



CURRICULUM VITAE

WILSON MBITI NJUE
Chemistry Department
Kenyatta University
P.O. Box 43844-00100
Nairobi Kenya

Fax: 254-2-8711575/202300127
Mobile 0722 234 277
Email: wilsonnjue@yahoo.com

1.0 PERSONAL INFORMATION

NAME: Wilson Mbiti Njue
ADDRESS: P.O. Box 43844, NAIROBI
TELEPHONE: 8710901 Ext. 57460
CELL PHONE: 0722234277
EMAIL ADDRESS: wilsonnjue@yahoo.com
LANGUAGES: Kiambu, English, Kiswahili
CITIZENSHIP: Kenyan
GENDER: Male
PLACE OF BIRTH: Embu, Embu county

2.0 QUALIFICATIONS

2.1 Academic Qualifications

- 1987 Ph.D. Chemistry, University of Alberta, Canada
- Specialization: Organic Synthesis- Natural Products
- M.SC. Chemistry, Nairobi University, Kenya
- 1977B.Ed (Science), Nairobi University, Kenya
- 1974 Dip. Ed (Science) Kenya Science Teachers College

3.0 EMPLOYMENT HISTORY/WORK EXPERIENCE

- **2014** Professor of chemistry , Embu university
- **2002** Associate professor, Chemistry Dept., Kenyatta University
- **2001 - 2003** Coordinator of Science graduate programmes, Institute of Continuing Education, Kenyatta University.
- **1992 – 2001** Senior Lecturer, Chemistry Dept., Kenyatta University
- **1998** Coordinator, Chinese Link Committee
- **1992 -1998** Chairman, Chemistry Department
- **1982-1987** Research Assistant, University of Alberta, Canada
- **1987 – 1992** Lecturer, Chemistry Dept., Kenyatta University
- **1999** Consultant: curriculum development, Science degree program-Kigali Rwanda

- 1995-2004 Dept. Coordinator for Postgraduate Academic programmes.
- 1995 World Bank Equipment Procurement Committee member
- 1991 – 1992 Coordinator & Area Supervisor, Teaching Practice, Embu and Kirinyaga Districts.
- 1980 -1987 Tutorial Fellow, Chemistry Dept., Kenyatta University

4.0 ADMINISTRATIVE RESPONSIBILITIES

4.1 At Kenyatta University

- 2007 - 2013 Director, Kenyatta University Kitui Campus
- 2006 - 2007 Director, Centre for Self Sponsored Programs
- 2003 - 2004 Director, University Income Generating Activities (IGA)
- 1992 – 1998 Chairman, Chemistry Department
- 1999 Ag. Dean, Faculty of Science, Kenyatta University

5.0 FELLOWSHIPS

- 1980 – 1987 Canadian Commonwealth Scholarship
1991 Research Supervisor, John Hopkins Hospital sponsored research on Information Education Communication for the Family Planning.
- 1991 - 1993 Consultant Trainer of American Peace Corps, Science Teachers, Naivasha Training Centre
- 1987 Research Fellow, Chemistry Dept., University of Alberta, Canada.
- 1993 Organic Synthesis Training Course, Banglore, India, December
- 1992 Four months training on Pedagogy, University of Leeds, Leeds, England, 1992.
- 1998 Training Workshop on Scientific writing, at University of Nairobi sponsored by South African Chemical Society, 1998.
- 1992 Towards excellence in Teaching and Research, German Foundation for International Development (DSE), Mombasa, 1992

6.0 POSTGRADUATE SUPERVISION

6.1 Ph.D Supervision

6.1.1. Completed

2004

- **Alphonse W. Wanyonyi**
“Molluscicidal and antimicrobial activity of solanum species”

6.1.2 On going

2016

- **Rose B. Oyugi**
“BisphenolA as an emerging environmental chemical pollutant”

