



ISAAC ONGUBO KIBWAGE, HSC
(B.Pharm., M.Pharm., PhD., FPSK, CSci, CChem, MRSC)

DATE OF BIRTH: August 1954
NATIONALITY: Kenyan
MARITAL STATUS: Married,
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CURRENT POSITION

I am a Professor of Pharmaceutical Chemistry in the School of Pharmacy and currently the Principal of the College of Health Sciences, University of Nairobi. The college of health sciences comprises of the Schools of; Medicine, Pharmacy, Dental Sciences, Nursing Sciences and Public Health, the University of Nairobi Institute of Tropical and Infectious Diseases, KAVI-Institute of Clinical Research and the Centre for HIV/Aids Research and Prevention each headed by a dean or a director. I serve as the Administrative, Financial and Academic head of the college. I am responsible for all research activities at the College ensuring compliance to project objectives and prudent utilization of resources per approved budgets. I

have competently handled college responsibilities and guided its expansion and excellent performance. Under my guidance, CHS attained position **Two** out of six colleges in performance contracting in the financial year 2009/2010, position **One** in 2010/2011, **Two** in 2011/2 and **One** in 2012/3.

Over 34 years as a pharmacist, I have held various positions in the Pharmaceutical Society of Kenya including the Chairmanship for a period of 6 years. I have broad experience in the pharmaceutical regulatory systems in Kenya and specifically in the quality control and quality assurance of medicines. Due to my commitment and exemplary pharmaceutical services, I was awarded the “Head of State Commendation“ and the Pharmaceutical Society of Kenya conferred on me the title of “Fellow of the Pharmaceutical Society of Kenya”.

In summary, I have demonstrated a record of a successful, resourceful, competent and productive pharmacist/leader well prepared and capable of shouldering any responsibility entrusted to me.

EDUCATION AND TRAINING

1968.	Tinderet Primary School (CPE)	
1972.	Nduru Secondary School (EACE)	
1974.	Kisii High School (EAACE)	
1979.	Bachelor of Pharmacy, University of Nairobi.	
1982.	Master of Pharmaceutical Sciences (Pharmaceutical Analysis), Katholieke Universiteit Leuven, Belgium.	
1985.	Doctor of Pharmaceutical Sciences, (Pharmaceutical Chemistry), Katholieke Universiteit Leuven, Belgium.	
Nov. 1989.	Quality control program for Pharmaceuticals, Ciba Geigy, Basle, Switzerland	
1990.	Post – Doctoral Research Fellowship in Pharmaceutical Chemistry	Katholieke Universiteit Leuven, Belgium
1997.	Certificate on Drug Policy Issues for developing countries	Boston University in collaboration with WHO and Massachusetts College of Pharmacy and Allied Health Sciences, Boston.
2007	Certificate on Good Governance.	Government centre for Corporate Governance
2011	Certificate on Leadership Development (Oct 2010-Apr 2011)	Leadership, Management and Sustainability Program. Management Sciences for Health

AWARDS AND HONOURS

- 2009-13 Certificate of Excellence in Performance contracting. Ranking amongst six Colleges of the University of Nairobi;
Position **Two** (9009-10), **One** (2010/2011), **Two** (2011/2) and **One** (2012/3).
2007. Elected Fellow of the Pharmaceutical Society of Kenya (FPSK).
2006. Head of State Commendation (HSC) for my Contributions towards provision of Health Services. The Kenya gazette Vol.CVIII-No.86. Nairobi, 12th December 2006.
1997. Faculty of Pharmacy Certificate of Appreciation in Recognition of excellent and consistent service rendered to the faculty. University of Nairobi Silver Jubilee Celebrations.
1990. Post-Doctoral Research Fellowship in Pharmaceutical Chemistry, ABOS, Government of the Kingdom of Belgium.
1982. ABOS Scholarship, Government of the Kingdom of Belgium. (Doctorate studies).
1980. ABOS Scholarship, Government of the Kingdom of Belgium. (Masters studies)

SELECTED CERTIFICATES OF PARTICIPATION AND WORKSHOPS /SEMINARS

1. Second Eastern African MicroResearch Forum. Olive Gardens Hotel Nairobi Kenya, November 9-10, 2013.
2. Promoting rule of Law, Integrity and Anti-Corruption Strategies, Council for Legal Education. Merica Hotel, Nakuru, Kenya, November 5-7, 2010.
3. Board Chairmen, Chief Executives', Directors and Board Secretaries Programme run by Institute of Directors London, The Management School London TMS International and BEEC international. Hilton Hotel Nairobi, Kenya. July 6-10, 2009.
4. International Workshop on Institutional Management in Higher Education organized by International Institute for Educational Planning, UNESCO and Management

Training and Advisory Centre, Uganda. December 10-14, 2007, Metropole Hotel, Kampala, Uganda.

5. Results based management for Senior University of Nairobi management by the Public Service Results and Development Secretariat, Office of the president. Utalii College Nairobi. April 4&5, 2007.
6. ISO 1900: 2000 Training. 7th February, 2007. University of Nairobi.
7. Strategic Planning Workshops [College of Health Sciences (2005), Faculty of Pharmacy (2005), National Quality Control Laboratory Ministry of Health (2006)]
8. In-house training of Chief internal examiners, University of Nairobi. July 13&14, 2006. KCCT, Mbagathi, Nairobi
9. In-house training program on Financial Management and Human Resource Management for Deans and Directors of the University of Nairobi. By Federation of Kenya Employers. Kisumu Hotel, 29 Sep. - 2 Oct. 2005.

