

CURRICULUM VITAE

BIOGRAPHICAL INFORMATION

Name: **OWOR Richard Oriko (PhD)**
Date of birth: 22.10.1980
Nationality: Ugandan
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RESEARCH INTEREST:

Phytochemical investigation of tropical plants and mushroom for anti-infective principles towards control of tropical diseases and associated challenges.

PROFILE SUMMARY

Dr. Richard Oriko Owor is a Natural Products Chemist and holds Ph.D. in chemistry from the University of Nairobi and an MSc. Chemistry from Makerere University. He is currently a Lecturer in the Department of Chemistry, Busitema University. He has experience in teaching Chemistry and conducting research in the field of Natural Products Chemistry. His research interest is in the identification of bioactive and poisonous phytochemicals from tropical plants and mushrooms and structure modification of the bioactive natural products to improve their pharmacological profiles and applications. He is a member of the Royal Society of Chemistry (623593) and Natural Products Research for Eastern and Central Africa (NAPRECA).

UNIVERSITY EDUCATION

Ph.D. (2021): Doctor of Philosophy in Chemistry, University of Nairobi, Kenya.

Thesis: Phytochemical Analysis of Selected *Tephrosia* Species for Anti-inflammatory Principles

MSc. (2012): Master of Science in Chemistry, Makerere University, Uganda.

Thesis: Assessment of Roasted Pork for Polycyclic Aromatic Hydrocarbons from Selected Pork Joints in Kampala

BSc. (2005): Bachelor of Science Education (Hons.), Gulu University, Uganda.

Research project: Phytochemical investigations of medicinal plant: *Ipomoea hildebrandtii*.

JOB EXPERIENCE

Lecturer (2015 to Present): Department of Chemistry, Faculty of Science and Education, Busitema University.

Assistant lecturer (2013–2014): Department of Chemistry, Faculty of Science and Education, Busitema University.

Teaching Assistant:

- **(2011-2013), Teaching Assistant,** Department of Chemistry, Faculty of Science and Education, Busitema University.
- **(2007-2011): Teaching Assistant,** Department of Chemistry, Faculty of Science, Gulu University.

Secondary Teacher

- **(2006-2007): Chemistry/Biology,** Tororo Girls' School, Tororo (Uganda)
- **(2005-2006): Chemistry/Biology,** Duhaga Secondary School, Hoima (Uganda)

AWARDS, SCHOLARSHIPS AND RESEARCH FUNDING

Scholarships

- 2016 DAAD scholarship for Ph.D. in Chemistry at University of Nairobi, Kenya
- 2009 DAAD scholarship for Master of Science in Chemistry at Makerere University
- 2002 Government of Uganda scholarship for Bachelor of Science Education at Gulu University

Research fundings awarded

- 2020-To date Formulation and Clinical Evaluation of Herbal Products for Management of Covid-19 **funded by Ministry of Science, Technology and Innovation – Office of the President (STI-OP, Uganda). Owor Richard Oriko is currently the Co-principal Investigator.**
- 2022-2023 – Development of herbal cosmetic for skin disease management funded by Busitema University Research and Innovation Fund, Owor R. O is the Principal Investigator.
- 2022-2023 – Formualtion herbal remedy for Cure of HIV management funded by Busitema University Research and Innovation Fund, Owor R. O is a Research Investigator.
- 2018 DAAD Short-Term Research visit to Technische Universität Dortmund

PUBLICATIONS

2022

1. Obakiro, S. B., Kiprop, A., K'owino, I., Andima, M., Owor, R. O., Chacha, R., and Kigundu, E. (2022). Phytochemical, Cytotoxicity, and Antimycobacterial Activity Evaluation of Extracts and Compounds from the Stem Bark of *Albizia coriaria* Welw ex. Oliver. *Evidence-Based Complementary and Alternative Medicine*, 2022, 7148511.

2021

2. Obakiro, S. B., Kiprop, A., Kigundu, E., K'Owino, I., Odero, M. P., Manyim, S., Omara, T., Namukobe, J., **Owor, R. O.**, Gavamukulya, Y., and Bunalema, L. (2021). Traditional Medicinal Uses, Phytoconstituents, Bioactivities, and Toxicities of *Erythrina abyssinica* Lam. ex DC. (Fabaceae): A Systematic Review. *Evidence-Based Complementary and Alternative Medicine*, 2021, 5513484.
3. Buyinza, D., Derese, S., Ndakala, A., Heydenreich, M., Yenesew, A., Koch, A., and **Oriko, R.** (2021). A coumestan and a coumaronochromone from *Millettia lasiantha*. *Biochemical Systematics and Ecology*, 97, 104277.