6.2 Masters Supervision

6.2 Completed

2019

Kithokoi Jackson (B.Ed. Sci.) Reg. No. I56/33673/2015

Biosynthesis of silver nanoparticles using plant extracts and also intensified by sonochemical methods and their antimicrobial activity

Peninnah Mueni Reg. No. I56/29384/2014

Assessment of citrulline in cucurbitas , fruits/seeds , vegetables and nuts

2020

Belinda Syangu(BSc.) Reg. No. I56/ 38350/ 2016

Assessment of antioxidant activity, antiinflammatory effect, total polyphenolic and total flavonoid content in selected medicinal plants, wild non edible mushrooms and sea algae

Lucy A.Aduda (B.Ed,Sc.) Reg. No. I56/38349/2016

Determination of Arsenic in rice grown in paddy fields of Ahero Irrigation Scheme, Kisumu County, Kenya

2018

Karoki P. Kibebe (BSc.) Reg. No. I56/32260/2015

Determination of ochratoxinA in wheat, finger millet and sorghum grains and their products retailed in nairobi county, Kenya

2017

Njenga I kariuki Reg. No. I56/5772/2003

Trace elements with immunological properties in some medicinal plants

2013

- **Faith Mburu Reg. No. I56/10651/2006.**

“ Potential toxic levels of Cyanide in Cassava grown in Kakamega, Kisii, Kitui, Thika and Nairobi.”

2010

- **Nyachoti Syprose Kemunto Reg. No. I56/10835/2006 .**

“Determination of thiocyanate among smokers and non-smokers using urine as a biological indicator.”

2008

- **Faridah H. Were M.Sc. Reg. No. I56/13112/2005**

“Use of human nails as a bio-indicator of heavy metals overload in children. “

2006

- **Grace Muchemi M.Sc.**

“Immune boosting trace elements in selected food grains in Kenya.”

- **Ngugi Mathew Piero Reg. No. I56/7212/2002**

“Evaluation of hypoglycemic activity of some Kenyan plants used in traditional medicine for treatment of diabetic mellitus.”

- **Murugi Joan Njagi Reg. No. I56/7257/2002 M.Sc**

“Hypoglycemic effects of some antidiabetic plants used in traditional medicine in Kenya.”

- **Cromwel Kibiti Reg. No. I56/7263/2002**

“Determination of hypoglycaemic potentials from some Kenyan plants used in traditional medicine.”

2003

- **Francis.W. Muregi**

“Anti-plasmodial activity of some Kenyan medicinal plants singly and in combination with chloroquine.”

2002

- **Jackson Kiptoo**

“Assessment of the levels of some toxic and anti-nutritional substances in Kenyan coffee pulp.”

6.2.2. On Going

2021

Akuma Erick Mayieka (B.Ed. Science) Reg. No.I56/27639/2018

Bioaccumulation and Transfer factor of heavy metals in three edible *amaranthus* species and Potential Health Risk.

Murungi Emily Kawira Reg.No. I56/CE/25200/201

Synthesis of silver and copper (ii) oxide nanoparticles mediated by selected seaweeds and evaluation of their antioxidant and cytotoxic activity

2020

Nyandondi Osbon John (B. Ed. Sci.) Reg.No. I56/37351/2017

levels of Toxic Heavy Metals in human nail samples among welders and mechanics in kisii county, kenya

Murage Mary Njeri (B.Ed.Sci) Reg.No. I56/CE/34852/2016

Antioxidant activity, Total phenolic content and cytotoxicity activity of selected cassava(*maniholt esculenta*) cultivars

2018

Kiplangat S. Alice (Bsc.Sci.) Reg.No. I56/38004/2016

Determination of Arsenic in Water from selected Boreholes in Nairobi City County, Kenya

2017

Otieno Rollyne Achieng (B.Ed. Sc.) Reg.No. I56/37033/2016

Determination of bisphenol A (BPA) leached from polycarbonate baby feeding bottles and food cans in Nairobi County, Kenya

2016

- **Mwidadi Omar(Bsc.) Reg. No.I56 /27958/2014**

Acrylamide in fried /baked potato food products in Central Business.District. Mombasa city.

