

CURRICULUM VITAE

Kimani Samuel T. PhD, MSc, BScN (UoN).
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Legal names: Kimani (last), Thuu (middle), Samuel (first).

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A. CAREER PLAN

To be an expert in clinical, teaching and research expertise in global health issues. To continue pursuing scholarship, generation and dissemination of knowledge and skills derived from global health practice to alleviate and mitigate disease and suffering.

B. AREAS OF INTEREST

Adult and pediatric neuro-degeneration, Toxins, Nutrition and their role in neuro-degeneration. Cardiovascular and cardio-metabolic syndrome, Preventive strategies of degenerative disorder. Research and capacity building in Global health.

C. QUALIFICATION

- PhD (2014): Neurotoxicology/Pharmacology (University of Nairobi): Thesis title: Neurotoxicity of cassava cyanogens: Relevance to the upper motor neuron disease (Konzo) prevalent in Africa
- MSc (1998): (University of Nairobi). Thesis title: Effects of khat (*Catha edulis*) on learning and memory
- BScN (1998): Bachelor of Science in Nursing (University of Nairobi)

D. UNIVERSITY APPOINTMENTS

- December, 2014 to date: **Senior Lecturer**, College of Health Sciences, University of Nairobi.
- 2008 – 2014: **Lecturer**, College of Health Sciences, University of Nairobi.
- 2002 – 2008: **Tutorial Fellow**, College of health Sciences, University of Nairobi.

E. WORK EXPERIENCE

TEACHING

- Senior Lecturer, Lecturer, School of Nursing Sciences, University of Nairobi (Dec 2014 to date).
- Lecturer, School of Nursing Sciences, University of Nairobi (Oct. 2008 to 2014)
- Tutorial Fellow, School of Nursing Sciences, University of Nairobi (2002 to Oct. 2008).

Responsibilities

- Classroom teaching, tutorials, bedside teaching, clinical demonstrations to undergraduate and MSc Nursing students.
- Planning, implementation and evaluation of BSc.N theory and clinical teaching programmes.
- Tutorials and laboratory demonstrations and examination for undergraduate medical (MBChB), B.Pharm, BScN students, Medical Physiology department, University of Nairobi (2008-todate).

Achievements

- Widely published in peer reviewed journals
- Presented in national and international conferences
- Supervised over 10 MSc students research project to completion
- Coordinated a multidisciplinary team of experts both national and international for my PhD work.
- Participates and coordinates Kenya Heart and Sole project involved in prevention of cardiovascular diseases in Kenya a multi-institution project between Kenyan and Boston, USA Teams
- Secured a research grant from International society for Neurochemistry (ISN/CAEN) for my PhD work
- Secured a research grant from Kenyatta National Hospital to conduct research on treatment compliance among hypertensive patients
- I have been awarded several travel grants by international brain research organization (IBRO) to attend workshops and conferences
- Mentored many undergraduate and post graduate students

F. THEMATIC SECTION RESPONSIBILITIES

- 2006 to date Coordinator of Medical surgical Nursing courses for levels I- IV generic and RN-BScN programmes
- 2009-todate coordinator of MSc programme
- 2011 to date coordinator of MSc Medical Surgical Nursing programme

G. SCHOOL RESPONSIBILITIES

- 2015 to date member of college research committee
- 2015 to date, member of UoN/KNH Quality health care committee
- 2014 to date, member of school research committee
- 2014 to date, member of school postgraduate committee
- 2013 to date patron Nairobi university students Association (NUNSA). In 2013 we organized a successful open day that brought together key stakeholders
- 2012 to date, member of school admission committee

H. COLLEGE RESPONSIBILITIES

- 2015 to date, member international Scientific committee
- 2009 to date, member of college gender mainstreaming committee
- 2011 member, College committee on evidence based quality teaching and quality patients care at KNH
- 2015 to date Member of the university Senate

I. PROFESSIONAL RESPONSIBILITIES

- 2012-2013 member of journal and publicity, National Nurses Association of Kenya
- 2013 to date member of Education and research committee, National Nurses association of Kenya
- 2011 to date member of committee on BScN curriculum review, Nursing council of Kenya
- 2012-2013 member of joint University of Nairobi and Kenya Medical Training College committee on BScN curriculum for KMTC

J. COURSES ATTENDED

- May 2013, Preventive cardiovascular Nurses Association symposium, Las Vegas, USA
- April 2013, Research grant writing , UNES, Nairobi, Kenya
- October 2012, Problem based learning and 4 component instructional design (4CID) learning methods, Maastricht University, Holland
- September 2011, Pedagogy in Neuroscience and Physiology, IBRO, Accra, Ghana
- April 2011, Responsible conduct of research, UNITID, Nairobi, Kenya
- July 2010, Laboratory animals for research, Oregon Health and Science university (OHSU), Oregon, USA.
- July 2010, Responsible conduct of research, OHSU, Oregon, USA
- July 2010, Integrity in conduct of research, OHSU, Oregon, USA
- September 2008, VLIR-UON, writing a grant winning proposal skills, Sports view, Nairobi, Kenya.