2020

4. **Owor, R. O.**, Bedane, K. G., Openda, Y. I., Zühlke, S., Derese, S., Ong'amo, G., Ndakala, A., and Spiteller, M. (2020). Synergistic anti-inflammatory activities of a new flavone and other flavonoids from *Tephrosia hildebrandtii* vatke. *Natural Product Research*, 35(22), 4486-4493.
5. **Owor, R. O.**, Bedane, K. G., Zühlke, S., Derese, S., Ong'amo, G. O., Ndakala, A., and Spiteller, M. (2020). Anti-inflammatory Flavanones and Flavones from *Tephrosia linearis*. *Journal of Natural Products*, 83(4), 996-1004.
6. **Owor, R. O.**, Derese, S., Bedane, K. G., Zühlke, S., Ndakala, A., and Spiteller, M. (2020). Isoflavones from the seedpods of *Tephrosia vogelii* and pyrazoisopongaflavone with anti-inflammatory effects. *Fitoterapia*, 146, 104695.

2019

7. Ruth Anyango Omole, Mainen Julius Moshi, Matthias Heydenreich, Hamisi Masanja Malebo, Jeremiah Waweru Gathirwa, **Richard Owor Oriko**, Leonida Kerubo Omosa, and Jacob Ogweni Midiwo. (2019). Antiplasmodial Biflavanones from the Stem Bark of *Garcinia buchananii* Engl. *Pharmacogn Commun.* 9(3), 96-99.

2014

8. Andima M., Ssegujja B., **Owor R. O.**, Andama E. (2014). Preliminary qualitative analysis of phytochemical constituents of the endemic *Aloe tororoana* Raynolds in Tororo, Eastern Uganda *J. Agr. Sci.* 3(3), 96-99.

2013

9. Kifuko R., Kunobwa J. **Owor R. O** and Okalang U. (2013). Effects of Ugandan Common Sachet Alcohol Brands on Liver Catalase Activity. *J. Biol. Chem. Res.* Vol. 31, No. 1, pp. 109-116.

2012

10. **Owor R. O.**, Nyakairu G.W.A., Mbabazi, J. and Kwetegyeka, J. (2012). Polycyclic Aromatic Hydrocarbons in Roasted Pork, Kampala, Uganda. *Inter. J. Current Res.* 4(8), pp. 042-048.

TRAINING, CONFERENCES AND WORKSHOPS ATTENDED

Conference and Seminar Presentations

1. **Isolation of New Flavonoids from Selected Tephrosia Species and Their Effects on Cytokine Production. Richard Oriko Owor**, Albert Ndakala, Solomon Derese, Kibrom Gebrehiwot Bedane, Sebastian Zühlke and Michael Spiteller. Presentation on NAPRECA Uganda Chapter Conference 2022. Organized by NAPRECA – Uganda Chapter held 30th September 2022 at Food Science and Technology Hall, Makerere University, Kampala Uganda.
2. **Isolation of New flavonoids from selected Tephrosia Species and Their effects on cytokine production. Richard Oriko Owor**, Albert Ndakala, Solomon Derese, Kibrom Gebrehiwot Bedane, Sebastian Zühlke and Michael Spiteller. 1st International Conference on Reimagining the Natural Products Industry in Africa (RNPIA-2021) held 5th – 7th July 2021 at Imperial Royale Hotel, Kampala (Uganda)
3. **Anti-inflammatory flavonoids from *Tephrosia vogelii*. Richard Oriko Owor**, Kibrom Gebrehiwot Bedane, Sebastian Zühlke, Solomon Derese, George Otieno Ong'amo, Albert Ndakala and Michael Spiteller. NAPRECA – Uganda International Virtual Research Seminar held 24th September 2020.
4. **Anti-inflammatory flavonoids from the genus *Tephrosia*. Richard Oriko Owor**, Kibrom Gebrehiwot Bedane, Sebastian Zühlke, Solomon Derese, George Otieno Ong'amo, Albert Ndakala and Michael Spiteller. Busitema University Research Seminar Series 6 was held on 18th August 2020.
5. **Anti-inflammatory flavonoids from the genus *Tephrosia*. Richard Oriko Owor**, Kibrom Gebrehiwot Bedane, Sebastian Zühlke, Solomon Derese, George Otieno Ong'amo, Albert Ndakala and Michael Spiteller. NAPRECA – Kenya International Online Seminar Day held 31st July 2020.

