



## 1. PERSONAL DATA

**Name:** Abiy Yenesew  
**Nationality:** Ethiopian  
**Date of Birth:** November 17<sup>th</sup>, 1963  
**Place of Birth:** Addis Ababa, Ethiopia  
**Sex:** Male  
**Marital Status:** Married  
**Languages:** English, Amharic

### Contacts:

| Institutional  | Personal   |
|--|--|
| Department of Chemistry, University of Nairobi<br>P.O. Box 30197-00100, Nairobi, Kenya<br>e-mail:- ayenesew@uonbi.ac.ke<br>Web page: <a href="https://profiles.uonbi.ac.ke/ayenesew/">https://profiles.uonbi.ac.ke/ayenesew/</a><br><a href="https://www.researchgate.net/profile/Abiy_Yenesew2">https://www.researchgate.net/profile/Abiy_Yenesew2</a><br>Tel:+254-020-4449004 ex. 2170<br>Fax: +254-20-4446138 | Spring Valley, Off Peponi Road,<br>House 10A, maisonette No 06,<br>P.O. BOX 14165-00800,<br>Nairobi, Kenya<br>e-mail: abiyenesew@yahoo.com<br>Tel. +254-733-832576;<br>+254-723-152297 |

### Career Goal:

Towards control of tropical diseases through high level research and teaching in chemistry

### Research Interest:

Phytochemical investigation of African medicinal plants, especially those belonging to the families Leguminosae and Asphodelaceae for anti-infective principles.

### Profile Summary

I am a Professor of Chemistry at the University of Nairobi, Kenya. I have an extensive experience in teaching of Organic Chemistry and conducting research in the field of Natural Products Chemistry. For the last thirty years, I have been involved in the investigation of Eastern African plants for bioactive natural products. This has resulted in the publication of 106 articles in peer reviewed journals (h-index of 34, Citations 3052 in Google Scholar, as of June 07th, 2021). I have also co-authored three books on medicinal plants of East Africa. I have served as reviewer to several international journals and examined some 30 PhD and MSc theses in Africa. In 2015, I am subject editor of the journal Phytochemistry Letters, which is the official organ of the Phytochemical society of Europe. In my career as a natural products chemist, I have also been appointed as Editorial Board member of the Journal of Natural Products and Journal of Ethnopharmacology as of January 2018. I have closely worked with national, regional and international scientists across the world. Through these collaborations, joint publications have been produced and also research grants and equipment's have been acquired. In terms of mentorship, I have co-supervised thirteen PhD and thirty two MSc students (including some from Eastern African region) to completion. I have served as the Program Officer (2006-2009), and later as the Assistant Secretary (2009-2013) of a regional organization called, the Natural Product Research Network for Eastern and Central Africa (NAPRECA). As one of the leaders of this network, I have been involved in organizing a number of symposia and workshops, and also coordinated postgraduate scholarships, which has promoted collaborative research in the region. In recognition of this I have been elected as a Fellow of the African Academy of Science as of February 2017.

## 2. ACADEMIC QUALIFICATIONS

### 2.1. University:

| Degree Awarded      | University attended    | Year of award     |
|---------------------|------------------------|-------------------|
| 1) PhD in Chemistry | University of Nairobi  | DECEMBER 01, 1997 |
| 2) MSc in Chemistry | University of Nairobi  | 1992              |
| 3) BSc in Chemistry | Addis Ababa University | 1984              |

### 2.2. High School:

| Certificate                          | School  | Year of award |
|--------------------------------------|---|---------------|
| Ethiopian School Leaving Certificate | Medhanealem Comprehensive Secondary School, Addis Ababa | 1980          |

## 3. ACADEMIC POSITIONS

| Position            | Institution                                     | Duration                      |
|---------------------|---|-------------------------------|
| Professor           | Department of Chemistry, University of Nairobi  | July 2015 – present           |
| Associate Professor | Department of Chemistry, University of Nairobi  | August 2006 – July 2015       |
| Senior Lecturer     | Department of Chemistry, University of Nairobi  | November 2002 – August 2006   |
| Lecturer            | Department of Chemistry, University of Nairobi  | November 1997 – November 2002 |
| PhD candidate       | Department of Chemistry, University of Nairobi  | May 1994 – November 1997      |
| Research Associate  | Department of Chemistry, Addis Ababa University | October 1991 – May 1994       |
| MSc candidate       | Department of Chemistry, University of Nairobi  | October 1988 – October 1991   |
| Research Assistant  | Department of Chemistry, Addis Ababa University | January 1985 – October 1988   |

#### 4. TEACHING EXPERIENCE

| Course Taught                                      | Target group   | University                       | Year   |
|--|--|----------------------------------|--|
| Advanced Organic Spectroscopy                      | MSc (Chemistry)  | University of Nairobi, Kenya     | 1998-present                                     |
| Advanced Natural Product Chemistry                 | MSc (Chemistry)  | University of Nairobi, Kenya     | 2001-2002  |
| Special Topics in Organic Chemistry                | 4 <sup>th</sup> year (BSc Chemistry)                         | University of Nairobi, Kenya     | 2005   |
| Organic Acids, Amines and Phenols                  | 3 <sup>rd</sup> year (BSc Chemistry)                         | University of Nairobi, Kenya     | 2002   |
| Alcohols ethers and carbonyls                      | 3 <sup>rd</sup> year (BSc Chemistry)                         | University of Nairobi, Kenya     | 2002-2004  |
| Carbohydrate Chemistry                             | 4 <sup>th</sup> year (BSc Chemistry)                         | University of Nairobi, Kenya     | 1998-2000  |
| Spectroscopic Identifications of Organic Compounds | 3 <sup>rd</sup> year (BSc Chemistry)                         | University of Nairobi, Kenya     | 1998-present (lecturer)                          |
| Organic Chemistry III                              | 3 <sup>rd</sup> year (BSc Chemistry)                         | Addis Ababa University, Ethiopia | 1991-1994 (lab instructor)                       |
| Organic Chemistry II                               | 2 <sup>nd</sup> year (BSc Chemistry)                         | Addis Ababa University, Ethiopia | 1991-1994 (lab instructor)                       |
| Natural Products Chemistry                         | 4 <sup>th</sup> year (BSc Chemistry)                         | University of Nairobi, Kenya     | 1999-2007 (lecturer)                             |
| Organic Chemistry I                                | 1 <sup>st</sup> year (BSc Chemistry; Biochemistry, Pharmacy) | University of Nairobi, Kenya     | 1989 (lab instructor)<br>1998-present (lecturer) |
| General Chemistry                                  | 1 <sup>st</sup> year (BSc Chemistry)                         | Addis Ababa University, Ethiopia | 1988 (lab instructor)<br>1991-1994 (lecturer)    |

## 5. STUDENT SUPERVISION

(Twenty PhD and thirty-seven MSc students to completion)

### 5.1. PhD Thesis Supervision

#### 5.1.1. PhD students in progress

| S.N | Name                                      | Title   |
|-----|---|---|
| 8)  | Mr Ivan Kiganda<br>(Ugandan)              | Phytochemical Investigation of <i>Alstonia species</i> for Anticancer Principles (Writing his proposal). Co-supervisors: Dr. Albert Ndakala. (Reg. No I80/56064/2020).  |
| 7)  | Mr Obiero<br>Kimaiga Dennis<br>(Kenyan)   | Determination of the structure and Chemical composition of <i>Plectranthus barbatus</i> and its Potential in Processing Green leather. Gy and Toxicology. University of Nairobi. Co-supervisors: Prof. J.N. Ombui, Prof. J.M. Mbaria and Dr A.S. Onyuka. (In progress).                       |
| 6)  | Fredrick Omukubi<br>Otswong'o<br>(Kenyan) | Investigation of Natural Products from Selected Plants with Antibacterial Activity against Enteropathogenic <i>Escherichia coli</i> . PhD in Biotechnology of the Jomo Kenyatta University of Agriculture and Technology. Co-supervisors: Dr Fredrick Eyase and Willie Sang (Proposal stage). |
| 5)  | Mr Jackson<br>Matundura Obegi<br>(Kenyan) | Characterization of Antiprotozoal Principles from <i>Suregada zanzibariensis</i> , <i>S. procera</i> and <i>Terminalia prunioides</i> from Kenya. Co-supervisors: Professor J.O. Midiwo, Dr L.O. Kerubo (I80/53321/2018). (In progress).  |
| 4)  | Ms Kasima<br>Everlyne (Kenyan)            | Use of Molecular Modelling and Experimental Techniques to Probe Structure Activity Relationship (SAR) of Budmunchiamine Structured Analogues as Probable Anti-Malarials. Co-supervisors: Professor J.O. Midiwo, Dr Albert Ndakala. (In progress).   |
| 3)  | Ms Chepkirui<br>Carolyne (Kenyan)         | Green Nanoparticle Encapsulated Repellent towards Control Of Malaria. Co-supervisors: Dr Albert Ndakala, Dr Solomon Dereese. I80/52251/2017. (Writing her thesis).  |
| 2)  | Mr Duncan Mutiso<br>Chalo (Kenyan)        | Phytochemical Investigation, Antibacterial and Toxicity of Kenyan <i>Erythroxylum species</i> . (Makerere University) Co-supervisors: Prof Esezah Kakudidi; Prof Hannington Oryem-Origa; Dr. Jane Namukobe. (Makerere University, writing his thesis).  |
| 1)  | Mr Douglas<br>Ongeri Ochora<br>(Kenyan)   | Phytochemical Investigation of four Plant Species of Polygalaceae Family for Antimalarial and Cytotoxic Activities. (I80/53321/2018, School of Biological Sciences, UoN, In progress). Co-supervisors: Prof. Eseza Kakudidi, Dr. Jane Namukobe. (writing his thesis).                         |

### 5.1.2. PhD students who have completed

| S.N | Name                                      | Title of PhD Project  |
|-----|---|---|
| 20) | Ms Magrate Muthoni Kaigongi (Kenyan)      | Antimicrobial Activity, Toxicity Studies and Phytochemical Investigation of four Kenyan Medicinal <i>Zanthoxylum and Dodonaea</i> Species (Rutaceae) (Graduated December, 2020). Co-Supervisor: Dr Cathrin Lukhoba (Reg. I80/52651/2018)                |
| 19) | Ms Fozia Ali Adem (Ethiopian)             | Phytochemical Analysis of Selected Plants in the Leguminosae and Moraceae Families for Anticancer Principles. (I80/97548/2015, Graduated September 06, 2019) Co-supervisors: Dr. Albert Ndakala, Dr. Beatrice Irungu.                                   |
| 18) | Dr Souaibou Yaouba (Cameroonian)          | Phytochemical Investigation of Selected Plants in the Families Anacardiaceae and Asteraceae for Bioactive Principles (UoN, graduated December 2018). Co-supervisors: Dr Eric M. Guantai; Dr Solomon Derese.   |
| 17) | Dr Yoseph Atilaw (Ethiopian)              | Phytochemical Investigation of Selected <i>Tephrosia</i> species for Antiplasmodial and Anti-inflammatory Principles (UoN, Graduated September 2018). Co-supervisors: Dr Albert Ndakala; Dr Hellen Kariuki.   |
| 16) | Dr Lois Muiva Mwikali Mutisya (Kenyan)    | Phytochemical analysis of <i>Tephrosia</i> species found in Kenya for antimalarial and antioxidant principles (UoN, Graduated September 2017). Co-supervisors: Dr Solomon Derese, Dr Faith Okalebo, Prof. Charles Mutai.                                |
| 15) | Dr Martha Induli (Kenyan)                 | Phytochemical studies of some species of the Asphodelaceae (Makerere University, Graduated February, 2017). Co-supervisor: Professor Robert Byamukama.  |
| 14) | Dr Tsegaye Deyou Woldemedihin (Ethiopian) | Phytochemical investigation of plants of the Ochnaceae and Leguminosae families for cancer chemoprevention (UoN, graduating on 4 <sup>th</sup> December 2015). Co-supervisor: Dr Solomon Derese; Prof. Máté Erdélyi.                                    |
| 13) | Dr Judith Agot Odhiambo (Kenyan)          | Antifungal Activity, Toxicity and Phytochemical Composition of <i>Gladiolus and Dierama</i> Species (Iridaceae) in Kenya (School of Biological Sciences, UoN, graduated September 2015). Co-supervisors: Prof. Saiffudin Dossaji; Dr Catherine Lukhoba. |
| 12) | Dr Beatrice Njeri Irungu (Kenyan)         | Bio-prospecting for anti-malarial and cytotoxic compounds from <i>Ekerbergia capensis</i> and <i>Turraae</i> species of Kenya (UoN, Graduated December, 2014). Co-supervisors: Prof. Jacob O. Midiwo; Dr Jennifer A. Orwa.                              |
| 11) | Dr. Negera Abdissa (Ethiopian)            | Phytochemical studies of Eastern African plants belonging to the family Asphodelaceae (UoN, graduated August 2014). Co-supervisors: Prof. Jacob O. Midiwo; Dr Albert Ndakala.   |
| 10) | Dr Ivan Gumula (Male, Ugandan)            | Phytochemical investigation of three Leguminosae plants for cancer chemopreventive agents (UoN, graduated August 2014). Co-supervisors: Dr Solomon Derese; Prof. Isaiah Ndiege.   |

- 9) Dr Peggoty Mutai (Female, Kenyan) The Medicinal Chemistry progression of phytochemicals from *Dalbergia melanoxylon* as potential antimycobacterial and antitumor agents (University of Cape Town, South Africa, graduated June, 2014). Co-supervisors: Prof. Kelly Chibale; Prof. Grace Thoithi.
- 8) Dr Akala Hoseah Miima (Male, Kenyan) Antimalarial activities of some plant extracts and natural products (Makerere University, graduated January 2014). Co-supervisors: Prof. Bernard T. Kiremire; Prof. Maud Kamatenesi-Mugisha; Dr Norman C. Waters.
- 7) Dr Hannington Twinomuhwezi (Male, Ugandan) Phytochemical investigations of *Erythrina abyssinica*, *Erythrina burtii*, *Erythrina melanacantha* and *Derris trifoliata* (Makerere University, graduated January 2014). Co-supervisor: Prof. Bernard T. Kiremire.
- 6) Dr Hellen Nyambura Kariuki (Female, Kenyan) Antinociceptive activities of extracts from selected medicinal plants using animal models (Department of Medical Physiology, UoN, graduated December 2013). Co-supervisors: Prof. Titus Ikusya Kanui; Prof. Paul Mungai Mbugua; Prof. Nilesh Bhailalbhai Patel.
- 5) Dr Milkyas Endale Annisa (Male, Ethiopian) Phytochemical Analyses of six *Pentas* species for Antiplasmodial Principles. (UoN, graduated September 2012). Co-supervisors: Dr Albert Ndakala, Dr Martin N. Mbugua; Prof. Máté Erdélyi.
- 4) Dr Francis Machumi (Male, Tanzanian) Phytochemical investigation of four Kenyan plants from families Verbenaceae and Asteraceae for their antiplasmodial, antileishmanial and antioxidant activities (UoN, graduated September 2010). Co-supervisor: Prof. Jacob O. Midiwo.
- 3) Dr Guchu, Salome Muthoni (Female, Kenyan) Studies on *Desmodium* species for the allelochemicals involved in *Striga* suppression (UoN, graduated March 2007). Co-supervisors: Prof. Ahmed Hassanali; Prof. Muniru K. Tsanuo.
- 2) Dr John Muraba Wanjohi (Male, Kenyan) Antiplasmodial anthracene derivatives from some Kenyan *Aloe* and *Bulbine* species (UoN, graduated 2006). Co-supervisor: Prof. Jacob O. Midiwo.
- 1) Dr Solomon Derese (Male, Ethiopian) Antiplasmodial flavonoids from Kenyan Papilionoideae species (UoN, graduated March 2005). Co-supervisor: Prof. Jacob O. Midiwo.

