CURRICULUM VITAE

PROF. MAURICE VINCENT OMOLO

BSc (Hons), MSc (Chem), PhD

PROFESSOR OF ORGANIC CHEMISTRY, MMUST

MASINDE MULIRO UNIVERSITY OF SCIENCE & TECHNOLOGY
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Prof. Maurice Vincent Ochilio Omolo (PhD)
Director Quality Assurance,
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BRIEF BIOGRAPHY

Prof Maurice Vincent Ochilo Omolo is a Professor of Organic Chemistry and Director Quality Assurance (QA) at Masinde Muliro University of Science & Technology (**Annex 1; p18-28**). As the director QA Prof. Omolo coordinates and monitors the implementation of all the processes of Quality Management System at Masinde Muliro University of Science & Technology (MMUST) in order to ensure the delivery of quality assurance functions as per the University Quality Policy, Vision and Mission statements. He successfully led MMUST through ISO9001:2015 certification. Maurice received his Bachelor of Science, B.Sc. at Kenyatta University in 1998. Thereafter, he embarked on his postgraduate research at the International Centre of Insect Physiology & Ecology (ICIPE) and Kenyatta University, where he obtained his M.Sc. and PhD in Organic Chemistry in 2002 and 2004, respectively (**Annex 2; 29-39**). His teaching and research career started in 2004 when he was employed as a part time lecturer at MMUST. In 2006 he was employed by the same institution as a lecturer on permanent and pensionable terms at the Department of Physical Sciences. From 2007 to 2010 he worked at the International Centre for Insect Physiology & Ecology (ICIPE) as a Post Doctoral fellow in tsetse chemical ecology at the Behavioural and Chemical Ecology Department (BCED). In 2009, he got promoted to senior lecturer at the newly created department of Pure & Applied Chemistry at MMUST. In February 2010, Maurice was appointed the Director of Science & Technology Park and Industrial Linkages (STPIL) at MMUST. Three years later (2013) Maurice was promoted to Associate Professor of Organic Chemistry (**Annex 1; p18**). Maurice served as the Director of STPIL for 6 years between February 2010 and February 2016 (**Annex 1; p24-27**). The Ministry of Education in October 2015 appointed Prof. Omolo as one of the juries for the National Commission of Science Technology & Innovation (NACOSTI). In April 15th 2016, he got appointed as director of Quality Assurance at MMUST (**Annex 1; p20-23**). Prof. Omolo is a senior researcher with a wide range of experience in Patent Drafting, Chemical Ecology, Natural Products Research and Semio-Chemistry of insects, particularly, the blood feeding insects where together with Prof. Ahmed Hassanali & Prof. Isaiah Ndiege they got granted a US patent. He also has another three patents with KIPI and ARIPO for innovations in smokeless biomass cook stove and a pesticide for post harvest pests of stored grains (**Annex 3; p36-42**). In August 2020, He filed his 5th Patent on a formulation for killing the Jigger Flea, *Tunga penetrans*. Maurice is a well grounded expert, in natural products Chemistry, volatile chemicals & Essential oils collections and chemistry. He has developed a total of five products of stingless bee honey Maurice has a total of 35 publications cutting across Intellectual Property Rights and Peer Review Journal Publications (**Annex 4; p36-74**). Prof. Omolo is a member of the Kenya Chemical Society (**Annex 5; p74**), the Natural Products Research Network Association for Eastern & Central Africa and an Alumni of German Academic Exchange Service (DAAD) where he received an award towards his PhD study. On Quality matters, Prof. Omolo is a trained Lead Quality Auditor as well as Quality Auditor by the Beareu Veritas (**Annex 2; 29-31**). Lastly, Prof. Omolo is a trained and internationally recognized Facilitator & Master Facilitator of Virtues Project^{TM}: A soft life skill international program that impacts positive discipline to any community including staff in an organization and learners.