EMPLOYMENT HISTORY

- Principal College of Health Sciences, UoN. (May 2007)
- Professor, Department of Pharmaceutical Chemistry, (2000)
- Associate Professor, Department of Pharmaceutical Chemistry.(1995)
- Senior Lecturer in Pharmaceutical Chemistry, UoN (1991)
- Lecturer in Pharmaceutical chemistry, UoN (1986)
- Temporary Lecturer, UoN (Nov. 1985)
- Graduate Student, UoN (1980-85)
- Pharmacist, Ministry of Health (1980)
- Intern Pharmacist, Ministry of Health (1979-80)
- Untrained teacher, Menyenya Secondary School, Jan. –Sep. 1975. 3 month in 1976 and 3month 1977.

ADMINISTRATIVE EXPERIENCE

A. University level

- 1) Member, University Council and University Management Board (2007 to date)

- a) [**Chairman**, UMB Sub-committee on review and alignment of University Intellectual Property Policy (2013)].
 - b) [**Chairman**, UMB Sub-committee on the Health Insurance Option (2012)].
 - c) [**Chairman**, UMB Sub-committee on alignment of Allowances for Senior Management (Jan. 2012)].
 - d) [**Chairman**, UMB Sub-committee on the Establishment of the Office of the Deputy Vice-Chancellor (Research and Development. (2009)]
- 2) Member, University of Nairobi Senate (1995 to date).
 - a) [**Chairman**, 9 member Senate Sub-committee on review of University Intellectual Property Policy (Jan. 2012)].
 - b) [**Chairman**, Senate Sub-committee on review of Admissions Criteria for programs offered by University of Nairobi (2007)]
 - 3) Member, Deans Committee (2004-7).
 - a) [**Member**, Sub-committee on; Admissions Criteria for programs offered by University of Nairobi, Credit transfers]
 - 4) Member, Board of Postgraduate Studies (2006-8).
 - 5) Member, Task force on the restructuring of the University. (2005).
 - 6) Member, University Show Committee (1996-2005).
 - 7) Member, Office of International Programs Committee, (1996-2001).

B. College of Health Sciences

- 1) Principal, College of Health Sciences (May 2007 to date)
- 2) Member, UNITID Board of Management.
- 3) Member, College Academic Board (1995 to date)
- 4) Member, College management Board (1995-1998 & 2004 to date).
- 5) Member , Institutional Bio-safety committee (2006-8)
- 6) Chairman, College Show Committee (1996 - 2005)

C. Faculty/School level

- 1) Dean, (2004-7)
- 2) Acting Dean of Faculty (2003)
- 3) Member, Faculty of Pharmacy Postgraduate Studies Committee (1995 -2004)
- 4) Member, Library Committee, Faculty of Medicine (1988-95)

- 5) Member, Faculty of Medicine Postgraduate Studies Committee (1989-95)
- 6) Member, Faculty of Medicine Prospectus Committee (1993)

D. Department Level

- 1) Head, Drug Analysis and Research Unit (1991 to date)
- 2) Chairman, Department of Pharmaceutical Chemistry (1995-04)
- 3) Member, Postgraduate Studies Committee, Department of Pharmacy (1990-95)
- 4) Head, Section of Pharmaceutical chemistry, Department of Pharmacy, UON (1990-4)
- 5) Member Bachelor of Pharmacy Curriculum Review Committee (1986)
- 6) Coordinator, Drug Analysis and Research Unit, Dept. of Pharmacy, UON (1989-91)
- 7) In-Charge, Library, Department of Pharmacy, UON (1988-95)
- 8) Member, Scientific Committee, Department of Pharmacy, UON (1990-2)

INCOME GENERATION AND INTELLECTUAL PROPERTY

- DARU. Generates over a million shillings yearly. Facilities and resources are used to teach students in practicals and research projects.
- Formulated *Prunus Africana* extract into a suitable dosage form (PROSGEM^R caps) for treatment of benign prostate hyperplasia.

RESEARCH FUNDING AND ADMINISTRATION OF GRANTS

1. Evaluation of extracts from selected medicinal plants in Kenya for anthelmintic activity. (2001-3). Funding agency: African Career Awards, Rockefeller Foundation (2001 AR 006). Grant value USD 32,000. Principal Investigator: Grace N. Thoithi, Co-investigators; I.O. Kibwage and J.W. Mwangi, and Peter Gathumbi.
2. Evaluation of medicinal plants for anthelmintic activity. Funding agency Agricultural Research Fund (ARF/LSKP/1001078/1), Kenya. (2000-3). Grant value: KSh.3,610,156. Principal investigator: Peter Gathumbi, Principal Co-investigator:

Grace N. Thoithi, Co-investigators; I.O. Kibwage and J.W. Mwangi and Maingi. It won third National scientific Award.