- May 2007, Fogarty IBRO Africa, neuro-immunology of infectious diseases workshop, in ICIPE, Nairobi Kenya.

K. CAPACITY BUILDING

- Teaching of BSCN upgrading nurses, a collaborative e-learning class between university of Nairobi and AMREF, November 2012 to date.
- Facilitation on risk factors for cardiometabolic syndrome to students and staff from Tumutumu, Kijabe and Government Hospitals, Methodist Guest House Nairobi, June 2013.
- Cardiometabolic syndrome in developing countries to postgraduate and faculty, College of Nursing university of Massachusetts Boston USA, May 2013
- Teaching of Medical-Surgical (cardiovascular, Neurological and endocrinological concepts to BScNursing and MSc Nursing students, University of Nairobi, 2002 to date.
- Teaching of Nutrition and Biostatistics to BSc Nursing

L. COLLABORATION

- I am a co-investigator in the Kenya heart and sole Afya Njema project, a project investigating cardiometabolic syndrome in rural and urban dwelling communities in Kenya. The project brings together, college of Nursing university of Massachusetts Boston USA, University of Nairobi, School of Nursing, Kijabe Hospital, Tumutumu Hospital as well as government run Ongata Rongai Health centre, Kamboi, and Kigumu Health facilities. This project has been running for the last 4 years.
- I am an investigator on the cassava toxicity and its effect on the Nervous system which has nutritional as well as health implication because it has been implicated with upper motor neuron disease (Konzo) prevalent in poor Sub-Saharan countries. This collaboration involves Oregon Health and Science University, University of Nairobi, school of Nursing, School of Pharmacy and school of medicine. Through this collaboration my PhD was initiated and completed and now it is being examined.

M. RESEARCH AND SUPERVISION

i) PhD supervision

- **Gitonga G.** Empathy development among Health professional and its impact on the care. **Ongoing**
- **Kamau-Mary N.** Implementing Iron Folic Acid supplementation among pregnant women through community approach. **Ongoing**

ii) Masters supervision

- **Asenahabi Esther (2014).** Assessment of treatment compliance among adult patients with type II diabetes mellitus at Kenyatta National Hospital. **Completed 2014**
- **Otaigo Lina (2014).** Correlates of complimentary feeding practice among caregivers of infants and children aged 6-24 months at Mbagathi district hospital, Nairobi. **Completed 2014**
- **Njenga Michael M (2013).** Effect of implementing quality management systems on surgical patient care: Experience of Moi teaching and referral hospital. **Completed 2013**
- **Kiplagat Moses (2013).** Pain management practices during wound care in patients with moderate to major burn injuries, Kenyatta national Hospital. **Completed 2013**
- **Shisoka Joan M (2013).** Factors that influence outcome of traumatic brain injury patients at Kenyatta National Hospital. **Completed 2013**
- **Kamotho Hellen W (2012).** Practices of Nurses in management of pain among critically ill Non-verbal adult patients in the critical care unit, Kenyatta National Hospital. MScN thesis. University of Nairobi. **Completed 2012**
- **Gathii Anne N (2012).** Utilization of research by Nurses at AIC Kijabe Hospital MScN thesis. University of Nairobi. **Completed 2012**
- **Kainga Stephen (2011).** Barriers in preventing long-term complications among patients with Type 2 Diabetes Mellitus at KNH. MScN thesis. University of Nairobi. **Completed 2011**
- **Ngugi Margaret W (2011).** Patient factors and wound care practices on wound healing among orthopedic inpatients in KNH. .MScN thesis. University of Nairobi. **Completed 2011**
- **Mundan Victor K (2010).** Prevalence and risk factors associated with hypertension among armed forces personnel in Kenya., MScN thesis. University of Nairobi. **Completed 2010**

N. RESEARCH AND PUBLICATIONS

THESES

- **Kimani S.T.** Neurotoxicity of cassava cyanogens: relevance to the biomarkers and pathogenesis of konzo - a paralytic condition prevalent in Sub-Saharan Africa. PhD. University of Nairobi

- **Kimani S.T.** Effect of Khat (*Catha edulis*) Forsk on spatial learning and memory. Master of Science (MSc.) in Medical Physiology, University of Nairobi.