DETAILED RESUME

1. PERSONAL PARTICULARS

1.1 Contact Address:
CONTACT ADDRESS
Prof. Maurice Vincent Omolo
P.O Box 237-50100
Kakamega , Kenya.
Off Tel 254702597361/57250522;
Cell: +254726366378/ +254732991710

1.2 Date of Birth 28th November 1973

1.3 Gender Male

2. EDUCATIONAL TRAINING/QUALIFICATIONS

2004 PhD (Organic Chemistry) at **Kenyatta University (KU) & ICIPE**, Nairobi, Kenya
2002 M.Sc. (Organic Chemistry) at **Kenyatta University (KU) & ICIPE**, Nairobi, Kenya
1998 B.Sc. -First Class Hons: Chemistry (Major), Biochemistry & Zoology; **KU**, Nairobi, Kenya

2.1 SCHOLARSHIPS

1. 2007-2010 **Post Doctorate:** Chemical Ecology Riverine Tsetse at International Centre of Insect Physiology & Ecology (ICIPE). *Post Doc Fellowship*
2. **M. Omolo (PhD 2002-2005) Thesis:** "*Isolation and Identification of Behaviourally Active Semiochemicals from Human Foot Odour as Attractants for African Malaria Vectors*." **Scholarship Award on ARPIS-DRIP Program** by **ICIPE** and Deutscher Akademischer Austauschdientst (DAAD) - German Academic Exchange Service for *PhD Degree*, Kenyatta University & ICIPE, Nairobi, Kenya
3. **M. Omolo (MSc 2000-2002) Thesis:** "Bio-prospecting for Phytochemical Repellents and Adulticides of *Anopheles gambiae*." **Scholarship Award on DRIP Program** by **ICIPE**, Nairobi, Kenya
4. **M. Omolo** (B.Sc. **1994-1998)** Bachelor of Science; **1st Class Honours** in Chemistry (Major), Biochemistry and Zoology: ***Overall Best Chemistry Student in the Faculty of Science, Kenyatta University in 1998***

2.2 OTHER TRAININGS/QUALIFICATIONS

1. Trained in Good Practices Workshop for Quality Assurance Practices, (AfriQAN), 2019
2. Trained Quality Auditor and Lead Auditor by the Bureau Veritas in 2018
3. Trained Facilitator and Master Facilitator of Virtues Project™ International 2013 & 2017
4. Trained in Patent Drafting; by Kenya Industrial Property Institute (KIPI) in 2011
5. Trained in Corporate Governance Principles, 2017

3. AWARDS/ RESEARCH GRANTS

3.1 AWARDS

17th July 2005 **Travel Award;** given by Melinda Gates Foundation to attend Malaria Gordon Research Conference in Queens College, Oxford University, UK.

26th March 2004 **Best Student Project Poster of the year 2004**; Nairobi, Kenya. Given by the governing council, International Centre of Insect Physiology & Ecology (ICIPE).

3.2 RESEARCH GRANTS

April 2022	**Research Grant Ref. No. NRF/R/2016/2017 1st CALL/031 - as PI; Donor:** NIH; 80,000,000 **Project title:** Expanding the tool box for tsetse control in Kenya
March 2018	**Research Grant Ref. No. NRF/R/2016/2017 1st CALL/031 - as PI** **Donor:** The National Research Fund (NRF), Kenya -MMUST: Ksh.17, 578, 560 **Project title:** Bio-prospecting for Phytochemical Repellants and bio-pesticides of the Jigger Flea *Tunga penetrans* from the Western Kenya Flora
March 2018	**Research Grant Ref. No. NRF/R/2016/2017 1st CALL/031 – as Co-PI** **Donor:** The National Research Fund (NRF), Kenya -KU: Ksh.14, 000, 000 **Project title:** Human Foot Bacterial Communities Producing Chemical Constituents that Mediate Attraction of Malaria Vector *Anopheles gambiae* to the Preferred Feeding Site
January 2017	**Research Grant Ref. No. MMU/COR:403032 as PI** **Donor:** The University Research Funds (URF-MMUST): Ksh.3,000,000 **Project title:** Establishment of Centre for African Medicinal & Nutritional Flora & Fauna
October 2011	**Research Grant Ref. No. NCST/5/003/4th STI CALL/031 as Co-PI** **Donor:** The National Council for Science and Technology (NCST): Ksh. 5,000,000 **Project title:** Developing biomass pyrolysis stoves for sustainable bio-energy use by rural households in Kenya
September 2009	**Research Grant No. 8676-09 as Co-PI** **Donor:** The National Geographic: Ksh. 3,000,000 **Project title:** The mosquito terminator, a predator that likes us and eats our enemies