- **Maina Mary Wangui Reg. No. I56/CE/27063/2013**

Synthesis of Nanostructured Zeolite Catalysts and Transformation of Organic Compounds.

2012

- **Juma Seif Reg. No. I56/13113/2005**

“Chicken Feathers as Animal Feed Supplements”

7.0 CONFERENCES/SEMINARS/WORKSHOPS

7.1 Participation in Workshop/Conferences

- Kenya chemical society internal conference. Essential trace metal analysis in medicinal plants commonly used in Kenya. University of Nairobi. 14th-18th April 2015
- The 3rd Kenya Chemical Society International Conference. Heavy metals and Pesticides determination in Marine plants, sediments and sea water along Mombasa Coastline. Jomo Kenyatta University of Agriculture and Technology. 16th - 20th August 1999.
- Theoretical Chemistry in Africa Workshop - Mini Labs in the teaching of chemistry. (Paper presented) University of Nairobi, Kenya. 2nd - 6th November, 1998.
- EPO -ARIPO Workshop on Intellectual Property. University of Nairobi, Kenya. 16th - 18th November, 1998.

7.2 Presentation of papers at Academic and Professional Conferences

- 2nd Scientific conference. KMTC, Nairobi. 9th – 11th May 2012. Cassava Toxicity and other associated diseases.
- Kenya Chemical Society Conference. Finger nails as bio-indicator of heavy metals body over load. Mombasa, September 2009.
- Kenya Chemical Society 5th International Conference. Kenyatta University, August, 2006:
 - (a) Immune Boosting Trace Metals in food grains consumed in Kenya.
 - (b) Molluscicidal steroid alkaloids from solanum aculeastrum and solanum orundo
- 1st African Congress on Biology and Health. A survey of Medicinal plants traditionally used in cure of highland Malaria. University of Setif, Algeria, April 23 - 25, 2000.
 - Kenya Chemical Society conference. Use of thiolmalonates in Organic synthesis. Moi University, Eldoret, Kenya. June, 1997.
 - Inaugural conference, Kenya Chemical society. Synthetic studies of Clovane-diol, University of Nairobi, Kenya June 1994.
 - Royal Society of Chemistry conference. Research and Teaching of Chemistry in Developing Countries. Imperial College, London, England, 1992.

7.3 Convening and co-ordinating Conferences

- Coordination Team Member for Kenya Chemical Society International Conference held at Kenyatta University, August, 2006.

