

## **CURRICULUM VITAE**

NAME: DR. DANIEL WAMANYI ONYANGO  
DATE OF BIRTH: JUNE, 1958  
MARITAL STATUS: MARRIED WITH ONE CHILD  
RELIGION: CHRISTIAN  
NATIONALITY: KENYAN

### **ACADEMIC BACKGROUND**

PRIMARY EDUCATION: 1968 – 1974 Lusi Primary School  
SECONDARY EDUCATION: 1975 – 1978 Maranda High School  
HIGHER EDUCATION: 1979 – 1980 Nkubu High School  
UNIVERSITY EDUCATION: 1981 – 1986 B.V.M, University of Nairobi,  
Faculty of Veterinary Medicine  
1988 - 1992 M.Sc., University of Nairobi,  
Faculty of Veterinary Medicine  
1997 - 2002 Ph.D, University of Nairobi,  
Faculty of Veterinary Medicine

### **OTHER COURSES/SEMINARS/WORKSHOPS/CONFERENCES ATTENDED**

1. 1986 A two-week induction course in Management and Administration, Kenya Institute of Administration (K.I.A.).
2. 1992 2<sup>nd</sup> International conference on “Advances in Reproductive Research in Man and Animals” organized by the National Centre for Research in Reproduction, Nairobi, Kenya.

3. 1993-94 World Bank sponsored training in EM, California Regional Primate Research Centre (CRPRC), USA.
4. 1999 A DAAD sponsored visiting researcher, Universitat des Saarlandes, Homburg in Germany.
5. 2000 DAAD sponsored seminar on “Scholarly writing” in Nairobi, Kenya.
6. 2002 Research internship at the International Centre of Insect Physiology and Ecology (ICIPE), sponsored by Bio-net Africa.
7. 2003 Workshop on University of Nairobi Science Park, Reef Hotel, Mombasa
8. 2004 a) Workshop on “Faculty of Veterinary Medicine Strategic Plan”, Aberdares  
b) Workshop on “Electron Microscopy and Stereology”, Upper Kabete Campus, Nairobi.

#### **MEMBERSHIP TO ORGANIZATIONS:**

A registered member of the Kenya Veterinary Association.

A member of Kenya National Academy of Sciences

#### **WORKING EXPERIENCE**

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|-----------------------|---|
| 1986 -1988            | Civil Service of Kenya as a Veterinary Officer in charge of meat hygiene (K.M.C. 1986-1987 and Kwale District 1987-1988).       |
| October, 1988         | University of Nairobi, Department of Veterinary Anatomy as an Assistant Lecturer in the University Staff Development Programme. |
| November, 1992 - 2002 | Lecturer in the Department of Veterinary Anatomy.   |
| August, 2002          | Senior Lecturer in the same department  |

## **DEPARTMENTAL/FACULTY/UNIVERSITY DUTIES**

1. 1998-2000 Vice-Chairman, Departmental Welfare Association
2. 1998, 2000 Acted as Departmental Chairman for short periods of time
3. 2000-2001 Chairman, Departmental Bachelor of Laboratory Technology (BLT) course content committee
4. 2000-2001 Chairman, Departmental Income Generating Unit.
5. 2000 – to-date Acting Co-ordinator, Departmental MSc Reproductive Biology Course.
6. 2003- to-date A member of the Implementation Committee of the proposed University of Nairobi Science Park and Museum.
7. 2004
  - a) A member of the Planning Committee, Faculty Workshop on Strategic Plan (2003-2007).
  - b) A member of the Organizing Committee, workshop on “Electron Microscopy and Stereology”.
8. 2005 A member of the Faculty Sub-committee on “Staff Promotion Criteria”.

## **OTHER ACTIVITIES**

- 2001-2003 Part-time lecturer, Department of Environmental Health Sciences, Moi University, Eldoret.
- 2001-2004 Part-time lecturer at the Kenya Wildlife Service Training Institute (KWSTI)
- 2002 Internal examiner for Dr. D. O. Ochiel’s MSc. thesis
- 2003 External reviewer, IPR Scientific Presentations, National Museums of Kenya (27<sup>th</sup>-28<sup>th</sup> Nov.).
- 2004-2005 Universities Academic Staff Union representative, Chiromo Campus (local chapter) and University of Nairobi (Nationally).

2005 Treasurer, Chiromo Campus Club

### **STUDENTS SUPERVISION**

2004 Supervised 4 Biomedical Laboratory Technology (BLT) students on attachment at Nairobi Hospital.

2004- to-date Supervising 1 MSc. student (Dr. Nyongesa) on the “Effects of crude khat extract on male steroid profiles and reproductive organs”.

