

CURRICULUM VITAE

MUNGAI NELLY NYAMBURA Ph.D.

1. PERSONAL INFORMATION

Office Address Department of Pharmacy •
Faculty of Health Sciences •
University of Nairobi •
P.O. Box 19676 • 00202.Nairobi.Kenya
Phone +254-2-725099 •
e-mail: nmungai@uonbi.ac.ke

Private Address
P.O. BOX 52230-00200. City square, Nairobi. Kenya.
Cell Phone •+254-722-490823
E-mail: nellynmungai@gmail.com

2. EDUCATIONAL BACKGROUND

2015 PhD [Pharmacognosy and Complementary Medicine], University of Nairobi, Kenya.
1996 Master of Science [MSc.] [Biochemistry], University of Nairobi, Kenya.
1981 Bachelor of Pharmacy [B. Pharm.,] University of Nairobi, Kenya.

3. EMPLOYMENT HISTORY:

2021, Nov.19	Senior Lecturer in the Department of Pharmacy, Faculty of Health Sciences, University of Nairobi.
1997 to date	Lecturer in Pharmacognosy, Department of Pharmacology and Pharmacognosy, University of Nairobi.
1986-1997	Pharmacist, University Health Services, University of Nairobi.
1982-1986	Pharmacist, Ministry of Health, Kenya
1981-1982	Intern Pharmacist, Ministry of Health, Kenya

4. SUPERVISION /TEACHING EXPERIENCE

Postgraduate supervision	I have supervised to completion seven students at Master's degree level and one is currently under supervision. Currently supervising two PhD students one from Kenyatta University and the other one is on the process of full registration in the University of Nairobi.
Thesis Examined	I have examined three Master's theses locally. I have examined two Masters' thesis as an external examiner
Postgraduate programs	Participated in the development of Master of Science [MSc.] in Pharmacognosy and Complementary Medicine.
Teaching	I give lectures in Pharmacognosy, conduct tutorials and practical classes to both undergraduate and postgraduate students
Undergraduate project supervision	On average, I supervise and mentor three final year B. Pharm. students in their research projects
Student attachments	I organize and supervise undergraduate students during their fourth term Community/Industrial/Hospital rotations annually
Examinations	I prepare, invigilate and mark examinations at both undergraduate and postgraduate levels

Postgraduate supervision

1. Odongo, E.A., PhD. [P'Cog. & Comp. Med] (2020): "A Study on Selected Kenyan medicinal plants for In Vitro Antibacterial Activity in Combination With Antibiotic Drugs." Supervisors: Dr P.C. Mutai, Dr B. A. Amugune & Dr N.N. Mungai. Work in Progress
2. Maitha, J.M., PhD. [Pharmacognosy & Comp. Med] (2018): "A Study of The Effect of Agronomical Features on Withaferin a Content from *Withania somnifera* (L) Dunal Cultivated in Kenya." Supervisors: Dr N.N.Mungai, Dr K.O. Abuga, Dr A. K. Sinei & Dr. D. C. Kilalo. Work in Progress
3. Ouma, J.J. O., MSc. [P' Cog. & Comp. Med] (2020): "Investigation of the synergy of plant extracts with antimalarial activity against chloroquine- resistant malaria parasites." Supervisors: Dr N.N. Mungai [UON]& Dr J. Gathirwa (KEMRI). Completed & graduated.

4. Odingo, J. O., MSc. [P' Cog. & Comp. Med.] (2018): "A Study of Medicinal Plants Used for arthritis in Mumias, Kakamega County, Kenya." *Supervisors: Dr N.N. Mungai & Dr B. Amugune.* Work in progress
5. Mwangi, S.W., MSc. [P.COGE & COMP. Med.] (2018): "Development, Validation And Application High Performance Liquid Chromatography Method For The Determination of the artemisinin content of *Artemisia annua* L Extracts."

Supervisors: Prof J.W. Mwangi, **Dr N.N. Mungai** & Dr K. O. Abuga. (Completed & graduated).
6. Odongo, E.A., MSc. [P & C. Med] (2016): "An Evaluation of the antioxidant and anti-inflammatory activities of medicinal plants commonly used in Kakamega County."