O. PUBLICATIONS

1. **Kimani ST**, Patel NB, Kioy PG. Memory deficits associated with khat (*Catha edulis*) use in rodents. *Metab Brain Dis.* 2016 Feb;31 (1):45-52. doi: 10.1007/s11011-015-9738-1. Epub 2015 Sep 30
2. **Samuel Kimani**, Jane Kamau, Zephania Irura (2014). Ebola Outbreak: Knowledge to Act. *Occup Med Health Aff* 2:184. doi: 10.4172/2329-6879.1000184
3. **Kimani S**, Moterroso V, Morales P, Wagner J, Kipruto S, Bukachi F, Maitai C, Tshala-Katumbay D. Cross-species and tissue variations in cyanide detoxification rates in rodents and non-human primates on protein-restricted diet. *Food Chem Toxicol.* 2014;66: 203-9.
4. **Kimani S**, Sinei K, Bukachi F, Tshala-Katumbay D, Maitai C. (2014) Memory deficits associated with sublethal cyanide poisoning relative to cyanate toxicity in rodents. *Metabolic Brain Disease.* 2014; 29:105-112.
5. **Samuel Kimani**, Victor Moterroso, Mike Lasarev, Sinei Kipruto, Fred Bukachi, Charles Maitai, Larry David and Desire Tshala-Katumbay. Carbamoylation correlates of cyanate neuropathy and cyanide poisoning: relevance to the biomarkers of cassava cyanogenesis and motor system toxicity. SpringerPlus, 2013; 2:647. doi:10.1186/2193-1801-2-647.
6. Victor Mundan, Margaret Muiva, **Samuel Kimani**. Physiological, Behavioral, and Dietary Characteristics Associated with Hypertension among Kenyan Defence Forces. *ISRN Preventive Medicine.* Vol. 2013 Article ID 740143. doi.org/10.5402/2013/740143.
7. Jacob Kariuki; Eileen M. Stuart-Shor; **Samuel Kimani**; James Muchira; Jessica Demita; Heather Milton; Mercy Kamau; Vincent Mutuma. Awareness, Treatment, and Control of Hypertension in Kenya. *Journal of Cardiovascular Nursing.* 2013 - Volume 28 - Issue 4 - p 299–314. doi: 10.1097/JCN.0b013e318295654b
8. **Samuel Kimani**, Stephen Kainga, Margaret Chege, Miriam Wagoro. Risk factors for cardiovascular disease in patients with type 2 diabetes at Kenyatta national hospital, Kenya. *Journal of Cardiovascular Nursing.* 2012; 27 (5): 369-378
9. Jacob Kariuki, Anna Karani, **Samuel Kimani**, Eileen Stuart-Shor. Cardiovascular risk factors among Kenyans. *Journal of Cardiovascular Nursing.* 2012; 27:287–291

10. L Mutombo, VH Monterroso, **S Kimani**, K Kazadi, M Mashakoa, DD Tshala-Katumbay. Cellular Targete of Linamarin and Cyanate: Relevance to the Pathogenesis of Cassava-Associated Motor System Degeneration. *Journal of the American Association for Laboratory Animal Science*. 2012; 50:739
11. Joelle Chateauneuf, **Samuel Kimani**, Anna K. Karani, Jacob Kariuki, Eileen M. Stuart-Shor. Kenya Heart and Sole Quick Look Guide for Cardiovascular Disease Patient Evaluation. *Journal of Cardiovascular Nursing*. 2011; 26(4): 278-279
12. Mundan VK, Muiva MN, **Kimani ST**, Samia M, Bukachi F. Prevalence and risk factors associated with Hypertension among armed-forces personnel In Kenya. *Cardiovascular Journal of Africa*. 2011; 22(3) S15-S16
13. **Kimani, S.T.**, Patel, N.B., Kioy, P.G. Effect of single and repeated khat (*Catha edulis*) extract on locomotor behaviour in CBA mice. *Scientific Research and Essays Vol*. 2008; 3(5):187-196.
14. **Kimani, S.T** and Nyongesa A.W. Effect of single daily khat (*Catha edulis*) extract on spatial learning and memory in CBA mice. *Behavioral Brain Research*. 2008; 195:192-197.
15. Karani A. K, Kazuko N, Junko T, **Kimani S.T**, Waithaka P.M. Strengthening masters of community health nursing in Kenya. *Kenya Nursing Journal*. 2008; 33 (2).
16. Mawia, A.M., Mwaura, J., Lakati, A., **Kimani, S.T.**, Karani, A.K. Experiences, Knowledge and Perceptions of Women on Gender Based Violence; A case study of Komu Sub-location, Thika Municipality. Kenya. *Kenya Nursing Journal*. 2008; 37 (1):16-24.

