

CURRICULUM VITAE



JACOB WEKESA MASIKA

PERMANENT ADDRESS: Box 125, Maliki via Kimilii.

TEL: +254 719700048

EMAIL: jmasika2005@gmail.com/jmasika@egerto.ac.ke

SKYPE: Jacob.masika

QQ: 2265174771

SIGNATURE:

A handwritten signature in blue ink, appearing to read 'Jacob Masika' with a stylized flourish at the end.

PERSONAL DETAILS

Date of birth: 9th September, 1980
Sex: Male
Marital status: Married
Citizenship: Kenyan
ID NO. 22421388
PASSPORT NO: A1906361
Languages: English, Kiswahili, Luhya

CAREER OBJECTIVE

A team player with excellent communication skills. A well presented, self motivated and confident PhD holder who can work in a changing dynamic environment in the field of teaching and research in Health Sciences with bias towards Medical Physiology. Possessing valuable experience in teaching and research in Human Physiology. Possessing excellent counseling and listening along with the ability to communicate complex and sensitive information about medical matters in an understandable form to patients and students. Having an enthusiastic attitude and working hard to ensure good quality research in cardiovascular medicine. Endeavors to advocate and promote better health care, prevention and control of diseases in the human populations of the world and enhance quality health service delivery to people of all walks of life. Interested in participation of training and mentoring of a young, responsible and visionary generation of

health care providers particularly in developing countries. To pursue quality research to generate significant knowledge for the betterment of humanity in health matters. Having the ability to work in partnership with a range of organizations and can demonstrate initiative, flexibility and have high attention to detail.

EDUCATION BACKGROUND

HUAZHONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

September 2012 to December 2015: PhD in Physiology

Permanent address:

Huazhong University of Science and Technology,
Tongji Medical college
13 Hangkong Road, Hankou, Wuhan, Hubei, China, 430030
Tel: 0086-27-83692920
Fax: 0086-27-83692979
E-mail: ywzheng_sie@hust.edu.cn
Website: <http://iso.hust.edu.cn>

Responsibilities:

- a) Attending classes to take part in course work
- b) Conducting Cardiovascular research on embryonic stem cells using animal models
- c) Team player in the laboratory research work and responsibilities
- d) Collecting, analyzing and writing research reports
- e) Attending seminar presentations, journal clubs, giving scientific presentations of research findings

UNIVERSITY OF NAIROBI:

September 2008 to December 2011: Masters of Science (MSc) in Medical Physiology.

Permanent address: University of Nairobi, School of Medicine, Department of Medical Physiology, P.O Box 30197-00100 GPO, Nairobi-Kenya

Responsibilities:

- a) Attending classes to take part in course work
- b) Conducting Cardiovascular research in cardiac electrocardiography
- c) Team player in the research work and responsibilities
- d) Collecting, analyzing and writing research reports
- e) Attending seminar presentations, journal clubs, giving scientific presentations of research findings

MOI UNIVERSITY:

August 2002 to December 2006: Bachelor of Science in Nursing.

Permanent address: Moi University, School of Medicine, P.O Box 4606-30100, Eldoret-Kenya

Responsibilities

- a) Class representative (2002-2006)

- b) Member of town campus Christian union (TCCU)
- c) TCCU Prayer coordinator (2003-2006)
- d) Member of Nursing Students Association of Moi University (NUSAMU)
- e) NUSAMU Chairman in 2006

BUNGOMA HIGH SCHOOL (1996-1999)

Kenya certificate of secondary education (KCSE)

Attained A-(Minus) aggregate.

Permanent address: Bungoma High School P.O Box 165,Bungoma- Kenya

Responsibilities

- a) Class prefect 1996-1999
- b) Christian union treasurer, 1997-1999
- c) Member of geography and science club, Mathematics club vice Chairperson
- d) Clubs and societies prefect, 1998

SANGO PRIMARY SCHOOL: (1987-1995)

Kenya certificate of primary education (KCPE)-1995

Obtained 520 marks out of 700

Permanent address: Sango S.A Primary School, P.O Box 125,Maliki via Kimilili

Responsibilities

- a) Class prefect, (1991-1994)
- b) Christian union chairman, 1994
- c) School captain, 1994

COMPUTER SKILLS

- Operating systems: Windows 2000/2003 XP, Windows 2007 XP
- Spreadsheets
- MS- Excel
- Ms-power point
- ENDNOTE
- SPSS
- MS- word
- GRAPH PRISM

