

# **STAFF PROFILE**

Name: Collins Otieno Asweto

Title/Qualification: PhD

**Position:** Lecturer

**Department:** Community Health

**School:** Nursing

**Area of Specialization:** Epidemiology//Toxicology

Contact Address: P.O. Box 6-60100, Embu, Kenya

**E-Mail:** otieno.collins@embuni.ac.ke



# **Short Biography**

Dr. Collins Otieno Asweto is a Lecturer in School of Nursing, University of Embu, Kenya. He completed his Ph.D. in Medical Science specializing in Toxicology at Capital Medical University, Beijing, China. He did his MPH in epidemiology and BSc. Biomedical Sciences at Maseno University, Kenya. Dr. Collins has collaborated actively with researchers in several other disciplines of toxicity science, particularly nanosize particle toxicity, and epidemiology field. Collins has served on roughly fifteen conference and workshop programs. He has published twenty three articles in an international reputable peer review journals.

#### **Research Interests**

Dr. Collins Otieno Asweto research interests focuses on mechanistic and molecular analysis of nano size particle toxicity to cardiovascular system, with a strong emphasis on integrating epidemiology, high quality exposure assessment, biological monitoring, and molecular biology into multidisciplinary investigations of air pollution in developing countries. In addition to epidemiological studies with bias towards non-communicable diseases.

#### **Publications in Journals:**

- 1. **Asweto CO**, Hu H, Wu J, Shi Y, Feng L, Yang X, Liang S, Cao L, Duan J, Sun Z. (2018). Gene profiles to characterize the combined toxicity induced by low level co-exposure of silica nanoparticles and benzo[a]pyrene using whole genome microarrays in zebrafish embryos. *Ecotoxicology and Environmental Safety*. 163:47-55
- 2. **Asweto CO.** (2018). Cardiovascular health risk posed by polycyclic aromatic hydrocarbon and ultrafine particles. *Journal of Clinical and Experimental Toxicology*. 1(1):46-50.
- 3. **Asweto CO**, Wu J, Alzain MA, Hu H, Andrea S, Feng L, Yang X, Duan J, Sun Z. (2017). Cellular pathways involved in silica nanoparticles induced apoptosis: A systematic review of in vitro studies. *Environmental Toxicology and Pharmacology*. 56:191-197
- 4. **Asweto CO,** Wu J, Hu H, Feng L, Yang X, Duan J, Sun Z. (2017). Combined effect of silica nanoparticles and benzo[a]pyrene on cell cycle arrest induction and apoptosis in human umbilical vein endothelial cells. *International Journal of Environmental Research and Public Health*, 14:289.
- 5. **Asweto CO**, Mohamed AA, Sebastian A., Alexander R, Wei W. (2016). Integration of community health workers into health systems in developing countries: Opportunities and challenges. *Family Medicine and Community Health*, 4(1):37–45.
- 6. **Asweto CO**, Ouma, JO, Aluoch JR, Obonyo CO. (2014). Women empowerment and skilled attendance/Facility Delivery in a Rural Community of Western Kenya, *IOSR Journal of Nursing and Health Science*, 3(2), 49-53.
- 7. **Asweto CO**, Ouma JO, Aluoch JR, Obonyo CO. (2014). Maternal Autonomy, Distance to Health Care Facility and ANC Attendance: Findings from Madiany Division of Siaya County, Kenya. *American Journal of Public Health Research*, 2(4), 153-158.