4. WORK EXPERIENCE

Sept 2021- To date	**Professor Organic Chemistry**
March, 2020	**Reviwer, Acta Tropica Journal, hosted by Elsevier**
Apr.2016–Apr. 2022	**Directorate of Quality Assurance, Masinde Muliro University of Science & Technology:** Director
Dec 2010-Feb 2016	**Science and Technology Park & Industrial Linkages, Masinde Muliro University of Science & Technology:** Director
Dec 2013-Feb 2014	**External Examiner:** Kibabii University
Jan 2013- To date	**Department of Pure & Applied Chemistry, Masinde Muliro University of Science & Technology:** Associate Professor of Organic Chemistry
Dec 2009– To date	**Department of Pure & Applied Chemistry, Masinde Muliro University of Science & Technology:** Senior Lecturer
March 2007- 2009	**Behavioural & Chemical Ecology Depart, ICIPE, Kenya:** Post Doctorate Fellow (Chemical Ecology of *Glossina fuscipes fuscipes*, a riverine tsetse)
March 2006– 2009	**Department of Physical Sciences, Masinde Muliro University of Science & Technology:** Lecturer
Aug. 2005-2006	**Department of Physical Sciences, Masinde Muliro University of Science & Technology:** Part-time Lecturer
2002 - 2005	**Behavioural & Chemical Ecology Depart, ICIPE, Kenya:** Graduate Research Student, Behavioural & Chemical Ecology Department. Carrying out chemical characterization of feet odour volatiles responsible for attracting malaria vectors to the human feet. Designing experiments for bio-evaluation of the volatile principles from the human feet. Actively participated in the BCED Journal Club.
2000 - 2002	**Behavioural & Chemical Ecology Depart, ICIPE, Kenya:** Research Student, Behavioural & Chemical Ecology Department. Carried out chemical characterization of phytochemicals that can serve as repellents/adulticides of *Anopheles gambiae* malaria vector. Designed experiments for bio-evaluation of the principles.

5. RESEARCH WORK

5.1 RESEARCH INTERESTS

Research interests are in Natural Products Chemistry including products development, Synthetic Organic Chemistry, Bio-prospecting, Ethno-medicine, Semiochemistry, Chemical Ecology,

Pollination Chemistry, Bio-organic Chemistry, Biochar amendments of agriculturally poor soils and Renewable/Green Energy

5.2 CURRENT RESEARCH

1) *Development of a*nti-oxidant *& Free radical scavengers* from bee bread of stingless bees, *& Isolation of Natural Products* from Beehive products**. 2.)** *Chemical Ecology and Control of* **disease vectors** (Tsetse, Mosquitoes, Jigger Flea) **commercial insects** (stingless bees, Honey bees, butterflies & moths), **post-harvest insect pests** (mango fruit fly, mango weevil, larger grain borer and the grain weevils). **3.)** *Bio-prospecting for bio-pesticides and repellants of the Jigger Flea, Tunga penetrans*. **4.)** *Indoor pollution* studies from biomass fuel. **5.**) *Soil Amendments* with biomass fuel feed stocks.

5.3 ENTERPRISE AND COMMERCIAL ACTIVITIES

1. Meliponiculture (Production of Medicinal Honey from Stingless Bees): Four different varieties of stingless bee honey products got developed (Meliwere, Meliboca, Melibrandii & Melinasa trademark products)

2. Development of Biomass Smokeless Energy saving stoves for reduced indoor pollution and enhancement of productivity of agricultural soils (The MMUSTove trademark product).