8.0. RESEARCH AND PUBLICATIONS

8.1 Articles in Refereed International Journals/with students/joint

- Alice S. Kiplangat, Henry Mwangi, Sauda Swaleh and Wilson M. Njue* (2021). Arsenic Contamination in Water from Selected Boreholes in Nairobi City County, Kenya. *European Journal of Advanced Chemistry Research*, Vol. 2/issue 2: 1-6, DOI: <http://dx.doi.org/10.24018/ejchem.2021.2.2.50>
- Peninnah Mueni Mulwa, Wilson Njue*, and Margaret Ng'ang'a (2020). Assessment of L-Citrulline, L-Arginine and L-Glutamic Acid Content in Selected Fruits, Vegetables, Seeds, and Nuts Sold in Markets in Nairobi City County, Kenya. *EJFOOD, European Journal of Agriculture and Food Sciences* Vol. 2, No. 5: 1-6; DOI: <http://dx.doi.org/10.24018/ejfood.2020.2.5.100>
- Wilson Njue*, Jackson Kilonzo Kithokoi, Sauda Swaleh, Jane Mburu, Henry Mwangi (2020). Green ultrasonic synthesis, characterization and antibacterial activity of Silver and Gold Nanoparticles mediated by *Ganoderma lucidum* extract. *Journal of Applied Chemistry Material Science & Engineering Research*, Vol.4 (2): 1-7; ISSN: 2689–1204
- Wilson Njue*, Jackson Kilonzo Kithokoi, Jane Mburu, Henry Mwangi, Sauda Swaleh (2020). Green Sonochemical Synthesis of Silver Nanoparticles Using *Adansonia Digitata* Leaves Extract and Evaluation of Their Antibacterial Potential. *European Journal of Advanced Chemistry Research*, Vol.(2): 41-45, DOI: <http://dx.doi.org/10.24018/ejchem.2020.1.2.5>
- Lucy Akinyi Aduda, Henry Mwangi, Sauda Swaleh and Wilson M Njue*(2019). Assessment of Potential Human Exposure to Arsenic in Imported and Locally Produced Rice in Kenya. *EC Nutrition* 14.11 (2019): 86-95.
- Kithokoi J. Kilonzo¹, Lawrence Ochoo², John M. Maingi³, Sauda Swaleh¹, Wilson M. Njue¹*(2019). Green Sonochemical Biosynthesis of Silver Nanoparticles Using *Brideria mycrantha bark extract* and Their Antibacterial Activity. *African Journal of Pure and Applied Chemistry*, Vol. 13(3): 34-42; ISSN: 1996 – 0840
- Belinda Nasike Siangu¹, Swaleh Sauda¹, Mwonjoria Kingori John² and Wilson Mbiti Njue¹*(2019). Antioxidant activity, total phenolic and flavonoid content of selected Kenyan medicinal plants, sea algae and medicinal wild mushrooms. *African Journal of Pure and Applied Chemistry*, Vol. 13(3): 43-48; ISSN: 1996 – 0840
- Kithokoi J. Kilonzo, Lawrence Ochoo, Henry Mwangi, John M. Maingi, Sauda Swaleh, Wilson M. Njue*(2018). Ultrasound Irradiated Synthesis of Silver Nanoparticles Using *Warbugia ugandensis* Stem Bark Extract and Their Potential As Antibacterial Agents. *International Journal of Scientific Research and Innovative Technology*, Vol.5 No.10: 59-75; ISSN: 2313 - 3759
- Kithokoi J. Kilonzo, Lawrence Ochoo, John M. Maingi, Sauda Swaleh, Wilson M. Njue*(2018). Sonochemical Biosynthesis of Silver Nanoparticles Using *Brideria mycrantha* and Their Antibacterial Activity. *European International Journal of Science and Technology*, Vol.7 No.9: 1-10; ISSN: 2304 - 9693
- Kithokoi J. Kilonzo, Lawrence Ochoo, John M. Maingi, Sauda Swaleh, Wilson M. Njue*(2018). Ultrasonic Synthesis of Silver Nanoparticles Mediated by *Prunus africana*