P. PUBLISHED ABSTRACTS AND PRESENTATION AT SCIENTIFIC MEETINGS

1. **Kimani S**, Sinei K, Bukachi F, Tshala-Katumbay D, Maitai C (2014). Cassava cyanogenesis and neurotoxicity: experimental modeling. Part I. Memory deficits associated with sublethal cyanide poisoning relative to cyanate toxicity in rodents. *Brain Disorders in the Developing World Tenth Anniversary Symposium Feb 10-13, 2014*. NIH, Bethesda, Maryland USA
2. **Kimani S**, Moterroso V, Morales P, Wagner J, Kipruto S, Bukachi F, Maitai C, Tshala-Katumbay D (2014). Cassava cyanogenesis and neurotoxicity: experimental modeling. Part II. Cross species and tissue variations in cyanide detoxification rates in rodents and non-human primates on protein-restricted diet. *Brain Disorders in the Developing*

World Tenth Anniversary Symposium Feb 10-13, 2014. NIH, Bethesda, Maryland USA

3. **Kimani S**, Mirie W, Chege M (2013). Treatment compliance among patients with hypertension at Kenyatta national Hospital. First international research and innovation conference, 28-30 August 2013, Safari Park Hotel, Nairobi Kenya.
4. Victor Mundan, Margaret Muiva, **Samuel Kimani** (2013). Cardiovascular Risk Factors Among Kenya Defence Forces Personnel at a Medical Clinic. 19th Preventive Cardiovascular Nurses Association, 2-4 May 2013, Hotel Paris, Las Vegas Nevada USA
5. Jacob Kariuki; Eileen M. Stuart-Shor; **Samuel Kimani**; James Muchira; Jessica Demita; Heather Milton; Mercy Kamau; Vincent Mutuma (2013). Awareness, Treatment, and Control of Hypertension in Kenya. 19th Preventive Cardiovascular Nurses Association, 2-4 May 2013, Hotel Paris, Las Vegas Nevada USA
6. Jessica DeMita, Dennis Munene, David Muigai, Shannon Sayer, **Samuel Kimani**, James Muchira, Jacob Karuiki, Eileen Stuart-Shor (2012).KHAS (Kenya Heart and Sole Afya Njema) Project; an Academic-Clinical-Policy Partnership for Health.Global Nursing Caucus Conference abstract book.
7. **Samuel Kimani**, Anna Karani, Angeline Kirui, Mercy Kamau, Jacob Kariuki, Eileen Stuart-Shor (2012). Cardio metabolic syndrome among rural central province dwelling Kenyas. Proceedings of 5th annual Scientific conference abstract book pg 11
8. Stephen Kainga, Margaret Chege, Miriam wagoro, **Samuel Kimani** (2012). Barriers in preventing Long-term complications among patients with Type 2 diabetes Mellitus at Kenyatta National Hospital. Proceedings of 5th annual Scientific conference abstract book pg 15
9. Hellen Kamotho, Margaret Muiva, Miriam wagoro, **Samuel Kimani** (2012). Practices of Nurses in management of pain among critically ill non-verbal adult patients in the critical care unit, KNH. Proceedings of 5th annual Scientific conference abstract book pg 20
10. Margaret W. Ngugi, Margaret N. Muiva, Blasio O. Omuga, **Samuel Kimani** (2012). Wound healing among orthopaedic patients correlates with patient factors and wound care practices. Proceedings of 5th annual Scientific conference abstract book pg 17-18
11. **Samuel Kimani**, Stephen Kainga, Margaret Chege, Miriam Wagoro, (2012). Risk factors for cardiovascular disease in patients with type 2 diabetes at Kenyatta national hospital, Kenya. Journal of Cardiovascular Nursing. 27 (5): 369-378