PROFESSIONAL TRAINING

- Curriculum development and instruction in long distance learning and research.
- Educational psychology and instructional media in teaching and research.
- Research methodology and Research Project in health sciences.
- Human Communication Skills in health care.
- Health Management and Health Economics.
- Scientific Proposal and Grant research writing
- Pedagogy training
- Online teaching and online examination in the field of health sciences

OTHER CERTIFICATES

1. Holder of certificate in first Aid (St. Johns` Ambulance).
2. Holder of National Nurses Association of Kenya (NNAK) certificate of attendance.
3. Holder of Membership of Moi University Town Campus Christian union certificate.
4. Holder of certificate of appreciation for free medical camp offered at pioneer community church in November 2006.
5. Worked as a volunteer tutor at Kijabe School of nursing in 2007.
6. Holder of certificate of attendance of Kenya cardiac society conference 2008.
7. Holder of certificate of attendance and participation in African Physiological society conference in June 2008.
8. Holder of certificate of attendance and participation in pedagogy workshop at Egerton University, 2010.
9. Holder of certificate of attendance and participation in proposal writing workshop at Egerton University, 2011.
10. Holder of certificate of participation and attendance of pedagogy workshop training at Egerton University, 2011.
11. Holder of certificate of Consultancy Proposal Writing Workshop at Egerton University, 2011.
12. Holder of certificate of attendance and participation in Partnership for advanced clinical education by University of Maryland School of Medicine, USA, 2012.
13. Holder of certificate of attendance and training in Measure Demographic and Health Surveys by USAID, 2012.
14. Holder of certificate of training in ‘Advanced statistics’ from the School of Public Health, Department of Epidemiology, Tongji Medical College, Huazhong University of Science and Technology, 2014.
15. Research paper presentation in a scientific conference: “ Long term Perinatal Delamethrin Exposure Alters Electrophysiological properties of Embryonic Ventricular Cardiomyocyte”. 2nd Interdisciplinary international scientific of Kibabii University, Bungoma-Kenya.
16. Facilitator/tutor in a short-course on “Pandemic preparedness with one health approach (PPOH)”, at Egerton University, Nakuru-Kenya”

WORK EXPERIENCE

1. 2000 Milima secondary school: As a untrained teacher
2. 2005 Elective at Kenyatta National Hospital
3. 2006 Attachment at Kitale District Hospital
4. Teaching practice at Eldoret KMTC as part of BScN training.
5. December 2006 in Nandi Hills: worked as research assistant
6. January 2007 to December 2007: Kijabe Mission Hospital: Worked as an Intern
7. April 2007 to September 2007: Kijabe School of Nursing: Worked as a Tutor
8. January to March 2008 worked at Kijabe Mission Hospital.
9. March 2008 to February 2009: Worked as Physiology Practical laboratory demonstrator for undergraduate students of Medicine, Dentistry, Pharmacy at the University of Nairobi
10. August 2008: Worked as research assistant with Kenya Cardiac society in Rheumatic heart disease research

11. August 2008 to January 2009: Worked with mobile clinic in Nairobi-Karen managed by Daughters of Charity Dream centre (NGO).
12. April 2009 to August 2012: Assistant Lecturer, Department of Medical Physiology, Egerton University.
13. January 2010 to August 2012: Coordinator of resource centre and skills laboratory, Egerton University, faculty of health sciences.
14. September 2010 to May 2012: Part- time lecturer Department of Medical Physiology, Kenyatta University.
15. September 2012 to June 2015: PhD research candidate, Department of Physiology, Tongji Medical College, Huazhong University of Science and Technology.
16. September 2017 to Date, working as Part-time Medical Physiology Lecturer for postgraduate students, Kenyatta University, Kiambu-Kenya.
17. September 2018 to Date: Part- time Medical Physiology Lecturer Department of Nursing, Maasai Mara University.
18. Currently, working as a Senior Lecturer and researcher in the field of Medical Physiology, School of Nursing sciences, Kenyatta University-Kenya.
19. September 2016 to January 2021: Faculty of Health Sciences representative in the University Conference committee, Egerton University-Kenya.
20. 2017 to 2020, External examiner, Kenyatta University, School of Nursing Sciences, Department of Medical-Surgical and Pre-clinical sciences
21. 2020 to date, External examiner, Kisii University, School of Medicine, Department of Medical Physiology
22. 2020 to date, External examiner, Dedan Kimathi University, School of Nursing Sciences
23. August 2015 to January 2021, Head of Department Medical Physiology, Egerton University-Kenya.