- 8. Ouma J, **Asweto CO.** (2017). Maternal Vulnerabilities and Disparities in Availability of Antenatal Care Content in Kenya: Analysis of KDHS 2008/9. *American Journal of Public Health Research*, 5(4), 115-123.
- 9. Hu H, **Asweto CO**, Wu J, Shi Y, Feng L, Yang X, Liang S, Cao L, Duan J, Sun Z.\* (2017). Gene expression profiles and bioinformatics analysis of human umbilical vein endothelial cells exposed to PM2.5. *Chemosphere*, 183: 589-598.
- 10. Samba BO, Ayodo G, Amimo F, **Asweto CO.** (2018). Experience and Perceptions on Preterm Births among Women Attending ANC Clinic at Kisumu County Hospital, Kenya. *Researchjournali's Journal of Public Health.* 4(3), 1-17
- 11. Feng L, Yang X, **Asweto CO**, Wu J, Zhang Y, Hu H, Shi Y, Duan J, Sun Z. (2017). Low-dose combined exposure of nanoparticles and heavy metal compared with PM<sub>2.5</sub> in human myocardial AC16 cells. *Environmental Science and Pollution Research*. 2017:1–11
- 12. Wu J, Shi Y, **Asweto CO**, Lin F, Xiaozhe Y, Zhang Y, Hu H, Duan J, Sun Z (2017). Fine particle matters induce DNA damage and G2/M cell cycle arrest in human bronchial epithelial BEAS-2B cells. Environmental Science and Pollution Research, 2017:1-11. DOI: 10.1007/s11356-017-0090-3.
- 13. Alzain MA, **Asweto CO**, Zhang J, Fang HH, Zhao Z, Guo X, Song M, Zhou Y, Chang N, Wang Y, Wang W. (2017). Accelerated biological age in the China suboptimal health: a case control study of relative telomere length from a real-life community, China. *OMICS: A Journal of Integrative Biology*. 21(6):1-8.
- 14. Feng L, Yang X, **Asweto CO**, Wu J, Zhang Y, Hu H, Shi Y, Duan J, Sun Z. (2017). Genome-wide transcriptional analysis of cardiovascular-related genes and pathways induced by PM2. 5 in human myocardial cells. *Environmental Science and Pollution Research*, 1-11.
- 15. Hu H, Shi Y, Zhang Y, Wu J, **Asweto CO**, Feng L, Yang X, Duan J, Sun Z. (2017). Comprehensive gene and microRNA expression profiling on cardiovascular system in zebrafish co exposured of SiNPs and MeHg. *Sci. Total Environ*. 607-608(17), 795-805.
- 16. Zhang Y, Hu H, Shi Y, Yang X, Cao L, Wu J, **Asweto CO**, Feng L, Duan J, Sun Z. (2017). 1H NMR-based metabolomics study on repeat dose toxicity of fine particulate matter in rats after intratracheal instillation. *Science of the Total Environment*, 589, 212–221.
- 17. Wu J, Shi Y, **Asweto CO**, Lin F, Xiaozhe Y, Zhang Y, Duan J, Sun Z. (2016). Co-exposure to amorphous silica nanoparticles and benzo[a]pyrene at low level in human bronchial epithelial

- BEAS-2B cells. Environmental Science and Pollution Research, 23(22). DOI: 10.1007/s11356-016-7559-3
- 18. Hu H, Wu J, Li Q, **Asweto CO**, Lin F, Xiaozhe Y, Duan F, Duan J, Sun Z. (2016). Fine particulate matter induces vascular endothelial activation 4 via IL-6 dependent JAK1/STAT3 signaling pathway. *Toxicol. Res.*, 3, 946-953.
- 19. Sebastian A, Alzain MA, Asweto CO, Song H, Cui, L, Yu X, Ge S, Dong H, Rao P, Wang H, Fang H, Gao Q,1 Zhang J, He D, Guo X, Song M, Wang Y, Wang W. (2016). Glycan Biomarkers for Rheumatoid Arthritis and Its Remission Status in Han Chinese Patients. *OMICS A Journal of Integrative Biology*, 20(6), 343-351.
- 20. Sebastian A, Alzain MA, **Asweto CO**, Mahara G, Guo X, Song M, Wang Y, Wang W. (2016). The Malaysian health care system: Ecology, plans, and reforms. *Family Medicine and Community Health*, 4(3). DOI 10.15212/FMCH.2016.0101
- 21. Ogolla MM, Opemo DO, **Asweto CO**. (2016). Early Mobilization and Physical Activity Improve Stroke Recovery: A Cohort Study of Stroke Inpatients in Kisumu County Referral Hospitals, Kenya. *American Journal of Public Health Research*, 4 (4), 154-158
- 22. Ouma J, Olang' S, **Asweto CO**, Obago IT, Kaseje D. (2016). Does Breast Cancer Risk Awareness Motivate Personal Prevention Practices: Findings from a Community-based Assessment? *American Journal of Public Health Research*, 4(3), 93-97
- 23. Mahara G, **Asweto CO**, Cao K, Alzain MA, Sebastian A, Barr J, Guo X, Wei W. (2015). Utilization of ANC and PNC Services in Nepal: A Multivariate Analysis Based on Nepal Demographic Health Survey 2001 and 2006. *American Journal of Health Research*, 3(6), 318-327.