3. Didactic and scientific collaboration with the laboratories of Pharmacognosy and Pharmaceutical Chemistry of Katholieke Universiteit Leuven, Belgium. (1995 - 2000). Funding agency: VLIR, Belgium. Grant value about KShs.26 Million (BEF. 15,905,000); Collaborators: at UoN, Prof. I.O. Kibwage (Project leader, Nairobi), Prof. A.N. Guantai and Prof. J.W. Mwangi and at K.U. Leuven, Prof. Hoogmartens (Project leader, Leuven) and Prof. G. Laekeman.
4. Quality control of pharmaceuticals on the Kenyan market. (1991 – 1995). Funding agency: VLIR, Belgium. Grant value about KShs.30 Million; Collaborators I.O. Kibwage and Prof. J. Hoogmartens of Katholieke Universiteit Leuven, Belgium.

BENEFITS FROM PAST PROJECTS AND PERSONAL CONTACTS

A. Human Resources Capacity Development

1. Masters and Doctor of Philosophy thesis.

- (a) **University Staff;** Masters (5) and PhDs (2).
- (b) **Staff of Ministry of Health;** Masters (2) and PhDs (3).

2. Technology transfer

Facilitated eight laboratory technologists to spend one year at K.U. Leuven, Belgium for purposes of learning laboratory skills. These were in the area of Pharmaceutical Analysis and Quality Control, Pharmacy Practice, Pharmaceutics, Pharmacology and Pharmacognosy. Seven staff were from the core departments of the School as follows,

- Department of Pharmaceutical Chemistry (3),
- Department of Pharmaceutics and Pharmacy Practice (2) and
- Department of Pharmacology/Pharmacognosy (2).

One was from National quality control laboratory, Ministry of Health.

B. Equipment and other Resources

- (1) Equipment for the projects still being used for research and teaching Pharmacy students.

- (2) Obtained and continue to obtain donations of some second hand equipment for teaching in the Departments and Faculty.
- (3) Solicited and obtained specialized pharmacy books for the Faculty library.

TEACHING EXPERIENCES

Lectures on Medicinal Chemistry and Pharmaceutical Analysis, at both undergraduate and postgraduate levels. On the average I supervised on 4 undergraduate student projects every year. I have successfully supervised **9** students for Masters Degrees and **4** PhD theses. Two students are carrying out research for their PhD.

In addition I have been an external examiner for Bachelor of Pharmacy examinations in Tanzania and Uganda

Thesis Examination

I have also examined a number of Master degree, Doctor of Medicine [*F. Were*] and Doctor of Philosophy theses locally.

Internationally I have examined a number of Masters theses and PhD theses: [K.Mangera, 1998 & **J. Orwa** at KU Leuven, [Omary Minzi 2006 & Runyoro 2009 at Muhimbili University of Health Sciences, [Muhammad Ntale ,2009 at Makerere University.

RESEARCH EXPERIENCE AND INTERESTS

Head of Drug Analysis Research Unit (DARU)

1. Overall supervision of research at DARU inclusive of routine analysis of commercial samples and method development. (1988 to Date).
2. Good Pharmaceutical manufacturing practices with emphasis on the formulations and quality of products.
3. Disposition of drugs in the body
4. Development of analytical methods and their applications in biomedical, pharmaceutical and drug analysis (Emphasis on Anti-tubercular, Anti-malaria, antiviral antiepileptic drugs among others).
5. Isolation and Characterization of new compounds.

6. Synthesis of impurities
7. 1997 to date. Investigation of Kenyan Plants containing essential oils. Determination of the chemical composition the oils and their pharmacological activity.
8. 2000 to date: Evaluation of Kenyan Medicinal plants for their anthelmintic activity.
9. 2000 to date: Evaluation of Kenyan Medicinal plants for their trypanocidal activity.

Head of Antimalarial Laboratory (WHO accredited)

1. Activity guided Isolation of Compound from Herbs
2. Screening of compound for antimalarial activity.
3. Scientific Advisor, Evaluation of Kenyan plants for their antimalarial activity. World Health Organization funded. (Principal Investigator, Dr. H.A. Okech-Rabbah)

Operational Research

1. Development and testing of tools for measuring Access to Antimalarial drugs in Kenya
2. Measuring drug prices in Low and Middle level income developing countries.
3. Drug utilization and cost patterns in selected health care facilities in Kenya .

Collaborative Research

1. Interfaculty Collaboration, University of Nairobi, Funded by Carnegie Foundation
2. Interdepartmental research group on herbal medicines
3. Research on Phytochemistry with scientists in Argentina, United Kingdom and Tanzania.

NATIONAL AND INTERNATIONAL POSITIONS

1. Member, Medical and Health Services Providers and Allied Industries Committee. Directorate of Industrial Training, Ministry of Labor and Human Resource Development. Feb.2009
2. Member, Nairobi Health Management Board. (2007 to date).
[Sub-Committee: Curative/Clinical Services]
3. Member, Board of Directors, Kenyatta National Hospital (2007 to date) - Performance score ..%, (2012).
[**Chairman**, Sub-Committee: Standards, Quality Assurance, ethics and research]
4. Member, Board of Management, Kenya Medical Training Colleges (2007 to date). - Performance score 94%, (2011-2) and 96 % (2012-3)

[Sub-Committee: Standards and Ethics]

5. Member, Board of Directors, School Equipment Production Unit, Ministry of Education. (2006-8).

[Sub-Committee: Financial and General Purposes committee (Chairman)].