5.4 PUBLICATIONS

5.4.1 Intellectual Property Rights Patents Granted

1. Adhiambo J. V., **Omolo M.V**., Ateya S. (2018). Blend for post harvest insects feeding deterrent. ARIPO Patent No. AP 4684.
2. Muhamed S., **Omolo M.V.** (2017). A novel smokeless biomass pyrolytic stove for sustainable bioenergy utilization. KIPI Patent No. KE 750.
3. Omolo M.V., Adhiambo J. V., Ateya S. (2017). Feeding deterrent blend composition for post harvest pests in dry stored food and agricultural products. KIPI Patent No. KE 764.
4. Hassanali A., Ndiege I.O., **Omolo M.O**., Njiru B., Njagi P.M (2014). Compositions for attracting blood-feeding insects. US Patent No. 8,734,773 B2, USA.

5.4.2 Peer Review Journal Publications

1. Omolo M.V., Wafula V.M., Owino J.O and Andati R (2022) Bio-pesticide composition for killing jiggers and other blood feeding insects and arachnid pests. WIPO **International Publication Number WO 2022/045375 A1**. https://patents.google.com/patent/WO2022045375A1/en?oq=PCT%2fKE2021%2f050001
2. **Omolo M.O.**, Ndiege I.O., Hassanali A. (2021). Semiochemical signatures associated with differential attraction of *Anopheles gambiae* to human feet. PLoS ONE 16(12): e0260149.

3. Wavinya Felistus, Omolo Maurice, Malebo Hamisi, Sifuna Antony, Nyongesa Peter and Nonoh James (2021). Antibacterial activity of honey from wild species of stingless bees; *Plebenia hilderbrandii* and *Meliponula bucandei.* Journal of Biosciences and Medicines, 2021, 9 67-84.
4. Ngari A., **Omolo M. V**., Tarus P. K., Ng'ang'a M. and Hassanali A. (2020). Chemical composition of smoke volatiles of some Kenyan *Ocimum* species. Journal of Phytochemistry and Pharmacognosy, 2020, 9(1): 1871-1879.
5. Ngari A.G, **Omolo M.V**, Tarus P.K, Ng'ang'a M.M, Hassanali A (2019). Chemical compositions of fresh volatiles' aromas of some Kenyan Ocimum species. Journal of Pharmacognosy & Phytochemistry; 8(6): 201-208
6. Ngari A.G, **Omolo M.V**, Tarus P.K, Ng'ang'a M.M, Hassanali A (2019). Chemical composition of leaf and floral essential oils of some Kenyan Ocimum species. American Journal of Essential oils & Natural Products 7(3): 17-26
7. Ngari A., **Omolo M.V**., Tarus P.K., Mwaniki M.M., Hassanali A (**2018**). Aromatic plants traditionally used as chemical lures of honey bees into empty hives in Central Kenya. *Proc. Pan African International Research Congress*, Kisumu, Kenya. Pp 328-333.
8. Adhiambo J. V., **Omolo M.V.**, Ateya S. (2018). Blend for post harvest insects feeding deterrent. **ARIPO International Publication Number AP/P/2016/009634**. p1-15.
9. Wetungu MW, **Omolo MO**, Tarus PK, Segor FK, Cheseto X, (2018). Volatile aroma chemical constituents of fruit pulp of some Kenyan varieties of mango (*Mangifera indica* L.) *American Journal of Essential oils & Natural Products* 6(2): 29-36.
10. Muhamed S., **Omolo M.V.** (2017). A novel smokeless biomass pyrolytic stove for sustainable bioenergy utilization. Kenya Industrial Property Institute Journal KE/P/2012/1658. p1-8.
11. **Omolo M.V**., Adhiambo J. V., Ateya S. (2017). Feeding deterrent blend composition for post harvest pests in dry stored food and agricultural products. Kenya Industrial Property Institute Journal KE/P/2015/2241. p1-11.
12. **Omolo O. Maurice** (2017) The Mmustove. (**210**): KE/T/2013/0079499 (**220**): KE-Industrial Property Journal No. 2017/06 p14.
13. **Omolo O. Maurice** (2016) The Melibrandi Honey. (**210**): KE/T/2012/0079498 (**220**): KE-Industrial Property Journal No. 2016/04 p12.
14. **Omolo M.V**., Adhiambo J. V., Ateya S. (2016). Blend for post harvest insects feeding deterrent. WIPO International Publication Number WO 2016/171286 A1. p1-6.
15. Wetungu Mw, **Omolo MO**, Tarus PK, Segor FK, Cheseto X, (2015). Essential oil chemistry of some Mangifera indica varieties from Kenya. *American Journal of Essential oils & Natural Products* 2(5): 18-23.
16. **M. O. Omolo**, B. Njiru, I.O. Ndiege, R.M. Musau, A. Hassanali **(2013)**. Differential attractiveness of human foot odours to *Anopheles gambiae* Giles *sensu strict* (Diptera: Culicidae) and variation in their chemical composition. *Acta Tropica* **128** 144-148
17. Hamisi M Malebo, Tanja Wenzler, Monical Cal, Sauda M Swaleh, **Maurice O Omolo**, Ahmed Hassanali, Urs Séquin, Daniel Häussinger, Petur Dalsgaard, Matthias amburger, Reto Brun and Isaiah O Ndiege (**2013**). Anti-protozoal activity of aporphine and protoberberine