## 5.2. MSc Thesis Supervision

### 5.2.1. MSc students in progress

| SN | Name                         | Title of MSc project  |
|----|------------------------------|---|
| 3) | Purity Jael Ochieng (Kenyan) | Phytochemical Investigation of <i>Crotalaria incana</i> for Antileishmanial Principles (I56/35006/2019) Co-supervisor: Dr. Albert Ndakala.                        |
| 2) | Kamya Vicent (Ugandan)       | Phytochemical Investigation of <i>Pentas parvifolia</i> for Leishmanicidal Principles. (In Progress). Co-supervisor: Dr. Albert Ndakala (Reg. No. I56/15292/2018) |

- 1) Ronoh Kipkorir Devin  
Phytochemical Investigation of *Solanum incanum* L. (Solanaceae) for Antimicrobial Principles and Formulation of Oral Mouthwash (In Progress).  
Co-supervisors: Dr. L. Kerubo Omosa and Dr. Judith A. Odhiambo

### 5.2.2. MSc students who have completed

| SN  | Name                                  | Title of MSc project/Co-supervisors  |
|-----|---------------------------------------|--|
| 37  | Mr Mach Paul Achuoth (Soush Sudanese) | Phytochemical Investigation of <i>Tephrosia rhodesica</i> and <i>Tephrosia polyphylla</i> for Antiplasmodial Principles (Graduated in December 2019 with MSc in Chemistry). Co-supervisor: Prof. J. Kabar. (Reg. No. I56/89425/2016) |
| 36  | Mr Ivan Kiganda (Ugandan)             | Phytochemical Investigation of <i>Alstonia boonei</i> for Anticancer Principles (Graduated December 2018). Co-supervisors: Dr. Albert Ndakala, Dr Ivan Gumula. (Reg. No I56/83010/2015)  |
| 35) | Mr Kiunga Josphat Kinyua (Kenyan)     | An ethnobotanical, Morphological and chemotaxonomic study of Kenyan <i>Catha edulis (miraa)</i> . (Graduated September 2017; School of Biological Sciences, UoN). Co-supervisors: Prof. Saiffuddin F. Dossaji; Dr Catherine Lukhoba. |
| 34) | Mr Ahmed Emad Eldin (Sudanese)        | Antimicrobial and phytochemical analysis of selected medicinal plants (School of Biological Sciences, UoN, graduated December 2016). Co-supervisors: Prof. Francis B. Mwaura, Dr Saiffuddin F. Dossaji.                              |
| 33) | Mr George Kwesiga (Ugandan)           | Phytochemical investigation and structure modification of antimicrobial principles of <i>Erythrina sacleuxii</i> and <i>Erythrina melanacantha</i> . (UoN, Graduated September 2016). Co-supervisor: Dr Albert Ndakala.              |
| 32) | Ms Daisy Nyawira Njru (Kenyan)        | Phytochemical investigation of the stem and leaves of <i>Teclea simplicifolia</i> for analgesic activity (UoN, graduated September 2015). Co-supervisor: Dr Solomon Derese.  |
| 31) | Mr Makungu Marco (Tanzanian)          | Phytochemical investigation of three Leguminosae plants for larvicidal activity against <i>Aedes aegypti</i> (graduated September 2015). Co-supervisor: Dr Solomon Derese.   |
| 30) | Mr Wafula Robert G. Masinde (Kenyan)  | Phytochemical investigation of <i>Zanthoxylum gillettii</i> (Rutaceae) for antiplasmodial biomolecules (UoN, Graduated December 2014). Co-supervisors: Dr Leonidah Kerubo; Prof. Jacob O. Midiwo.                                    |
| 29) | Ms Fozia Ali Aden (Ethiopian)         | Phytochemical investigation of <i>Aloe turkanensis</i> for anticancer activities (UoN, graduated August 2014). Co-supervisors: Prof. Amir O. Yusuf; Dr John M. Wanjohi.  |
| 28) | Mr Denis Akampurira (Ugandan)         | Phytochemical investigation of <i>Zanthoxylum holstzianum</i> for antiplasmodial, larvicidal and antinociceptive principles (UoN, graduated August 2014). Co-supervisors: Dr Solomon Derese; Prof. Jacob O. Midiwo.                  |

- 27) Mr Stanley Mule Muema (Kenyan) Phytochemical and antihelmintic study of the root bark of *Teclea trichocarpa*, Engl. (Rutaceae) (School of Pharmacy, UoN, graduated December 2013). Co-supervisors: Dr Kennedy Abuga; Prof. Grace Thoithi.
- 26) Mr Daniel Buyinza (Ugandan) Phytochemical investigation of *Zanthoxylum holzianum* for antimicrobial principles (UoN, graduated September 2012). Co-supervisors: Dr Solomon Derese; Dr Leonidah Kerubo; Prof. Amir O. Yusuf.
- 25) Mr. Bernard Macharia (Kenyan) Phytochemical investigation of the roots of *Tephrosia vilosa* and aerial parts of *Tephrosia purpuria* for antiplasmodial and larvicidal principles (UoN, graduated September 2012). Co-supervisors: Dr Solomon Derese; Dr Leonidah Kerubo; Prof. Amir O. Yusuf.
- 24) Mr Yoseph Atilaw (Ethiopian) Phytochemical investigation of *Schizogygia coffaeoides* Ball. (Apocynaceae) for antimicrobial principles (UoN, graduated September 2012). Co-supervisor: Dr Albert Ndakala; Dr Catherine Lukhoba.
- 23) Mr Kennedy Olale (Kenyan) Prediction of wood density and carbon-nitrogen content in tropical agroforestry tree species in Western Kenya using Infrared spectroscopy (UoN, graduated September 2012). Co-supervisors: Dr Keith Shepherd; Dr Ramni Jamnadas.
- 22) Ms Chepkirui Carolyn (Kenyan) Alkaloidal constituents of *Erythrina brucei* and *Teclea nobilis* (UoN, graduated September 2012). Co-supervisor: Dr Martin Mbugua.
- 21) Mr. Barasa Leonard (Kenyan) Phytochemical investigation of *Millettia oblata* for antiplasmodial and larvicidal principles (UoN, graduated in September 2011). Co-supervisor: Dr Solomon Derese.
- 20) Mr. Michael Bugigi Sangale (Kenyan) Larvicidal Activity of some flavonoids and their analogues (UoN, graduated in September, 2011). Co-supervisors: Dr Albert Ndakala; Dr Martin Mbugua.
- 19) Mr Lucky Mulwa Samuel (Kenyan) Phytochemical investigation of *Psidia punctualata* for analgesic agents (UoN, graduated December 2011). Co-supervisor: Prof. Jacob O. Midiwo.
- 18) Mr Musyoki, Michael Mumo (Kenyan) Phytochemical Investigation of the roots of *Millettia usaramensis* subspecies *usaramensis* for antiplasmodial principles. (UoN, graduated in September 2011). Co-supervisor: Dr Martin Mbugua.
- 17) Mr Michael Cheloti (Kenyan) Phytochemical investigation of *Aloe secundiflora* for antiplasmodial and antimicrobial activity (UoN, graduated September 2010). Co-supervisor: Dr John M. Wanjohi.
- 16) Ms Meron Gebru Beiene (Eritrian) Phytochemical and antiplasmodial investigation of *Rhamnus prinoides* and *Kniphofia foliosa* (UoN, graduated September 2010). Co-supervisors: Dr Martin Mbugua; Dr Solomon Derese.
- 15) Mr Peter Wanyama Juma (Kenyan) Flavonoids from *Eriosema psoraleoides* and *Tephrosia purpurea*. (UoN, graduated September 2010). Co-supervisors: Dr Faith Okalebo; Prof. Peter M. Gitu.



- 14) Ms Rose Chiteva (Kenyan) Phytochemical investigation of resins from *Commiphora holtziana* (Hagar) in Kenya (UoN, graduated September 2010). Co-supervisors: Dr John M. Wanjohi; Dr Ben Chikamai.
- 13) Ms Carren Moraa Bosire (Kenyan) A toxicological study of *Millettia usaramensis* stem bark extract on *Aedes aegypti* (mosquito), *Schistocerca gregaria* (Desert locust) and *Mus musculus* (School of Biological Sciences, UoN, graduated September 2010). Co-supervisors: Prof. Jacques M. Kabaru; Dr Dennis M. Kimata).
- 12) Ms Francisca Moseka Yeye (Congoles) Phytochemical investigation of *Teclea nobilis* and *Teclea simplicifolia* for antibacterial and analgesic effects (Jomo Kenyatta University of Agriculture and Technology, Graduated 2009). Co-supervisor: Dr Anam O. Onditi.
- 11) Ms Lois M. Muiva (Kenyan) Antiplasmodial and larvicidal flavonoids from the seedpods of *Tephrosia elata* and *Tephrosia aequilata* (Jomo Kenyatta University of Agriculture and Technology, graduated August 2009). Co-supervisors: Prof. Joseph M. Keriko; Dr Solomon Derese; Dr Charles Mutai.
- 10) Ms Acheing, Imaaculate (Kenyan) Antiplasmodial anthraquinones and benzaldehyde derivatives from the roots of *Kniphofia thomsonii* (UoN, graduated September 2009). Co-supervisor: Prof. Jacob O. Midiwo.
- 9) Ms Doroty Akinyi (Kenyan) Antimosquito terpenoids from *Bixa* species (Maseno University, graduated 2008). Co-supervisor: Prof. Ogoche I. Jondiko.
- 8) Mr Hosea M. Akala (Kenyan) *In-vitro* antiplasmodial activity of some flavonoid and flavonoid/antimalarial combinations (Jomo Kenyatta University of Agriculture and Technology, graduated in 2008). Co-supervisors: Prof. T. Akenga; Dr. Norman C. Waters.
- 7) Ms Martha Induli (Kenyan) Antiplasmodial flavonoids from *Erythrina abyssinica* (UoN, graduated 2006). Co-supervisor: Prof. Jacob O. Midiwo.
- 6) Mr John T. Kiplagat (Kenyan) Larvicidal and antiplasmodial compounds from *Derris trifoliata*, *Lonchocarpus eryocalyx* and *Erythrina sacleuxii* (UoN, graduated 2006). Co-supervisors: Prof. Jacques M. Kabaru; Dr Solomon Derese.
- 5) Mr Andrew W. Andayi (Kenyan) Antimalarial and antioxidant compounds from two *Erythrina* species (Maseno University, graduated 2005). Co-supervisor: Prof. Ogoche I. Jondiko.
- 4) Ms Salome M. Guchu (Kenyan) Pentacyclic triterpenes from *Rawsonia lucida* and isoflavonoids from *Erythrina burttii* with antioxidant activities (UoN, graduated 2002). Co-supervisor: Prof. Jacob O. Midiwo.
- 3) Ms Janet Ayoo (Kenyan) Phytochemical investigation of *Zanthoxylum usabarensense* (UoN, graduated in 2001). Co-supervisor: Prof. Jacob O. Midiwo.
- 2) Mr Bernard F. Juma (Kenyan) Phytochemical investigation of *Psiadia punctulata* in Kenya (UoN, graduated in 2000). Co-supervisor: Prof. Jacob O. Midiwo.
- 1) Mr Austin O. Aluoch (Kenyan) Chemistry and biological activities of *Zanthoxylum chalybeum* and *Erythrina excelsa* (UoN, graduated in 2000). Co-supervisor: Prof. Jacob O. Midiwo.

### 5.3. BSc Project Supervision

| SN  | Name                                       | Title of the project   |
|-----|--|--|
| 64) | Mercy K Musembi<br>(I64/85843/2017)        | Phytochemical Investigation of Stem Bark of <i>Millettia Usaramensis</i> for Anticancer Principles (2021)                                  |
| 63) | Joy Kabuga<br>(I08/81419/2017)             | Phytochemical Investigation of <i>Millettia oblata</i> roots for Anticancer Principles (2021)  |
| 62) | Josphine Mumbua Mutisya<br>(I64/5189/2017) | Isolation and Characterization of Anticancer Compounds from the leaves of <i>Aspilia pluriseta</i> (2020)                                  |
| 61) | Elizabeth Sarah Ekesa<br>(I64/5218/2018)   | Phytochemical Investigation of Stem bark of <i>Pentas parvifolia</i> for Bioactive Principles  |
| 60) | Mary Mostune Obuya<br>(I64/2074/2017)      | Phytochemical Investigation of Aerial Part of <i>Pentas bussei</i> for Antileishmanial Activity (2020)                                     |
| 59) | Cornelius Wanyonyi<br>(I64/5422/2016)      | Phytochemical Investigation Of <i>Millettia usaramensis</i> for Anticancer Principles (2020)   |
| 58) | Nicholas Mwanzia Kamuti<br>(I64/5400/2016) | Phytochemical Investigation of the roots of <i>Euclea divinorum</i> and <i>Pentas Parvifolia</i> for Anticancer Principles (2019)          |
| 57) | Jeremiah Mwendwa Mulu<br>(I20/2038/2016)   | Phytochemical investigation of the stem bark of <i>Dalbergia melanoxylon</i> for anticancer activity                                       |
| 56) | Brenda Mukoya Wanyonyi<br>(I20/2192/2016)  | Isolation and Characterization of Compounds From <i>securidaca longipedunculata</i> (Polygalaceae) for Antiplasmodial Activities (2019)    |
| 55) | Amuko Godfrey Maina<br>(I64/4529/2016)     | Isolation and Characterization of Larvicidal rotenoids from the stem bark of <i>Millettia usaramensis</i> (2019)                           |
| 54) | Kitheka Maureen Mwendu                     | Isolation and characterization of anthraquinone derivatives from <i>Bulbine frutescens</i> aerial parts (2016).                            |
| 53) | Njeru Moses Ng'ang'a                       | Phytochemical investigation of the stem bark of <i>Tephrosia aequilata</i> (2016).   |
| 52) | Mr Ochieng, Kevin Omondi                   | Phytochemical investigation of <i>Tephrosia pumila</i> roots for antipain principles (2015).   |
| 51) | Mr Amenya Patrick Okiro                    | Phytochemical investigation of the stem bark of <i>Millettia usaramensis</i> subspecies <i>usaramensis</i> for larvicidal activity (2014). |

- 50) Ms Husen, Maimuna Issauc Phytochemical investigation of the stem of *Schizogygia coffaeoides* (2012).
- 49) Mr Koimbori, Washington K. Phytochemical analyses of the root bark of *Millettia usaramensis* subspecies *usaramensis* for antiplasmodial activity (2011).
- 48) Mr Huri, Abdub G. Phytochemical analysis of the roots of *Pentas micrantha* for antiplasmodial principles (2011).
- 47) Mr Manani, N. Geoffrey Antiplasmodial activity of compounds from *Erythrina abyssinica* (2009).
- 46) Mr Kariuki, Stephen Ndungo Antidiabetic compounds from *Lannea schimperi* roots (2009).
- 45) Mr Mbogo, Martin Antiplasmodial activity of compounds from *Tephrosia aequilata* (2009).
- 44) Ms Kimani, Flora Wambuui Larvicidal rotenoids from the stem bark of *Millettia usaramensis* (2009).
- 43) Ms Nsauti, Aisha Bakari Quinones from *Bulbine frutescens* and *Bulbine capitata* as antiplasmodial agents (2009).
- 42) Mr Emuruon, Joshua E. Diterpenes and Flavonoids of *Psiadia punctulata* as potential analgesic agents (2009).
- 41) Kipng'etich, Nelson Rono Analysis of the roots and leaves of *Pentas longiflora* for antimicrobial compounds (2009).
- 40) Ms Osoro, Veronicah Antiplasmodial phenylanthraquinones from *Kniphofia foliosa* (2009).
- 39) Ms Chepkirui, Carolyne Acetylation as a tool to isolate and identify unstable bioactive compounds from *Erythrina* species (2009).
- 38) Mr Tonkei, Wilson Further investigation of the roots of *Bulbine frutescens* (Graduated 2008).
- 37) Mr Karani, L. Christopher Phytochemical investigation of the roots of *Erythrina abyssinica* (Graduated 2008).
- 36) Ms Katungemwania, Faith Phytochemical investigation of the seed pods of *Tephrosia aequilata* (Graduated in 2008).
- 35) Mr Okanga, Bonventure Phytochemical investigation of the root bark of *Rhamnus staddo* for antiplasmodial activities (Graduated in 2007).
- 34) Ms Maranga, Rahema Anthraquinones from the leaves of *Kniphofia thomsoni* (Graduated 2007).
- 33) Mr Chege, J.N. Rotenoids from the stem of *Derris trifoliata* as insecticidal agent (Graduated June 2006).

- 32) Mr Yogo, N. Phytochemical analysis of the leaves of *Uvaria acuminata* (Graduated June 2006).
- 31) Mr Lelegwe, L.S. Flavonoid-chloroquine combinations as anti-malarial agents (Graduated June 2006).
- 30) Mr Ndogo, D. Antiplasmodial anthraquinones from *Bulbine frutescens* and their synergetic effect on *Artemisia annua* (Graduated June 2006).
- 29) Ms Home, Peris. Phytochemical studies on leaf exudates of *Polygonum senegalense* (Graduated 2006).
- 28) Mr Nangulu, Evans. Isolation of secondary metabolites from the stem bark of *Zanthoxylum usambarense*. (Graduated June 2005).
- 27) Ms Wangechi, I. Isolation of secondary metabolites of *Tephrosia vogelli* seeds (Graduated June 2005).
- 26) Elizabeth Ndunda. Insecticidal compounds from the seeds of *Derris trifoliata*. (Graduated June 2005).
- 25) Maina, M.T. Surface exudate flavonoids as radical scavengers in cooking oil preservation (Graduated July 2004)
- 24) Mr Kamundi, M. Chemical analysis of *Croton macrostachys* (Graduated July 2004)
- 23) Ms Mbatia, A. Isolation and characterization of compounds from *Erythrococca bongesis* (Graduated July 2004)
- 22) Mr Murage, E.N. Isolation of anthraquinones from *Kniphofia thomsonii* (Graduated July 2004)
- 21) Mr Mwilu, S.K. Identification of antimalarial flavonoids from *Erythrina sacleuxii* (Graduated July 2004)
- 20) Amuhaya, E.K. Isolation and characterization of compounds from the leaves of *Dodonaea angustifolia* (Graduated July 2004)
- 19) Ms Omoto, F.M.A. Isolation and Characterization of anti-malarial compounds from the roots of *Erythrina melanacantha* (Graduated July 2004)
- 18) Mr Mushibe, E. E. Rotenoids from the roots of *Derris trifoliata* (Graduated July 2004)
- 17) Ms Kalikanda, J. The isolation and characterization of internal tissue flavonoids from the leaves of *Dodonaea angustifolia* (Graduated July 2004)
- 16) Ms Acheing, I. Rotenoids from *Tephrosia vogelii* (Graduated July 2004)
- 15) Mr Ondari, M.E. Secondary metabolites from *Uvaria acuminata* (Graduated June 2003).
- 14) Mr Njoya, S.G. Investigation of the major chemical components in the stems of *Cassia didymobotrya* (Graduated June, 2003).

