

DR. JOHN MUTURI KIMANI

Curriculum Vitae

Department of Veterinary Anatomy and Physiology ,
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Research Interests.

1. Wound healing and Regenerative Medicine.
2. Immunology
3. Veterinary Dermatology Research.
4. Developmental and Evolutionary Biology.

Academic Position

Feb, 2016 – Present Lecturer, De Department of Veterinary Anatomy and Physiology
University of Nairobi

Feb, 2010-Feb, 2016 Tutorial Fellow, Department of Veterinary Anatomy and Physiology
University of Nairobi

Jan. 2016 to Feb 2016 Visiting Researcher, Department of Biology, University of Kentucky, USA.

Oct. 2016 to Nov, 2016 Visiting Researcher, Central Analytical Facility, Stellenbosch University, South Africa.

Teaching Experience

Feb2010 –Present Teaching Veterinary Gross Anatomy, Embryology, Histology, Ichthyology and Mammalogy.
Department of Veterinary Anatomy and Physiology

Education and Training

October, 2015-Present PhD (J80/99747/2015).

Nov. 2017 to March, 2018: Visiting Researcher, Department of Biology, University of Kentucky, USA.
Hands on experience on IHC (Fluorescence &DAB), Flow cytometry and RNA extraction protocols. Measuring estrus cycle in rodents including Spiny mouse (*Acomys Cahirinus*).

Oct. 2016 to Nov, 2016: Visiting Researcher, Central Analytical Facility, Stellenbosch University, South Africa.

Training and hands on experience on Electron Microcopy imaging

Jan. 2016 to Feb 2016: Visiting Researcher, Department of Biology, University of Kentucky, USA.

Training on tissue processing protocols for histochemistry and immunohistochemistry

2010 – 2013: University of Nairobi, Department of Veterinary Anatomy and Physiology
M.Sc. Veterinary Anatomy.

Aug 2013- Nov. 2013: Kenya Institute of bioinformatics

Introduction to Bioinformatics Course

2004- 2009: University of Nairobi, Faculty of Veterinary Medicine.

Bachelors of Veterinary Medicine (B.V.M)

5th Aug.-26th Sep, 2008: Central Veterinary Laboratories, kabete.

Veterinary laboratory work training in disease diagnostic and biochemical procedures.

1999- 2002 Kenya Certificate of Secondary Education (K. C.P. E), A.I.C Chebisaas High School, Eldoret

1991-1998 Kenya Certificate of Primary Education (K.C. P. E.), Kimalel Primary School, Eldoret

Publications:

Peer-Reviewed Publications

- i. Thomas R. Gawriluk, Katherine L. Thompson, Zak Clare-Salzler, **John M. Kimani**, Stephen G. Kiama, Vanessa O. Ezenwa and Ashley W. Seifert(2016) Comparative analysis of ear-hole

closure identifies regenerative ability as a discrete trait in mammals. *Nature Communications*, 7:11164 | DOI: 10.1038/ncomms11164

- ii. Jared K Serem, **John M. Kimani**, Raphael G Wahome, Daniel W Gakuya, Stephen G Kiama, Daniel W Onyango, Paul G Mbuthia (2017) Histopathological Evaluation of Spleen, Liver and Kidneys from Pigs Fed on Moringa oleifera Leaf Meal Diets. *Global Veterinaria* 19 (1): 478-486,
- iii. VO Ezenwa, JL Cyr, TR Gawriluk, **John M. Kimani**, SG Kiama, AW Seifert (2019). Trade-offs between immunity and life-history shape cryptic immunological variation in regeneration-competent rodents. *Integrative and comparative biology* 59, E65-E65
- iv. Jennifer L Cyr, Thomas R Gawriluk, **John M. Kimani**, Balázs Rada, Wendy T Watford, Stephen G Kiama, Ashley W Seifert, Vanessa O Ezenwa (2019) Regeneration-competent and incompetent murids differ in neutrophil quantity and function. *Integrative and comparative biology* 59 (5), 1138-1149
- v. Thomas R. Gawriluk, Jennifer Simkin, Corin K. Hacker, **John M. Kimani**, Stephen G. Kiama, Vanessa O. Ezenwa, Ashley W. Seifert (2020). Complex Tissue Regeneration in Mammals Is Associated With Reduced Inflammatory Cytokines and an Influx of T Cells *Front. Immunol.* 11(1695):1-19.
- vi. Faraj O. Alkizim, **John M. Kimani**, Edwin S. Otieno, Kihumbu Thairu (2020). in vivo study on the effect of African black tea extract on wound healing. *International journal of Medical and Health Research*. 6(6):67-74.