### **JOURNAL REVIEWS**

2004. Reviewer for “The Kenya Veterinarian”

2006 Reviewer for; a) “The Kenya Veterinarian”  
b) “International Journal of Insect Science”

### **GRANTS/FELLOWSHIPS/SPONSORSHIPS**

1989-1992 Dean’s committee grant no. 500-655-191 worth Kshs. 88,000 for completion of Masters of Science degree programme.

1993-1994 A 9 months World Bank award for studying electron microscopy at California Regional Primate Research Centre (CRPRC).

1995-2000 DAAD grant No. 429 716 039 4(334 400 085) worth DM, 20,000 for the completion of a Ph.D degree programme.

1999. A DAAD travel grant to Universitat des Saarlandes, Homburg, Germany for 6 months.

2002 A 2-month Bio-net Africa Research Internship at the International Centre of Insect Ecology and Physiology (ICIPE).

2005 Dean’s Committee research grant no. 500-655-508 worth Kshs. 100,000.00

## **STUDENT SUPERVISION**

1. Nyongesa, A. W: Effects of crude khat extracts on male steroid profiles and reproductive organs of Rabbit (*On-going MSc. project*)
2. Kisipan, M: Morphological and stereological evaluation of the male reproductive tract of the four-toed sengi (*Petrodromus tetradactylus*) (*Proposed Msc. project*)

## **PREVIOUS RESEARCH PROJECTS**

- 1989-1992 Morphological and endocrinological evaluation of the male reproductive system of non-breeding naked mole-rat (*Heterocephalus glaber*) (Funded by the Dean's committee to DWO).
- 1992-1994 Effects of heptachlor, an organochlorine pesticide, on the male endocrinological parameters, testicular and pituitary structure in the rat (Funded by Dean's Committee to Prof. E. O. Wango)
- 1995-1998 Effects of ethane dimethanesulphonate, a Leydig cell toxicant, on the andrological patterns, testicular, epididymal and pituitary structure in the goat (*Capra hircus*) (Funded by DAAD to DWO)

## **CURRENT RESEARCH**

1. Testicular and epididymal response to intra-peritoneal administration of ethane dimethanesulphonate in the naked mole-rat (*Heterocephalus glaber*) (Funded by Dean's Committee to DWO).
2. Effects of crude khat extracts on male steroid profiles and reproductive organs of Rabbit (Student MSc. project)
3. Aqueous crude seed extracts of ripe papaya (*Carica papaya*) as HSP70 inducer and sterility agents in male captive vervet monkeys (*Cercopithecus aethiops*) (Collaborative project with IPR).
4. Reproductive biology of lake Magadi tilapia (*Alcolapia grahami*) (*proposed project*).

## THESES

1. Onyango, D. W (1992): *Histological and ultrastructural study of the male reproductive system of non-breeding naked mole rats (*Heterocephalus glaber*, Ruppell) and in vitro interstitial (Leydig) cell response to luteinizing hormone (LH)*. MSc. thesis, University of Nairobi, Kenya.
2. Onyango, D. W (2001): *Effects of ethane dimethanesulphonate (EDS) on testicular and epididymal structure, and plasma testosterone profiles in the goat (*Capra hircus*)*. Ph.D thesis, University of Nairobi, Kenya.

## PUBLICATIONS

### Papers

1. Onyango, D. W., Otiang'a-Owiti, G. E., Oduor-Okelo, D and Makawiti D.W (1991): *In vitro* testicular interstitial (Leydig) cell response to LH and concentrations of plasma testosterone and LH in the naked mole-rat (*Heterocephalus glaber*, Ruppell). **Afr. J. Ecol.**, **29:76-85**.
2. Onyango, D. W., Oduor-Okelo, D & Otiang'a-Owiti, G. E. (1992): Light and electron microscopic study of the ductuli efferentes in the non-breeding naked mole-rat (*Heterocephalus glaber*). In: ***Advances in Reproductive Research in man and Animals*** (ed. Bambra, C. S), pp.77-80. **Institute of Primate Research/ National Museums of Kenya**.
3. Onyango, D. W., Oduor-Okelo, D & Otiang'a-Owiti, G. E (1993): Ultrastructural study of the testis of non-breeding naked mole-rat (*Heterocephalus glaber*, Ruppell). **Ann. Anat.**, **175:447-452**.
4. Onyango, D. W., Gachoka, J. M., Otiang'a-Owiti, G. E & Hendrickx, A. G (1995): Seasonally dependent testicular apoptosis in the tropical long-fingered bat (*Miniopterus inflatus*). **Z. Saugetierk.**, **60:206-214**.
5. Wango, E. O., Onyango, D. W., Odongo, H., Okindo, E & Mugweru, J (1997):