# Presentation of Papers at Academic and Professional Conferences

19-20 October, 2017	12th International Conference on Environmental Toxicology and	
	Ecological Risk Assessment Atlanta, Georgia, USA. Presented a	
	paper titled: Combined Effect of Silica Nanoparticles and	
	Benzo[a]pyrene on Cell Cycle Arrest Induction and Apoptosis in	
	Human Umbilical Vein Endothelial Cells.	

25 November 2016 Annual Key laboratory conference for Clinical Epidemiology, organized by Epidemiology and Health Statistic Department.

Beijing, PR China. Presented a paper titled: Early Mobilization and

	Physical Activity Improve Stroke Recovery: A Cohort Study of Stroke Inpatients in Kisumu County Referral Hospitals, Kenya.
18-21 October 2016	International Conference of Nanomedicine, China Nanomedicine 2016 held in Wuhan, PR China.
27-29 May 2016	The Fifth annual meeting for National Medical Examination Forum for Health Management- Beijing, Army Hospital, PR China.
13-11 December 2015	The 1 <sup>st</sup> Conference of Life Omics and Precision Medicine. Beijing, PR China.
20 November 2015	Annual Key laboratory conference for Clinical Epidemiology, organized by Epidemiology and Health Statistic Department. Beijing, PR China. Presented a paper titled: Maternal Autonomy, Distance to Health Care Facility and ANC Attendance: Findings From Madiany Division of Siaya County, Kenya.
25 – 29 October 2015	64 <sup>th</sup> annual meeting of American Society of Tropical Medicine and Hygiene. Philadelphia Marriott Downtown, Philadelphia, Pennsylvania USA. Presented a paper titled: Disparities in the Quality of Antenatal Clinic Care in Kenya: Analysis of Kenya Demographic Health Survey 2008 - 2009
24 November 2014	Annual Key laboratory conference for Clinical Epidemiology, organized by Epidemiology and Health Statistic Department. Beijing, PR China.Presented a paper titled: Women empowerment and skilled attendance/Facility Delivery in a Rural Community of Western Kenya.
12-14 October 2014	2014 Workshop on Mitochondrial Toxicity and Pathway-Based Chemical Safety Assessment An Inaugural Symposium of the Society of Toxicological Alternatives and Translational Toxicology, organized by China Society of Toxicology at Beijing, PR China.
15 August 2014	Scholarly workshop on "Improving basic urban services in informal settlements – Linking waste research in global south cities." Presented a paper titled "Solid waste management in informal settlement – A case study of Nyalenda, Kisumu county, Kenya."

15-17 April 2014	University of East African Baraton Annual Conference, presented paper on "Maternal Autonomy, Distance to Health Care Facility and ANC Attendance: Findings from Madiany Division of Siaya County, Kenya"
20 <sup>TH</sup> – 21 <sup>ST</sup> January 2014	Attended 5 <sup>th</sup> UCSF East African Collaborative Scientific Symposium in Kisumu, Kenya organized by UCSF Global Health Sciences and CFAR.
16 <sup>th</sup> – 18 <sup>th</sup> May 2012	Tropical Institute of Community Health 5 <sup>th</sup> annual conference, presented a paper titled "Factors Influencing Maternal Health Care Utilization among Women of Madiany Division, Rarieda District, Kenya."
12 <sup>TH</sup> -17 <sup>TH</sup> March 2012	Attended Workshop on Understanding and Using Demographic and Health Surveys Workshop organized by USAID and ICF Macro at Eldoret, Kenya.
$20^{TH} - 24^{TH}$ June 2011	Kenya Young Scientist Second Annual Conference Held in Kisumu, Kenya. Presented paper titled "Use of the questionnaire as a tool for improving health services."