alkaloids fromAnnickia kummeriae (Engl. & Diels) Setten & Maas (Annonaceae). *BMC Complementary and Alternative Medicine* **13**:48

18. Hamisi M. Malebo, Tanja Wenzler, Monical Cal, Sauda M. Swaleh, Ahmed Hassanali, Alex K. Machocho, Urs Séquin, Daniel Häussinger, Petur Dalsgaard, **Maurice O. Omolo,** Matthias Hamburger, Reto Brun and Isaiah O. Ndiege (**2013**). Anti-protozoal and structure-activity relationships of chemical constituents of *Acridocarpus chloropterus* Oliver (Malpighiaceae) from Tanzania. *International Journal of Natural Products* **3** (4): 74-81.

19. **Omolo O. Maurice** (**2013)** Meliwere Honey brand. (**210**): KE/T/2012/0075419 (**220**): KE-Industrial Property Journal No. 2013/02 p26.
20. **Omolo O. Maurice** (**2013)** Meliboca Honey brand. (**210**): KE/T/2012/0075420 (**220**): KE-Industrial Property Journal No. 2013/02 p26.
21. **Omolo O. Maurice** (**2013)** Melinasa Honey brand. (**210**): KE/T/2012/0075421 (**220**): KE-Industrial Property Journal No. 2013/02 p26.
22. Rayaisse J.B., Tirados I., Kaba D., Dewhirst S.Y., Logan J.G., Diarrassouba A., Salou E.,, **Omolo O.M**., Solano P., Lehane M.J., Pickett J.A., Vale G.A., Torr S.J., Esterhuizen J. (2010) Prospects for the Development of Odour Baits to Control the Tsetse Flies Glossina tachinoides and G. palpalis s.l. *PLoS Negl. Trop. Dis* 4(3): e632. 1-13

23. Pickett J.A., Birkett M.A., Dewhirst S.Y., Logan J.G., **Omolo O.M**., Torto B., Pelletier J., Syed Z., Leal W.S. (2010) Chemical Ecology of Animal and Human Pathogen Vectors in a Changing Global Climate. *J Chem Ecol* 36:113–121