6. Chairman, Board of Governors, Menyenya High School, Nyamira District. (2005 -8).
7. Chairman, Board of Management, National Quality Control Laboratory (2005 to date and Member, 1993-1999).
8. Member (No. 482), National Constitutional Conference, Kenya (2002-3).
9. Member, traditional medicines and drugs research program committee, Kenya Medical Research Institute (1994).
10. Member, World Health Organization Expert Committee on the International Pharmacopoeia and Pharmaceutical Preparations (1993).
11. Assistant secretary and executive member, Board of Trustees, Pharmacy Development Trust (1993).
12. Collaborator, World Health Organization program on 'Basic Tests for Pharmaceutical Dosage forms (1987).
13. Consultant in Quality Control of Pharmaceutical, Ministry of Health and the Local Industry (1987).
14. Chairman, Committee on Drug Registration, (Human Drugs), Pharmacy and Poisons Board, Ministry of Health (1997-2000).
15. Pharmaceutical Expert, on Human Drugs registration (1991-2000), and on Veterinary Drugs Registration, (1986-1991), Pharmacy and Poisons Board, Ministry of Health (1986-2000).
16. Member, Steering Committee, Impact (K (1990-95).
17. Member, Pharmacy and Poisons Board, Government of Kenya (1988-94).
18. Assessor for promotions to positions of Senior lecturer, Associate Professor and Professors at Makerere University and Muhimbili University of Health Sciences. (To date)

PROFESSIONAL AND EXTRA CURRICULAR ACTIVITIES

A. Positions held

1. The Pharmaceutical Society of Kenya [Chairman, (1994-95 and 2002-7).
2. Patron, Nairobi University Pharmacy Students Association, UON (1994-2003)
3. Chairman, Education Committee, the Pharmaceutical Society of Kenya (1989-94)
4. Secretary, Education Committee, Pharmaceutical Society of Kenya (1987-9)
5. Founding Chairman, Association of Kenya Students in Belgium (1983-4)
6. Founding Chairman, Leuven East African Student Union, Leuven, Belgium (1983-4)
7. Founding Chairman, Nairobi University Pharmacy Students Association (NUPSA), UON. (1977-9).

B. Editorial roles

1. East and Central African Journal of Pharmaceutical Sciences. - Editor
2. The Pharmaceutical Journal of Kenya [Editor in Chief, 1991-96; Scientific editor and Secretary of Editorial Board, 1987-91]
3. Pharmaceutical Journal of Kenya. - Editorial consultant. (1992 to date)
4. NuPharma. - Editorial advisor
5. New African Journal of Medicine. - Editor

MEMBERSHIP OF SOCIETIES

1. Chromatographic Society (U.K)
2. American Association for Advancement of the Sciences
3. National Geographic
4. New York Academy of Sciences (USA)
5. Pharmaceutical Society of Kenya
6. Royal Society of Chemistry (U.K), Chartered Chemist, Chartered Scientist.
7. Former Member, Pharmaceutical Society of Belgium.

CONSULTANCY ACTIVITIES

1. Local HERA Consultant on the Kenya Pharmaceutical sector Review: Quality Assurance. August 2004 - January 2005
2. Development and Pre-testing of tools for measuring Access to Antimalarial medicines in Kenya. October-November 2002. World Health Organization Funded Study.
3. Measuring drug prices in low and middle income countries. The Kenya Study. October 22 - November 16, 2001. Health Action International and World Health Organization co-funded Study. Principal Investigator of Kenyan Study.

4. Participant and Editor of proceedings. Development of the Kenya National Drug Policy. 24th February - 1st March, 1991; 21st - 26th April, 1991; and 23rd - 29th August, 1991; 29th Sep - 4th October, 1991 and 6 - 10 September 1993.
5. National Poison Information Control Center: A project proposal. Ministry of Health (January 1989)
6. National Drug Quality Control Laboratory: Implementation Proposal. GTZ/Ministry of Health (February-April 1988)

COMMUNICATIONS AT CONFERENCES AND SYMPOSIA

[Thematic areas: Health Systems Education, Radiopharmacy, Chromatography, Natural products, medicinal plants, traditional/complementary medicine and quality control/assurance of medicines]

1. D. Wamalwa, F. Were B. Osano, G. John-Stewart, J. Kinuthia, O. Gachuno, K. Kamau, J. Wangombe, K. Bosire, R. Nduati, G. Omoni, J. Kiarie, **I. Kibwage**. *Mentorship in implementation science research on Maternal Neonatal and Child Health in non tertiary health facilities in Kenya*. 4th Annual MEPI Symposium, Maputo Mozambique August 5-8, 2014.
2. I.O. Kibwage. Panelist on "*Leadership and Management skills Development Across the Learning Continuum*". in *Transformative Learning for Health Equity*. Prince Mahidol Award Conference 2014. Royal Cliff Grand, Pattya, Thailand. January 27-31,2014.
3. D. Wamalwa, F. Were, B. Osano, G. John-Stewart, J.,Kinuthia, O. Gachuno, K. Kamau, J. Wangombe, K. Bosire, R. Nduati, Kamau K, G. Omoni, J. Kiarie, **I. Kibwage**. *Strengthening Maternal Newborn and child Health Care through Decentralized Research*. 2nd International College of Health Sciences/Kenyatta National Hospital Scientific Conference, Nairobi June 2013.
4. **I.O. Kibwage**, *Counterfeiting of Drugs and the Necessity of Quality Control Systems in Developing Countries*. An invited Lecture Delivered at the Interdisciplinary Courses on Development and Cultures, at the invitation of CADES, Katholieke Universiteit Leuven, February 26, 2008.