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aswetotieno@gmail.com,

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n,	W.	$\mathcal{A}$		.,	

<u>Degree</u>	Institution	<u>Department</u>	<u>Details</u>
PhD, Medicine July 2017	Capital Medical University, Beijing, China	Preventive Medicine, Environmental Health & Hygiene	Dissertation: "Cardiovascular Toxicity of Silica anoparticles and Benzo [a] Pyrene Combined Exposure And Related Mechanisms"
MPH, Epidemiology & Population Health. Dec, 2012	Maseno University, Kenya	Public Health and Community Development	Thesis: "Factors Influencing the Level of Maternal Health Care Utilization among Mothers of Children Under three Years in Madiany Division of Rarieda District, Kenya"
BSc. Biomedical Science and Technology Dec, 2006	Maseno University, Kenya	Public Health and Community Development	Concentration: Pharamcology and Physiology

# PROFESSIONAL EXPERIENCE

January 2018 – Current	Lecturer at University of Embu, School of Nursing, Department of	
	Community Health	
	Lecturing: Epidemiology, Biostatistics, and Environmental health,	
	Demography, and Research methods. Develoved eLearning modules	
	for these units.	
July 2019 – June 2023	Examination Coordinator School of Nursing, University of Embu.	
	Successfully coordinated School of Nursing examination process in a	
	timely manner.	
	Reviewed examination rubrics used for presentation of results to	
	University Senate.	
Sep 2017 – Dec 2017	Part time lecturer at Maseno University, School of Public health and	
	Community development, Department of Public health.	
	Lecturing: Epidemiology, Environmental Toxicology, Biostatistics,	
	Demography, and Research methods, through face to face and	
	eLearning platform.	

May 2014- August 2014 Lecturer at Great Lakes University of Kisumu, Faculty of Health

Science.

Lecturing: Epidemiology, Biostatistics, Research methods,

Demography, and Health System Management

January 2013 to April 2014 Assistant Lecturer at Great Lakes University of Kisumu, Faculty of

Health Science.

Lecturing: Biostatistics, Epidemiology, Research methods,

Demography, and Health System Management

# RESEARCH AND CONSULTANCY EXPERIENCE

2023 to Current: CoPI in project that developes digital Intervention for the Prevention

and Early Detection of Depression and Suicide among the Youth in

Kenya.

2021 to current: Investigator in project that Optimizes Parental Empowerment and

Engagement in Early Childhood Development Education to advance

early childhood education in Embu County, Kenya

2021 to current: CoPI in project that determine Suboptimal Health Status and Chronic

diseases among the Adult population in Hail region, Saudi Arabia.

19<sup>th</sup> to 26<sup>th</sup> August, 2022: Provided technical support to LUMOS foundation in undertatking

baseline survey status of Charitable Children's Institutions (CCIs) to support holistic and systematic implementation of care reforms in

Embu, Kenya.

2015 – 2017: Assessed mechanisms of combined toxicity of Silica nanoparticles

and Benzo [a] Pyrene on Cardiovascular system

January 2012 to March 2014: Coordinated and Supervised baseline survey, mid and end term

evalution for Consotium of National Health Research Project on key WASH indicators within households of Kisumu East district

under Graet Lakes University of Kisumu.

2011 – 2014 Research Assistant in an efficacy trial of a gravity-fed household

water treatment device as a delivery system for zinc in zincdeficient children and women. A collaboration study between Wageningen University, The Netherlands, and the ETH, Zurich,

Switzerland.

March - April 2011 Coordinated Baseline survey for KEMRI/CDC in Highland Malaria

research project conducted in Rachuonyo District, Kenya.

January, 2011 Coordinated Baseline survey organized by ChildFund Kenya, Lake

Region Programme Area (LPA) in Rongo, Rachuonyo, and

Kenyenya Districts, Kenya.

June - August 2010 Research Assistant in the Baseline survey for Dialogue model

project on prevention of HIV spread among Secondary school students by Kenya Aids Control Council. A study conducted by

Maseno University.

## **GRANT AND AWARD**

2023: National Research Fund Kenya and The African Centre for Technology Studies (ACTS)
Collaborative Research Grant

Project title: A digital Intervention for the Prevention and Early Detection of Depression and Suicide among the Youth in Kenya.

Amount: 4,819,000 Kshs.

2021: Spencer Foundation Small grant

Project title: Optimizing Parental Empowerment and Engagement in Early Childhood

Development Education in Embu County, Kenya

Amount: 46,751 USD.

