

# **Sarah Kigamwa Amugongo**

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School of Public Health

Meru University of Science and Technology

Meru, Kenya

## **Education**

Ph.D. Integrative Biology	University of California, Berkeley	2005-2010
B.ED (Science)	Kenyatta University, Nairobi, Kenya	2000-2004

## **Academic Appointments**

2014-Present Adjunct faculty, **School of Public Health, Meru University of Science and Technology**, Meru, Kenya

2010-2013 Postdoctoral Scholar, **Dept. of Internal Medicine, University of California Davis**,  
Advisors: Profs. Nancy Lane and Wei Yao

2005-2010 **Dept. of Integrative Biology, University of California Berkeley**  
Graduate Student Researcher: 2006, 2008, 2010  
Graduate Student Instructor:  
Human Reproductive Biology, spring 2007, spring 2009  
Human Biological Variation, fall 2006  
General Biology (Bio 1B), fall 2005

2006, 2007 Summer Intern, **Southwest National Primate Research Center**, San Antonio, Texas

2005 Youth Project Coordinator (**Brookside Dairy Company**, Ruiru, Kenya)

2004 Middle college tutor of Biology and Chemistry (**Regional Institute of Business Management**, Nairobi, Kenya), summer 2004

2002 High school teacher of Biology and Chemistry (**Gisambai High School**, Vihiga, Kenya), summer 2002

## **Research Grants**

2009 National Science Foundation Dissertation Improvement Grant (\$15,000)

## **Academic Fellowships and Awards**

2012 Under-Represented Minority Travel Grant Award,  
**International Bone and Mineral Society**

2011 Young Investigator Awards,  
**American Society for Bone and Mineral Research**

2010 Wadsworth International Dissertation Write-up Fellowship  
**Wenner-Gren Foundation**

2009 Annie M. Alexander Fellowship,  
**Museum of Paleontology, University of California Berkeley**

2008-2009 Franklin M. Henry and Margaret Long, Summer Research Fellowship,  
**Dept. of Integrative Biology, University of California Berkeley**

2008-2009 Annie M. Alexander Funds,  
**Museum of Vertebrate Zoology, University of California Berkeley**

2007-2008 Graduate Student Travel Funds,  
**Dept. of Integrative Biology University of California Berkeley**

2007-2008 Franklin Mosher Baldwin Fellowship,  
**L.S. B. Leakey Foundation**

2007-2008 Wadsworth International Fellowship,  
**Wenner-Gren Foundation**

2007 Financial Aid Award for International Students (Grant-In-Aid)

2006 Professional Development International Fellowship,  
**Wenner-Gren Foundation**

2005-2008 Room and Board Fellowship,  
**International House, Berkeley, CA**

2003 Koobi Fora Field School Fellowship,  
**Kenyan National Museums**

## **Publications**

### **Scientific Papers:**

**Amugongo SK**, Yao W, Jia J, Lay YA, Dai W, Jiang L, Walsh D, Li CS, Dave NK, Olivera D, Panganiban B, Ritchie RO, Lane NE. Effects of sequential osteoporosis treatments on trabecular bone in adult rats with low bone mass. *Osteoporosis International*. 2014 Jun;25(6):1735-50. PMID: 24722767 [PubMed – in process]

**Amugongo SK** and Hlusko JL. Impact of Maternal Prenatal Stress on Growth of the Offspring. *Aging and Disease* 2013 Sep 4;5(1):1-16. PMID: 24490112 [PubMed].

Jia J, Yao W, **Amugongo S**, Shahnazari M, Dai W, Lay YA, Olvera D, Zimmermann EA, Ritchie RO, Li CS, Alliston T, Lane NE (2013). Prolonged alendronate treatment prevents the decline in serum TGF- $\beta$ 1 levels and reduces cortical bone strength in long-term estrogen deficiency rat model. *Bone* 2013 Jan;52(1):424-32. PMID: 23088940 [PubMed].