- Peter K. Karoki¹, Wilson M. Njue^{1*}, Sauda Swaleh¹, Ezekiel K. Njoroge & Cecilia W. Kathurima² (2018). Determination of Levels of Ochratoxin A in Selected Cereal Grains Flour, Baked Wheat Bread and Finger Millet Brew Retailed in Market Outlets in Nairobi County, Kenya. **International Journal of Food Nutrition and Safety**, 9(1): 49-58; ISSN:2165-896X
- Peter K. Karoki¹, Wilson M. Njue^{1*}, Sauda Swaleh¹, Ezekiel K. Njoroge & Cecilia W. Kathurima². (2018). Determination of Ochratoxin A in selected Cereal Grains Retailed in Nairobi County, Kenya. **Journal of Food Research**; Vol. 7, No. 5 79-85; ISSN 1927-0887 E-ISSN 1927-0895
- Henry M Mwangi^{1*}, Wilson M Njue¹, Martin O Onani², Ntevheleni Thovhoghi³ and Wilfred T Mabusela^{2,4}. (2017). Phlorotannins and a sterol isolated from a brown alga *Ecklonia maxima*, and their cytotoxic activity against selected cancer cell lines HeLa, H157 and MCF7. **Interdiscip J Chem. Vol. 2(2) 1-6**, ISSN: 2398-7537
- Wilson M. Njue. Ruth Wanjau. Njenga I. Kariuki. (2016). Analysis of Trace Elements by EDXRF in Selected Medicinal Plants used in Kenya. **International Journal of Science & Techknowledge. Vol. 4(1) 1-4**, (ISSN 2321- 919X).
- Muchemi G.N, Wanjau R.N., Murungi I.J, Njue W.M*. (2015). Assessment of essential trace elements in selected food grains, herbal spices and seeds commonly used in Kenya. **African Journal of Food Science. Vol. 9(8). pp 441-447**, ISSN. 1996-0794.
- .Ngugi M P, Njagi M J, Kibiti M C, Ngeranwa J N. Njagi N M , Njue M.W, Gathumbi K.P.(2015). Hypoglycemic effects of *Helichrysum odorosissimum* in alloxan induced diabetic mice. **The journal phytopharmacology. 4(1) : 30 - 33**
- Ngugi M P, Njagi M J, Kibiti M C, Ngeranwa J N. Njagi N M , Njue M W, Gathumbi K.P. (2012). Herbal Management of Diabetes mellitus: an expanding research avenue. **International journal of current pharmaceutical research. Vol. 5 No.2 , 1- 4**, ISSN- 0975 – 7066.
- Njue W M. Mburu F. Swaleh S. (2011). Cassava Food Poisoning in Eastern Province, Kenya. **Cassava Cyanide Diseases Neurolathyrism Network (CCDN). No. 18 1- 2.**
- Ngugi M. P. .Murugi N.J, Kibiti M.C, Ngeranwa J.J, Njue M.W, Njagi N.E, , Gathumbi K.P.(2011). Hypoglycemic Activity of some Kenyan plants traditionally used to manage Diabetes Mellitus in Eastern Province, Kenya. **J. Diabetes Metab. 2 :8 : 156. ISSN: 2155 - 6156**
- Farridah H. Were, Njue Wilson, Jane Murungi, Ruth Wanjau. (2008). Use of human nails as bio- indicators of heavy metals environmental exposure among school age children in Kenya. **Sci Total Environ. 393 (2 -3) 576 -584**, ISSN 0048 -1697.
- Farridah Hussein Were, Wilson M., Njue Jane Murungi and Ruth Wanjau. (2009). Comparison of some essential and heavy metals in the toenails and fingernails of school age children in Kenya. **Bull, Chem, Soc. 23(1), 117 -122.**
- C.E Johnson, F. Oladeinde, A.M Kinyua J.M Makinde, W.M. Njue, G.N. Kamau, W. M. Kofi -Tsekpo (2008). Comparative Assessment of Total Phenolic Content in selected Medicinal plants. **Niger J, Nat. Prod. Med. 12 :40.**