Supervisors: **Dr N.N. Mungai**, Dr P.C. Mutai & Dr E.W. Karumi. Completed and graduated.
7. Kugo, L.C., M.Pharm [Epivigil.] (2016): "The vaccine pharmacovigilance system of Kenya: Structure, function and capacity."

Supervisors: Dr S.O. Osanjo, Dr M.O. Oluka & **Dr N.N. Mungai.**
8. Maitha, J.M., MSc [P & C. Med.] (2014): "Determination of Withaferin as content of the root, stem and leaf extracts of *Withania Somnifera* (L) Dunal collected in Kenya."

Supervisors: Prof J.W. Mwangi, **Dr N.N. Mungai** & Dr A. K. Sinei.
9. Mukungu, N. A., MSc [P.COGE & COMP. Med] (2013): "Isolation and structural elucidation of compounds from the non-alkaloidal extract of *Nicandra physaloides* and the antimicrobial activity of withanicandrin."

Supervisors: Prof. J.W. Mwangi, **Dr N. N. Mungai** & Dr K. O. Abuga.
10. Karumi, E.W., MSc [P.COGE. & COMP. Med](UoN),(2013): "Anthelmintic and Antibacterial Activity of *Hagenia abyssinica* (Bruce) J.F. Gmel (Rosaceae)."

Supervisors: Prof C.K. Maitai, **Dr N.N. Mungai**, Dr S. N. Ndwigah & Dr F.O. Okalebo.

11. EXAMINATION DUTIES

- Department Chief examiner (2004 - 2009)
- **THESIS EXAMINED**

Internal Examiner:

2020 Dr. Ouma, J. J. MSc. [P' Cog. & Comp. Med.] 2020, UoN.

2020 Dr. Otieno, P.O. M. Pharm [Epivigl.] 2020, UoN.

2016 Dr Gichui, W.G., MSc.[Med Physio]- 2016, UoN

2011 Mwonjoria, J.K., MSc. [Med Physio]- 2011, UoN

EXTERNAL EXAMINER

October, 2017 Wanyama, W.A., MSc.[Med Chem] – 2017, JKUAT

October, 2017 Kedesani, M. D., MSc. [Med Chem] – 2017, JKUAT

12. ADMINISTRATIVE EXPERIENCE

- 2019 Ag. Chairman of the Department (28th October to 29th November, 2019)**
- 2017 Ag. Coordinator, Intellectual Property Office (IPO) (27th December, 2017 – 18th January, 2018), University of Nairobi**
- 2016 Ag. Coordinator, Intellectual Property Office (IPO) (10th April – 16th May), University of Nairobi**
- 2015 Ag. Coordinator, Intellectual Property Office (IPO) (22nd – 28th November), University of Nairobi**
- 2015 Ag. Coordinator, Intellectual Property Office (IPO) (27th – 31st July), University of Nairobi**
- 2015 Ag. Coordinator, Intellectual Property Office (IPO) (16th March – 10th April), University of Nairobi**
- 2014 Ag. Coordinator, Intellectual Property Office (IPO) (1st – 29th December), University of Nairobi**
- 2014 Ag. Coordinator, Intellectual Property Office (IPO) (28th July – 1st August), University of Nairobi**
- 2014 Ag. Coordinator, Intellectual Property Office (IPO) (28th – 29th August), University of Nairobi**
- 2014 Ag. Coordinator, Intellectual Property Office (IPO) (10th April – 16th May), University of Nairobi.**
- 2014 Ag. Coordinator, Intellectual Property Office (IPO) (31st March – 26th April), University of Nairobi**
- 2013 Ag. Coordinator, Intellectual Property Office (IPO) (18th March – 12th April),**

University of Nairobi.