Training, Summer Schools and Workshops Attended

1. **27th-28th July 2021:** Organized and participated in Training: Developing Oral Drug Formulation: Practical Strategies for Preclinical and Phase 1 Trial. Organized by Busitema University Natural Products Research group (BUNaPreG) held at Faculty of Health Sciences, Mbale (Uganda).
2. **Jul. 03-Aug. 30, 2018:** participated in summer school: Separation and structural elucidation of plant-derived compounds. Jointly organized by INFU, TU Dortmund, Parceval Pharmaceuticals and Egerton University held in Egerton University, Nakuru Kenya.
3. **Apr. 9-13, 2018:** Attended GC-MS Training: A Hands-on Approach. Organized by Royal Society of Chemistry held in Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi.
4. **Dec. 18-19, 2017:** Participated in Training and Networking Workshop on Dissemination Strategies and Statistical Data Analysis. Jointly organized by DAAD, JKUAT, SLE and HORTINLEA held in Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi.
5. **Oct. 15-20, 2017:** Trained in Scientific Communication and Publishing. Jointly organized by the Training Centre in Communication and German Academic Exchange Service (DAAD) held in Nairobi (Ngong Hill Hotel).
6. **Nov. 30th – Dec. 2, 2016:** Attended Pan Africa Chemistry Network Congress 2016 – Sustainable Water Resources for Africa, funded by Royal Society of Chemistry (RSC). Held in Millennium Hall 1, Chiromo Campus, University of Nairobi.
7. **Oct. 5th, 2016:** Participated in Scientific Research Methodology and Research Funding workshop. Organized by International Science Programme (ISP-SIDA). Held in SPS Boardroom, Chiromo Campus, University of Nairobi.
8. **Oct. 15 – 16th, 2015:** Participated in Pedagogy and Andragogy Workshop organized by AUGA/ DAAD. Upper Conference Room, Level 4, Senate Building, Makerere University, Kampala.
9. **Aug. 18 – 20th, 2015:** Participated in Consultative Workshop to Develop Ph.D. Programme for Faculty of Science and Education, Busitema University organised Faculty of Science and Education and funded by RUFORUM. Held at Sports View Hotel Kireka, Kampala – Uganda.
10. **Oct. 19th, 2012:** Participated in DAAD Research Writing Workshop. Makerere University, Pharmacy Building, Kampala.
11. **Sept. 15 - 16th, 2011:** Participated in Curriculum Review Workshop for Bachelor of Science Education organized by Faculty of Science and Education of Busitema University. TLT Hotel, Tororo.
12. **Apr. 20th -22nd 2010:** Participated in Research Method Workshop organized by Faculty of Medicine, Gulu University and School of Public Health, University of Sydney. Gulu University, Faculty of Medicine, Gulu.

TEACHING AND RESEARCH ADVISING

Undergraduate course Units at Busitema University

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| 1. Basic Inorganic Chemistry | 8. Polymer Chemistry |
| 2. Organic Spectroscopy | 9. Thermodynamics |
| 3. Introduction to Spectroscopy | 10. Pesticide Chemistry |
| 4. Analytical Chemistry | 11. Instrumentation |
| 5. Environmental Chemistry | 12. Research projects |
| 6. Bioinorganic Chemistry | 13. School Practice Supervision |
| 7. Heterocyclic Chemistry | |

SERVICES

University Level

1. **2022-to date: Member**, Faculty Academic and curriculum issues Committee, Faculty of Science and Education, Busitema University
2. **2022-to date: Member**, Faculty Higher degree Committee, Faculty of Science and Education, Busitema University
3. **2022-to date: Member**, Faculty Disciplinary Committee, Faculty of Science and Education, Busitema University
4. **2022-to date: Chairperson**, Faculty Security Committee, Faculty of Science and Education, Busitema University
5. **2014-2015: Acting Head of Department**, Department of Chemistry, Busitema University
6. **2012 to 2015: Chairperson**, Faculty staff welfare Committee, Faculty of Science and Education, Busitema University
7. **2014 to 2015: Departmental Representative** to Faculty Finance Committee, Busitema University

Secondary School Level

1. **2006-2007: Head of Department**, Department of Biology, Tororo Girls' School
2. **2005-2006: Head of Department**, Department of Chemistry and **Housemaster**, Duhaga Secondary School.

Professional Affiliations

- Member of the Royal Society of Chemistry (623593)
- Member of Natural Products Research for Eastern and Central Africa (NAPRECA).
- Member of Natural Product Industry Advancement Network Africa (NAPIANA).

REFEREES

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