Publications in Review

- i. **John M. Kimani**, Philemon K. Towett and Ashley W. Seifert Stephen G. Kiama . Morphological adaptations to subterranean life: comparative anatomy of the skin from the African mole rat (*Tachyoryctes ibeanus*) *Journal of morphology JMOR-16-0140*

Publications In preparation

- i. **John M. Kimani**, Philemon K. Towett Ashley W. Seifert and Stephen G. Kiama Comparative skin wound healing of *Tachyoryctes ibeanus* (Hairy African mole rat) and *Heterocephalus glaber* (Naked mole rat).

Other publications/Book Chapter

John M. kimani. (2012). Biology of *Acomys percivali* and *Acomys Kempfi* (African spiny mice) of Eastern Africa, *Rodentia*, Germany.

MSc. Thesis

John M. Kimani, Comparative skin morphology and wound healing of Kenyan African mole rat (*Tachyoryctes ibeanus*) and naked mole rat (*Heterocephalus glaber*).

Oral presentation:

- i. **John M. Kimani** Comparative Analysis of Wound Healing and Regenerative Ability in Different Mammals. Workshop on Cell Biology and Regenerative Medicine: from 27th June to 01st July

- 2016 organised by the African Academy of Sciences (AAS) and the Stellenbosch Institute of Advanced Study (STIAS).
- ii. **John M. Kimani**, Stephen G. Kiama, Philemon Towett, Ashley Seifert. Wound healing and regeneration potential in the ‘hairless’ *Heterocephalus glaber*. Workshop on Cell Biology and Regenerative Medicine, held on 2nd February, 2016, Department of Biology, University of Kentucky, USA.
 - iii. **John M. Kimani**, Stephen G. Kiama, Philemon Towett, Ashley Seifert. A Comparative analysis of wound healing and regeneration potential in the hairy *Tachyoryctes ibeanus* and ‘hairless’ *Heterocephalus glaber*. Workshop on Cell Biology and Regenerative Medicine, held on 11th - 13th November 2013 in Karen, Nairobi, Kenya.
 - iv. **John M. Kimani**, Stephen G. Kiama, Philemon K. Towett, Ashley W. Seifert. Comparative wound healing in *Tachyoryctes ibeanus* (Hairy African mole rat) and *Heterocephalus glaber* (Naked mole rat). TWAS/BioVision Alexandria.NXT conference held on 21st – 25th April 2012

Poster presentation:

- i. **John M. Kimani**, Stephen G. Kiama, Philemon K. Towett, Ashley W. Seifert. Cutaneous Wound healing in a Long-Living rodent (*Heterocephalus Glaber*). The Biology of Regenerative Medicines Held on 22-24th April, 2015 in Wellcome Trust Conference Centre, Wellcome Trust Genome campus, Hinxton Cambridge UK.
- ii. **John M. Kimani**, Stephen G. Kiama, Philemon K. Towett, Ashley W. Seifert Skin type and its ability to heal: A comparative aspect of wound healing in hairy *Tachyoryctes ibeanus* and ‘hairless’ *Heterocephalus glaber*. In The 19th International Scientific conference on “Basic and clinical research for improved health” hosted by the Institute of Primate Research (IPR) and Kenya Agricultural Research Institute Trypanosomiasis Research Centre (KARI-TRC). on 11th – 13th September 2013

Grants and Fellowships

Nov, 2017: -Travel Grant to Seifert lab, Department of Biology, University of Kentucky(NSF project)

2016: Postgraduate Research and Training grant \$ 20,000 (National Research Fund-Kenya).

Oct. 2016: Travel and Laboratory grant to Central Analytical Facility, Stellenbosch University, South Africa(NSF project).

June, 2016: Travel grant to attend Workshop on Cell Biology and Regenerative Medicine: from 27th June to 01st July 2016 organized by the African Academy of Sciences (AAS) and the Stellenbosch Institute of Advanced Study (STIAS).

Jan, 2016: Travel Grant to Seifert lab, Department of Biology, University of Kentucky(NSF project)

April, 2015: Wellcome Trust Conference Travel grant and Registration waiver.

Sept, 2013: The first international One Health Central and Eastern Africa (OHCEA) conference September 23-26th, 2013 held in Hilton Hotel, Addis Ababa, Ethiopia. Travel grant and registration waiver.

April, 2012: TWAS/BioVision Alexandria NXT conference, travel grant (\$ 1000) and registration waiver.

2011-University of Nairobi, Deans Committee Research Grant award (\$ 2780); Skin wound healing and Regeneration in the naked mole rat and Kenyan African Mole rat.