- 13) Mr Makhanu, D.S. A new triterpene from *Acokanthera schimperi* (Graduated June 2003).
- 12) Mr Gichohi, J.M. Phytochemical investigation of *Urtica massaica* (Graduated June 2003).
- 11) Mr Almasa, J.N. Anthraquinones from *Kniphofia thomsoni* (Graduated June 2003).
- 10) Ms Nose, H.M. Antioxidant flavonoids from *Erythrina abyssinica* (Graduated July 2001).
- 9) Ms Muriithi, B.W. Chemical investigation of the root bark of *Erythrina burttii* (Graduated July 2001).
- 8) Mr Oyuch, B. Isolation and characterization of terpenoids from the leaves of *Mytenus undata*. (Graduated July 2000).
- 7) Mr Omulama, N.J. Isoflavonoids from the stem bark of *Millettia usaramensis* (Graduated July 2000).
- 6) Mr Nyonje, L.B. Phenolic compounds from *Asparagus africanus*. (Graduated July 2000).
- 5) Mr Nderitu, S.W. Structure modification and antifeedant effects of chalcones from *Polygonum senegalense* (Graduated July 2000).
- 4) Mr Sabila, P. S. Phytochemical studies on the leaves of *Aloe lateritia* (Graduated July 1999).
- 3) Mr Odira, G.O. Separation and Characterization of Anthraquinones from the roots of *Aloe lateritia* (Graduated September 1998).
- 2) Mr Waithira, W. Isolation of Flavonoids from *Erythrina burtti* (Graduated September 1998).
- 1) Ms Kiboro, G.N. Isolation of Flavonoids from the roots of *Erythrina burttii* (September 1998).

## 6. ACADEMIC PUBLICATIONS

### 6.1. Refereed Journal Articles

#### 6.1.1. Summary

|   |   |
|---|---|
| <i>h</i> - index  | 34 (Google Scholar, June 18, 2021)  |
| i10-index   | 88 (Google Scholar, June 18, 2021)  |
| Citations   | 3055 (Google Scholar June 18, 2021<br><a href="http://scholar.google.com/citations">http://scholar.google.com/citations</a> ) |
| Total number of peer-reviewed scientific articles published | 106<br><a href="https://profiles.uonbi.ac.ke/ayenesew">https://profiles.uonbi.ac.ke/ayenesew</a>                              |

#### 6.1.2. List of articles in preparation

- 3) Souaibou Yaouba, Eric M. Guantai, Solomon Derese, Matthias Heydenreich, Jacob O. Midiwo, Máté Erdélyi, Abiy Yenesew. Cytotoxicity and Antiplasmodial activity of *ent*-Trachylobane and *ent*-Kaurane Diterpenes from *Psiadia punctulata* (Compositae). (in preparation).

- 2) Hepatoprotective effects of *Erythrina abyssinica* Lam Ex Dc against Non Alcoholic Fatty Liver Disease in Sprague Dawley Rats. FK Macharia, PW Mwangi, A Yenesew, F Bukachi... - BioRxiv, 2019 (under review).
- 1) Denis Akampurira, Hoseah M. Akala, Solomon Derese, Matthias Heydenreich, Jacob O. Midiwo, Abiy Yenesew. Antiplasmodial Alkaloids from *Zanthoxylum holstzianum* (In preparation).

### 6.1.3. List of articles published as a Professor

- 106) Daniel Buyinza, Solomon Derese, Albert Ndakala, Matthias Heydenreich, **Abiy Yenesew**, Andreas Koch, Richard Oriko (2021). Biochemical Systematics and Ecology 97, 104277
- 105) Douglas O. Ochora, Esezah Kakudidi, Jane Namukobe, Matthias Heydenreich, Paolo Coghi, Li Jun Yang, Edwin W. Mwakio, Ben Andagalu, Amanda Roth, Hoseah M. Akala, Vincent K. W. Wong & **Abiy Yenesew** (2021). A new benzophenone, and the antiplasmodial activities of the constituents of *Securidaca longipedunculata* fresen (Polygalaceae), Natural Product Research, DOI: [10.1080/14786419.2021.1925272](https://doi.org/10.1080/14786419.2021.1925272)
- 104) Carolyne Chepkirui, Purity J Ochieng, Biswajyoti Sarkar, Aabid Hussain, Chiranjib Pal, Li Jun Yang, Paolo Coghi, Hoseah M Akala, Solomon Derese, Albert Ndakala, Matthias Heydenreich, Vincent KW Wong, Máté Erdélyi, **Abiy Yenesew** (2021). Antiplasmodial and antileishmanial flavonoids from *Mundulea sericea*. *Fitoterapia*. 149, 104796. <https://doi.org/10.1016/j.fitote.2020.104796>
- 103) Moses Andima, Albert Ndakala , Solomon Derese , Sarkar Biswajyoti , Aabid Hussain , Li Jun Yang , Otieno Elsie Akoth , Paolo Coghi , Chiranjib Pal, Matthias Heydenreich , Vincent Kam-Wai Wong , and **Abiy Yenesew** (2021). Antileishmanial and cytotoxic activity of secondary metabolites from *Taberneamontana ventricose* and two *aloe* species. Natural Product Research. <https://doi.org/10.1080/14786419.2021.1871906>
- 102) Chalo, D.M., Kakudidi, E., Origa-Oryem, H., Namukobe, J., Franke, **Abiy Yenesew**, Wessjohann L. A. (2020). Chemical constituents of the roots of *Ormocarpum sennoioides* subsp. *zanzibaricum*. Biochemical Systematics and Ecology 93, 104142. <https://doi.org/10.1016/j.bse.2020.104142>
- 101) Yoseph Atilaw, Lois Muiva-Mutisya, Jonathan Bogaerts, Sandra Duffy, Arto Valkonen, Matthias Heydenreich, Vicky M Avery, Kari Rissanen, Máté Erdélyi, **Abiy Yenesew** (2020). Prenylated Flavonoids from the Roots of *Tephrosia rhodesica*. Journal of Natural Products 83, 2390-2398. <https://doi.org/10.1021/acs.jnatprod.0c00245>
- 100) Daniel Buyinza, Duncan Mutiso Chalo, Solomon Derese, Albert Ndakala, **Abiy Yenesew** (2020). Flavonoids and Isoflavonoids of *Millettia dura* and *Millettia ferruginea*: Phytochemical review and chemotaxonomic values. *Biochemical Systematics and Ecology* 91, August 2020, 104053. <https://doi.org/10.1016/j.bse.2020.104053>
- 99) Magrate M. Kaigongi, Catherine W. Lukhoba, Purity J. Ochieng', Malcolm Taylor, **Abiy Yenesew** and Nokwanda P. Makunga (2020). LC-MS-Based Metabolomics for the Chemosystematics of Kenyan *Dodonaea viscosa* Jacq (Sapindaceae) Populations. *Molecules* 25, 4130; doi:10.3390/molecules25184130.

- 98) Magrate M. Kaigongi, Catherine W. Lukhoba, Souaibou Yaouba, Nokwanda P. Makunga 4, Joseph Githiomi and **Abiy Yenesew** (2020). In Vitro Antimicrobial and Antiproliferative Activities of the Root Bark Extract and Isolated Chemical Constituents of *Zanthoxylum paracanthum* Kokwaro (Rutaceae). *Plants* 9, 920; doi:10.3390/plants9070920
- 97) Moses Andima, Paolo Coghi, Li Jun Yang, Vincent Kam Wai Wong, Chrispus Mutuku Ngule, Matthias Heydenreich, Albert Jairo Ndakala, **Abiy Yenesew**, Solomon Derese. (2020). Antiproliferative Activity of Secondary Metabolites from *Zanthoxylum zanthoxyloides* Lam: In vitro and in silico Studies. *Pharmacognosy Communications*. 10(1):44-51. <http://www.phcogcommn.org/sites/default/files/PharmaComm-10-1-44.pdf>
- 96) Kennedy Olale, **Abiy Yenesew**, Ramni Jamnadass, Andrew Sila, Keith Shepherd (2019). A simple field-based method for rapid wood density estimation for selected tree species in Western Kenya. *Scientific Africa*. 5, e00149. <https://doi.org/10.1016/j.sciaf.2019.e00149>
- 95) Daniel Buyinz, Li Jun Yang, Solomon Derese, Albert Ndakala, Paolo Coghi, Matthias Heydenreich, Vincent K. W. Wong, Heiko M. Möller, **Abiy Yenesew** (2019). Cytotoxicity of Isoflavones from *Millettia dura*. *Natural Product Research* <https://doi.org/10.1080/14786419.2019.1660335>.
- 94) Leonidah Kerubo Omosa, Gacheru Martin Mbogo, Eric Korir, Ruth Omole, Ean-Jeong Seo, **Abiy Yenesew**, Matthias Heydenreich, Jacob Ogweno Midiwo, Thomas Efferth. (2019) Cytotoxicity of fagaramide derivative and canthin-6-one from *Zanthoxylum* (Rutaceae) species against multidrug resistant leukemia cells. *Natural product research*. <https://doi.org/10.1080/14786419.2019.1587424>
- 93) Fozia A. Adem, Armelle T. Mbaveng, Victor Kuete, Matthias Heydenreich, Albert Ndakala, Beatrice Irungu, **Abiy Yenesew** and Thomas Efferth. (2019). Cytotoxicity of isoflavones and biflavonoids from *Ormocarpum kirkii* towards multi-factorial drug resistant cancer. *Phytomedicine*, 58, 152853. <https://doi.org/10.1016/j.phymed.2019.152853>
- 92) Souaibou Yaouba, Arto Valkonen, Paolo Coghi, Jiaying Gao, Eric M. Guantai, Solomon Derese, Vincent K. W. Wong, Máté Erdélyi and **Abiy Yenesew** (2018). Crystal Structures and Cytotoxicity of *ent*-Kaurane-Type Diterpenoids from two *Aspilia* species. *Molecules* 23 (12), 3199. <https://doi.org/10.3390/molecules23123199>
- 91) Adem, F. A., Kuete, V., Mbaveng, A. T., Heydenreich, M., Koch, A., Ndakala, A., Irungu, B., Efferth, T., **Abiy Yenesew** (2018). Cytotoxic benzylbenzofuran derivatives from *Dorstenia kameruniana*. *Fitoterapia* 128, 26-30. <https://doi.org/10.1016/j.fitote.2018.04.019>
- 90) Fozia A. Adem, Victor Kuete, Armelle T. Mbaveng, Matthias Heydenreich, Andreas Koch, Albert Ndakala, Beatrice Irungu, **Abiy Yenesew**, Thomas Efferth. (2018). Cytotoxic flavonoids from two *Lonchocarpus* species. *Natural Product Research* <https://doi.org/10.1080/14786419.2018.1462179>
- 89) Souaibou Yaouba, Solomon Derese, Eric M. Guantai, Matthias Heydenreich, Andreas Koch, **Abiy Yenesew** (2018). Anti-inflammatory, Cytotoxic and Antimicrobial Activities of Alkenyl Cyclohexanone derivatives from *Lannea rivae* and *Lannea schweinfurthii*. *Phytochemistry Letters* 23, 141-148. <https://doi.org/10.1016/j.phytol.2017.12.001>

- 88) Yoseph Atilaw, Lois Muiva-Mutisya, Albert Ndakala, Hoseah M. Akala, Redemptah Yeda, Yujun Wu, Paolo Coghi, Vincent K.W. Wong, Máté Erdélyi, **Abiy Yenesew** (2017). Four flavones with modified prenyl groups from the stem of *Tephrosia purpurea* subsp. *leptostachya*. *Molecules*, 22, 1514; doi:10.3390/molecules22091514.
- 87) Marco, M., Deyou, T., Gruhonjic, A., Holleran, J., Duffy, S., Heydenreich, M., Firtzpatrick, P. A., Landberg, G., Koch, A., Derese, S., Pelletier, J., Avery, V. M., Erdélyi, M., **Abiy Yenesew** (2017). Two pterocarpanes from *Millettia dura* and *Millettia micans*. *Phytochemistry Letters* 21, 216-210.
- 86) Lois M. Muiva-Mutisya, Yoseph Atilaw, Matthias Heydenreich, Andreas Koch, Hoseah M. Akala, Agnes C. Cheruiyot, Matthew L. Brown, Beatrice Irungu, Faith A. Okalebo, Solomon Derese, Charles Mutai, **Abiy Yenesew**. (2018). Antiplasmodial prenylated flavanonols from *Tephrosia subtriflora*. *Natural Product Research*, 32 (12), 1407-1414. doi.org/10.1080/14786419.2017.1353510
- 85) Tsegaye Deyou, Makungu Marco, Matthias Heydenreich, Fangfang Pan, Amra Gruhonjic, Paul A Fitzpatrick, Andreas Koch, Solomon Derese, Jerry Pelletier, Kari Rissanen, Abiy Yenesew, Máté Erdélyi (2017) Isoflavones and Rotenoids from the Leaves of *Millettia oblata* ssp. *teitensis*. *Journal of Natural Products* 80, 2060-2066. DOI: 10.1021/acs.jnatprod.7b00255
- 84) Y. Atilaw, S. Duffy, M. Heydenreich, L. Muiva-Mutisya, V. M. Avery, Máté Erdélyi, **Abiy Yenesew**. (2017). Three Chalconoids and a Pterocarpene from the Roots of *Tephrosia aequilata* *Molecules* 22(2), 318; doi:10.3390/molecules22020318
- 83) Charles N Muthaura, Joseph M Keriko, Charles Mutai, **Abiy Yenesew**, Matthias Heydenreich, Yoseph Atilaw, Jeremiah W Gathirwa, Beatrice N Irungu, Solomon Derese. (2017). Antiplasmodial, Cytotoxicity and Phytochemical Constituents of Four *Maytenus* Species Used in Traditional Medicine in Kenya. *The Natural Products Journal* 7, 144-152
- 82) Abdissa, N., Pan, F., Gruhonjic, A., Gräfensten, J., Fitzpatrick, P. A., Landberg, G., Rissanen, K., **Abiy Yenesew**, A. Erdélyi, M. (2016). Naphthalene derivatives from the Roots of *Pentas parvifolia* and *Pentas bussei*. *Journal of Natural Products*, 79, 2181–2187. [Journal Impact Factor = 3.947].
- 81) Josphat K Kiunga, Catherine W Lukhoba, Saifuddin F Dossaji, **Abiy Yenesew** (2016). A survey of traditional medicinal uses of *Catha edulis* (Celastraceae) in Meru and Eembu counties of Kenya. *International Journal of Ethnobiology & Ethnomedicine*. 3, 1-12.

#### 6.1.4. List of articles published as an Associate Professor

- 80) Deyou, T., Gumula, I., Pang, F., Gruhonjic, A., Mumo, M., Holleran, J., Duffy, S., Fitzpatrick, P.A., Heydenreich, M., Landberg, G., Derese, S., Avery, V., Rissanen, K., Erdélyi, M., **Abiy Yenesew** (2015). Rotenoids, chalcones and flavanones, from the root bark of *Millettia usaramensis* subspecies *usaramensis*. *Journal of Natural Products* 78 , pp 2932–2939. [Journal Impact Factor = 3.947].
- 79) C.N. Muthaura, J.M. Keriko, C Mutai, **Abiy Yenesew**, J.W. Gathirwa, B.N. Irungu, R Nyangacha, G.M. Mungai, Solomon Derese (2015). Antiplasmodial potential of traditional phytotherapy of some remedies used in treatment of malaria in Meru-Tharaka Nithi County of Kenya. *Journal of Ethnopharmacology* 175, 315-323. [Journal Impact Factor = 2.998].