- F. W. Muregi, S. C. Chhabra W.M. Njue, E. N. M. Njagi, C. Langa't – Thoruwa, I. O. Ndiege (2004). Anti-plamodial Activity of some Kenyan medicinal plant extracts singly and in combination with Chloroquine. **Phytotherapy Research** **18** 379 – 384.
- Bor S.K Simbauni J.A, Oyugi M.P, Njue W.M, Chhabra, S.C. (2007). Organo-chlorine residues in tissues of marine fauna along the coast of Kenya Mombasa Island. **Bulletin of Chemical Society of Ethiopia**. Volume 21, Number 1, April 2007. Pp 145-149.
- Festus M. Tolo, Geofrey M. Rukangu, Faith W. Muli, Eliud N.M Njagi, Wilson Njue, Kauko Kumon, Kofi – Tsepo (2006). Anti-viral activity of extracts of a Kenyan medicinal plant *Carissa Edulis* against herpes simplex virus. **Journal of Ethnopharmacology** **104**, 92 - 99
- Mildred P. Oyugi, Summesh c. Chhabra, Wilson M.Njue and Anthony M. Kinyua (2003). Heavy metals and Pesticides in Marine Sediment, sea water and sea plants along the Kenya - Mombasa Coastline. **Journal of Trace and Microprobe Techniques** No. 21, No.1, pp. 147 - 159.
- Alphonse W. Wanyonyi, Sumesh. Chhabra, Gerald Mkojo, Wilson Njue, Paul K. Tarus, (2003) molluscicidal and antimicrobial activity of *solanum aculeastrum*. **Fitoterapia** **74**, 298-301.
- F.W. Muregi, S.C. Chhabra, E.N.M.Njagi, C.Lang'at-Thoruwa, W.N.Njue, I.O. Ndiege (2003). In vitro antiplasmodial activity of some plants used in Kisii, Kenya against Malaria and their chloroquine potentiative effects. **Journal of Ethnopharmacology** **84** 235 - 239.
- Alphonse W. Wanyonyi, Sumesh C. Chhabra, Gerald Mkoji, Udo Eilert, Wilson M. Njue(2002), **Bioactive steroidal alkaloid glycosides from *Solanum aculeastrum***. **Phytochemistry** **59** 79 - 84.
- Kinyua, A.M. Thinguri M.T., Njue W. (1999). Determination of Heavy Metals and Sulphur in Waste Engine Oils. **Bulletin of Chemical Society of Ethiopia**. **13(2)**, 99 - 104. ISSN 1011 - 3294
- Njue W.N., H.J. Liu, P.N. Olley (1990) Photolabelling of Prostaglandin E₂ receptor in cardiac sarcolemmal vesicles: **FEBS Lett** **265**, 117 - 120..
- Kinyua A.M., Njue W (1995). Rice Husks Ash and its use as a Pozzolana - **A Kenyan Experience**. **Talanta**, **42(1)** 1491 - 1493.
- Njue W.M. Liu H.J.(1990) Synthetic Studies of a Sesquiterpene - clovane-2 β ,9 α -diol. **Can.J.Chem.** **68**, 549 - 556.

Local Journals/Kenyan

- Nyachoti S. K. Njue W. M. Murungi J. I. Wanjau R .N. (2011). Use of Urine as Biological Indicator of cyanide exposure among smokers in Kenya. **Journal of Kenya Chemical Society**, ISSN 1811- 5934. Vol. 6 No 1.
- Muchemi G. Njue W.M Wanjau R Murungi I J. (2007) immune boosting trace elements in selected food grains grown in Kenya. **Journal of Kenya chem. society**. Vol.4 No.2. 27 – 32, JKCS- ISSN 1811 – 5934.
- Njue, W.M., Kinyua A.M., Thing'uri,M.T. (2004). Energy potential of waste oils fcal automobiles and fish processing industries. **Journal of Kenya Chemical Society**. No.1 Vol.1 25- 28, ISSN 1811 - 5934
- Bor S.K., Simbauni J, Kinyua A.M., Njue W.M., Chhabra S.C.(2004) Heavy Metal Contaminants in tissues of Marine fauna along the Coast of Mombasa Island -Kenya. **East African Journal of Physical Sciences** **5(2)** 61 – 68, ISSN 1729 - 5106