2021: University of Hail, Research grant

Project title: Determination of Suboptimal Health Status and Chronic diseases among the

Adult population in Hail region, Saudi Arabia.

Amount: 30,000 USD.

2014 – 21017: Chinese Government Ph.D. Scholarship award

#### STUDENT SUPERVISION

S/No.	Name	Title	Program and
			University
1.	Naomi	Role of sanitation-hygiene practices and	MPH,
	Roosevelt	social norms on sustainability of open	Maseno University
		defecation free status in households of Suna-	Graduated in Dec,
	Aluoch Ochanda	West Sub- County, Migori County	2022
2.	Violet Akinyi	Assessment of clinical waste management	MPH,
	Otieno	associated with Healthcare –Associated-	Maseno University.
		Infections Among Health Care Workers in	Graduated in Dec,
		Kisumu Central Sub County Hospitals	2022
3.	Kennedy	Knowledge, attitude, practices and risk	MPH,
	Odhiambo	perception towards HIV and AIDS prevention	Maseno University
		among secondary school students in Gwassi	Graduated in Dec,
	Okello	South Ward, Homa Bay County, Kenya	2022
4.	Charles Oduor	Prostate cancer screening behaviour and	MPH,
	Opondo	perceived self-vulnerability among male	Maseno University.
	o pondo	health workers at public health facilities in	Graduated in
		Kisumu county, Kenya	December, 2019
5.	Isabella	Factors influencing utilization of individual	MPH,
	Nyang'au	birth plan among women attending postnatal	Maseno University.
		clinic at Jaramogi Oginga Odinga Teaching	Graduated in April,
		and Referral Hospital, Western Kenya	2021

#### **PUBLICATIONS**

#### **BOOK CHAPTER**

1. **Asweto C. O.** & Onyango P. O. (2023). Antimicrobial resistance in a changing climatic context: An emerging public health threat in Africa, Chapter 10. In Yemi Adewoyin (Ed.), *Health and Medical Geography in Africa: Methods, Applications, and Development Linkages*. Springer Nature. ISBN: 978-3-031-41267-7.

#### ARTICLE

- 1. Alzain MA, **Asweto CO**, Saeed, M. E., Kassar, A., Alsaif, B. (2023). Psychometric Properties of Suboptimal Health Status Instruments: A Systematic Review. *J. Pers. Med.*, *13*(2), 299
- 2. Alzain MA, **Asweto CO**, Atique S, Elhassan NEE, Kassar A, Hassan S-u-N, Humaida MI, Yusuf RA, Adeboye AA. (2022). Effectiveness of Human Mobility Change in Reducing the Spread of COVID-19: Ecological Study of Kingdom of Saudi Arabia. *Sustainability*, 14, 3368.
- 3. Opondo CO, Onyango PO, **Asweto CO**. (2022). Effect of Perceived Self-Vulnerability on Prostate Cancer Screening Uptake and Associated Factors: A Cross-Sectional Study of Public Health Facilities in Western Kenya. *Annals of Global Health*, 88(1):1-12
- 4. Alzain MA, Elsser NE, **Asweto CO**, Alsese MM, Humaida MI, Kassar A, Abdelaziz MO. (2021). Knowledge, attitude, and practice towards COVID-19 prevention: a survey of Sudanese people. *Int J Community Med Public Health*, 8(10):4734-4741
- 5. Alzain M, Haruwn MH, Abdelaziz MO, Elsheikh M, Algahtani FD, **Asweto CO**, Adeboye AA, Elsser NEE, Itumalla R. (2021). Association between Cholera Outbreak and Traditional Mining in Northern State, Sudan 2017: A Case Series Study. *Journal of Global Infectious Diseases*. Accepted
- 6. Nyang'au I, **Asweto CO**, Ouma P, Ouma J. (2021). Utilization of Individual Birth Plan among Women Attending Postnatal Clinic at Jaramogi Oginga Odinga Teaching and Referral Hospital, Kisumu Kenya: A Hospital-Based Survey. *The Columbia University Journal of Global Health*, 10(2).
- 7. Abdelaziz MO, Alzain MA, Elshiekh M, **Asweto CO**, Elsser NE, Adeboye AA, Yusuf RA, Algahtani F. (2021). Prevalence, awareness, and social determinants of hypertension: A cross-sectional study in Northern State, Sudan. *Jordan Journal of Applied Sciences Natural Series*, 14(1): 1-13.
- 8. Owiti BA, **Asweto CO**, Oyieke JA, Aluoch JR, Obonyo CO. (2021). Dehydration Knowledge and Dairrheal Perception are Predictors of Dairrheal Home Management: A Cross-Sectional Study of Caregivers in West Seme, Kisumu County, Kenya. *American Journal of Public Health Research*, 9(2):57-62.
- 9. **Asweto CO**, Onyango PO, Alzain MA, Wang W. (2020). Effect of increased residential mobility and reduced public spaces mobility in containing COVID-19 in Africa. *Journal of Global Health Report*, 4:e2020075.