- 78) Beatrice N. Irungu, Nicholas Adipo, Jennifer A. Orwa, Francis Kimani, Matthias Heydenreich, Jacob Midiwo, Per Martin Björemark, Mikael Håkansson, **Abiy Yenesew**, Máté Erdélyi (2015). Antiplasmodial and cytotoxic activities of compounds from *Turraea robusta* and *Turraea nilotica*. *Journal of Ethnopharmacology*. 174, 419-425. [Journal Impact Factor = 2.998].
- 77) Muthaura, C.N., Keriko, J.M., Mutai, C., **Abiy Yenesew**, Gathirwa, W., Irungu, B.N., Nyangacha, RMungai, ., G.M.,. Derese, S. (2015). Antiplasmodial potential of traditional antimalarial phytotherapy remedies used by the Kwale community of the Kenyan coast. *Journal of Ethnopharmacology* 170, 148-157. [Journal Impact Factor = 2.998].
- 76) Lois Muiva-Mutisya, Bernard Macharia, Matthias Heydenreich, Andreas Koch, Hoseah M. Akala, Solomon Derese, Leonidah K. Omosa, Amir O. Yusuf, Edwin Kamau, **Abiy Yenesew**. (2014). 6 $\alpha$ -Hydroxy- $\alpha$ -toxicarol and (+)-Tephrocin with antiplasmodial activities from *Tephrosia* species. *Phytochemistry Letters* 10, 179–183. [Journal Impact Factor = **1.542**].
- 75) Ivan Gumula, John Patrick Alao, Isaiah Omolo Ndiege, Per Sunnerhagen, **Abiy Yenesew** and Máté Erdélyi (2014). Cytotoxic and Antioxidant Flemingins G-P from the Leaves of *Flemingia grahamiana*. *Journal of Natural Products* 77, 2060-2067. [Journal Impact Factor = 3.947].
- 74) Irungu, B.N., Orwa, J.A., Gruhnojić, A., Fitzpatrick, P., Landberg, G., Kimani, F., Midiwo, J.O., Erdélyi M., **Abiy Yenesew** (2014). Constituents of the roots and leaves of *Ekebergia capensis* and their potential antiplasmodial and cytotoxic activities. *Molecules* 19, 14235–14246. [Journal Impact Factor = **2.679**].
- 73) Atilaw, Y., Heydenreich, M., Ndakala, A., Akala, H.M., Kamau, E., **Yenesew, A.** (2014). 3-Oxo-14 $\alpha$ ,15 $\alpha$ -epoxyschizozygine: A new schizozygane indoline alkaloid from *Schizozygia coffaeoides*. *Phytochemistry Letters*. 10, 28-31. [Journal Impact Factor = **1.542**].
- 72) Odhiambo, L., Dossaji, S., Lukhoba, C., **Yenesew A.**, (2014). Phytochemical screening of *Dierama cupuliflorum* Klatt. (Iridaceae). *Journal of Pharmacy Research* 8, 589-592. [Journal Impact factor Journal Impact Factor = 0.01].
- 71) Bosire, C.M., Deyou, T., Kabaru, J.M., Kimata, D.M., **Yenesew A.**, (2014). Larvicidal activities of extracts and rotenoids from *Millettia usaramensis* subspecies *usaramensis* on *Aedes aegypti* (Linnaeus, 1762) (Diptera: Culicidae). *Journal of Asia-Pacific Entomology* 17, 531-535. [Journal Impact Factor = 0.797].
- 70) Abdissa N., Heydenreich, M., Midiwo, J.O., Ndakala, A., Majer, Z., Neumann, B., Stammer, H.-G., Sewald, N., **Yenesew A.**, (2014). 8-Hydroxy-6-methylxanthone-1-carboxylic acid and 6',8-O-dimethylknipholone from the roots of *Bulbine frutescens*, and the revision of six *seco*-anthraquinones into xanthenes. *Phytochemistry Letters* 9, 67-73. [Journal Impact Factor = **1.542**].
- 69) Abdissa, N., Induli, M., Fitzpatrick, P., Alao, J.P., Sunnerhagen, P., Landberg, G., **Yenesew, A.**, Erdelyi, M. (2014). Cytotoxic Quinones from the Roots of *Aloe dawei*. *Molecules*. 19, 3264-3273. [Journal Impact Factor = **2.679**].
- 68) Derese, S., Barasa, L., Akala, H.M., Yusuf, A.O., Kamau, E., Heydenreich, M., **Yenesew, A.** (2014). 4-O-Prenyloxyderrone from the stem bark of *Millettia oblata* ssp. *teitensis* and the antiplasmodial activities of isoflavones from some *Millettia* species. *Phytochemistry Letters* 8, 69-72. [Journal Impact Factor = **1.542**].

- 67) L. K., Omosa, Beatrice, Amugune, Beth Ndunda; Trizah K. T. K. Milugo, Heydenreich, M., **Yenesew, A.**, J.O. Midiwo (2014). Antimicrobial flavonoids and diterpenoids from *Dodonaea angustifolia*. South African Journal of Botany. 91, 58-62. [Journal Impact Factor = **1.495**].
- 66) Chiteva, R., **Yenesew, A.**, Chikamai, B., Wanjohi. J.M. (2013). Phytochemical Investigation of Resins from Kenyan *Commiphora holtziana*. *International Journal of Current Research*. 5, 1791-1793. [Journal Impact Factor = 0.455].
- 65) Mutai, P., Heydenreich, M., Thoithi, G., Mugumbate, G., Chibale, K., **Yenesew A.**, (2013). 3-Hydroxyisoflavanones from the stem bark of *Dalbergia melanoxylon*: Isolation, antimycobacterial evaluation and molecular docking studies. *Phytochemistry Letters* 6, 671-675. [Journal Impact Factor = **1.542**].
- 64) Induli, M., Gebru, M., Abdissa, N., Akala, H.M., Wekesa, I., Byamukama, R., Heydenreich, M., Murunga, S., Dagne, E., **Yenesew, A.** (2013). Antiplasmodial Quinones from *Kniphofia foliosa* Rhizomes. *Natural Products Communications* 8, 1261-1264. [Journal Impact Factor = **0.956**].
- 63) Olale, K., **Yenesew, A.**, Jamnadass, R., Sila, A.M., Aynekulu, E., Kuyah, S., Keith, S. (2013). Limitations to Use of Infrared Spectroscopy for Rapid Determination of Carbon-Nitrogen and Wood Density for Tropical Species. *Advances in Analytical Chemistry*. 3, 21-28. [JOURNAL IMPACT FACTOR = ???]
- 62) Abdissa, N., Induli, M., Akala, H.M., Heydenrich, M., Midiwo, J.O., Albert Ndakala, A., **Yenesew, A.** (2013). Knipholone Cyclooxanthrone and an Anthraquinone Dimer with Antiplasmodial Activities from the Roots of *Kniphofia foliosa*. *Phytochemistry Letters* 6, 241-245. [Journal Impact Factor = **1.542**].
- 61) Endale, M., Ekberg, Alao, J.P., A., Akala, H.M., Ndakala, A., Sunnerhagen, P., Erdelyi, M., **Yenesew, A.**, (2013). Anthraquinones of the roots of *Pentas micrantha*. *Molécules* 18, 311-321. [Journal Impact Factor = **2.679**].
- 60) Kariuki, H.N., Kanui, T.I. **Yenesew, A.**, Patel, N.B., Mbugua, P.M. (2012). Antinociceptive activity of *Toddalia asiatica* (L) Lam. in models of central and peripheral pain. *Phytopharmacology* 3, 122-129. [JOURNAL IMPACT FACTOR = ???].
- 59) Kariuki, H.N., Kanui, T.I. **Yenesew, A.**, Patel, N.B., Mbugua, P.M. (2012). Antinociceptive Activities of the Root Extracts of *Rhus natalensis* Kraus and *Senna singueana*. *Phytopharmacology* 2, 1-6. [JOURNAL IMPACT FACTOR = ???].
- 58) Machumi, F., **Yenesew, A.**, Midiwo, J.O., Heydenreich, M., Kleinpeter, E., Tekwani B.L., Khan, S.I., Walker, L.A., Muhammad, I. (2012). Antiparasitic and anticancer carvotacetone derivatives of *Sphaeranthus bullatus*. *Natural Product Communications* 7, 1123-1126. [Journal Impact Factor = **0.956**].
- 57) Endale, M., Ekberg, A., Akala, H.M., Alao, J.P., Sunnerhagen, P., **Yenesew, A.**, Erdelyi, M. (2012). Bussei hydroquinones A-D from the Roots of *Pentas bussei*. *Journal of Natural Products*. 75, 1299-1304. [Journal Impact Factor = 3.947].
- 56) Martha Induli, M., Cheloti, M., Wasuna, A., Wekesa, I., Wanjohi, J.M., Byamukama, R., Heydenrich, M., Moses Makayoto, **Yenesew, A.** (2012). Naphthoquinones from the roots of

*Aloe secundiflora* (Asphodelaceae). *Phytochemistry Letters* 5, 506-509. [Journal Impact Factor = **1.542**].

- 55) **Yenesew, A.**, Akala, H.M., Twinomuhwezi, H., Chepkirui C., Irungu, B.N., Eyase, F.L. Kamatenesi-Mugisha, M., Kiremire, B.T., Johnson, J.D., Norman C. Waters, N.C. (2012). The Antiplasmodial and Radical Scavenging Activities of Flavonoids of *Erythrina burttii*. *Acta Tropica* 123, 123-127. [Journal Impact Factor = **2.511**].
- 54) Ivan Gumula, I., Heydenreich, M., Derese, S., Isaiah O. Ndiege, I.O., **Yenesew, A.** (2012). Four Isoflavanones from the stem bark of *Platycephalum voënsse*. *Phytochemistry Letters* 5, 150-154. [Journal Impact Factor = **1.542**].
- 53) Endale, M., Alao, J.P. Akala, H.M., Rono, N. K., Eyase, F.L., Derese, S., Ndakala, A., Mbugua, M., Walsh, D.S., Sunnerhagen, P., Erdelyi, M., **Yenesew, A.** (2012). Antiplasmodial Quinones from *Pentas longiflora* and *Pentas lanceolata*. *Planta Medica* 78, 31-35. [Journal Impact Factor = **2.348**].
- 52) Muthaura, C.N., Keriko J.M., Derese, S., **Yenesew, A.**, Rukunga, G.M. (2011). Investigation of some Medicinal Plants traditionally used for treatment of **malaria** in Kenya as a potential source of antimalarial drugs. *Experimental Parasitology* **127, 609-626**. [Journal Impact Factor JIF = **2.093**].
- 51) Juma, W.P., Akala, H. M., Eyase, F.L., Muiva, L.M., Heydenreich, M., Okalebo, F.A., Gitu, P.M., Peter, M.G., Walsh, D., Imbuga, M., **Yenesew, A.** (2011). Terpurinflavone: An Antiplasmodial Flavone from the Stem of *Tephrosia purpurea*. *Phytochemistry Letters* 4, 176-178. [Journal Impact Factor = **1.542**].
- 50) Omosa, L. K., Derese, S., J.O. Midiwo, **Yenesew, A.**, Heydenreich, M., Peter, M.G., Neoclerodane diterpenes from *Dodonaea angustifolia* (2010). *Phytochemistry Letters* 3, 217-220. [Journal Impact Factor = **1.542**].
- 49) Machumi, F., Samoylenko, V., **Yenesew, A.**, Derese, S., Midiwo, J.O., Wiggers, F.T. Jacob, M.R., Takwani, B.L., Khan, S.I., Walker, L.A., Muhammad, I. (2010). Antimicrobial and Antiparasitic Abietane Diterpenoids from the roots of *Clerodendrum eriophyllum*. *Natural Product Communications* 5, 853-858. [Journal Impact Factor = **0.956**].
- 48) **Yenesew, A.**, Twinomuhwezi, H., Kabaruu, J.M., Kiremire, B.T., Akala, H.M., Heydenreich M., Peter M.G., F. Eyase, Waters, N.C., Walsh, D. (2010). Antiplasmodial and larvicidal activities of flavonoids of *Derris trifoliata*. *Bulletin of the Chemical Society of Ethiopia* 23, 409-414. [Journal Impact Factor = **0.45**].
- 47) **Yenesew, A.**, Twinomuhwezi, H., Kiremire, B.T., Mbugua, M.N., Gitu, P.M., Heydenreich M., Peter M.G. (2009). 8-Methoxyneorautenol and Radical Scavenging flavonoids from *Erythrina abyssinica*. *Bulletin of the Chemical Society of Ethiopia* 23, 205-210. [Journal Impact Factor = **0.45**].
- 46) Muiva, L.M. **Yenesew, A.**, Derese, S., Heydenreich, M., Peter, M.G., Akala, H.M., F. Eyase, Waters, N.C., Mutai, C., Keriko, J.M., Walsh, D. (2009). Antiplasmodial  $\beta$ -hydroxydihydrochalcone from seedpods of *Tephrosia elata*. *Phytochemistry Letters* 2, 99-102. [Journal Impact Factor = **1.542**].

- 45) G. Bringmann, Joan Mutanya-Comar, Katija Maksimenka, J.M. Wanjohi, M. Heydenreich, Reto, Brun, Werner E. G. Muller, M.G. Peter, J.O. Midiwo, **A. Yenesew**. (2008). Joziknipholones A and B: The first dimeric Phenylanthraquinones, from the roots of *Bulbine frutescens*. *Chemistry, a European Journal*, 14, 1420-1429. [Journal Impact Factor JIF = 5.831].
- 44) Guchu, S.M., **Yenesew, A.**, Tsanuo, M.K., Gikonyo, N.K., Hooper, T., Hassanali, A. (2007). C-Methylated and C-prenylated isoflavonoids from root extracts of *Desmodium uncinatum*. *Phytochemistry* 68, 646-651. . [Journal Impact Factor = 3.571].
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#### 6.1.5. List of articles published as a Senior Lecturer

- 42) Abosi, A.O., Mbukwa, E., Majinda, R.R.T., **Yenesew, A.**, Midiwo, Akala, H.M., Liyala, P., Waters, N.C. (2006). *Vangueria, infausta*, root bark: *in vivo* and *in vitro* antiplasmodial activity. *British Journal of Biomedical Science* 63, 129-133. [Journal Impact Factor = 2.458].
- 41) Juma, B.F., Midiwo, J.O., **Yenesew, A.**, Waterman, P.G., Heydenreich, M., Peter, M.G. (2006). Three *ent*-trachylobane diterpenes in the leaf exudates of *Psiadia punctulata*. *Phytochemistry*, 67, 1322-1325. [Journal Impact Factor = 3.571].
- 40) **Yenesew, A.**, Kiplagat, J.T., Derese, S., Midiwo, J.O., Kabaruu, J.M., Heydenreich, M., Peter, M.G. (2006). Two unusual rotenoid derivatives, 7a-*O*-methyl-12a-hydroxydeguelol and spiro-13-homo-13-oxaelliptone, from the seeds of *Derris trifoliata*. *Phytochemistry*, 67, 988-991. . [Journal Impact Factor = 3.571].
- 39) Andayi, A.W., **Yenesew, A.**, Derese, S., Midiwo, J.O., Gitu, P.M., Jondiko, O.I., Waters, N., Liyala, P., Akala, H.M., Heydenreich, M., Peter, M.G. (2006). Antiplasmodial activities of flavonoids from *Erythrina saculeuxii*. *Planta Medica* 72, 187-189. [Journal Impact Factor = 2.348].
- 38) **Yenesew, A.**, Derese, S., Midiwo, J.O., Bii, C.C., Heydenreich, M., Peter, M.G. (2005). Antimicrobial flavonoids from the stem bark of *Erythrina burttii*. *Fitoterapia* 76, 469-472. [Journal Impact Factor = 2.139].
- 37) Wanjohi, J.M., **Yenesew, A.**, Midiwo, J.O., Heydenreich, M., Peter, M.G., Dreyer, M., Reichert, M., Bringmann, G. (2005). Three dimeric anthracene derivatives from *Bulbine abyssinica*. *Tetrahedron* 61, 2667-2674. . [Journal Impact Factor = 2.899].
- 36) **Yenesew, A.**, Mushibe, E.K., Induli, M., Derese, S., Midiwo, J.O., Kabaruu, J.M., Heydenreich, M., Koch, A., Peter, M.G. (2005). 7a-*O*-Methyldeguelol, a modified rotenoid with an open ring-C, from the roots of *Derris trifoliata*. *Phytochemistry* 66, 653-657. [Journal Impact Factor = 3.571].
- 35) **Yenesew, A.**, Induli, M., Derese, S., Midiwo, J.O., Hedenreich, M., Peter, M.G., Akala, H., Wangui, J., Liyala, P., Waters, N.C. (2004). Antiplasmodial Flavonoids from the roots of *Erythrina abyssinica*. *Phytochemistry*, 65, 3029-3032. [Journal Impact Factor = 3.571].