5. L.K. Keter, G.N. Thoithi and **I.O. Kibwage**. *Development and validation of a liquid, chromatographic method for the simultaneous analysis of six protease inhibitors on a polymer column*. 12th International meeting on Recent Developments in Pharmaceutical Analysis (RDPA). Island of Elba, Italy. September 23-27, **2007**.
6. J.S. Dambolena, M.P. Zunino. A.G. Lopez, J.A. Zygadlo, J.W. Mwangi, G.N. Thoithi, **I.O. Kibwage**, S.T. Kariuki, and J. M. Mwalukumbi. *Essential oils of Ocimum basilicum L. and Ocimum gratissimum from Kenya: Composition, antiradical and anti-micotoxicogenic activity*. The 12th Symposium of the Natural Product Research Network for Eastern and Central Africa (NAPRECA). Kampala, Uganda. July 22-25, **2007**.
7. G.N. Thoithi and **I.O. Kibwage**. *Drug Quality Control in the Kenyan History- the DARU experience*. Pharmaceutical Society of Kenya Annual Symposium. Mombasa, Kenya. May 31- June2, **2007**.
8. B.K. Amugune, G.N. Thoithi, **I.O. Kibwage**. (2006). *Liquid Chromatographic Separation of phenobarbitone, ethosuximide, phenytoin and carbamazepine on a polystyrene-divinyl benzene column*. British Pharmaceutical Conference 2006.
9. P.K. Gathumbi, G. N. Thoithi, J. W. Mwangi, **I. O. Kibwage**, N. Maingi, R. Pelle and J. Wando. *Evaluation of effects of plant extracts on trypanosomes*. Oral presentation at 'End of Agricultural Research Fund (ARF) Project Conference'. Nairobi, Kenya, 2nd - 4th December, **2003**.
10. J. W. Mwangi, G. N. Thoithi and **I. O. Kibwage**. *Conservation of Medicinal Plants and Benefit Sharing*. Stakeholders Workshop on the Sustainable, Safe and Effective Use of Medicinal Plants in Eastern Africa. Organised by International Development Research Centre. Arusha, Tanzania, November 25 - 27, 2003.
11. J. W. Mwangi, G. N. Thoithi and **I. O. Kibwage**. *Traditional Medicine in Kenya*. Keynote Address. Second National Congress on Quality Improvement in Health Care, Medical Research and Traditional Medicines. KCCT, Mbagathi, Kenya, 24-28th November, 2003.
12. J. W. Mwangi, G. N. Thoithi and **I.O. Kibwage**. *Herbal Medicine in Kenya: Conservation of Medicinal Plants and Intellectual Property*. Oral Presentation. Second National Congress on Quality Improvement in Health Care, Medical Research and Traditional Medicines. KCCT, Mbagathi, Kenya, November 24-28, 2003.

13. J. W. Mwangi, G. N. Thoithi and **I. O. Kibwage**. *Journalists Training on the National Policy on Traditional Medicine*. Oral Presentation. Second National Congress on Quality Improvement in Health Care, Medical Research and Traditional Medicines. KCCT Mbagathi, Kenya, 24-28th November 2003.
14. J. W. Mwangi, G. N. Thoithi and **I. O. Kibwage**. *National Policy on Traditional Medicine*. Oral Presentation. Second National Congress on Quality Improvement in Health Care, Medical Research and Traditional Medicines. KCCT, Mbagathi, Kenya, 24th-28th November, 2003.
15. **I.O. Kibwage**, G. N. Thoithi, K. O. Abuga, J. M. Nguyo, N. N. Ngugi and O. K. King'ondo. *Quality of some antiretrovirals and related drugs in Kenya*. Pharmaceutical Society of Kenya Annual Symposium. Mombasa, Kenya, 30th May-1st June 2002.
16. J.W. Mwangi, **I. O. Kibwage** and G.N. Thoithi. *Evidence based Complementary Medicines*. Pharmaceutical Society of Kenya Annual Symposium. Mombasa, Kenya. 30th May-1st June 2002.
17. G.N. Thoithi, K.O. Abuga, J. W. Mwangi and **I.O. Kibwage**, *Quality Control of Herbal Medicines*. Pharmaceutical Society of Kenya Annual Symposium. Mombasa, Kenya. 30th May-1st June 2002,
18. G.N. Thoithi, **I.O. Kibwage**, O. King'ondo, E. Roets and J. Hoogmartens. *Liquid chromatographic separation of isoniazid, pyrazinamide and rifampicin on a reversed-phase silica column*. Drug Analysis 2002 symposium. Brugge, Belgium, 21st-25th April, 2002.
19. **I.O. Kibwage**, G.N. Thoithi, K.O. Abuga, B. Amugune, K.Bosire and S.N. Ndwigah. *Measuring drug prices in Low and Middle income countries. The Kenya Report. The Development of a Methodology Manual*. Project Meeting. Bellagio, Italy. December 3-7, 2001.
20. J.W. Mwangi, **I.O. Kibwage** and G.N. Thoithi. Ministry of Health and traditional Medicine. First National Congress on Quality Improvement in Health Care, Medical Research and Traditional Medicines. Quality Health to All Kenyans. Mbagathi Nairobi, Kenya, November 19 - 23, 2001.
21. P.K. Gathumbi, R. Pelle, J. Wando, G. N. Thoithi, J. W. Mwangi, **I.O. Kibwage** and D.N. Maingi. *A baseline study on plants used to treat animal trypanosomiasis in Kenya: A community based approach*. 1st National workshop on medicinal