12. Stephen Kainga, Margaret Chege, Miriam Wagoro, **Samuel Kimani**. Peripheral Neuropathy among Patients with Type 2 Diabetes mellitus attending Kenyatta National Hospital. 2nd East Africa Neuroscience Conference 18-19, June 2012
13. **Kimani Samuel**, Monterroso V, Sinei K, Bukachi F, Maitai C, D. Tshala-Katumbay D. (2011) Probing mechanisms of cyanogen neurotoxicity: relevance to the pathogenesis of konzo, a motor neuron disease highly prevalent in sub-saharan Africa. *XXth world congress of neurology abstracts book*. 1066
14. Kassa R, Wentzell, J., Monterroso, V., **Kimani, S.**, Kretzschmar, D., McMillen, D., David, L., Tshala-Katumbay, D. Diagnostic and therapeutic potential of tetanus toxin-derivatives in neurodegenerative diseases, the American Society of Neurochemistry (ASN), Saint Louis, mi, 2011
15. **Kimani S**, Monterroso V, Tshala-Katumbay D. Neurotoxicity behavior of cassava cyanogens analogs in sulfur amino acid (SAA) deficiency diet. The 10th International Society Of Neuroscientists Of Africa (SONA) Conference, Basic to Clinic, Addis Ababa, Ethiopia, 9th-12th February, 2011.
16. Joelle Chateaufneuf, **Samuel Kimani**, Anna K. Karani, Eileen M. Stuart-Shor, Kenya *heart and sole* quick look guide for cardiovascular disease patient evaluation. The 41st PCNA meeting, Florida, USA, 2011
17. **Kimani S.**, Monterroso, V., Tshala-Katumbay, D, Maitai C., Bukach F. Impact of Sulphur amino acid (SAA) dietary deficiency on nervous system response to cyanogenic intoxication. The 1st international scientific conference, CHS-UoN, Nairobi Kenya, 15-17th June 2011
18. **Kimani S.T**, Patel N.B, Kioy P.G. Effects of Khat (*Catha edulis*) extract on acquisition and reversal learning and memory in CBA mice. European Science Foundation Research Conferences, 2009-Linkoping, Sweden.
19. Patel, N. B, Kimani, S.T, **Kioy, P.G**. Effect of *Catha edulis* (khat) on learning and memory on CBA mice. International Brain Research Organization (IBRO) World Congress, 12th -17th July 2007, Melbourne, Australia.

BOOKS

- Kambo I, Karimi N and **Kimani S. T**. (2009). Procedure manual for Nurses and Midwives. African Medical and Research Foundation (AMREF), Nairobi.

Q. RESEARCH GRANTS

1. Kenyatta National Hospital research grant: To conduct, “treatment compliance among patients with hypertension attending Kenyatta national hospital.” Ref: KNH/23/22 (PI) (2012).
2. Visit by the applicant to another Laboratory grant award - International Society for Neurochemistry (ISN), CAEN (committee on aid and education in neurochemistry) to visit Oregon Health and Science University (2010)

R. AWARDS

- IBRO (International Brain Research Organization) Travel Award, Neurology Congress, University of Kinshasa, Democratic Republic of Congo (2012).
- SONA (Society for neuroscience in Africa) Travel Award, SONA Conference, Addis Ababa, Ethiopia (2011)
- Visit by the applicant to another Laboratory grant award - International Society for Neurochemistry (ISN), CAEN (committee on aid and education in neurochemistry) to visit Oregon Health and Science University (2010).
- IBRO (International Brain Research Organization) Travel Award, IBRO School, University of Cape town, South Africa.
- IBRO (International Brain Research Organization) Travel Award, IBRO School (2006), University of Cape town, South Africa.
- IBRO (International Brain research Organization) Travel Award, IBRO school (2007), university of the Witwatersrand, Johannesburg, South Africa
- ESF (European Science Foundation) Travel Award, European Science Foundation Research Conferences, (2009) Linkoping, Sweden.

S. PROFESSIONAL ORGANISATIONS

- Preventive cardiovascular Nurses Association
- Kenya Society for neuroscience
- Member of Kenya Physiological Society.
- International Brain Research Organization (IBRO) Alumni.
- Member of Kenya pain society.
- Member of National Nurses Association of Kenya

T. ADDITIONAL SKILLS

- Planning and implementation of research
- Pedagogy skills
- Data analyses skills
- Scientific writing and communication skills
- Scientific review skills
- Responsible conduct of research
- Clinical teaching skills
- Mentorship skills
- Writing a grant winning proposal skills
- Teaching of Neuroscience in Africa skills
- IT skill (Ms word, Ms Excel, PowerPoint, email, internet)
- Data analyses (SPSS)

U. REFEREES

1. Prof. Tshala-Katumbay Desiré Daniel
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