatic Sweet Seller. 20<sup>th</sup> June 1981