- 2013** **Ag. Coordinator**, Intellectual Property Office (IPO) (28th November – 24th December), University of Nairobi
- 2012** **Ag. Coordinator**, Intellectual Property Office (IPO)(30th November – 21st December), University of Nairobi
- 2011** **Ag. Coordinator**, Intellectual Property Office (IPO)(20th June – 2nd July), University of Nairobi
- 2011** **Ag. Dean**, School of Pharmacy (SOP) (7th -12th & 18th -20th December), University of Nairobi.
- 2005** **Ag. Dean**, Faculty of Pharmacy (SOP) (7th -10th August), University of Nairobi.
- 2004** **Ag. Chairman**, Department of Pharmacology & Pharmacognosy (14th June-20th July), University of Nairobi.
- 2004 to 2009** **Ag. Substantive Chairman**, Department of Pharmacology & Pharmacognosy, University of Nairobi.
- During my tenure, I helped the Department to develop by way of developing **one** postgraduate program; recruiting members of staff to assist in running the new program; promotion of staff as part of their career development and establishing collaborations and linkages.
 - During this period, **two** members of staff (Dr F. Okalebo and Dr. E. Guantai) were identified for PhD Scholarships in South Africa. Dr M. Oluka was on a PhD sandwich program between African Institute of Biomedical Science and Technology (AIBST) in Harare and Nairobi. Dr. N. Gikonyo was awarded a Commonwealth Post doctorate Fellowship. This was a big achievement for the department under my stewardship.
- 2003 to 2004** **Head**, Division of Pharmacognosy, Department of Pharmacology and Pharmacognosy, University of Nairobi.
- 2004 to date** **Chief Coordinator**, Mitishamba Drug Research Centre (MDRC), Department of Pharmacology and Pharmacognosy, University of Nairobi.
- The nature of the work and interest included interviewing a large number of traditional/ herbal medicine practitioners on folklore indications of medicinal herbs' preparations and documentation of the information gathered.
 - This is followed by issuing of a scientific report on the submitted herbs to facilitate their annual registration with the Ministry of Culture and Social

Services.

- It is one of the incomes generating units of the department.

13. MEMBERSHIP TO UNIVERSITY/COLLEGE/SCHOOL COMMITTEES

2016-To date	Member, Department, Postgraduate committee
2011	Member, College Strategic Plan Committee
2011	Member, Centre for HIV, Prevention and Research
2009	Member, College Disposal Committee
2004 - 2009	Member, University of Nairobi Senate
2004 - 2009	Member, College Academic Board, College of Health Sciences
2004 - 2009	Member, College Management Committee, College of Health Sciences
2004 - To date	Member, School of Pharmacy Undergraduate Curriculum Studies Committee
2003 – To date	Member, School of Pharmacy Building Committee

14. WORKSHOPS/CONTINUING EDUCATION/CONFERENCES ATTENDED

- 2021 Gender Streamlining Sensitization meeting, 28th Jan. 2021, Virtual, CHS, University of Nairobi, Kenya.**
- 2020 Microsoft Teams, Training, 24th Nov. 2020, Virtual, ICT, University of Nairobi.**
- 2020 Training on Creating Exams on Eclass, 5th Aug. 2020, Virtual, ICT, University of Nairobi.**
- 2018 PhD Supervision Training, 27th- 29th June, 2018, Medical Library, CHS, University of Nairobi, Kenya.
- 2017 PhD Supervision Training, 5th -7th June, 2017, Medical Library, CHS, University of Nairobi, Kenya
- 2016 PhD Supervision Training of Trainers, 15th-17th February, 2016, Central Catering Unit, University of Nairobi, Kenya.
- 2015 Research and Grant Proposal Writing Training, UNES, Chiromo
- 2013 University of Nairobi: 2nd International Scientific Conference, 19th -21st June, 2013 at College of Health Sciences
- 2011 University of Nairobi: Advanced Training Program on Acupuncture and Moxibustion to African Medical Practitioners, 11th-25th October, 2011 at School of Pharmacy, organized by Tianjin University of Traditional Chinese Medicine.
- 2011 Medical Education Program Initiative (MEPI) Aim One Retreat, 31st May-3rd June, 2011 at White Sands Hotel, Mombasa, Kenya.
- 2011 University of Nairobi: 1st International Scientific Conference, 15th -17th June, 2011 at College of Health Sciences, University of Nairobi, Kenya.
- 2011 Training on Responsible Conduct of Research Course, 26th-27th April, 2011 at the College of Health Sciences, University of Nairobi, Kenya; Sponsored by Medical Education Partnership Initiative, Kenya (MEPI-K).
- 2011 University of Nairobi, College of Health Sciences: The Leadership Management Programme Workshop on Curriculum Integration, 14th-16th March, 2011 at Elementaita Country Lodge, Nakuru, Kenya.
- 2011 University of Nairobi, College of Health Sciences: Training of Trainers Workshop on Medical Education, 3rd-7th January, 2011 at College of Health Sciences, University of Nairobi, Kenya.