- aromatic and underutilized plant species in Kenya. Naivasha, Kenya, October 29, 2001.
22. G.N. Thoithi, N. Maingi, P.K. Gathumbi, J.W. Mwangi and **I.O. Kibwage**. *The anthelmintic activity of extracts from some medicinal plants of Kenya*, Oral presentation at The 9th Symposium of The Natural Product Research Network for Eastern and Central Africa (NAPRECA), Nairobi, Kenya, August 27-31, 2001.
 23. J.W. Mwangi, H.A. Okech-Rabah, **I.O. Kibwage** and G.N. Thoithi. *Pharmacy and Alternative Medicines*. The Pharmaceutical Society of Kenya (PSK) National Symposium. Mombasa. Kenya. June 1- 2, 2000.
 24. J.W. Mwangi, H.A. Okech-Rabbah, **I.O. Kibwage** and G.N. Thoithi. *Traditional herbal medicine in Kenya*. (Oral Presentation) International conference on Medicinal plants, traditional Medicines and Local Communities in Africa: Challanges and Opportunities for the New Millennium. International Centre for Research in Agroforestry (ICRAF). UN Avenue Nairobi, Kenya. May 16-19, 2000.
 25. **I.O. Kibwage**. Quality Pharmaceuticals: *The desire of the patient*. Paper presented to the community pharmacy group. August 25, 1994, New Stanley Hotel. Nairobi. Sponsored by Ciba.
 26. J.A. Aluoch, L. Gathu, C.O. Ondari and **I.O. Kibwage**. *Microbial safety of the locally available intravenous infusion fluids*. The annual symposium of the Pharmaceutical Society of Kenya. May, 1993.
 27. **I.O. Kibwage**. *A panelist on 'Rational Drug Use'* at the 12th Annual Medical Scientific Conference. KEMRI, Nairobi, Kenya, February 1992.
 28. J.W. Muritu, **I.O. Kibwage**, C.K. Maitai and J. Hoogmartens. *The quality of tetracycline raw materials and finished products found on the Kenyan market*. Annual Medical Scientific Conference, KEMRI, Nairobi, Kenya February 14, 1993. Abstract P.05/93.
 29. C.O. Ondari, **I.O. Kibwage**, F.A. Ndemo and S.O. Mcligeyo. *Comparative bioavailability of two brands of Chlorpropamide tablets on the Kenyan market*. 10th Annual Medical Scientific Conference. KEMRI, Nairobi, Kenya. Feb.1989. Abstract No. AB 28/89.
 30. **I.O. Kibwage**, C.O. Ondari and F.A. Ndemo. *Bioequivalence of some pharmaceuticals on the Kenyan market*. The Annual Symposium of the Pharmaceutical society of Kenya, Mombasa, Kenya. 30th April - 1st May 1988

31. **I.O. Kibwage**. *Accountability to end-user of Pharmaceuticals*. The Annual symposium of the Pharmaceutical Society of Kenya. Nairobi, Kenya, October 1987.
32. T. Cachet, **I.O. Kibwage**, E. Roets, J. Hoogmartens and H. Vanderhaeghe. *Optimization of the separation of erythromycin and related substances by high performance liquid chromatography*. Second International symposium on Drug Analysis. Brussel, Belgium. May 1986.
33. R. Busson, **I.O. Kibwage**, G. Janssen, J. Bracke, J. Hoogmartens and H. Vanderhaeghe. *Translactonization in erythromycin. Preparation and structural assignment of Novel degradation products*. Contact group NFWO/FNRS on Organic Synthesis. De Haan, Belgium, 15 - 16th Nov. 1985.
34. H. Vanderhaeghe, **I.O. Kibwage**, R. Busson and J. Hoogmartens. *Novel Isomerization and transformation reactions of erythromycin*. International symposium on Organic Chemistry of Medicinal Natural Products, Shanghai, China 10th - 14th Nov. 1985. Abstract No. C-21.
35. **I.O. Kibwage**, G. Janssen. R. Busson, E. Roets, J. Hoogmartens and H. Vanderhaeghe. *Preparative high performance liquid chromatography on straight silica gel of fermentation liquor of Streptomyces erythreus*. 32nd Annual Congress of Medicinal Plant Research, Antwerpen, Belgium. July 1984, Abstract No. 25 l.
36. verbruggen, **I.O. Kibwage** and M.J.K. De Roo '*Labeling Kinetics of ⁹⁹Tc-DTPA*'. Belgium society of Nuclear Medicine. Brussels, Belgium. Nov 22, 1980.

CONFERENCES, SYMPOSIA AND WORKSHOPS ATTENDED

- (1). First International Symposium on Drug Analysis. Brussels Belgium, 7th - 10th June, 1993.
- (2). 32nd Annual Congress on Medicine Plant Research. Antwerp, Belgium, 23rd - 29th July, 1984.
- (3). Fourth Commonwealth Pharmaceutical Association Conference. Nairobi, Kenya, 9 - 13 March, 1987.
- (4). Annual symposium of the Pharmaceutical Society of Kenya, Nairobi, Kenya, 1987 to 2006.