- 34) **Yenesew, A.**, Derese, S., Midiwo, J.O., Oketch-Rabah, H.A., Lisgarten, J., Palmer, R., Heydenreich, M., Peter, M.G., Akala, H., Liyala, P., Waters, N.C. (2003). Antiplasmodial activities and X-ray crystal structures of rotenoids from the stem bark of *Millettia usaramensis* subspecies *usaramensis*. *Phytochemistry*, **64**, 773-779. . [Journal Impact Factor = 3.571].
- 33) **Yenesew, A.**, Derese, S., Irungu, B., Midiwo, J.O., Waters, N.C., Liyala, P., Akala, H., Heydenreich, M., Peter, M.G. (2003). Flavonoids and isoflavonoids with antiplasmodial activities from the roots of *Erythrina abyssinica*. *Planta Medica*, **69**, 658-661. . [Journal Impact Factor = **2.348**].
- 32) **Yenesew, A.**, Irungu, B., Derese, S., Midiwo, J.O., Heydenreich, M., Peter, M.G. (2003). Two prenylated flavonoids from the stem bark of *Erythrina burttii*. *Phytochemistry*, **63**, 445-448. . [Journal Impact Factor = 3.571].
- 31) Derese, S., **Yenesew, A.**, Midiwo, J.O., Heydenreich M., Peter, M.G. (2003). A new isoflavone from stem bark of *Millettia dura*. *Bulletin of the Chemical Society of Ethiopia*, **17**, 113-115. [Journal Impact Factor = **0.45**].
- 30) **Yenesew, A.**, Derese, S., Midiwo, J.O., Heydenreich, M., Peter, M.G. (2003). Effect of rotenoids from *Millettia dura* on larvae of *Aedes aegypti*. *Pest Management Science*, **59**, 1157-1161. [Journal Impact Factor = **2.594**].
- 29) Midiwo, J.O., **Yenesew, A.**, Juma, B.F., Derese, S., Ayoo, J.A., Aluoch, A.O., Guchu, S. (2002). Bioactive compounds from some Kenyan ethnomedicinal plants: Myrsinaceae, Polygonaceae and *Psiadia punctulata*. *Phytochemical Reviews* **1**, 311-323. [Journal Impact Factor = **3.575**].
- 28) Kariba, R.M., Houghton, P.J., **Yenesew, A.** (2002). Antimicrobial activities of a new schizozygane indoline alkaloid from *Schizozygia coffaeoides* and the revised structure of isoschizogaline. *Journal of Natural Products*, **65**, 566-569. . [Journal Impact Factor = **3.285**].
- 27) **Yenesew, A.**, Midiwo, J.O., Heydenreich, M., Guchu, S.M., Peter, M.G. (2002). Three isoflav-3-enes and a 2-arylbenzofuran from the root bark of *Erythrina burttii*. *Phytochemistry*, **59**, 337-341. [Journal Impact Factor = 3.571].

#### **6.1.6. Articles published as Senior Lecturer**

- 26) Juma, B.F., **Yenesew, A.**, Midiwo, J.O., Waterman, P.G. (2001). Flavones and phenylpropenoids in the surface exudate of *Psiadia punctulata*. *Phytochemistry*, **57**, 571-574. [Journal Impact Factor = 3.571].
- 25) **Yenesew, A.**, Midiwo, J.O., Heydenreich, M., Schanzenbach, D. Peter, M.G. (2000). Two isoflavanones from stem bark of *Erythrina sacleuxii*. *Phytochemistry*, **55**, 457-459. [Journal Impact Factor = 3.571].
- 24) **Yenesew, A.**, Midiwo, J.O., Heydenreich, M., Peter, M.G. (1998). Four isoflavones from stem bark of *Erythrina sacleuxii*. *Phytochemistry*, **49**, 247-249. [Journal Impact Factor = 3.571].
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- 22) **A. Yenesew**, J.O. Midiwo and P.G. Waterman (1998). Rotenoids, isoflavones and chalcones from the stem bark of *Millettia usaramensis* subspecies *usaramensis*. *Phytochemistry*, **47**, 295-300. . [Journal Impact Factor = 3.571].
- 21) **Yenesew, A.**, Midiwo, J.O., Waterman, P.G. (1997). 6-Methoxycalopogoniumisoflavone-A: A new Isoflavone from seed pods of *Millettia dura*. *Journal of Natural Products*, **60**, 806-807. . [Journal Impact Factor = 3.947].
- 20) **Yenesew, A.**, Midiwo, J.O., Waterman, P.G. (1996). Four isoflavones from seed pods of *Millettia dura*. *Phytochemistry*, **41**, 951-955. [Journal Impact Factor = 3.571].

#### **6.1.7. List of articles published as a research Associate**

- 19) van Wyk, B-E., **Yenesew, A.**, Dagne, E. (1995). Chemotaxonomic significance of root anthraquinones and pre-anthraquinones in the genus *Lomatophyllum* (Asphodelaceae). *Biochemical Systematic and Ecology*, **23**, 805-808. . [Journal Impact Factor = **1.345**].
- 18) van Wyk, B-E., **Yenesew, A.**, Dagne, E. (1995). Chemotaxonomic significance of anthraquinones in the roots of Asphodeloideae (Asphodelaceae). *Biochemical Systematic and Ecology*, **23**, 277-281. [Journal Impact Factor = **1.345**].
- 17) van Wyk, B-E., **Yenesew, A.**, Dagne, E. (1995). Chemotaxonomic survey of anthraquinones and pre-anthraquinones in roots of *Aloe* species. *Biochemical Systematic and Ecology*, **23**, 267-275. [Journal Impact Factor = **1.345**].
- 16) Dagne, E., **Yenesew, A.** (1994) Anthraquinones and the chemotaxonomy of the Asphodelaceae. *Pure & Applied Chemistry* **66**, 2395-2398. . [Journal Impact Factor = **3.386**].
- 15) **Yenesew, A.**, Dagne, E., Muller, M., Steglich, W. (1994). An anthrone, anthraquinone and two oxanthrones from *Kniphofia foliosa*. *Phytochemistry* **37**, 525-528. [Journal Impact Factor = 3.571].
- 14) Dagne, E., **Yenesew, A.**, Asmellash, S., Demissew, S., Mavi, S. (1994). Anthraquinones, pre-anthraquinones and Isoeleutherol in the roots of *Aloe* species. *Phytochemistry* **35**, 401-406. . [Journal Impact Factor = 3.571].
- 13) **Yenesew, A.**, Ogur, J.A., Duddeck, H. (1993). (*R*)-Prechrysophanol from *Aloe graminicola*. *Phytochemistry* **34**, 1442-1444. [Journal Impact Factor = 3.571].
- 12) Dagne, E., **Yenesew, A.** (1993). Knipholone anthrone from *Kniphofia foliosa*. *Phytochemistry* **34**, 1440-1441. . [Journal Impact Factor = 3.571].

#### **6.1.8. List of articles published as a Research Assistant**

- 11) Dagne, E., **Yenesew, A.**, Capasso, F., Mascolo, N., Pinto, A. (1990). Preliminary Studies on Antipyretic and Analgesic Properties of *Taverniera abyssinica*. *Ethiopian Medical Journal* **28**, 155-161. [Journal Impact Factor = ???].
- 10) Dagne, E., **Yenesew, A.**, Gray, A.I., Waterman, P.G. (1990). Preacansone A: Evidence for the existence of 8,9-(*E*) and 8,9-(*Z*) Isomers in Extracts from *Tephrosia pumila*. *Bulletin of the Chemical Society of Ethiopia*, **4** 141-145. . [Journal Impact Factor = **0.45**].

- 9) Atta-Ur-Raman, Alam, M., Nasir, H., Dagne, E., **Yenesew, A.** (1990). Three Steroidal Alkaloids from *Buxus hildebrandtii*. *Phytochemistry*, **29**, 1293-1296. . [Journal Impact Factor = 3.571].
- 8) Dagne, E., **Yenesew, A.**, Waterman, P.G (1989). Flavonoids and isoflavonoids from *Tephrosia fulvinervis* and *Tephrosia pentaphylla*. *Phytochemistry*, **28**, 3207-3210. . [Journal Impact Factor = 3.571].
- 7) **Yenesew, A.**, Dagne, E., Waterman, P.G. (1989). Flavonoids from the seed pods of *Tephrosia pumila*. *Phytochemistry*, **28**, 1291-1292. . [Journal Impact Factor = 3.571].
- 6) Mascolo, N., Pinto, A., **Yenesew, A.**, Dagne, E. (1988). Antipyretic and analgesic studies of the ethanolic extract of *Teclea nobilis* Delile. *Phytotherapy Research*, **2**, 154-156. Journal Impact Factor = **2.068**].
- 5) **Yenesew, A.**, Wondimu, A., Dagne, E. (1988). A comparative study of Anthraquinones in rhizomes of some *Kniphofia* species. *Biochemical Systematics and Ecology*, **16**, 157-159. [Journal Impact Factor = **1.345**].
- 4) Dagne, E., **Yenesew, A.**, Waterman, P.G., Gray, A.I. (1988). The Chemical Systematics of the Rutaceae, Subfamily Toddalioidae in Africa. *Biochemical Systematics and Ecology*, **16**, 179-188. . [Journal Impact Factor = **1.345**].
- 3) **Yenesew, A.**, Dagne, E. (1988). Alkaloids of *Teclea nobilis*. *Phytochemistry*, **27**, 651-653. [Journal Impact Factor = 3.571].
- 2) Duddeck, H., **Yenesew, A.**, Dagne, E. (1987). Isoflavonoids from *Taverniera abyssinica*. *Bulletin of the Chemical Society of Ethiopia*, **1**, 36-41. [Journal Impact Factor = **0.45**].
- 1) Chandravanshi, B.S., **Yenesew, A.**, Kebede, S. (1985). Simultaneous Determination of Iron and Vanadium with N-phenylcinnamohydroxamic acid and thiocyanate by extraction-spectroscopy. *Analytica Chimica Acta*, **172**, 175-182. . [Journal Impact Factor = **4.344**].

## 6.2. Books

- 3) Dahrani, N. **Yenesew, A.**, Aynekulu, E., Tuei, B., R. Jamnadass *et al.* (2015). Traditional Ethnoveterinary Medicine in East Africa. Ian K. Dawson Ed. World Agroforestry Centre (ICRAF), Nairobi, Kenya. ISBN: 978-92-9059-335-5.
- 2) Dahrani N., **Yenesew, A.** (2010). Medicinal Plants of East Africa: An Illustrative Guide. Gordon Boy. Ed. Published by Najma Dharani in association with Drongo publishing, Nairobi-Kenya, ISBN: 978-9966-05-167-8.
- 1) Dahrani, N., Rukunga, G., **Yenesew, A.**, Mbora, A., Mwaura, L., Dawson, I., Jamnadass, R. (2010). Common Antimalarial Trees and Shrubs of East Africa. A Description of Species and a Guide to Cultivation and Conversation Through Use. Dawson I ed. World Agroforestry Centre (ICRAF), Nairobi, Kenya. ISBN: 978-92-9059-238-9.

## 6.3. As Editor of Symposium Proceedings

- 2) Midiwo, J.O., **Yenesew, A.**, Derese, S. (Editors). Natural Products and Drug Discovery. Proceedings of the 11<sup>th</sup> NAPRECA Symposium on Natural Products (2007).

- 1) Midiwo, J.O., Langat, C., Onyari, J.M., Ndiege, I.O., **Yenesew, A.**, Derese, S., Akenga, T.O. (editors): Unraveling of the Socio-Economic Potential of African Biodiversity through Natural Product Research: Proceedings of the 9<sup>th</sup> NAPRECA Symposium on Natural Products, Nairobi, Kenya, August, 2003.

#### 6.4. Theses/disertation

| Title   | Towards  | Supervisor(s)                      |
|---|--|------------------------------------|
| Chemical investigation of two <i>Erythrina</i> and two <i>Millettia</i> species (Leguminosae) for bioactive constituents (1997).                  | Fulfilment of a Ph.D. degree in Chemistry, University of Nairobi.                          | Prof. Jacob O. Midiwo              |
| Phytochemical studies on some <i>Aloe</i> species of the <i>Saponariae</i> group (1991).  | Partial fulfilment of the degree of Master of Science in Chemistry, University of Nairobi. | Dr. J.A. Ogur and Prof. B.M. Bhatt |
| Simultaneous Determination of Iron (III) and Vanadium (V) with N-phenylcinnamohydroxamic acid and thiocyanate by extraction- spectroscopy (1984). | Partial fulfilment of B.Sc. degree in Chemistry, Addis Ababa University.                   | Prof. B.S. Chandravanshi           |

#### 6.5. Publications in Conference Proceedings/Abstracts

- 32) **Yenesew A.**, Abdissa N, Induli M, Gebru M, Heydenreich M, Dagne E, Midiwo JO, Bringmann G. Red hot compounds from the red hot poker plant, *Kniphofia*, and related taxa, at the 28<sup>th</sup> International Symposium on the Chemistry of Natural Products and the 8<sup>th</sup> International Conference on Biodiversity, Shanghai, China, on 19<sup>th</sup>-24<sup>th</sup> October, 2014.
- 31) L. Muiva-Mutisya, B. Macharia, M. Heydenreich, A. Koch, **Yenesew A.** (2014). (+)-Tephrocin - A New Flavone from *Tephrosia purpurea*. The 36<sup>th</sup> FGMR Discussion Meeting on Advanced Magnetic Resonance - Methods and Applications. Berlin, September 29 - October 2, 2014, Book of Abstracts p. 193.
- 30) **Yenesew A.**, Carren M. Bosire, Tsegaye Deyou, Jacques M. Kabaru, Dennis M. Kimata. (2013). Larvicidal activities of extracts and rotenoids from *Millettia usaramensis* on *Aedes aegypti*. Book of Abstracts of the 15<sup>th</sup> NAPRECA Symposium, 7<sup>th</sup> -10<sup>th</sup> December, Khartoum, Sudan.
- 29) **Yenesew A.**, S. Derese, e. Mushibe, J.O. Midiwo, M Heydenreich, M.G. Peter (2005). Rotenoids from *Millettia* and *Derris* species as larvicidal agents. Book of proceedings, the 11<sup>th</sup> NAPRECA Symposium, Antananarivo, Madagascar.
- 28) S. Derese, **Yenesew A.**, M. Induli, B. Irungu, J.O. Midiwo, M Heydenreich, M.G. Peter, Hoseah Akala, Julia Wangui, Pamela Liyala, and Norman C. Waters (2005). Antiplasmodial flavonoids from the stem and root bark of *Erythrina abyssinica*. Book of Abstracts of the 11<sup>th</sup> NAPRECA Symposium, Antananarivo, Madagascar.
- 27) J. O. Midiwo, **Yenesew A.**, S.Derese, Kerubo L. Omosa, D. Mutisya, I. W. Kimiti. (2005). Phytochemical evaluation of Kenyan medicinal plants. Book of Abstracts of the 11<sup>th</sup> NAPRECA Symposium, Antananarivo, Madagascar.



- 26) **Yenesew A.**, J.O. Midiwo, , S. Derese, B. Irungu, S. Guchu, J.O. Midiwo, A. Yenesew, B.F. Juma, S. Derese, J.A. Ayoo, A.O. Aluoch and S. Guchu, Heydenreich and M.G. Peter. (2003). Flavonoids and Isoflavonoids from *Erythrina burttii*. Proceedings of the 9<sup>th</sup> NAPRECA Symposium on Natural Products, pp 50-53, Nairobi, Kenya. (2003).
- 25) J.O. Midiwo, **Yenesew A.**, B.F. Juma, S. Derese, J.A. Ayoo, A.O. Aluoch and S. Guchu (2003). Bioactive compounds from some Kenyan ethno-medicinal plants. Proceedings of the 9<sup>th</sup> NAPRECA Symposium on Natural Products, 24-32, Nairobi, Kenya.
- 24) J.O., Midiwo, **A. Yenesew**, B.F., Juma, S., Derese, J.A., Ayoo, A.O., Aluoch L. Kerubo, and S., Guchu. (2002). Phytochemical studies on popular Kenyan Medicinal Plants. Book of abstracts of the IOCD International symposium, Bamako Mali.
- 23) J.O., Midiwo, **Yenesew A.**, B.F., Juma, S., Derese, J.A., Ayoo, A.O., Aluoch L. Kerb, and S., Guchu. (2001). Bioactive Compounds from Kenyan ethno-medicinal Plants. Book of abstracts of the International Symposium of the Phytochemical Society of Europe. Lausanne, Switzerland.
- 22) **A. Yenesew**, J.O. Midiwo, M. Heydenreich, S.M. Guchu and M.G. Peter. (2001). Flavonoids from *Erythrina burttii* and *Erythrina sacleuxii*. Book of abstracts of the 4<sup>th</sup>. International Conference of the Kenya Chemical Society, Njoro, Kenya.
- 21) J.M., Wanjohi, J.O., Midiwo and **A. Yenesew** (2001). Asphodelin and asphodelin glycosides from three Kenyan *Aloe* species of the Saponariaea group. Book of abstracts of the 4<sup>th</sup> International Conference of the Kenya Chemical Society, Njoro, Kenya.
- 20) J.M., Wanjohi, J.O., Midiwo and **A. Yenesew** (2001). Anthraquinones and pre-anthraquinones from the subterranean stems of three Kenyan *Aloe* species of the Saponariaea group. Book of abstracts of the 9<sup>th</sup> NAPERECA Symposium on Natural Products, Nairobi, Kenya.
- 19) J.O., Midiwo, **A. Yenesew**, B.F., Juma, S., Derese, J.A., Ayoo and A.O., Aluoch, A.O., and S. Guchu (2001). Bioactive Substances from Kenyan ethno-medicinal Plants. Book of abstracts of the 9<sup>th</sup> NAPERECA Symposium on Natural Products, Nairobi Kenya.
- 18) B.F. Juma, J.O., Midiwo and **A. Yenesew** (2001). Further diterpenes from the leaf exudate of *Psiadia punctulata*. Book of abstracts of the 9<sup>th</sup> NAPERECA Symposium on Natural Products, Nairobi, Kenya.
- 16) **A. Yenesew**, J.O. Midiwo, M. Heydenreich, S.M. Guchu and M.G. Peter. (2001). Flavonoids from *Erythrina burttii* and *Erythrina sacleuxii*. Book of abstracts of the 9th NAPERECA Symposium on Natural Products, Nairobi, Kenya.
- 15) S.M. Guchu, **A. Yenesew**, J.O., Midiwo (2001). Friedelane triterpenoids from *Rawsonia lucida*. Book of abstracts of the 9<sup>th</sup> NAPERECA Symposium on Natural Products, Nairobi, Kenya.
- 14) S. Derese, J.O., Midiwo and **A. Yenesew** (2001). Two new isoflavone from *Millettia dura*. Book of abstracts of the 9<sup>th</sup> NAPERECA Symposium on Natural Products, Nairobi, Kenya
- 13) J.A., Ayoo, A.O., Aluoch., **A. Yenesew** and J.O., Midiwo and. (1999). Alkaloids and lignans from *Zanthoxylum usambarensense* and *Zanthoxylum chalybeum*. Book of abstracts of the 8<sup>th</sup> NAPERECA Symposium on Natural Products, Gaborone, Botswana.