- 2009 University of Nairobi: Training CHS Lecturers in Pedagogy, 14th-16th January, 2009 at Central Catering Unit, University of Nairobi, Kenya.
- 2007 Seminar on Results-Based Management, 4th-5th April, 2007 at The Kenya Utalii Hotel, Ruaraka, Nairobi, Kenya.
- 2007 Senior University of Nairobi Management Leadership Orientation on Rapid Results Approach, 3rd May 2007 at The Kenya Utalii Hotel, Ruaraka, Kenya.
- 2007 University of Nairobi: ISO 9002:2000 Training, 6th February, 2007 at Jomo Kenyatta Memorial Library Exhibition Hall, Nairobi, Kenya
- 2007 J.W. Mwangi and **Nelly N. Mungai** (2007). Protection of traditional knowledge genetic resources and folklore. Pharmaceutical society of Kenya, Annual Symposium, 1st - 3rd June, White sands Hotel, Mombasa.
- 2006 University of Nairobi: B.Pharm. Undergraduate Curriculum Review Retreat, 14th to 17th July, 2006 at Outspan Hotel, Nyeri, Kenya.
- 2006 Federation of Kenya Employers: An In-House Training Programme on Financial Management and Human Resources for the Chairmen of Departments of the University of Nairobi, 2nd - 4th February, 2006 at KCCT, Mbagathi, Nairobi, Kenya.
- 2006 University of Nairobi: The Workshop on The Training of Chief Internal Examiners, 13th-14th July, 2006 at KCCT, Mbagathi, Nairobi, Kenya.
- 2006 J. W. Mwangi, **N.N. Mungai**, G. N. Thoithi and I.O. Kibwage (2006). Traditional herbal Medicinal Plants. Kenya Academy of Sciences Conference. 26th-30th June, 2006.
- 2004 WHO-TDR workshop on Good Laboratory Practice (GLP), 1st-3rd April, 2004 at Jakaranda Hotel, Nairobi, Kenya.
- 2003 13th International Conference on AIDS & STI in Africa
ICASA, 21st -26th September, 2003 at KICC, Nairobi, Kenya.
- 2003 Programme for Appropriate Technology in Health (PATH): Training of trainer's workshop, 5th-6th September, 2003 at Panafric Hotel, Nairobi, Kenya.
- 2001 University of Nairobi: 9th Natural Product Research Network for Eastern and Central Africa (NAPRECA) symposium, 27th-31 August, 2001, Chiromo Campus, University of Nairobi, Kenya.

1998 Applied Research on Child Health (ARCH) Project, development workshop on International Network for Rational Use of Drugs (INRUID) Rational Pharmaceutical Management (RPM) Project,

WHO Action Program on Essential Drugs (WHO/DAP), 14th- 23rd September, 1998 in Kampala, Uganda.

1996 **Mungai, N.N.** (1996). Effects of Different Doses and Routes of Administration of Embelin on Testosterone Levels at The First Pan African Conference on Biochemistry and Molecular Biology, 2nd -6th September, 1996 at UNEP, Nairobi, Kenya.