PROJECTS UNDERTAKEN

1. January-February 2003: Moi University: Community based education and service (COBES)-community entry, Making health centre (H/C)
2. January-February 2004: Moi University: COBES-community community diagnosis Mosoriot health centre
3. June –July 2005: Moi University: COBES-research proposal development Kipkaren estate Eldoret
4. August -Septemembr 2005: Moi University: COBES research
5. July-August 2006: Moi University: Electives at Kenyatta National Hospital
6. September-October 2006: Moi University: COBES District attachment Kitale District Hospital
7. December 2006: Nandi District Hospital: Research assistant
8. August 2008: University of Nairobi: Research assistant
9. September 2008- December 2011: University of Nairobi: MSc. Research project
10. April 2010 - July 2012: Nursing Council of Kenya: Writing distance learning material RN to BScN
11. September 2012- June 2015: Huazhong University of Science and Technology: PhD research project
12. Currently, Pursuing research in cardiovascular physiology using both animal models and

human subjects.

RESEARCH TECHNIQUES SPECIALIZATION

- Electrocardiography (ECG)
- Extraction of DNA
- Polymerase Chain Reaction (PCR)-DNA amplification for species identification
- Microsatellite Polymerase Chain Reaction (PCR) for determination of genetic polymorphism
- Sporozoite and blood meal ELISAs
- Cytokines and Antibody ELISAs (need more training in this area)
- *Plasmodium falciparum* cultures (need more training in this area and more particularly with respect to gene sequencing)
- Radioimmunoassay/Enzymeimmunoassay for Hormones
- Histological sectioning and staining techniques
- Clinical chemistry
- Coulter counter-(Blood indices)

TEACHING POSITIONS

2020 to Date	Senior Lecturer	Department of Medical-Surgical Nursing and Pre-Cinical studies School of Nursing Sciences Kenyatta University P.O. Box 43844-00100 Nairobi-Kenya
2014-2019	Lecturer	Department of Medical Physiology Faculty of Health Sciences Egerton University P.O. Box 536-20115 Egerton-Njoro-Kenya
2009-2014	Assistant Lecturer	Department of Medical Physiology Faculty of Health Sciences Egerton University P.O. Box 536-20115 Egerton-Njoro-Kenya
2010-2012	Part time Lecturer	Department of Nursing, Faculty of Health Sciences Kenyatta University
2015-2017	Part time Lecturer	Department of Nursing, Clinical Medicine and School of Pharmacy Faculty of Health Sciences Kabarak University

2017-2019	Part time Lecturer Department of Nursing Faculty of Health Sciences Maasai Mara University
2017-2020	Part time Lecturer Department of Med-Surg and pre- Clinical sciences, School of Nursing Sciences, Kenyatta University

SHORT COURSE TRAINING/TRAINING WORKSHOPS AND SEMINARS

November 10th -21th 2009	Training on Research proposal writing at Egerton University, Nakuru-Kenya
February 17th -19th, 2010	Pedagogy workshop for University Lecturers at Egerton University, Nakuru-Kenya
March 7th-13th 2010	Training on Long Distance learning writing modules by Nursing council of Kenya at Kemu University, Meru-Kenya
February 23rd -24th 2011	Consultancy proposal writing workshop at Egerton University, Nakuru-Kenya
April 18th -19th 2011	Capacity enhancement in research publication workshop at Egerton University, Nakuru-Kenya
July 10th-15th 2011	Training on Long Distance learning writing modules by Nursing council of Kenya at AMREF, Nairobi-Kenya
February 5th-17th 2012	Training on Long Distance learning writing modules by Nursing council of Kenya at Machakos country lodge, Machakos-Kenya
April 24th-27th 2012	Innovative teaching methodologies and Clinical Mentorship workshop by University of Nairobi in conjunction with University of Maryland, USA
July 29th –August 4th 2013	Attended a summer school short course on “Lung Development and Disorders: From molecules to Disease” at Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China by Trainers from Ulm University, Germany
July 28th –August 8th 2014	Attended a summer school short course on “Cancer: From molecules to Disease” at Tongji Medical College, Huazhong University of Science and Technology,

**Wuhan, China by Trainers from Ulm University,
Germany**

July 28th –August 8th 2014

Attended a short blended course on “Advanced statistics” at Tongji Medical College, School of Public Health, Huazhong University of Science and Technology, Wuhan, China

July 1st –12th 2019

Facilitator/trainer in short course titled “Pandemic preparedness with one health approach (PPOH)”, at Egerton University, Nakuru-Kenya

CONFERENCE/WORKSHOP/SEMINAR PRESENTATIONS

July 16th -18th 2014

“Traditional Chinese Medicine Baicalin suppression of mESCs proliferation through inhibition of miR-294 expression”. 15th Annual International Conference of Tongji Medical College, School of Medicine, Huazhong University of Science and Technology, Wuhan, China.