- (5). Chairman, organizing committee for the Annual Symposium of the Pharmaceutical Society of Kenya. 1989 - 1994.
- (6). The 9th Annual Medical Scientific Conference. KEMRI, Nairobi, Kenya, February, 1989.
- (7). The 10th Annual Medical Scientific Conference. KEMRI, Nairobi, Kenya, February, 1990.
- (8). The 5th International Technical Consultation on Veterinary Drug Registration, The Hague, Netherlands, 9 – 12, October, 1990.
- (9). The 14th Annual Medical Scientific Conference. KEMRI, Nairobi, Kenya, February, 1993.
- (10). Target Oriented Project Planning Workshop on the establishment of the National Drug Quality Control Laboratory. Ministry of Health/GTZ, Aberdare Club, Nyeri, Kenya. January 1992.
- (11). Workshop on management of poisoning. Green Hills Hotel, Nyeri, January 17 – 21, 1994.
- (12). Workshop on the use of standards Reference Materials for Quality Assurance (Sponsored by National Institutes of Standards and Technology, USA). Harare, Zimbabwe, July 1994.
- (13). Seminar on Drug registration, during the NUPSA - International exhibition September 14 – 19, 1994. Nairobi, Kenya.
- (14). World Bank Seminar on the Economics of Pharmaceuticals, Nairobi, Kenya, February 13 - 17, 1995.
- (15). First Southern and Eastern African Medicine. Regulatory Affairs Conference. October 20 – 21, 1995. Safari Hotel, Windhoek. Namibia.
- (16). 3rd European Congress of Pharmaceutical Sciences. 15-17 September, 1996. Edinburgh United Kingdom.
- (17). National Workshop on Emergency and Surveillance of Antimicrobial Resistance and rational use of antimicrobial drugs, Aberdares County Club, Nyeri, February 3-5, 1997.
- (18). Seminar on Drug Policy Issues for developing countries. Boston University (in collaboration with WHO and Massachusetts College of Pharmacy and Allied Health Sciences. Boston, SA February 14-28, 1997.
- (19). Second European congress on Tropical Medicine. Edinburgh, United Kingdom. September, 14-18 1998.

- (20). The 2nd National Workshop on the Surveillance and Monitoring of Antimicrobial Resistance, Blue Posts Hotel, Thika, February, 7 - 9, 1999.
- (21). Southern and Eastern African Veterinary Drug Regulatory Affairs Conference (SEAVDRAC). Nairobi, Kenya. July 24-27, 2000.
- (22). Ministry of Planning and National Development. National Council for Population and Development, workshop on “Traditional medicine, Research and Sustainable Development” Session Panelist. School of Monetary studies, Nairobi. 15-17 June 2004.
- (23). Establishment of Application, guidelines forms and certificates for Drug Registration in Kenya. Through the Pharmacy and Poisons Board, Ministry of Health. Lake Baringo, June 2001.
- (24). Establishment of Application, guidelines forms and certificates for Drug Registration in Kenya. Through the Pharmacy and Poisons Board, Ministry of Health. Kilaguni Lodge, Tsavo, Kenya, December, 2001.
- (25). Drug Analysis 2002 Symposium. Brugge, Belgium, April 21-25, 2002.
- (26). Workshop on Advocacy of Access, Use and control of Licit Drugs in Kenya for Healthcare Providers. Organized by United Nations Office on Drugs and Crime. Nairobi, Kenya, June 24 - 25, 2003.
- (27). Second National Congress on Quality Improvement in Healthcare, Medical Research and Traditional Medicine. KICCT, Mbagathi, Kenya, November 24-28, 2003.
- (28). The Inter-sectorial Workshop on Traditional Medicine, HIV/AIDS, Research and Sustainable Development on Kenya. Nairobi, Kenya, June 15-17, 2004.
- (29). African Institute for Capacity Development (AICAD). Final Reports’ Presentation- Second Call Research projects (Role: Panelist). Juja, Kenya, 9th-10th September, 2004.
- (30). School of Pharmacy Undergraduate Curriculum Review workshop. Nyeri September 3-6, 2006.
- (31). Postgraduate Diploma in Drug Management and Supply Curriculum Development Workshop. Embu. September 10-14, 2006.
- (32). A Joint College of Health Sciences-University of Nairobi Enterprises Workshop. Beyond Module Two. Nairobi. June 22-24, 2006.
- (33). Pharmaceutical Society of Kenya, Annual Symposium. Mombasa, Kenya May 31- June 2, 2007.

- (34). Stakeholders meeting on Translating Health Research into Policy and Practice. Organized by University of Nairobi Institute of Tropical and Infectious Diseases. School of Monetary Studies, Nairobi, Kenya. October 11&12, **2007**.