Yao W, Guan M, Jia J, Dai W, Lay YA, **Amugongo S**, Liu R, Olivos D, Saunders M, Lam K, Nolte J, Olvera D, Ritchie RO, Lane NE. Reversing Bone Loss by Directing Mesenchymal Stem Cells to the Bone. *Stem Cells* 2013 Sep;31(9):2003-14. PMID: 23818248 [PubMed].

### **Book Chapter:**

Rizk OT, **Amugongo S**, Mahaney MC, and Hlusko LJ. 2008. The quantitative genetic analysis of primate dental variation: History of the approach and prospects for the future. In: Technique and Application in Dental Anthropology (J.D Irish and G.C Nelson, eds). Cambridge University Press. (ISBN-13:9780521870610).

### **Manuscript under review:**

**Amugongo SK**, Yao W, Jia J, Dai W, Lay YE, Jiang L, Li CS, Zimmermann EA, Schaible E, Dave N, Ritchie RO, Lane NE. Effects of sequential treatments with alendronate, PTH and raloxifene on cortical bone mass and strength. *Bone*

### **Dissertation:**

Amugongo SK. In-utero sources of skeletal variation, the role of maternal prenatal stress. 2010. PhD dissertation, University of California, Berkeley UMI 3445447

### **Abstracts for Professional Meetings Presentations:**

**Amugongo SK**, Yao W, Jia J, Walsh D, Shahnazari M, Olvera D, Panganiban B, Ritchie R, Li CS, Lane NE. 2012. Effects of cyclical treatments with anabolic and anti-resorptive agents on cortical bone mass and strength. *Journal of Bone and Mineral Research* 2012 Abstracts.

**Amugongo SK**, Yao W, Jia J, Walsh D, Shahnazari M, Guan M, Panganiban B, Ritchie R, Li CS, Lane NE. 2011. Effects of cyclical treatments with PTH and Alendronate on trabecular bone mass and strength. *Journal of Bone and Mineral Research* 2011 Abstracts.

Havill LM, Allen MR, **Amugongo SK**, Harris JKA, Higgins PB, Schlabritz-Lousevitch NE, Nijland MJ, Nathanielsz PW. 2009. Maternal 30% Global nutrient reduction (MNR) during pregnancy causes significant alterations in fetal skeletal development. *Reproductive Sciences* 16:326A-327A.

**Amugongo SK**. 2008. Variation in the Platymeric index of wild baboons. *American Journal of Physical Anthropology* 46 (Suppl): 59.

**Amugongo SK**, Mahaney MC, Havill LM. 2007. Bone resorption and reproductive status in baboons. *American Journal of Physical Anthropology* 44 (Suppl): 63.

### **Memberships in professional societies:**

American Society for Bone and Mineral Research  
International Bone and Mineral Society  
American Association of Physical Anthropologists  
American Association of Anthropological Genetics  
Association of Women in Science

### **Current and Past Institutional Affiliations**

School of Public Health, Meru University of Science and Technology, Meru, Kenya  
Department of Internal Medicine, University of California Davis  
Department of Integrative Biology, University of California Berkeley  
Human Evolution Research Center, University of California Berkeley  
Museum of Vertebrate Zoology, University of California Berkeley  
University of California Museum of Paleontology Berkeley

### **Synergistic Activities**

- 1) In 2003 I attended the Koobi Fora Field School organized by the National Museums of Kenya and Rutgers University where I was trained in Paleontological and Archeological fieldwork.
- 2) In 2004 I was a research assistant on the Narok Paleontological research project in Kenya directed by my future graduate school advisor, Dr. Leslea J. Hlusko.
- 3) In Summer 2007 I was a paleontologist on a field project in Hanang, Tanzania, co-directed by my graduate school advisor Dr. Leslea J. Hlusko.

4) In 2006 and 2007 I worked in collaboration with scientists at the Southwest Foundation for Biomedical Research in San Antonio, Texas, on a project addressing the effects of reproduction on bone quality in female captive baboons.