- 12) **A. Yenesew** , S. Derese and J.O., Midiwo and. (1999). Flavonoids of the roots and stem bark of *Erythrina burttii* and *Erythrina abyssinica*. Book of abstracts of the 8<sup>th</sup> NAPERECA Symposium on Natural Products, Gaborone, Botswana.
- 11) B.F., Juma, J.O., Midiwo and **A. Yenesew**. (1999). Surface compounds of *Psiadia punctulata*. Book of abstracts of the 8<sup>th</sup> NAPERECA Symposium on Natural Products, Gaborone, Botswana.
- 10) **A. Yenesew**, J.O., Midiwo, M., Heydenreich, M. And M.G. Peter. (1999). New isoflavonoids from the stem bark of *Erythrina sacleuxii*. Book of abstracts of the 3<sup>rd</sup>. International Conference of the Kenya Chemical Society. Jomo Kenyatta University of Agriculture and Technology, Thika, Kenya.
- 9) S. Derese, **A. Yenesew** and J.O., Midiwo.(1999). Flavonoids of the root and stem bark of *Erythrina burttii* and *Erythrina abyssinica*. Book of abstracts of the 3<sup>rd</sup> International Chemistry Conference of the Kenya Chemical Society. Jomo Kenyatta University of Agriculture and Technology, Thika, Kenya.
- 8) J.O., Midiwo, **A. Yenesew**., B.F., Juma, S., Derese and L.M., Arot (1999). Bioactive Compounds from Kenyan Ethno-medicinal Plants. Book of abstracts of the 3<sup>rd</sup> International Chemistry Conference of the Kenya Chemical Society, Jomo Kenyatta University of Agriculture and Technology, Thika, Kenya.
- 7) J.A., Ayoo, **A. Yenesew** and J.O., Midiwo. (1999). Chemistry and Biological Activity of *Zanthoxylum usambarense*. Book of abstracts of the 3<sup>rd</sup> International Chemistry Conference of the Kenya Chemical Society. Jomo Kenyatta University of Agriculture and Technology, Kenya.
- 6) B.F., Juma, J.O., Midiwo and **A. Yenesew**. (1999). Surface compounds of *Psiadia punctulata*. Book of abstracts of the 3<sup>rd</sup>. International Chemistry Conference of the Kenya Chemical Society. Jomo Kenyatta University of Agriculture and Technology, Thika, Kenya.
- 5) J.O., Midiwo and **A. Yenesew**. (1997). Flavonoids from the bark of *Erythrina burttii* and *Erythrina sacleuxii*. Book of abstracts of the Seventh NAPERECA Symposium on Natural Products, Dar es Salaam, Tanzania.
- 4) **A. Yenesew** and J. O. Midiwo (1996). Effect of some flavonoids from two *Millettia* species on larvae of *Aedes aegypti*. Proceeding of the 2<sup>nd</sup> Kenya Chemical Society International Conference, Eldorate, Kenya.
- 3) **A. Yenesew** and E. Dagne. (1994). The chemotaxonomic value of anthraquinones in Asphodelaceae. Book of abstracts of the 12<sup>th</sup> annual Congress of the South African Association of Botanists and the 11<sup>th</sup> Annual Congress of the Phycological Society of Southern Africa, Johannesburg, South Africa.
- 2) **A. Yenesew** and E. Dagne (1993). Contribution to the Chemotaxonomy of the Asphodelaceae. Book of extended abstracts of the 5<sup>th</sup> NAPERECA Symposium on Natural Products, Antananarivo, Madagascar.
- 1) **A. Yenesew**, J.A. Ogur and H. Duddeck (1991). A pre-anthraquinone derivative from *Aloe gramminicola*. Book of abstracts of the 4<sup>th</sup> NAPERECA Symposium on Natural Products, Addis Ababa, Ethiopia.

## 7. SCIENTIFIC PAPERS PRESENTED

- 46) Abiy Yenesew, T. Deyou, M. Heydenreich, A. Koch, C.M. Bosire, C.M., J. Kabaru, S. Derese, J.O. Midiwo, M. Erdélyi. **Phytochemical investigation of *Pentas* species (Rubiaceae) towards management of malaria.** The NAPRECA-Zimbabwe Research Symposium, 10 December 2020, ZOOM MEETING.
- 45) George Kwesiga, Abiy Yenesew, Albert Ndakala, Matthias Heydenreich, Bernd Schmidt. Isolation, Modification and Total Synthesis of Bioactive Isoflavonoids from *Erythrina sacleuxii*. *Natural Products Symposium-Continuous Inspirations for Biomedical Sciences and Chemistry*. February 14, 2020. Leibniz University, Hannover, Germany.
- 44) Yenesew A., Abdissa N., Induli M., Gebru M., Heydenreich M., Dagne E., Midiwo J.O., Bringmann G. **Red Hot Compounds from The Red-Hot Poker Plant, *Kniphofia*, and Related Taxa.** Pan African Chemistry Network Congress 2019. Theme: Riches of Natural World: Sustainable use of Africa's Natural Products and Materials. November 5-7, 2019, Addis Ababa, Ethiopia.
- 43) Negera Abdissa, Fangfang Pan, Amra Gruhonjic, Jürgen Grafenstein, Paul A. Fitzpatrick, Göran Landberg, Kari Rissanen, Abiy Yenesew and Máté Erdélyi (2019) **Naphthaquinones from the Roots of *Pentas parvifolia* and *Pentas bussei*.** University of Bielefeld, Bielefeld, Germany, August 20, 2019.
- 42) Abiy Yenesew. **Determination of Absolute and Relative Configuration of Natural Products.** Workshop on Phytochemistry, funded by BMBF/DAAD Three-Day Workshop, Egerton University, Kenya, April 23-25, 2018.
- 41) Abiy Yenesew, T. Deyou, M. Heydenreich, A. Koch, C.M. Bosire, J. Kabaru, S. Derese, J.O. Midiwo, M. Erdélyi. **Rotenoids from East African Plants—Structure, Stereochemistry and Biological Activity.** Pan African Chemistry Network Congress 2018: Managing Resources through Chemistry: Wealth not Waste. 8<sup>th</sup> November 2018, University of Nairobi, Nairobi, Kenya.
- 40) Abiy Yenesew, Negera Abdissa, Milkyas Endale, Hoseah M. Akala and Máté Erdélyi. **Phytochemical investigation of Kenyan plants towards management of malaria: A case study of *Pentas* species (Rubiaceae).** The first Science Conference, College of Biological and Physical Sciences, University of Nairobi, October 2018.
- 39) Abiy Yenesew. **Determination of Absolute and Relative Configuration of Natural Products.** Workshop on Phytochemistry, funded by BMBF/DAAD Three-Day Workshop, Egerton University, Kenya, 13<sup>th</sup> to 15<sup>th</sup>, August 2018
- 38) Yenesew A., Abdissa N., Induli M., Gebru M., Heydenreich M., Dagne E., Midiwo J.O., Bringmann G. **Red Hot Compounds from the Red-Hot Poker Plant, *Kniphofia*, and Related Taxa.** University of Potsdam, Potsdam, Germany, June 27, 2018.
- 37) Yoseph Atilaw, S. Duffy, M. Heydenreich, L. Muiva-Mutisya, V. M. Avery, Máté Erdélyi, Abiy Yenesew. (2017). Three Chalconoids and a Pterocarpene from the Roots of *Tephrosia aequilata*. Workshop on Exploring Kenyan Biodiversity: Chemistry, Pharmacology and Commercialization, 10th to 14th September, 2017, Naivasha, Kenya.

- 36) Souaibou Yaouba, Eric M. Guantai, Valkonen Arto, Solomon Derese, Beatrice Irungu, Matthias Heydenreich, Paolo Coghi, Vincent Wong, Máté Erdélyi and Abiy Yenesew (2018). *Entkaurene Diterpenes from *Aspilia pluriseta* Schweinf and *Aspilia mossambicensis* (Oliv) Wild (Asteraceae)*. Paper presented at NAPRECA Conference 2-8 February 2018, Utilization of Natural Products for the betterment of the livelihood of Mankind, Jomo Kenyatta University of Agriculture and Technology, Kenya
- 35) Abiy Yenesew. Phytochemical Investigation of *Pentas* species (Rubiaceae) Towards Management of Malaria. Workshop on Exploring Kenyan Biodiversity: Chemistry, Pharmacology and Commercialization, 10<sup>th</sup> to 14<sup>th</sup> September, 2017, Naivasha, Kenya.
- 34) Abiy Yenesew, Negera Abdissa, Milkyas Endale, Hoseah M. Akala and Máté Erdélyi. **Phytochemical investigation of *Pentas* species (Rubiaceae) towards management of malaria** The 17<sup>th</sup> NAPRECA Symposium, held during August 13 - 16, 2017 in Addis Ababa, Ethiopia. (Abstract accepted).
- 33) Ivan Gumula, John Patrick Alao, Isaiah Omolo Ndiege, Per Sunnerhagen, Abiy Yenesew and Máté Erdélyi. **Free-Radical Scavenging Chalcones from the Leaves of *Flemingia grahamiana***. The 17<sup>th</sup> NAPRECA Symposium, held during August 13 - 16, 2017, Addis Ababa, Ethiopia.
- 32) Yoseph Atilaw, S. Duffy, M. Heydenreich, L. Muiva-Mutisya, V. M. Avery, Máté Erdélyi, Abiy Yenesew. (2017). Three Chalconoids and a Pterocarpene from the Roots of *Tephrosia aequilata*. Workshop on Exploring Kenyan Biodiversity: Chemistry, Pharmacology and Commercialization, 10<sup>th</sup> to 14<sup>th</sup> September, 2017, Naivasha, Kenya. (POSTER)
- 31) Yoseph Atilaw, S. Duffy, M. Heydenreich, L. Muiva-Mutisya, V. M. Avery, Máté Erdélyi, Abiy Yenesew. (2017). Kenya Chemical Society 9<sup>th</sup> international conference, 9<sup>th</sup> to 12<sup>th</sup> May, 2017, Nairobi, Kenya. (POSTER)
- 30) Yenesew A., Abdissa N., Induli M., Milkyas Endale, Hoseah M. Akala, Gebru M., Heydenreich M., Dagne E., Midiwo J.O., Bringmann G. and Erdélyi, M. Exploring for Antiplasmodial Compounds – Examples from the Families Asphodelacea and Rubiaceae. The 9<sup>th</sup> International Conference of the Kenya Chemical Society (KCS) 9<sup>th</sup> to 12<sup>th</sup> May, 2017, United States Internatonal University-Africa, Nairobi-Kenya.
- 29) Abiy Yenesew, Negera Abdissa, Milkyas Endale, Hoseah M. Akala and Máté Erdélyi. Phytochemical investigation of *Pentas* species (Rubiaceae) towards management of malaria. PanAfrican Chemistry Network Congrss, 30<sup>th</sup> November to 2<sup>nd</sup> Decembr 2016, College of Biological and Physical Sciences, University of Nairobi.
- 28) Yenesew A., Abdissa N., Induli M., Gebru M., Heydenreich M., Dagne E., Midiwo J.O., Bringmann G. Red hot compounds from the red hot poker plant, *Kniphofia*, and related taxa. Departmntal Seminar, University of Botswana, September 8-10, 2016.
- 27) Red hot compounds from the red hot poker plant, *Kniphofia*, and related taxa. The 8<sup>th</sup> International Kenya Chemical Society Conference. 5-8<sup>th</sup> May, 2015, College of Biological and Physical Sciences, University of Nairobi.

- 26) Yenesew A., Abdissa N., Induli M., Gebru M., Heydenreich M., Dagne E., Midiwo J.O., Bringmann G. Red hot compounds from the red hot poker plant, *Kniphofia*, and related taxa, at the 28th International Symposium on the Chemistry of Natural Products and the 8th International Conference on Biodiversity (ISCNP-28 & ICOB-8), Shanghai, China, on 19-24<sup>th</sup> October, 2014.
- 25) Larvicidal activities of extracts and rotenoids from *Millettia usaramensis* on *Aedes aegypti*. Kenya Chemical Society (KCS) Seminar day 22<sup>nd</sup> February, 2014, Chiromo Campus, University of Nairobi.
- 24) Larvicidal activities of extracts and rotenoids from *Millettia usaramensis* on *Aedes aegypti*. The 15<sup>th</sup> Symposium of the Natural Products Research Network for Eastern and Central Africa (NAPRECA), 7– 10<sup>th</sup> December 2013 Khartoum, Sudan.
- 23) Towards establishing the absolute configuration of homoisoflavonoids from *Polygonum senegalense*, September 2010, University of Nairobi.
- 22) Towards establishing the absolute configuration of homoisoflavonoids from *Polygonum senegalense*, July 2010, Gaborone, Botswana.
- 21) Antiplasmodial and Radical Scavenging Activities of Flavonoids from Kenyan *Erythrina* species. The 14<sup>th</sup> NAPRECA Symposium held at ICIPE, Nairobi, Kenya, August 8-11<sup>th</sup>, 2011
- 20) Red Hot compounds from the red-hot poker plants, *Kniphofia* species. The 13<sup>th</sup> NAPRECA Symposium, August 10-14<sup>th</sup> 2009, Kinshasa, DR-Congo.
- 19) Phenylanthraquinones: linking African and German universities. 17<sup>th</sup> November, 2008. Department of Chemistry, University of Wurzburg, Germany.
- 18) Bioactive Isoflavonoids from Kenyan *Erythrina* species. The 1<sup>st</sup> Joint IOCD-ISDNP International Symposium on Natural Products, 25-29<sup>th</sup> February, Kasane, Botswana.
- 17) Rotenoloids and a *Spirohomo-oxarotenoid*: new subclasses of isoflavonoids from *Derris trifoliata*. The 12<sup>th</sup> NAPRECA Symposium, 22-26<sup>th</sup> July 2007, Kampala, Uganda.
- 16) Rotenoloids: A new Sub-class of Isoflavonoids from *Derris trifoliata*. The 3<sup>rd</sup> International Conference of the Kenya Chemical Society, August 22-25<sup>th</sup> 2005, Kenyatta University. Kenya.
- 15) Larvicidal Rotenoids from *Millettia* and *Derris* species. The 11<sup>th</sup> NAPRECA Symposium, Antananarivo, Madagascar, August 9-11<sup>th</sup> 2005.
- 14) Plant derived larvicides as a tool to manage malaria in Kenya. AICAD progress report presentation, Jomo Kenyatta University of Agriculture and Technology, Kenya, February 2005.
- 13) Plant derived larvicides as a tool to manage malaria in Kenya. AICAD progress report presentation, Jomo Kenyatta University of Agriculture and Technology, Kenya, February 2004.
- 12) Antiplasmodial flavonoids from *Erythrina abyssinica*. The 10<sup>th</sup> NAPRECA Symposium, September 2003, Addis Ababa, Ethiopia.

- 11) Flavonoids from *Erythrina burttii* and *Erythrina sacleuxii*. The 4th International Kenya Chemical Society Conference, August, 2002, Egerton University, Kenya.
- 10) Flavonoids from *Erythrina burttii* and *Erythrina sacleuxii*. The 9<sup>th</sup> NAPRECA Symposium, August 2001, Kenyatta International Conference Centre, Nairobi, Kenya.
- 9) Three isoflav-3-enes and a 2-arylbenzofuran from the root bark of *Erythrina burttii* The 1<sup>st</sup> NAPRECA-KENYA Seminar, 26<sup>th</sup> January, 2001, Kenyatta University, Kenya.
- 8) Novel Isoflavonoids from *Erythrina* species. The 3<sup>rd</sup> Kenya Chemical Society Conference, August, 1999, Jomo Kenyatta University of Agriculture and Technology, Kenya.
- 7) Novel isoflavones and rotenoids from two *Millettia* species. The 2<sup>nd</sup> Kenya Chemical Society Conference, September, 1996, Moi University, Kenya.
- 6) The chemotaxonomic value of anthraquinones in Asphodelaceae. The 12<sup>th</sup> Annual Congress of the South African Association of Botanists January 1994, Johannesburg, South Africa.
- 5) Contribution to the chemotaxonomy of the Asphodelaceae, the 4<sup>th</sup> NAPRECA International Symposium on Natural Products, September 1993, Antananarivo, Madagascar.
- 4) Anthraquinones and pre-anthraquinones in the roots of *Aloe*. The 9<sup>th</sup> Congress of the Chemical Society of Ethiopia, August 1992, Addis Ababa, Ethiopia.
- 3) (*R*)-Prechrysophanol from *Aloe graminicola*. The 4<sup>th</sup> NAPRECA International Symposium on Natural Products, December, 1991, Addis Ababa, Ethiopia.
- 2) Comparative study of Anthraquinones in *Kniphofia* species. The 4<sup>th</sup> Congress of the Chemical Society of Ethiopia, August 1987, Addis Ababa, Ethiopia.
- 1) Alkaloids of *Teclea nobilis*. The 3<sup>rd</sup> Congress of the Chemical Society of Ethiopia, August 1986, Addis Ababa, Ethiopia.