- J. Kiptoo, W.Njue, J.Mburu, A. Gachanja (2002) Levels of caffeine and total polyphenols in Kenyan Coffee pulp. **East African Journal of Physical Sciences** 4(1) 29 – 40 ISSN 179 - 5106
- Njue W.M., Gitu L.M. (1999). Aflatoxins in Animal Feeds. **East African Journal of Physical Sciences** 1(2) 59 – 66 ISSN 1729 - 5106
- M.Njuguna, W.M. Njue (1999) Determination of Volatile Impurities in Alcoholic Brews by GC. **International Journal of Biochemiphysics**. 8(1&2), 28 - 31.
- Njue W.M. Gitu L.M. (1998). Determination of Aflatoxin B₁ in Animal Fees by Voltametric technique. **International Journal of Biochemiphysics** Vol. 6 & 7 (1 &2) 24 - 27
- Njue W.M., Gitu L.M. Kaberia Njue W.(1996) Determination of Aflatoxins B₁ and M₁ in Animal Feeds and Liquid Milk using Thin Layer Chromatography. **International Journal of Biochemiphysics**, Vol. 5 No. (1&2) 11 - 14.
- Njue W.M. and Liu H.J. (1991). An efficient approach to B-hydroxy propionates and acrylates from thiolmalonates. **International Journal of Biochemiphysics**, 1(2) 21 - 24.

8.3 Books and Manuals

- Computations used in University Chemistry. Kenyatta University Library.
- Work Book on Infrared Spectral Interpretation.

9.0 Networking and Collaboration with External Organizations

- 2011 and 2012 Organised and oversaw visits to Kitui Campus by students from Oklahoma State University, USA.
- 2005 – Present Member and Project Partner, Kenya Medicinal Plants, Morgan State University Centre for Complimentary and Alternative medicine
- 1999 Curriculum Development for Science Degree Programs for Kigali Institute of Education

10.0 External and Internal Grants

- 2017 Vice Chancellors research award, Ksh.820,000.00. - Plant mediated Biosynthesis of novel metal nanoparticles and their anti-microbial activity.
- 2007: Awarded Ksh. 500,000/=. Research Grant by Vice Chancellor, Kenyatta University together with Dr. Sauda Swaleh and Dr. Richard Musau on “Evaluation of anti-microbial efficacy of medicinal plants traditionally used in control of infectious diseases.
- 2007: Awarded Ksh. 500,000/= Vice Chancellor’s Research Grant together with Dr. Ruth Wanjau, Dr. J. Murungi on “Use of Chicken Feathers as a fertilizer”.
- 2002: Awarded Ksh. 500,000/= Vice Chancellor’s Research Grant together with Dr. I. Ndiege, Dr. C. Lang’at, Prof. A. Orago and Dr. E.N. Njagi on “ Exploration of some Kenyan medicinal plants for novel anti-malarial drugs”.
- 1998: Vice Chancellor’s Research Grant Award Ksh. 500,000
- 1996: Vice Chancellor’s 1996 Research Grant Ksh. 500,000.

11.0 LOCAL, REGIONAL AND INTERNATIONAL APPOINTMENTS

11.1 External Examiner

- June 2003 M.Sc. Thesis, Jomo Kenyatta University of Agriculture and Technology Chemistry Dept.
- Sept. 2002 M.Sc. Thesis, University of Nairobi, Institute of Nuclear Science

11.2 Review of Professional Periodicals

- 2018 Reviewer, European Journal of Nutrition and Food Safety
- 2011 Reviewer, *Environmental Toxicology and chemistry international journal*
- 2011 Reviewer, *Polish Journal of Environmental studies*

11.3 April 2005 Guest Speaker at Eastern Province Science Congress

11.4. Appointment to Boards

2007 Chairman, Vice-Chancellor's Committee on Streamlining of School Based Programmes.

2007 Member, Ad-Hoc Committee on Development of Policy on Short Courses.

2006 Chairman, SPAS, Ad-Hoc committee on Establishment Centre for indigenous natural products.

2006 – 2010 Non Senate representative to Council

2006 Member, University Catering and Accommodation Board.

2006 Chairman, VC's Committee on Review of Tuition Fee paid by Lecturers.

2005–2007 Member, Kenya Bureau of Standards Committee on Solvents and Industrial Chemicals.

1981 - Present Academic Board Member, School of Pure & Applied Sciences

1994-1997 Member, Promotions & Appraisal Committee for non-teaching staff.