Workshops and Short courses

- i. Workshop on Cell Biology and Regenerative Medicine: from 27th June to 01st July 2016 organised by the African Academy of Sciences (AAS) and the Stellenbosch Institute of Advanced Study (STIAS).
- ii. KEMRI-BD Training Centre, Nairobi. Basic introduction to flow cytometry, February, 2015.
- iii. The African Academy of Sciences (AAS) workshop on Stem cells and Regenerative Medicine from 4 - 6 August 2014 in TWAS Regional Office for sub-Saharan Africa (TWAS-ROSSA) Nairobi, Kenya.
- iv. Advanced workshop in bioinformatics and genomics an annotation jamboree for a whole genome sequencing project is focusing on *Busseola fusca* held at the BecA-Hub of the International Livestock Research Institute in Nairobi, Kenya. April 9 -11th, 2014.
- v. Scientific Communication and Publishing Course, University of Nairobi, Training Centre in Communication, Chiromo Campus. 16-20 December 2013
- vi. The African Academy of Sciences (AAS) workshop on Cell Therapy and Regenerative Medicine from 11th to 13th November 2013 in TWAS Regional Office for sub-Saharan Africa (TWAS-ROSSA) Nairobi, Kenya.
- vii. Research grant and project grant Training on Proposal Writing Workshop held at University of Nairobi, Chiromo Conference Centre on March, 2012.
- viii. Royal Veterinary college, London workshop on “Use of Mobile Technologies to Support Disease Surveillance, Education and Knowledge Sharing in the Veterinary Sector” Held in by at Kabete Campus on 23rd -24th May, 2011.

Conferences

- i. Wellcome Trust scientific Conference. The Biology of Regenerative Medicines Held on 22-24th April, 2015 in Wellcome Trust Conference Centre, Wellcome Trust Genome campus, Hinxton Cambridge UK.
- ii. Federation of African immunological Societies (FAIS) 9th African immunology conference Held on 1st Dec to 4th Dec, 2014 in Safari Park Hotel Nairobi.
- iii. The first international One Health Central and Eastern Africa (OHCEA) conference held in Hilton Hotel, Addis Ababa, Ethiopia on September 23-26th , 2013
- iv. The 19th International Scientific conference on “Basic and clinical research for improved health” hosted by the Institute of Primate Research (IPR) and Kenya Agricultural Research Institute Trypanosomiasis Research Centre (KARI-TRC) on 11th – 13th September 2013
- v. The Tropical Biology Association African Alumni Group (TAAG)" Conference on “Biodiversity in Africa – present state, challenges and prospects for its conservation” at the National Museums of Kenya, Nairobi on 2nd to 4th July 2013.
- vi. The third edition of the TWAS/BioVisionAlexandria.NXT Conference on “Innovation in the Developing World: from Theory to Practice". Held at Bibliotheca Alexandrina in Alexandria, Egypt on 21st – 25th April 2012
- vii. Faculty of Veterinary Medicine, 7th Biennial Scientific Conference and Exhibition on “One health in a Changing environment” Held at Kabete Campus, University of Nairobi on 8th -10th September 2010.
- viii. Kenya Veterinary Association Rabies and Zoonoses Conference Held on 25th September, 2009 at Sunset Hotel, Kisumu
- ix. Kenya Veterinary Association 43rd Annual scientific Conference Held on 22nd -24th April, 2009 at Outspan Hotel, Nyeri

Leadership and Service

2007-2009 :

University of Nairobi, Veterinary Student Association

- Director of Information & publication
- Editor in Chief of Vet digest Magazine
- Treasurer
- Awarded certificates

University of Nairobi and Empowerment Resource Technologies Limited, Transformational Leadership course held on 5th -7th March 2009

- Awarded certificate

Worldwide Veterinary Service, University of Nairobi, Africa Network For Animal Welfare, 10 day Dog and Cat Population Control, treatment, Education and Anti-Rabies Vaccination program in Nairobi's informal settlement areas from 24th September to 2nd October, 2008.

2008-2009 University of Nairobi, Young Christian Students

- Chairman
- Awarded certificate

Computer skills and competences

Proficiency in Microsoft office, Publications, presentation, Internet use and photography

Professional Affiliations

Kenya Veterinary Association(KVA)

Kenya Veterinary Board(KVB)

Kenya Society for Immunology (KSI)

References

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 3. Prof. Ashley W. Seifert, PhD
Department of Biology,
University of Kentucky,
211 Thomas Hunt Morgan Building, Lexington KY 40506-0225, USA
awseifert@uky.edu

 4. Prof. Venessa O. Ezenwa
Department of infectious diseases, College of Veterinary Medicine
University of Georgia
vezenwa@uga.edu
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