## 8. INVITED LECTURES

- 12) Abiy Yenesew. Mass Spectrometry: Principles and Fragmentation of Organic Compounds. Local Trainer for Kenya for the Pan Africa Chemistry Network (PACN)- GCMS Training Courses, supported by GSK. May 2021, Jomo Kenyatta University of Agriculture and Technology, Juja, Kenya
- 11) Abiy Yenesew. Mass Spectrometry: Principles and Fragmentation of Organic Compounds. Local Trainer for Kenya for the Pan Africa Chemistry Network (PACN)- GCMS Training Courses, supported by GSK. March 2019, Jomo Kenyatta University of Agriculture and Technology, Juja, Kenya
- 10) Abiy Yenesew. Mass Spectrometry: Principles and Fragmentation of Organic Compounds. Local Trainer for Kenya for the Pan Africa Chemistry Network (PACN)- GCMS Training Courses, supported by GSK. March 2018, Jomo Kenyatta University of Agriculture and Technology, Juja, Kenya  
<http://www.rsc.org/news-events/articles/2016/jun/pacn-gc-ms-training/>

- 9) Resource person in NMR. NAPRECA Pre-symposium Workshop, University of Nairobi, August, 2011.
- 8) Resource person in Workshop in NMR, NAPRECA Pre-symposium Workshop, Gaborone, Botswana, July-August 2010.
- 7) Resource person in NMR. NAPRECA Pre-symposium Workshop, Kinshasa, August, 2009.
- 6) Resource person in NMR. NAPRECA Pre-symposium Workshops, Kampala, July, 2007.
- 5) Resource person in NMR. NAPRECA Pre-symposium Workshops, Antananarivo, August, 2005.
- 4) Characteristic features of anthraquinones. NAPRECA Pre-Symposium Workshop, Department of Chemistry, University of Nairobi, August 2001.
- 3) Resource person on chromatography and spectroscopy. NAPRECA Summer School, Department of Chemistry, University of Nairobi, July, 2001.
- 2) Resource person on HPLC and spectroscopy, NAPRECA Summer Schools, Department of Chemistry, Addis Ababa University, (July 1991; July 1992; July 1993; July 1994.
- 1) Resource person and organizer. NAPRECA Summer School. Department of Chemistry, University of Nairobi, July 1990.

## **9. PARTICIPATION IN ORGANIZING SCIENTIFIC MEETINGS**

- 11) The 15<sup>th</sup> NAPRECA. 7– 10<sup>th</sup> Khartoum, Sudan, member of the organising committee, December 2013).
- 10) The 14<sup>th</sup> NAPRECA Symposium held at ICIPE, Nairobi, Kenya, Member of the organising committee, August 8-11<sup>th</sup>, 2011.
- 9) The 13<sup>th</sup> NAPRECA Symposium, Kinshasa, DR-Congo, member of the organising committee, August 10-14<sup>th</sup> 2009.
- 8) The 12<sup>th</sup> NAPRECA Symposium, Kampala, Uganda, member of the organising committee, 22-26<sup>th</sup> July 2007.
- 7) The 11<sup>th</sup> NAPRECA Symposium, Antananarivo, Madagascar, member of the organising committee August 9-11<sup>th</sup> 2005.
- 6) The 9<sup>th</sup> NAPRECA Symposium, Kenyatta International Conference Centre, Nairobi, Kenya. Member of the organising committee, August 2001.
- 5) Contribution to the chemotaxonomy of the Asphodelaceae, The 4<sup>th</sup> NAPRECA International Symposium on Natural Products, Antananarivo, Madagascar, support staff, September 1993.
- 4) The 9<sup>th</sup> Congress of the Chemical Society of Ethiopia, , Addis Ababa, Ethiopia, support staff, August 1992.

- 3) The 4<sup>th</sup> NAPRECA International Symposium on Natural Products, Addis Ababa, Ethiopia, junior support staff, December, 1991.
- 2) The 4<sup>th</sup> Congress of the Chemical Society of Ethiopia, Addis Ababa, Ethiopia, support staff, August 1987.
- 1) The 3<sup>rd</sup> Congress of the Chemical Society of Ethiopia, Addis Ababa, Ethiopia, support staff, August 1986.

## 10. RESEARCH VISITS

| Purpose of visit/Research conducted  | Place   | Date  |
|--|---|---|
| Discussion on Ms Mutai's PhD research work   | Cape Town, South Africa   | October 2012  |
| Characterization of phenylanthraquinones and anthraquinone dimmers   | Department of Chemistry, University of Wurzburg, Germany                    | November 2008   |
| Isolation and the absolute configuration of homoisoflavonoids from <i>Polygonum senegalense</i> , University of Nairobi.   | Department of Chemistry, University of Botswana, Gaborone                   | September 2010  |
| Summer School for African Networks in the field of Technology and Development (Engineering and Natural Sciences) and DAAD Higher Education Forum on Capacity Building and Development Research in Sub-Saharan Africa | Faculty of Process and System Engineering, University of Magdeburg, Germany | September 24 <sup>th</sup> through October 7 <sup>th</sup> 2005 |
| Phytochemical studies on <i>Bulbine frutescens</i> and <i>Aloe graminicola</i>   | Institute of Chemistry, University of Potsdam, Germany                      | August-October, 2004  |
| Phytochemical studies on <i>Erythrina burttii</i> and <i>Erythrina sacleuxii</i>   | Institute of Chemistry, University of Potsdam, Germany                      | March - August, 1997  |
| Chemotaxonomic survey on the family Asphodelaceae  | Department of Botany, Rand Afrikaans University, Johannesburg, South Africa | January-February 13 <sup>th</sup> , 1994                        |
| Phytochemical studies on <i>Aloe</i> species   | The National Museums of Kenya, Nairobi                                      | February 1992   |
| Workshop on Modern NMR and Chromatography  | Addis Ababa University  | December, 1991  |
| Phytochemical studies on <i>Buxus hildebrandtii</i>  | H.E.J. Research Institute of Chemistry, Karachi, Pakistan                   | June-August, 1988   |
| NAPRECA/LKB HPLC Workshop  | Dept. of Chemistry, Addis Ababa University                                  | February, 1987  |

## 11. ADMINISTRATIVE RESPONSIBILITIES

| Responsibility                                | Unit                        | Duration                      |
|---|-----------------------------|-------------------------------|
| Acting Dean                                   | School of Physical Sciences | Various occasions (2010-2014) |
| Acting Chairman                               | Department of Chemistry     | Various occasions (2002-2014) |
| Chairman, Departmental Postgraduate Committee | Department of Chemistry     | 2006-2010                     |



|   |                         |                           |
|---|-------------------------|---------------------------|
| Member, Departmental Postgraduate Committee | Department of Chemistry | 1997-2006<br>2010-present |
| Chairman, Departmental NMR Committee        | Department of Chemistry | 1998-present              |
| Scholarship coordinator                     | NAPRECA                 | 2004 to 2013              |

## 12. RECOGNITIONS/FELLOWSHIP/AWARDS

### 12.1. Recognition:

**Citation in:** *Who's Who in the World, 2007-present*, Marquis, New Providence, New Jersey, USA

**Elected Fellow of African Academy of Sciences since 2016**

### 12.2. Recent Results of Staff Performance Appraisal at the University of Nairobi

| Academic year | Result      |
|---------------|-------------|
| 2019/2020     | Exemplary   |
| 2018/2019     | Exemplary   |
| 2017/218      | Outstanding |
| 2016/2017     | Outstanding |
| 2015/2016     | Outstanding |
| 2015/2016     | Outstanding |
| 2014/2015     | Outstanding |
| 2013/2014     | Outstanding |
| 2012/2013     | Outstanding |
| 2011/2012     | Outstanding |
| 2010/2011     | Outstanding |

### 12.3 Scholarship/Fellowship

| Offered from   | Course/programme  | Duration  |
|--|---|---|
| University Science, Humanities and Engineering Partnerships in Africa (USHEPiA) research grant                               | H3-D Symposium, Cape Town, South Africa.  | October 2012  |
| The German Academic Exchange Service (DAAD), Germany.  | DAAD summer school for former scholars.   | September 24 <sup>th</sup> to October 7 <sup>th</sup> , 2005. |
| The German Academic Exchange Service (DAAD), Germany.  | Research fellowship at the Institute of Chemistry, University of Potsdam, Potsdam, Germany. | August - October, 2004  |
| The German Academic Exchange Service (DAAD), Germany.  | Research fellowship at the Institute of Chemistry, University of Potsdam, Potsdam, Germany  | March - August, 1997  |
| The German Academic Exchange Service (DAAD) through the African Network of Scientific and Technological Institutions (ANSTI) | PhD study at the University of Nairobi.   | 1994 - 1997   |
| Rand Afrikaans University (RAU), South Africa.   | Research fellowship at Botany Department, RAU.  | January -February, 1994                                       |

|  |   |                   |
|--|---|-------------------|
| The German Academic Exchange service (DAAD) through the Natural Products Research Network for Eastern and Central Africa (NAPRECA) | MSc study at the University of Nairobi.   | 1988 - 1991       |
| The International Program in Chemical Sciences (IPICS, Sweden)   | Research fellowship at H.E.J. research institute of Chemistry, Karachi, Pakistan. | June-August, 1988 |
| Government of Ethiopia   | BSc study at Addis Ababa University.  | 1980 - 1984       |

### 13. PROFESIONAL SOCIETY MEMBERSHIP

|   |   |
|---|---|
| 5 | The Royal Society of Chemistry (November 2014-Present)  |
| 4 | Assistant Secretary/Treasurer of the Natural Product Research Network for Eastern and Central Africa (NAPRECA). July 2009-November 2013<br>Programme Officer of NAPRECA. (2006-2009). |
| 3 | Kenya DAAD Scholars Association (1997-present)  |
| 2 | The Kenya Chemical Society (1991-present)   |
| 1 | The Ethiopian Chemical Society (1984-1994)  |

### 14. RESEARCH FUNDING

| FUNDING AGENT  | Partnering with  | Title of project   |
|--|--|--|
| International Science Programme, Sweden<br>KEN-02 (2018-2020)<br><b>KSH 12,300,000</b> | Prof. J.O. Midiwo<br>Dr Solomon Derese<br>Dr Albert Ndakala<br>Dr L. K., Omosa                           | Natural Products Chemistry Research Towards Management of Tropical Diseases.   |
| NEWTON UTAFITI FUND<br>(proposal submitted)  | Keele University, United Kingdom, Institute of Primate Research, Kenya and University of Nairobi, Kenya. | From natural products to nanomedicine: Nanoformulation of purified extracts from <i>Erythrina abyssinica</i> and <i>Terminalia browni</i> for antimalarial activity in baboon malaria model” |
| NRF-Kenya<br>KSH 42,000,000  | Department of Chemistry  | Establishment of Kenya National NMR Centre (KNMRC)   |
| NRF-Kenya<br>KSH 55,365,864  | Dr Catherine Lukhoba (SBS, Uon)<br>Prof. Nakwanda O. Makunga (Stellenbosch University)                   | Genomic-metabolomic analysis of medicinal <i>Dodonaea</i> species  |
| Medicine for malaria venture: USD 50,000   | Prof. Francis J. Mulaa (Department of Biochemistry, University of Nairobi)                               | Screening of Kinetoplastids Nucleic Acids and Proteins Targets that Bind to a Pathogen Box Target Molecule and has Intracellular Functionality   |
| The Swedish Research Council (2016-2019)<br><b>SEK 1,000 000</b>                       | (Prof. Mate Erdelyi (Gothenburg University)  | “Exploring of East African herbal resources for the control of major health challenges”  |
| The Swedish Research Council (2013-2016)<br><b>USD 110 000</b>                         | (Prof. Mate Erdelyi (Gothenburg University)  | “Identification of novel pathways for treatment of drug-resistant malaria by evaluation of efficacious traditional medicines”  |

|  |  |   |
|--|--|---|
| International Science Programme, Sweden KEN-02 (2014-2017)<br><b>USD 367,000</b>   | Prof. J.O. Midiwo<br>Dr Solomon Derese<br>Dr Albert Ndakala<br>Dr L. K., Omosa   | Natural Products Chemistry Research Towards Management of Tropical Diseases.                        |
| International Science Programme, Sweden KEN-02 (2012-2014)<br><b>USD 187,000</b>   | Prof. J.O. Midiwo<br>Dr Solomon Derese<br>Dr Albert Ndakala<br>Dr L. K., Omosa   | Natural Products Chemistry Research Towards Management of Tropical Diseases.                        |
| National Council for Science and Technology (2012-20115)   | Ms Lois Muiva-Mutisya (Department of Chemistry, University of Niarobi  | Phytochemical investigation of <i>Tephrosia</i> species for antimalarial compounds                  |
| National Council for Science and Technology, And National Research Foundation South Africa (2012-2014)<br><b>USD 34,000</b>                      | Prof. Grace Thoithi (School of Pharmacy, University of Nairobi)<br>Professor Kelly Chibale, University of Cape Town                              | Novel Approaches towards identification of new Anthelmintic Drug through mining Kenyan Biodiversity |
| German Academic Exchange Service (DAAD) (1994-present)<br><b>USD 3,000 per year</b>  | Student sponsorship  | Various   |
| The Deutsche Forschungsgemeinschaft, (DFG) and the Bundesministerium fuer Zusammenarbeit (BMZ), Germany (1999-2009)<br><b>USD 8,000 per year</b> | University of Potsdam (Professor Dr. Martin G. Peter), and Institut für Organische Chemie Universität Würzburg (Prof Gerhard Bringmann) Germany, | Natural Products from African Plants.   |
| African Institute for Capacity Development (AICAD) (2003-2008)<br><b>USD 6,000 per year</b>  | Dr. J.M. Kabaru of the Department of Zoology, University of Nairobi  | “Plant Derived Natural Products as a Tool to Control Malaria in East Africa“                        |

## 15. COLLABORATIONS

### 15.1. National Collaboration

| Institute                          | Contact person   | Area of Collaboration  | Publication            |
|------------------------------------|--|--|------------------------|
| Department of Chemistry, UON       | Prof. Midiwo, J. O.<br>Prof. Gitu, P.M., Dr. Yusuf, A.O., Dr Derese, S., Dr Ndakala, A., Dr Wanjohi, J.M., Dr Mbugua, M.J., Dr Omosa, L.K. | Phytochemical studies on Kenyan medicinal plants.  | 20-80                  |
| School of Biological Sciences, UON | Dr Kariba, R. M., Dr. Kabaru, J.M., Ms Odhiambo, J., Dr, Dossaji,  | Antimicrobial compounds from Kenyan plants;<br>Insecticidal compounds from Kenyan Plants | 29, 36, 40, 48, 71, 72 |

|  |  |  |   |
|--|--|--|---|
|  | S., Dr Lukhoba, C.,<br>Kimata, D.M.  |  |   |
| Department of Medical<br>Physiology, UON   | Dr Kariuki, H.N.   | Antinociceptive activity of<br>Kenyan plants   | 59, 60  |
| School of Pharmacy   | Dr Okech-Rabah, H.,<br>Prof. Thoithi, G.N., Dr<br>Mutai, P.; Dr Faith<br>Okalebo | Antiplasmodial and<br>antibacterial compounds<br>from Kenyan plants                    | 34, 46, 65  |
| Kenya Medical<br>Research Institute<br><a href="https://www.kemri.org/">https://www.kemri.org/</a> | Dr. Bii, C.C.; Dr Irungu,<br>B., Dr Mutai, C.. Mr.<br>Muthaura, C.               | Antiplasmodial and<br>antimicrobial compounds<br>from Kenyan plants                    | 38, 46, 76, 77  |
| Department of<br>Chemistry, Maseno<br>University   | Prof. Jondiko, Ogoche J.I.   | Antiplasmodial Flavonoids<br>from <i>Erythrina sacleuxii</i>                           | 39  |
| U S Army Medical<br>Research Unit  | Dr Akala, H.,<br>Dr. Waters, N.C.;<br>Dr Kamau, E.                               | Antiplasmodial compounds<br>from African medicinal<br>plants                           | 33- 35, 39, 43,<br>46, 48, 51, 53,<br>55, 57, 61, 62,<br>64, 68, 73, 75 |
| ICRAF  | DR. Najma Dahrani  | Ethnomedicinal plants from<br>East Africa  | 2 books   |
| ICIPE  | Prof. Hassanali, A.  | Allelochemicals in <i>Striga</i><br>Suppression  | 43  |
| Institute of Primate<br>Research, Kenya  | Dr Lucy Ochola<br>Mr Halkano, M. Guracha   | Phytochemical investigation<br>of kenyan medicinal plants<br>against tropical diseases |   |