1996-2000 Member, Chemistry Department Examinations Moderation Committee.

1997-2001 Member, University Training Committee

1997- 2000 Departmental (Chemistry) Examination Officer

1992-1994 Chemistry Department's representative to the University library.

1995 - 2000 Member, University Drug Committee.

2003 - 2004 Board Member of Self-Sponsored Programmes (SSP)

12.0 AWARDS

2019 Vice Chancellor Research Award- Green Synthesis of Silver and gold nanoparticles and their anti bacterial activity

2010 Long and exemplary service award, Kenyatta University

2007 Exemplary service award, Kenyatta University

2003	Vice Chancellors research award.
2002	Long and exemplary service award, Kenyatta University
1977	Mobil Award for best student in Chemistry, Kenyatta University
1977	Mobil Award for best student in Mathematics, Kenyatta University
1975	College Award for best student in Chemistry, Kenya Science Teachers College.
2000	Vice Chancellor's publication award.
1997	Vice Chancellor's Publication Award.

13.0 COMMUNITY OUTREACH

- Overseeing the construction of toilets/bathroom facilities for newly established Police Station at Kwa Vonza near Kitui Campus.
- 2000- Present Member - Board of Governors, Kamama Secondary School, Embu.
- 2003 - Present Member Board of Governors, Kairuri, Secondary School Embu.
- Patron of Kenyatta University Embu Students Welfare Association

14.0 ACADEMIC LEADERSHIP

2011 Chairman, Kitui Campus 5 year Strategic Plan

2008 Developed Kitui Campus Flier and Admissions Requirements Booklet

2007 Proposal for Establishment of Centre for Traditional Plant Medicine

2007 Proposal for Establishment of Bachelor of Science in Medicinal Chemistry

2005 Development of Bridging courses in Chemistry for Kenyatta University

2003 Development of Pre-University Program for Kenyatta University.

15.0 OTHERS

15.1 Contribution to University Advancement/Donations

- Initiated Pilot Project on Pig Keeping at minimal cost at Kitui Campus funded by Kenyatta University
- Obtained book donations for Kitui Campus Library from Teachers Without Borders, U.S.A. group
- Sourced Science laboratory equipment for Chemistry Department laboratory from University of Alberta, Canada.
- Sourced for laboratory equipment for Chemistry Department from University of Leeds, U.K.

15.2 Professional Membership

1996 - 1998: Assistant Secretary, Kenya Chemical Society.

1996 - Present Member, Kenya Chemical Society

1996 - Present Editorial Board member, International Journal of Biochemiphysics.

1996 - Present Member, NAPRECA (Natural Products Research Network in Eastern and Central Africa).

15.3 Research Interests

- Mycotoxins in Foods and animal feeds.
- Chemical and Ethnobotanical studies of some Kenyan medicinal plants traditionally and sustainably used in health care needs.
- Organic synthesis and reactions of natural products.

- Hypoglycaemic properties of compounds extracted from Kenyan Medicinal Plants.
- Cyanogenic compounds in cassava and other cyanogenic plants.
- Chemical profiles of Aloe species found in Eastern and North Eastern parts of Kenya.
- Antioxidant and anti-inflammatory activity of Kenyan medicinal wild mushrooms, plants and sea weeds.
- Food science: toxicity, health awareness, environment issues.
- Plant mediated biosynthesis of novel silver, gold and selenium nanoparticles. Their anti-microbial, anti-inflammatory activity and cytotoxicity against mammalian cancer cell lines.
- Arsenic in local and imported rice, Arsenic in borehole water- case study, Nairobi City County
- Human finger nails as bio-indicator of heavy metal exposure in welders, Case study, Kisii county

16.0 REFEREES

1. Prof. Sauda Swaleh
Chemistry Department
Kenyatta University
Tel. No. 0722257347
2. Prof. G.K. Muthakia
Kimathi University, Chemistry Department
Tel. No. 0722567318