24. **Omolo O. M**., Njiru B., Ndiege I.O., Njagi P. and Hassanali A (2010) Compositions for attracting blood-feeding insects. **WIPO International Publication Number WO 2010/143752A2**
25. **Omolo O. M**., Njiru B., Ndiege I.O., Njagi P. and Hassanali A. (2010) Repellant Compositions for blood feeding insects. **WIPO International Publication Number WO 2010/143753A2**
26. **Omolo O. M**, Hassanali A., Mpiana S, Esterhuizen J, Lindh J, et al. (2009). Prospects for developing odour baits to control *Glossina fuscipes spp*., the major vector of Human African Trypanosomiasis. *PLoS Negl. Trop. Dis* 3 (5): e435. 1-9
27. Malebo H.M., Tanja W., Cal M., Swaleh S.M., **Omolo O.M.,** Hassanali A., Sequin U., Hamburger M., Brun R., Ndiege I.O. (2009). Anti-plasmodial, anti-trypanosomal, anti-leishmanial and cytotoxicity activity of selected Tanzanian medicinal plants. *Tanzania Journal of Health Research*. **11** (4): 1-11
28. **Omolo O. M**., Okinyo D., Ndiege I.O., Hassanali A and Lwande W (2005). Fumigant toxicity of the essential oils of some African plants against *Anopheles gambiae sensu stricto*. *J. Phytomedicine* **12**, 241-246.
29. Odalo O. J., **Omolo O.M.**, Malebo H., Angira J., Njeru M. P., Ndiege I. O. and Hassanali A. (2005). Repellency of essential oils of some plants from the Kenyan coast against *Anopheles gambiae*. *Acta Tropica* **95**, 210-218.

30. Ndiege I.O., **Omolo M**., Odalo J, Simiyu S., Mayeku P., Lwande W., Hassanali A. (2005). Bio-prospecting for botanical mosquito repellents from East African flora. *Acta Tropica* **95**

(Supplement), S132.

31. **Omolo O. M**., Okinyo D., Ndiege I.O., Hassanali A and Lwande W (2004). Repellency of essential oils of some Kenyan plants against *Anopheles gambiae*. *J. Phytochemistry* **65**, 2797-2802.

32. Mulavu Wycliffe Garanja, **Vincent Maurice Omolo** and Ronald Micheka (**2012**). Effect of Using Molecular Models on Students' Achievement Scores in Structure and Chemical Bonding in Kenyan Public Secondary Schools. *Global Journal of Management Science and Technology* **1** (Issue3): 13-19. ISSN 2277-5978.

33. Mark Wanyonyi., **Maurice O. Omolo** and Ronald Micheka (**2012**) Assessment of Students' Understanding of Chemical Bonding Concepts in Secondary Schools of Bungoma West District, Kenya. *Global Journal of Management Science and Technology* **1** (Issue3): 99-106. ISSN 2277-5978.

5.4.3 Conference, Seminar and Symposium

1. **Omolo M**., Swaleh M (**2018**). Sustainable bioenergy utilization, reduced indoor poly aromatic hydrocarbons pollution and enhanced productivity of soils in a changing global climate. *Pan African International Research Congress*, Kisumu, Kenya. Pp 385-86

2. Adhiambo J., **Omolo M**., Omengo T., Ateya S (**2018**). Feeding deterrence of *Plectranthus marruboides* and *Tetradenia riparia* essential oils on *Prostephanus truncates* (Cleoptera: Bostrichidae). *Pan African International Research Congress*, Kisumu, Kenya. Pp 97-98

3. Ngari A., **Omolo M**., Tarus P., Mwaniki M., Hassanali A (**2018**). Aromatic plants traditionally used as chemical lures of honey bees into empty hives in Central Kenya. *Pan African International Research Congress*, Kisumu, Kenya. Pp 351-52

4. Omolo M.V (2016). Research, Technology Transfer/ Incubation and Intellectual Property for Growth of Small and Medium sized Enterprises, Narok, Kenya.

5. **Omolo M.V (2015).** Semio Chemistry of the Human Malaria and Trypanosoniasis Vectors. 8th International Kenya Chemical Society Conference, Nairobi, Kenya.