## 15.2. International Collaborations

| Institute  | Contact person                                       | Area of Collaboration  | Publication output (Section 6.1)   |
|--|--|--|--|
| Institute of Chemistry, University of Potsdam,<br>Germany<br><a href="https://www.uni-potsdam.de/en/index.html">https://www.uni-potsdam.de/en/index.html</a> | Prof. Peter,<br>M.G. and<br>Dr.<br>Hedenreich,<br>M. | Natural products<br>from Kenyan<br>plants and NMR<br>analyses of<br>Natural products | 23-25, 27,<br>30-41, 45-<br>48, 50, 51,<br>54, 56, 62,<br>64, 65, 67,<br>68, 70, 73,<br>75-106 |
| Centre for Phytochemistry, Southern Cross<br>University, Australia   | Prof.<br>Waterman,<br>P.G.                           | Structure<br>elucidation of<br>Natural Products<br>from Ethiopia<br>and Kenya        | 4, 7, 8, 10,<br>20-22, 26,<br>41   |
| Botany Dept. Rand Afrikaans University, S. Africa  | Prof. van<br>Wyk, B.-E.                              | Chemotaxonomy<br>of the<br>Asphodelaceae   | 17-19  |
| Department of Chemistry, Addis Ababa University,<br>Ethiopia   | Prof.<br>Dagne, E.                                   | Phytochemical<br>studies on<br>Ethiopian plants                                      | 2-12, 14-19,<br>64   |

|   |   |   |                           |
|---|---|---|---------------------------|
| Department of Crystallography, Birbeck College, University of London, U.K.  | Dr. Lisgarten, J.                       | X-ray crystal structures of Natural Products            | 34                        |
| Institute of Organic Chemistry, University of Wurzburg  | Prof. Gerhard Bringmann                 | Structural studies on biaryl anthracene derivatives     | 37, 45                    |
| Department of Chemistry, University of Gothenburg, Sweden   | Prof. Mate Erdelyi                      | Structural studies on natural products                  | 53, 57, 61, 69, 74, 76-80 |
| Department of Chemistry—BMC, Uppsala University, Sweden   | Prof. Mate Erdelyi                      | Structural studies on natural products                  | 89, 92, 101, 104          |
| State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology, Macau, China<br><a href="http://www.umac.mo/sklqrcm/yw/cooperation1.html">http://www.umac.mo/sklqrcm/yw/cooperation1.html</a> | Dr Paolo Coghi, Prof. Vincent K.W. Wong | Anticancer compounds from plnts                         | 88, 95, 97, 103, 104, 105 |
| Department of Pharmaceutical Biology, Johannes Gutenberg University, Mainz, Germany<br><a href="http://www.pharmazie.uni-mainz.de/Ak-Efferth/index.php">http://www.pharmazie.uni-mainz.de/Ak-Efferth/index.php</a>                      | Prof. Dr. Thomas Efferth                | Anticancer compounds from plnts amd mechanism of action | 90, 91, 93, 94            |

## 16. MSC/PHD THESIS EXAMINATIONS

### 16.1. Internal Examination

#### 16.1.1. Theses examination and board member

##### 16.1.1.1. PhD theses examination (over 10, examples are listed below)

- 4) Dr Negera Abdissa Ayana, PhD thesis entitled: Phytochemical Investigation of four Asphodelaceae Plants for Anti-plasmodial Principles (2014).
- 3) Dr Ivan Gumula, PhD thesis entitled: Phytochemical Investigation of three Leguminosae plants for cancer chemopreventive agents. (2014).
- 2) Dr Milkyas Endale Annisa, PhD thesis entitled: Phytochemical Analyses of six *Pentas* species for Antiplasmodial Principles. (2012).
- 1) Dr Guchu, Salome, PhD thesis entitled: Studies on *Desmodium* species for the allelochemicals involved in *Striga* suppression (2007).

##### 16.1.1.2. MSc theses examination (over 50, examples are listed below)

- 14) Ms Fozia Ali Aden, MSc thesis entitled: Phytochemical investigation of *Aloe turkanensis* for anticancer activities (2014).

- 13) Mr Denis Akampurira, MSc thesis entitled: Phytochemical investigation of *Zanthoxylum holstzianum* for antiplasmodial, larvicidal and antinociceptive principles (2014).
- 12) Mr Stanley Mule Muema, MSc thesis entitled: Phytochemical investigation of the root bark of *Teclea trichocarpa* for antihelminthic activity (2013).
- 11) Mr. Bernard Macharia, MSc thesis entitled: Phytochemical investigation of the roots of *Tephrosia vilosa* and aerial parts of *Tephrosia purpuria* for antiplasmodial and larvicidal principles (2012).
- 10) Mr Yoseph Atilaw, MSc thesis entitled: Phytochemical investigation of *Schizogygia coffaeidoes* Ball. (Apocynaceae) for antimicrobial principles (2012).
- 9) Kennedy Olale, MSc thesis entitled: Prediction of wood density and carbon-nitrogen content in tropical agroforestry tree species in western Kenya using Infrared spectroscopy (2012).
- 8) Ms Chepkirui Carolyn, MSc thesis entitled: Alkaloidal constituents of *Erythrina brucei* and *Teclea nobilis* (University of Nairobi, September, 2012).
- 7) Mr Michael Cheloti, MSc thesis entitled: Phytochemical investigation of *Aloe secundiflora* for antiplasmodial and antimicrobial activity. 2010.
- 6) Ms Meron Gebru Beiene, MSc thesis entitled: Phytochemical and antiplasmodial investigation of *Rhamnus prinoides* and *Knifofia foliosa* ((2010).
- 5) Mr Peter Wanyama Juma, MSc thesis entitled: Flavonoids from *Eriosema psoraleoides* and *Tephrosia purpurea*. 2010.
- 4) Ms Rose Chiteva, MSc thesis entitled: Phytochemical Investigation of Resins from *Commiphora holtziana* (Hagar) in Kenya. 2010.
- 3) Ms Acheing, Imaaculate, MSc thesis entitled: Antiplasmodial anthraquinones and benzaldehyde derivatives from the roots of *Kniphofia thomsonii*. 2009.
- 2) Ms Martha Induli, MSc thesis entitled: Antplasmodial flavanoids from *Erythrina abyssinica*. 2006.
- 1) Mr John T. Kiplagat, MSc thesis entitled: Larvicidal and antiplasmodial compounds from *Derris trifoliata*, *Lonchocarpus eryocalyx* and *Erythrina sacleuxii*. 2006.

#### **16.1.2. Theses Examination as a Board member**

- 10) Chaired Board of Examiners meeting for MSc thesis defence of Ms Everlyne Nafula Kasima. School of Physical Sciences, February 7<sup>th</sup>, 2014.
- 9) Board member of Examiners for BPharm thesis defense by Dr Stanley Mule Muema. School of Pharmacy, University of Nairobi, November 2013.
- 8) Board member Examiners for MSc thesis defense by Mr. Douglas Ongari Ochora. School of Biological Sciences, November 2013.

- 7) Member of Board of Examiners for MSc thesis defense by Ms Judith Agot Odiambo entitled: Antifungal Activities of selected medicinal plants used to for treatment of fungal infections in Lake Victoria basin, Kenya' School of Biological Sciences, University of Nairobi, July 2009.
- 6) Member Board of Examiners for MSc thesis defense by Mr. S.W.P. Okanya. School of Medicine Boardroom, 10<sup>th</sup> May 2006.
- 5) Member Board of Examiners for MSc thesis of Ms. Lucy Kang'ethe. School of Biological Sciences, March 2006.
- 4) Chaired Board of Examiners meeting for MSc thesis defense by Mr. Philip Omondi Amingo. Faculty of Science, March, 2006.
- 3) Member of the Board of Examiners for MSc thesis defense by Mr. Gideon M. Kivengea's MSc thesis, Faculty of Science, October 2002.
- 2) Member of the Board of Examiners MSc thesis by Mr. Erustus Mutembei Kanga, Faculty of Science, October 2001.
- 1) Member of the Board of Examiners MSc thesis by Mr. Winston Omukoba Ouma, Faculty of Science, October 1999.

## 16.2. External Examination

### 16.2.1. PhD Theses examination

- 10) External examiner for PhD thesis by Kokoette Nkereuwem Bassey (Department of Pharmaceutical Sciences, Tshwane University of Technology, South Africa (April 2016).
- 9) External examiner for PhD thesis by Vuyisa Mzozoyana entitled: Synthesis of fluorinated benzophenones and phenylcoumarins; Department of Chemistry, University of Kwazulu-Natal, South Africa (April, 2015).
- 8) External examiner for PhD thesis by Ms Jane Namukobe entitled Phytochemical and Antiplasmodial Studies of *Neoboutonia macrocalyx* L. ,Department of Chemistry, Makerere University (July, 2014)
- 7) External examiner for PhD thesis by Kumbukani Kafwirangchi Nyirenda, entitled 'Biological activity and Phytochemistry of *Azadirachta indica* A. Juss (Meliaceae), *Trichilica vahl* (Meliaceae), *Moringa oleifera* Lam (Moringaceae) and *Fadogia Ancyrantha* schwienf (Rubiaceae) from Malawi', Department of Chemistry, University of Malawi (June, 2013).
- 6) External examiner for PhD thesis by Mr Wanyama Aaron Philip Guloba. Characterization and chemical analysis of natural dyes from selected plants of Ugandan flora (Department of Chemistry, Makerere University (March 2012)
- 5) External examiner for PhD thesis by Oyede, Rasheed at Temitope entitled 'Phytochemical and Biological studies of five South African ornamental medicinal plants implicated in the treatment of HIV infection and related diseases', Department of Chemistry, University of Kwazulu-Natal, South Africa, (March 2012).

- 4) External examiner for PhD thesis by Ochieng Charles Otieno entitled: “Chemical and Pharmacological Analysis of *Caesalpinia volkensii* (H.), *Senna didymobotrya* (F.) and *Vitex doniana* (S.) from Kenya” Maseno University (July 2012).
- 3) External examiner for PhD thesis by Rasheedat Temitope Oyede, entitled “Phytochemical studies of some African medicinal plants’ Department of Chemistry, University of Kwazulu-Natal, South Africa (February, 2010).
- 2) External examiner for PhD thesis by Michael Olukayode Odeleye entitled: “Phytochemical and Biological Investigation of *Momordica foetida* and *Berkheya bergiana*” Department of Chemistry, University of Zululand, South Africa (November, 2009).
- 1) External examiner for PhD thesis by Oladipupo Adejumobi Lawal entitled: Volatile constituents and Economic Importance of *Cyperus* and *Senecio* species in Kwazulu-Natal Province, South Africa’, Department of Chemistry, University of Zululand, South Africa (August, 2009).

#### 16.2.2. MPhil/MSc Theses Examination

- 11) External examiner for MSc thesis by Waithaka Wamburu entitled Acute and sub-acute toxicological studies of *Prosopis juliflora* (Fabaceae) from Marigat District, Kenya. Department of Chemistry, Jomo Kenyatta University of Agriculture and Technology, Kenya, (January 2014).
- 10) External examiner for MSc thesis by Okot David Fred entitled ‘characterization of anthocyanins from some edible fruits from North-Eastern Uganda’, Department of Chemistry, Makerere University (June 2013).
- 9) External examiner for MSc thesis by Mr Awadh Mohamed Mbarak entitled: “Phytochemical and Biological Screening of *Ochna holtzii* Gilg. from Kenyan Costal Region”, Department of Chemistry, Kenyatta University, January, 2010.
- 8) External examiner for MSc thesis by Thomas Nyahanga entitled: ‘The Antiplasmodial, Larvicidal and Antimicrobial Activities of *Toddalia asiatica* and some of its constituents’ Maseno University, (May 2009).
- 7) External examiner for M.Phil. thesis by Elbert Mbukwa, University of Botswana (November, 2005).
- 6) External examiner for M.Sc. Thesis by Ms Fikira Kimbokota University of Dar es Salaam (October, 2005)
- 5) External examiner for M.Sc. thesis by Oscar Mihigo Shetonde, University of Botswana (July, 2005)
- 4) External examiner for M.Sc. thesis by Mr. Peter Gakio Kirira, Kenyatta University (November, 2004)
- 3) External examiner for M.Sc. Thesis by Ms. Joan J.E. Munissi, University of Dar es Salaam (September, 2004)



- 2) External examiner for M.Sc. Thesis by Francis Machumi, University of Botswana (August 2004)
- 1) External examiner for M.Sc. thesis by Bridgid Wanga, Jomo Kenyatta University of Agriculture and Technology (September, 2002).

## 17. CONSULTANCIES

(Co-participants: Mr. Charles Mirikau; Dr Joe Mwaniki)

### Services Provided:

- i) NMR analysis of research samples;
- ii) Interpretation of NMR Spectra;
- iii) Teaching the principles of NMR

### Clients:

- i) Kenyatta University;
- ii) Jomo Kenyatta University of Agriculture and Technology;
- iii) Maseno University;
- iv) School of Pharmacy;
- v) Kenya Medical Research Institution

## 18. JOURNALS EDITED/REFEREED FOR

### 18.1. As Subject Editor and Editorial Board Membership

- i) Phytochemistry Letters (Subject Editor, January 2015-present)
- ii) Journal of Natural Products (Editorial Board Member-January 2018-Present)
- iii) Journal of Ethnopharmacology (Editorial Board Member, January 2018-Present)
- iv) African Journal of Pure and Applied Sciences (Editorial Board Member, January 2020-Present)
- v) Ethiopian Journal of Science and Sustainable Development (Advisory Board member, December 2019-Present).

### 18.2 As Referee

| Journal (no of articles reviewed)                   | Journal (no of articles reviewed)      |
|---|--|
| <i>Acta Tropica</i>                                 | <i>Journal of Natural Products*</i>    |
| <i>Biochemical Systematics and Ecology</i>          | <i>Molecules</i>                       |
| <i>Bulletin of the Chemical Society of Ethiopia</i> | <i>Natural Products communications</i> |
| Central European Journal of Biology                 | <i>Natural Product Research</i>        |
| Chinese Journal of Chemistry                        | Organic & Biomolecular Chemistry       |
| <i>Fitoterapia</i>                                  | <i>Phytochemistry Letters**</i>        |
| <i>Insect Science and its Applications</i>          | <i>Planta Medica</i>                   |
| <i>Journal of Biochemphysics</i>                    | <i>Tanzania Journal of Science</i>     |
| <i>Journal of Ethnopharmacology*</i>                | <i>The African Academy of Science</i>  |
| <i>Journal of Insect Science</i>                    | <i>Australian Journal of Chemistry</i> |
| Journal of Applied Biomedicine                      |  |

\* Editorial Board Member; \*\* Subject Editor

## 19. EXTERNAL EVALUATION FOR PROMOTION

- 1) Served as an external evaluator for promotion of an applicant to an Associate Professor (Pwani University, March 2014)
- 2) Served as an external evaluator for promotion of an applicant to an Associate Professor (Makerere University, April 2014)
- 3) Served as an external evaluator for promotion of an applicant to an Associate Professor (Institute of Traditional Medicine, Muhimbili University of Health and Allied Sciences, Dar es salaam, Tanzania, November 2014)

## 20. REFEREES

|   |  |
|---|--|
| Professor J.O. Midiwo<br>University of Nairobi<br>Department of Chemistry<br>P.O. Box 30197-00100<br>Nairobi, Kenya<br>e-mail: <a href="mailto:jmidiwo@uonbi.ac.ke">jmidiwo@uonbi.ac.ke</a><br>Tel : +254722776682                            | Professor John Onyari<br>University of Nairobi<br>Chairman, Department of Chemistry<br>P.O. Box 30197-00100<br>Nairobi, Kenya<br>e-mail: <a href="mailto:jonryari@uonbi.ac.ke">jonryari@uonbi.ac.ke</a><br>Tel : +254724144904 |
| Professor Mate Erdelyi,<br>Department of Chemistry - BMC, Uppsala<br>University<br>Husargatan 3, B7:4, SE-752 37 Uppsala,<br>Sweden<br>Tel: + 46 72 999 9166,<br>E-mail: <a href="mailto:mate.erdelyi@kemi.uu.se">mate.erdelyi@kemi.uu.se</a> | Dr Matthias Heydenreich<br>Institut fur Chemie, Universitat Potsdam,<br>Potsdam, Germany<br>Email: <a href="mailto:matthias.heydenreich@uni-potsdam.de">matthias.heydenreich@uni-potsdam.de</a><br>Tel : +4915124215708        |

## 21. DECLARATION

I declare that to the best of my knowledge the above information is correct.



Signature ..... June 18, 2021