*In vitro* production of testosterone and plasma levels of luteinizing hormone, testosterone and cortisol in male rats treated with heptachlor. **Comp. Biochem. Physiol., 118C(3): 381-386.**

6. Onyango, D. W., Wango, E. O. Odongo, H., Mugweru, J & Okindo, E (1998): Effects of heptachlor on rat plasma LH, testosterone and cortisol and testicular structure. In; ***Proceedings of the First Meeting of Federation of African Societies of Biochemistry and Molecular Biology (FASBMB)*** (Eds. Ochanda, J. O., Kiara, J. K & Makawiti, D. W.), pp.195-198. **Biochemical Society of Kenya.**
7. Onyango, D. W., Wango, E. O., Otiang'a-Owiti, G. E., Oduor-Okelo, D & Werner, G (2000): Morphological characterization of the seminiferous cycle of the goat (*Capra hircus*): A histological and ultrastructural study. **Ann. Anat., 182:235-241.**
8. Otiang'a-Owiti, G. E., Onyango, D. W., Ouma, J. O., Njogu, A and Mungania, S. K (2000): A review on methods employed in studying embryogenesis. **AJST, 1(3):38-43.**
9. Onyango, D. W., Wango, E. O and Werner, G (2001): Epididymal epithelial cell involution following a single intraperitoneal administration of ethane dimethanesulphonate (EDS) in the goat (*Capra hircus*). **Toxicol. Appl. Pharmacol. 175(1): 19-27.**
10. Onyango, D. W., Wango, E. O., Oduor-Okelo, D and Werner, G (2001): Early testicular response to intraperitoneal administration of ethane dimethanesulphonate (EDS) in the goat (*Capra hircus*). **J. Submicrosc. Cytol. Pathol., 33(1-2): 117-124.**
11. Ojoo, R. O., Otiang'a-Owiti, G. E., Oduor-Okelo, D and Onyango, D. W (2005): Frequencies of seminiferous epithelial cycle in the thick-tailed bush *babu* (*Otolemur garnetti*): possible phylogenetic implication? **Anat. Embryol., 209: 381-389.**
12. Nyongesa, A. W., Patel, N. B., Onyango, D. W., Wango, E. O and Odongo, H. O (2006): In vitro study of the effects of khat extract on isolated mouse Leydig cells. **Ethnopharmacology** (submitted)

## Book chapters

1. Onyango, D. W and Kisia, S. M (2005): Osmoregulatory and respiratory adaptations of lake Magadi fish (*Alcolapia grahami*). In *Fish Respiration and Environment* (eds. Fernandes, M. N., Rantin, F. T., Glass, M. L and Kapoor, B. G). **Science Publishers Inc., Enfield, New Hampshire, USA** (*In press*).
2. Kisia, S. M and Onyango, D. W (2005): Adaptations of gas exchange systems in fish living in different environments. In *Fish Respiration and Environment* (eds. Fernandes, M. N., Rantin, F. T., Glass, M. L and Kapoor, B. G). **Science Publishers Inc., Enfield, New Hampshire, USA** (*in press*).
3. Onyango, D. W and Kisia, S. M (2006): Fish life in highly alkaline environment of lake Magadi, Kenya. In: *Fish Life in Special Environments* (eds. Sebert, P., Onyango, D. W and Kapoor, B. G). **Science Publishers Inc., Enfield, New Hampshire, USA** (*in preparation*)
4. Kisia, S. M and Onyango, D. W (2006): Survival of haemoglobinless ice-fish living at subzero temperatures in arctic and Antarctic seas. In: *Fish Life in Special Environments* (eds. Sebert, P., Onyango, D. W and Kapoor, B. G). **Science Publishers Inc., Enfield, New Hampshire, USA** (*submitted*)

## Books

1. Kisia, S. M and Onyango, D. W (2005): *Muscular System of Vertebrates*, **Science Publishers Inc., Enfield, New Hampshire, USA**.
2. Sebert, P., Onyango, D. W and Kapoor, B. G (2006): *Fish life in special environments*. **Science Publishers, Enfield, New Hampshire, USA** (*submitted*).



## **REFEREES:**

- 1.** Professor D. Oduor-Okelo,  
Professor of Veterinary Anatomy  
Department of Veterinary Anatomy,  
University of Nairobi,  
P. O. Box 30197,  
NAIROBI, KENYA.
  
- 2.** Professor E. O. Wango,  
Institute of Primate Research  
Private Bag, Karen  
NAIROBI, KENYA.
  
- 3.** Professor S. M. Kisia  
Associate Professor,  
Department of Veterinary Anatomy,  
University of Nairobi,  
P. O. Box 30197,  
NAIROBI, KENYA