July 15th -17th 2015

“Modulation of miRNAs by Natural Agents: Nature’s way of dealing with cancer” 16th Annual International Conference of Tongji Medical College, School of Medicine, Huazhong University of Science and Technology, Wuhan, China.

July 9th -12th 2016

“Thymosin β 4 impeded murine stem cell proliferation with an intact cardiovascular differentiation”. 17th Annual International Conference of Tongji Medical College, School of Medicine, Huazhong University of Science and Technology, Wuhan, China.

June 14th-15th 2017

“ Long term Perinatal Delamethrin Exposure Alters Electrophysiological properties of Embryonic Ventricular Cardiomyocyte”. 2nd Interdisciplinary international scientific of Kibabii University, Bungoma-Kenya.

Journal Papers and othe publications:

1. Wang J, Masika J, Zhou J, Wang J, Zhu M, Luo H, Hu X, Zhang L, Tang M, Gao , Hescheler J and Liang H. Traditional Chinese Medicine Baicalin Suppresses mESCs Proliferation through Inhibition of miR-294 Expression. Cell Physiol Biochem 2015;35:1868-1876. <https://doi.org/10.1159/000373997>.

2. **Jacob Masika**, Yanan Zhao, Jürgen Hescheler, Huamin Liang 2016. Modulation of miRNAs by natural agents: Nature’s way of dealing with cancer. *RNA & DISEASE*. 3, (2016). DOI: 10.14800/rd.861.
3. Nie L, Gao SJ, Zhao YN, **Masika J**, Luo H, Hu XW, Zhang LP, Zeng Y, Hescheler J & Liang HM. Thymosin β 4 impeded murine stem cell proliferation with an intact cardiovascular differentiation. *J. Huazhong Univ. Sci. Technol. [Med. Sci.]* 36, 328–334 (2016). <https://doi.org/10.1007/s11596-016-1587-6>
4. Christiane NA, Roger ZM, **Masika J**, Zhang Y, and Liang Z. HIV/AIDS prevalence, knowledge, attitudes and related BEHAVIOURS among young people in Libreville, Gabon. *IOSR Journal Of Humanities and social sciences* 2014; 19: 59-65.
5. Odette RH, **Masika J**, Venace T, Soatiana JE, Christiane NA, Lamine CM and Bin L. Assessment of Healthcare waste generation and its management systems: A prevalence survey of the healthcare facilities in Madagascar. *IOSR Journal of Environmental Science, Toxicology and Food Technology* 2014; 8:20-29.
6. Luo HY, **Masika J**, Guan XW, Nie L, Ao DH, Qi Y, Shi R, Hescheler J, Zeng Y. Long Term Perinatal Deltamethrin Exposure Alters Electrophysiological Properties of Embryonic Ventricular Cardiomyocyte. *Curr Med Sci.* 2019; 39 (1):21-27. doi: 10.1007/s11596-019-1995-5. Epub 2019 Mar 13.
7. Malande 00, Musyoki AM, Meyer JC, Godman B and **Masika J**. Understanding the Pathophysiology of COVID-19: A Review of Emerging Concepts. *EC Paediatrics* 10.4 (2021): 22-30.
8. MSc Thesis Monograph By **Masika J**: “Electrocardiographic measurements in a coherent sample of healthy adult urban Africans in Kenya” by Lambert Academic publishing, 2013.
9. Book Publication by **Masika J**: “MCQ secrets in Human Physiology Q &A” by Lambert Academic publishing, 2014
10. Long distance RN to BScN Medical Physiology learning modules by Nursing Council of Kenya, 2012.
11. Book Publication: “SAQs secrets in Human Physiology” by Lambert Academic publishing, still in process
12. Co-author of two research papers still in the process of review.