6. **Omolo M.V (2014).**Volatile Secondary Metabolites of Mushrooms and their Applications in Food Industry. 4th African Conference on Edible & Medicinal Mushrooms (ACEMM4), Kakamega, Kenya.Pp25.

7. Omolo M.O., Ateya S., Adhiambo J.V., Othieno D (**2013**). Bioprospecting for phytochemical control agents of the stored product pest, *Prostephanus truncatus* (Horn) (Coleoptera: Bostrichidae) from some Western Kenya flora. *The First International Conference on Pesticidal Plants, 21-24 January 2013 Nairobi, Kenya*. Pp 132

8. **M.O. Omolo**, B. Njiru, I.O. Ndiege, R.M. Musau, P. Njagi, A. Hassanali (**2011**). Blends of Chemicals in Smelly Feet Switch Malaria Mosquitoes on and off. *The 14th NAPRECA Symposium and AAMPS Ethnoveterinary Medicine Symposium* 8th -12th August *2011 Nairobi,* Kenya. Pp 88-91.

9. **Omolo M.O**., Njiru B., Musau R.M., Ndiege I.O., Njagi P., Hassanali A. (2005). What in smelly feet turns on mosquitoes? In: *Proceedings of Gordon Research Conference on Malaria*, Gordon Research Centre, Oxford, August 22-26th, 2005.

10. Malebo H.M., Malebo L.L., **Omolo M.O**., Ndiege I.O. (2004). Ethical conduct in the care and use of animals in training and scientific researches. In: *Proceedings of DAAD Workshop on Research & Ethics*, Maseno University, DAAD, Nairobi, April 2004. Pp28-42.

5.4.4 Conference Abstracts

1. Omolo M.O., Hassanali A., Torto B. (2009). Olfactory responses of *Glossina fuscipes fuscipes* (Diptera Glossinidae) to the natural odours of some mammalian & reptilian hosts. Kenya DAAD Scholars National Conference on Science & Technology, Bishop Stam, Masinde Muliro University of Science & Technology, Kakamega, Kenya, 11th – 12th June, p21-22.

2. Ndiege I.O., Budenberg W.J., **Omolo M**., Odalo J.O., Simiyu S.K., Mayeku P.W., Mwangi M.T., Seyoum A., Ahuya P., Karago F., Odyek O., Akenga T.; Gonzalez L.M., Fallas M., Alpizar D., Lwande W., Jayarama S., Oehlschlager A.C., Hassanali A. (2005). The discovery of bioactive molecules from East African flora and fauna. 5th International Kenya Chemical Society Conference, Kenyatta University, Nairobi, Kenya, 22nd – 26th Sept.

3. Ndiege I.O., **Omolo M**., Odalo J.O., Simiyu K.K., Mayeku P.W., Odyek O., Lwande W., Hassanali A. (2005). Bioprospecting for botanical mosquito repellents from East African plants. 11th NAPRECA Symposium on Natural Products Research, Panorama Hotel, Antananarivo, Madagascar, 9th –12th Sept.

4. **Omolo M.O**., Ndiege I.O., Lwande W., Hassanali A. (2001). Bio-prospecting for phytochemical repellents/mosquitocides against *Anopheles gambiae*. *Abstr. 9th NAPRECA Symp.*, Nairobi, 27th-31st Sept., p25.

5. **Omolo M.O**., Ndiege I.O., Lwande W., Hassanali A. (2001). Bio-prospecting for phytochemical repellents/mosquitocides against *Anopheles gambiae*. *Abstr. NAPRECA-Kenya Symp.*, Kenyatta University, Nairobi, 26th Jan., p22.