15. MEMBERSHIP TO REGULATORY BODIES/ PROFESSIONAL SOCIETIES

2018-To date Member, Traditional & Alternative Medicine Technical Working Group, Ministry of Health

2006 - 2007 Member, Herbal-Complementary Medicine Registration Sub-Committee, Pharmacy & Poisons Board

1982 Member, Pharmaceutical Society of Kenya

16. REGULATORY BODIES: WORKSHOPS PARTICIPATION

2021 **Pharmacy & Poisons' Board: A workshop on Medicine Scheduling, 8th-12th March, 2021 at Gelian Hotel, Machakos.**

2008 Pharmacy & Poisons Board: A workshop to Finalize Bachelor of Pharmacy Draft Curriculum, 19th to 22nd February, 2008 at KCB Management Centre, Karen, Nairobi, Kenya.

2007 Pharmacy & Poisons Board: Editing of PPB Draft Report of KCCT Workshop, 12th to 13th September, 2009 at Lenana Conference Centre, Nairobi, Kenya.

17. CONSULTANCY SERVICES

- Consultant Pharmacist, Kenyatta National Hospital
- Consultant, Traditional/Complementary Medicines Sub-Committee, Pharmacy and Poisons Board.

18. COLLABORATIONS/LINKAGES

- **Kenya Methodist University**
- **Jomo Kenyatta University of Agriculture and Technology**
- Kenyatta National Hospital (KNH)
- Ministry of Health (MoH)
- Ministry of Culture and Social Services
- National Museum of Kenya

19. RESEARCH ACTIVITIES & INTERESTS

- Interviewing traditional herbal medicine practitioners on folklore indications of medicinal herbs/preparations and documentation of the information.
- Searching for new antimalarial agents based on the ethno-pharmacological use of plants by herbal practitioners in Kenya.
- Isolation and characterization of new compounds from plant sources
- Formulation of herbal preparations into suitable pharmaceutical dosage forms

20. ACHIEVEMENTS/CONTRIBUTIONS/AWARDS

- 2004- As a substantive Chairman, Department of Pharmacology and Pharmacognosy;
- 2009 **Two** post graduate programs were developed i.e., Master of Science in Pharmacognosy and Complementary Medicine (2008) and Master of Pharmacy in Epidemiology & Pharmacovigilance (2013).
- 2006 During my tenure as a chairman, **three** members of the Department were awarded scholarships to do their PhD studies at University of Cape Town, South Africa.
- 2009 **Recipient** of **Eric** Abraham Academic Visitorships through, The Sigrid Rausing Trust, a programme for refugees & scholars at risk at the University of Cape Town (UCT).
- 2011- **Participant in the Partnership for Innovative Medical Education in Kenya-**
2014 **PRIME-K. Aim lead 1.**
- 2012 **Awarded Dean's Committee Research Grant (KSH 250,0000).**
- 2019 **Member, Core working group in Strategic Partnership for Higher Education Innovation and Reform Project- SPHEIR, supported by UKAID**

21. PUBLICATION LIST

- **Theses:**

1. **Mungai, N.N.** (2015). PhD thesis entitled: “Antiplasmodial and Phytochemical Investigation of *Monanbotaxis parvifolia* (Oliv.) ssp. *kenyensis* Verdc (Annonaceae).
2. **Mungai, N.N.** (1996). Msc. thesis) entitled: “Optimizing the dose of embelin a potential male anti-fertility agent, using different routes of administration.”