SUPERVISION OF POSTGRADUATE STUDENTS

1. PhD; Name of candidate: **Nie L**, Title of research paper “**Thymosin β 4 impeded murine stem cell proliferation with an intact cardiovascular differentiation. *J. Huazhong Univ. Sci. Technol. [Med. Sci.]* 36, 328–334 (2016). <https://doi.org/10.1007/s11596-016-1587-6>”.**
2. MSc; Name of candidate: Rajaonarison Hantanirina Odette, Title of research paper “**Assessment of Healthcare waste generation and its management systems: A prevalence survey of the healthcare facilities in Madagascar. *IOSR Journal of Environmental Science, Toxicology and Food Technology* 2014; 8:20-29**”.
3. MSc; Name of candidate: Ndjiemi A. Christiane, Title of research paper “HIV/AIDS prevalence, knowledge, attitudes and related BEHAVIOURS among young people in Libreville, Gabon. *IOSR Journal Of Humanities and social sciences* 2014; 19: 59-65.”

4. PhD; Name of candidate: Luo HY, Title of research paper “**Long Term Perinatal Deltamethrin Exposure Alters Electrophysiological Properties of Embryonic Ventricular Cardiomyocyte.** Curr Med Sci. 2019 Feb;39(1):21-27. doi: 10.1007/s11596-019-1995-5. Epub 2019 Mar 13”.
5. 2016 to 2020: A senate representative in PhD and MSc theses examinations related in the Medical field and health sciences in the Department of Biochemistry and chemistry.
6. External examiner of Theses examination of MSc Medical Physiology at JKUAT University
7. External examiner of Theses examination of MSc Medical Physiology Maseno University
8. Currently co-supervising Two (2) PhD and Six (3) MSc students

ORGANIZATION MEMBERSHIP:

1. A member of the Society of Neuroscience in Africa (SONA)
2. A member of the International Society of Neuroscience(ISN)
3. A member of the International Brain Research Organization (IBRO)

COURSES TAUGHT AND EXAMINED AND THE LEVEL OF STUDENTS

MMED-Cell and Molecular Physiology

- Gastrointestinal Physiology
- Endocrine system Physiology and Pathophysiology
- Digestive system Physiology
- Reproductive System Physiology and Pathophysiology
- Renal System Physiology and Pathophysiology

Ph.D -Cellular and Molecular Biology

- Biotechnology I
- Biotechnology II
- Cellular interactions
- Biochemistry of parasitic organisms and their vectors

M.Sc. -The lymphoid system and Immune-expression

- Advances and Techniques in Cell and Molecular Biology
- Gene Expression
- Advanced Immunology
- Molecular Immunology
- Reproductive Immunology
- Physiology and Biochemistry of Microbial Organisms
- Biological Technique
- Endocrinology
- Advanced Physiology
- Neurophysiology / Neurobiology
- Techniques in Medical Physiology

MBChB/BSc Nursing/BSc Clinical Medicine

- Cell Biology, Skin, Genetics and signal transduction mechanisms
- Physiology of Excitable tissues and Neurotransmitters

- Blood, immune mechanisms and body fluids
- Endocrine system
- Digestive system, nutrition and metabolism
- Reproductive system
- Renal system
- Cardiovascular system
- Respiratory system
- Neurolocomotor/Neurophysiology

HOBBIES

Listening to Christian music, Doing charity work, Reading, making new friends, Watching football, making new and useful career discoveries

REFEREES

PROFESSOR, GIDEON ASHA MAGAK NG'WENA
DEPARTMENT OF MEDICAL PHYSIOLOGY
SCHOOL OF MEDICINE
MASENO UNIVERSITY
P.O. BOX 333
MASENO-KENYA

Email: gngwena@hotmail.com

Mobile Phone: +254 720804606

DR. PAMELA FEDHA TSIMBIRI
EGERTON UNIVERSITY
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY
BOX 536-20115, EGERTON UNIVERSITY-NAKURU COUNTY
[TEL: +254 722235066](tel:+254722235066)
EMAIL: tsimbiri2005@yahoo.com

DR. EREN OYUGNGU
MOI UNIVERSITY, COLLEGE OF HEALTH SCIENCES
SCHOOL OF MEDICINE
DEPARTMENT OF MEDICAL PHYSIOLOGY
BOX 4606-30100, ELDORET-KENYA
[TEL: +254 722 344312](tel:+254722344312)
EMAIL: erenoyungu2002@yahoo.co.uk