5.4.5 Supervisory/ Mentorship Work:

Completed Supervisory Work:

1. **Ann G. Ngari (PhD, 2019 Title**: Chemical composition of attractive blends in selected *Ocimum* species traditionally used to lure honey bees **University:** University of Eldoret

2. **Martin Wetungu (PhD, 2018) Title:** Phytochemical attractants and repellents from selected Kenyan varieties of mango (*Mangifera indica* L.) as control tools for the mango fruit fly spp (Diptera: Tephritidae) **University:** University of Eldoret

3. **Felistus Wavinya (MSc., 2020) Title:** Chemical constituents, antioxidant and antimicrobial activity of honey from *Plebeniahylderbrandii* and *Meliponulabocandei* species against *Escherichia coli* and *Staphylococcus aureus*. **University:** MMUST. (**Thesis finalised**)

4. **Reu Andati (MSc, 2020) Title:** Structure activity relationship studies of 2-Hydroxy-4-Methoxybenzaldehyde, its derivatives and some of its related congeners against *Anopheles gambiae* eggs. **University:** MMUST. (**Thesis finalised**).

5. **James Akweya Lumwaji (M.Sc., 2018) Title:** Spectrophotometric analysis of plant macro and micronutrients in Biochar amended soils. **University:** Masinde Muliro University of Science & Technology.

6. **Amos Okoth Wasonga (M.Sc., 2018) Title:** Biochar quality and toxic organic emissions from combustion of selected fuel feedstocks in various stoves. **University:** Masinde Muliro University of Science & Technology

7. **Judith Velma Adhiambo (M.Sc., 2016) Title:** Repellants and deterrent antifeedants of *Prostephanus truncatus* from *Plectranthus maruboides* & *Tetradenia Riparia*. **University:** Masinde Muliro University of Science & Technology.

8. **Mulavu G. Wycliffe (M.Sc., 2011) Thesis:** Effect of Using Molecular Models on Students' Understanding of Structure and Bonding in Kenyan Public Secondary Schools. **University:** Masinde Muliro University of Science & Technology.

9. **Mark Wanyonyi (M.Sc., 2010) Thesis:** Evaluation of Students' Understanding of Structure and Chemical Bonding Concepts in Secondary Schools: A case Study of Bungoma West District, Kenya. **University:** Masinde Muliro University of Science & Technology

Supervisory Work in Progress:

1. Erick Salano **(PhD, Kenyatta University) Title:** Attractant and repellant blends from *meliponula* species of stingless bees as potential control tools against the predator wasp, *cerceris iniqua*

2. Mark Wanyonyi **(PhD, Masinde Muliro Univrsity of Sci & Tech) Title:** Chemical Composition, Antimicrobial, Antimosquito and Antioxidant Properties of *Meliponula* Stingless Bee Propolis

3. Velma Judith Adhiambo(**PhD, Masinde Muliro Univrsity of Sci & Tech) Title:** Bio-prospecting for Phytochemical Repellants and Biopesticides of the Jigger flea *Tunga penetrans* from Western Kenya flora.

4. Elizabeth Mwende **(M.Sc., MMUST) Title:** Phytochemical-based medicinal products for secondary microbial infections associated with the jigger flea *Tunga penetrans* (Siphonaptera: Hectopsyllidae).
5. Vitman Wafula **(M.Sc., MMUST) Title:** Bioprospecting for Antijigger compounds from leaves of selected medicinal plants in Solanacea family.
6. Regina Cheptum **(M.Sc., University of Eldoret) Title:** Bioprospecting For Bioactive Metabolites of *Aloe* Species against The Human Jigger Flea, *Tunga Penetrans* and Tungiasis
7. Solomon Ateya **(M.Sc., MMUST) Title:** Potential of semiochemicals from cassava and essential oils of *Torchanathus camphoratus* and *Conyza newii* in controlling *Prostephanus truncutus*

6.0 PROFESSIONAL AFFILIATION:

1. Member, Kenya Chemical Society (KCS)

2. Member, Natural Products Research in Eastern and Central Africa (NAPRECA) – Kenya

3. DAAD Alumni

7.0 COMMUNITY SERVICE:

1. BOM Member, Bishop Delany Secondary School, Eldoret

2. Assistant Patron to MMUST Catholic Students Association

3. Facilitator, Virtues International Project

8.0 REFEREES

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