- **Research papers:**

1. **Odongo, E., Mutai, P., Amugune, B. & Mungai, N. (2021).” A systematic review of medicinal plants of Kenya used in the management of bacterial infections.” Evidence-based Complementary and Alternative Medicine. Under Review.**
2. Ouma, J.J., Mungai, N.N., Gathirwa, J.W. & Orwa, J.A. (2021). “A study of the antimalarial activity of combined plant extracts used traditionally in Kenya.” International Journal of Pharmacology and Therapeutics. Submitted for publication
3. Mungai, N.N. & Thoithi, G.N. REVIEW: EUPHORBIA TIRUCALLI; ethnobotanical uses, pharmacognosy, phytochemistry and pharmacology. On Progress
4. **Mungai, N.N. (2020).** “*Asparagus africanus* (Lam.): Medicinal and Phytochemical Properties.” International Journal of Innovation and Applied Studies. On progress
5. Mungai, N.N. (2020). “*Dodonaea viscosa* (L.) Jacq. “An overview on ethnomedicinal uses, phytochemistry, pharmacology and pharmacognosy.” East and Central African Journal of Pharmaceutical Sciences. Accepted for Publication. June,2020.
6. **Mungai, N. N. and Mwangi, J.W. (2020).** “Pharmacognostic study of *Monanbotaxis parvifolia* (Oliv.) Verdc ssp. *kenyensis* Verdc.” East and Central African Journal of Pharmaceutical Sciences. Submitted
7. Mwangi, W. S., **Mungai, N. N.**, Abuga, K. O. and Mwangi, J. W. (2020). “Development, validation and application of High- Performance liquid Chromatography Method for the Determination of Artemisinin in *Artemisia annua* L. Leaf Extracts.” East and Central African Journal of Pharmaceutical Sciences.23: 48-53.
8. Odongo, E., **Mungai, N.**, Mutai, P., Karumi, K., Mwangi, J. and Omale, J. (2018). “Ethnobotanical survey of medicinal plants used in Kakamega County, Western Kenya.” Applied Medical Research. 6(2): 22-40.

9. Odongo, E., **Mungai, N.**, Mutai, P., Karumi, K., Mwangi, J., Okalebo, F., Kimondo, J., Omale, J. and Simiyu, J. (2017). "Antioxidant and anti-inflammatory Activities of Selected Medicinal Plants from Western Kenya." *African Journal of Pharmacology and Therapeutics*. 6 (4): 178-182.
10. **Mungai, N. N.**, Kibwage, I.O., Mwangi, J.W., Guantai, A.N., Njogu, P.M. and Ongarora, D.S. (2014). "Isolation and Structure Elucidation of Phytochemical Isolates and Antiplasmodial Activity of *Monanthebotaxis parvifolia* (Oliv.) Verdc ssp. *kenyensis* Verdc." *East and Central African Journal of Pharmaceutical Sciences*.17: 87-93.
11. Karumi, E. W., Maitai, C.K., Okalebo, F.A., **Mungai, N.N.**, Ndwigah, S.N., Mutai, P.C. and Mukungu, N.A. (2013). "Anthelmintic and Antibacterial Activity of *Hagenia abyssinica* (Bruce) J.F. Gmel (Rosaceae)." *East and Central African Journal of Pharmaceutical Sciences* **16**: 75-80.
12. Mukungu, N. A., Abuga, K.O., **Mungai, N.N.**, Bosire, K.O. and Karumi, E.W. (2013). "Isolation and structural elucidation of compounds from the non-alkaloidal extract of *Nicandra physaloides* and the antimicrobial activity of withanicandrin." *East and Central African Journal of Pharmaceutical Sciences* **16**: 49-53.
13. Mwangi, J.W., **Mungai, N.N.**, Thoithi, G. N. and Kibwage, I. O. (2005). Traditional Herbal Medicine in National Healthcare in Kenya. *The East and Central African Journal of Pharmaceutical Sciences* **8 (2)**: 22-26.
14. Maitai, C.K. and **Mungai, N.N.** (2005). Human Poisoning with Plants in Kenya. *The East and Central African Journal of Pharmaceutical Sciences* **8 (1)**: 10-13.
15. **Mungai, N.N.**, Makawiti, D.W., and Konji, V.N (1997). Effects on Different Doses and Routes of Administration of Embelin on Testosterone Levels (1997) *Phytotherapy Research*. **Vol.11**: 532-534.

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REFEREES:

1. Prof J. W. Mwangi
Department of Pharmacology and Pharmacognosy
University of Nairobi
Cell phone: +254 722 825966
Email: julius.mwangi@uonbi.ac.ke
2. Dr. Beatrice K. Amugune
Department of Pharmaceutical Chemistry
University of Nairobi
Cell Phone: +254 722 802074

Email: beatrice.amugune@uonbi.ac.ke

Signed: ... Dated: 20.11.2021.....