PAPERS PRESENTED AT CONSULTATIVE WORKSHOPS AND MEETINGS

1. **I.O. Kibwage**. Centre for Bioequivalence Studies in East Africa. A case for Kenya. A proposal by the School of Pharmacy, University of Nairobi. Engineering Capacity Building Program (ecbp) and Federal Ministry for Economic Cooperation and Development (GTZ) Regional Workshop on the Establishment of a Bioequivalence Center, October 7-8, **2008**. Addis Ababa, Ethiopia
2. Pharmaceutical Society of Kenya/Commonwealth Pharmaceutical Association workshop November 1, **2006**
3. **I.O. Kibwage**. Experiences in Evaluating the Quality of Drugs. World Health Organization Workshop for African Drug Regulatory Authorities. 3 – 7 November 2003. New Africa Hotel, Dar es Salaam, Tanzania.
4. **I.O. Kibwage**. Experiences in Evaluating the Quality of Drugs. World Health Organization Workshop for African Drug Regulatory Authorities. 3 – 7 November 2003. New Africa Hotel, Dar es Salaam, Tanzania.
5. **I.O. Kibwage**, G.N. Thoithi, K.O. Abuga, B. Amugune, K. Bosire and S.N. Ndwigah. Measuring drug prices in low and middle income countries. The Kenya Report. The Development of a Methodology Manual. Project Meeting. Bellagio, Italy, 3 - 7 December 2001.
6. **I.O. Kibwage**. Pharmaceutical Quality Control Procedures in Kenya. The South and East African Veterinary Drugs Regulatory Authorities Congress (SEAVDRAC) 2000 Meeting. 24 – 27 July 2000. Panafric Hotel, Nairobi, Kenya.

7. J.W. Mwangi, H. A. Okech-Rabbah, **I.O. Kibwage** and G.N. Thoithi. Traditional herbal medicine in Kenya. Oral presentation at international conference on medicinal plants, traditional medicines and local communities in Africa: Changes and opportunities of the New Millenium. International Centre for Research in Agroforestry (ICRAF). UN Avenue. Nairobi Kenya. May 16 - 19, 2000).
8. **I.O. Kibwage**. Drug Marketing Authorization. An Opinion. Paper presented at a Pharmacy and Poisons workshop. White Sands Hotel, Mombasa, 8–14 August 1999.
9. **I.O. Kibwage**. Quality impact on the Local and Imported Pharmaceuticals: Limits to growth. Paper presented at the 1st Regional Symposium on Pharmaceutical Distribution and Healthcare. Grand Regency Hotel, Nairobi, Kenya, 23 – 24th October 1996.
10. **I.O. Kibwage**. Good Pharmaceutical Manufacturing Practices. Paper presented at the consultative workshop on legislation – National Drug Policy. Safariland Hotel, Naivasha, Kenya. April 22 - 26, 1991.
11. **I.O. Kibwage**. Role of the world Health Organization Certificate Scheme in Quality Assurance in Kenya. Paper presented at the consultative workshop on legislation Nationa Drug Policy. Safariland Hotel, Naivasha, Kenya. April 22 – 26, 1991.
12. **I.O. Kibwage**. Drug quality control of product samples submitted for Drug Registration. Presented at the consultative workshop on the guidelines Registration of Drugs in Kenya. Green Hills Hotel, Nyeri, Kenya 24 Feb - 1st March 1991.
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PUBLICATIONS

A Theses

I.O.Kibwage (1982). Isolation and Identification of metabolites, and their degradation products from a strain of *Streptomyces erythreus*. Master of Pharmaceutical Sciences Thesis, Katholieke Universiteit Leuven, Belgium.

I.O. Kibwage (1985). A study on new metabolites of *Streptomyces erythreus* and on the metabolism of erythromycin. Doctor of Pharmaceutical Sciences Thesis, Katholieke Universiteit Leuven, Belgium.

B Manuals And Book Chapters

1. J.W. Mwangi, G. N. Thoithi, **I.O. Kibwage** on *Essential oil bearing plants from Kenya: Chemistry, Biological activity and Applications*. In H.Rodolfo Juliani, James E. Simon and Chi-Tang Ho (Eds). African Natural Products: New Discoveries and Challenges in Chemistry and Quality. American Chemical Society Symposium Series 1021. ISBN 978-0-8412-6987-3. American Chemical Society. Washington DC, USA, Chapter 27, pp 495-525 (2009)

Journal Publications

[77 Articles in the *Thematic areas: Health Systems Education, Radiopharmacy, Chromatography, Natural products, medicinal plants, traditional/complementary medicine and quality control/assurance of medicines*]

1. J.N. Kiarie, C. Farquhar, R. Redfield, K. Bosire, R.W. Nduati, W. Mwanda, J.M. M'Imunya, I. Kibwage (2014). *Strengthening Health Systems by Integrating Health Care, Medical Education and Research: University of Nairobi Experience*. Academic Medicine **89 (8)/August Supplement**. S109-110.

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8. B.K. Amugune, G.N. Thoithi, **I.O. Kibwage**. (2010). *Liquid Chromatographic Separation of phenobarbitone, ethosuximide, phenytoin and carbamazepine on a polystyrene-divinyl benzene column*. Journal of Pharmacy and Pharmacology, **58 (S 105)**:A-39.on line
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9. D.S.B. Ongarora, G.N. Thoithi, F. N. Kamau, K.O. Abuga, J.W. Mwangi and **I.O. Kibwage (2009)**. *Triterpenoids from the Stem Bark of Blighia unijugata Bak (Sapindaceae)*. Ethiop. Pharm. J. **24**: 71-74.
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