- 10. Ouma EG\*\*, Samba B, **Asweto CO**, Amimo F. (2019). Determinants of Mother-To-Child HIV Transmission Among HIV Exposed Infants In Siaya County, Kenya. *Researchjournali's Journal of Public Health*, 5(4):1-17
- 11. Samba BO<sup>#\*</sup>, Ayodo G, Amimo F, **Asweto CO.** (2018). Experience and Perceptions on Preterm Births among Women Attending ANC Clinic at Kisumu County Hospital, Kenya. *Researchjournali's Journal of Public Health.* 4(3), 1-17.
- 12. **Asweto CO** (2018). Cardiovascular health risk posed by polycyclic aromatic hydrocarbon and ultrafine particles. *Journal of Clinical and Experimental Toxicology*. 1(1):46-50.
- 13. **Asweto CO**, Hu H, Wu J, Shi Y, Feng L, Yang X, Liang S, Cao L, Duan J, Sun Z.\* (2018). Gene profiles to characterize the combined toxicity induced by low level co-exposure of silica nanoparticles and benzo[a]pyrene using whole genome microarrays in zebrafish embryos. *Ecotoxicology and Environmental Safety*. 163:47-55.
- 14. **Asweto CO**\*, Wu J, Alzain MA, Hu H, Andrea S, Feng L, Yang X, Duan J, Sun Z\* (2017). Cellular pathways involved in silica nanoparticles induced apoptosis: A systematic review of in vitro studies. *Environmental Toxicology and Pharmacology*. 56:191-197
- 15. **Asweto CO**\*, Wu J, Hu H, Feng L, Yang X, Duan J, Sun Z\*. (2017). Combined effect of silica nanoparticles and benzo[a]pyrene on cell cycle arrest induction and apoptosis in human umbilical vein endothelial cells. *International Journal of Environmental Research and Public Health*, 14:289.
- 16. Ouma J\*\*, **Asweto CO**\* (2017). Maternal Vulnerabilities and Disparities in Availability of Antenatal Care Content in Kenya: Analysis of KDHS 2008/9. *American Journal of Public Health Research*, 5(4), 115-123.
- 17. Hu H<sup>#</sup>, **Asweto CO**<sup>#</sup>, Wu J, Shi Y, Feng L, Yang X, Liang S, Cao L, Duan J, Sun Z.\* (2017). Gene expression profiles and bioinformatics analysis of human umbilical vein endothelial cells exposed to PM2.5. *Chemosphere*, 183: 589-598.
- 18. Feng L<sup>#</sup>, Yang X, **Asweto CO**, Wu J, Zhang Y, Hu H, Shi Y, Duan J\*, Sun Z. (2017). Low-dose combined exposure of nanoparticles and heavy metal compared with PM<sub>2.5</sub> in human myocardial AC16 cells. *Environmental Science and Pollution Research*. 2017:1–11
- 19. Wu J<sup>#</sup>, Shi Y, **Asweto CO**, Lin F, Xiaozhe Y, Zhang Y, Hu H, Duan J, Sun Z\* (2017). Fine particle matters induce DNA damage and G2/M cell cycle arrest in human bronchial epithelial BEAS-2B cells. *Environmental Science and Pollution Research*, 2017:1-11. DOI: 10.1007/s11356-017-0090-3.
- 20. Alzain MA<sup>#</sup>, **Asweto CO**, Zhang J, Fang HH, Zhao Z, Guo X, Song M, Zhou Y, Chang N, Wang Y, Wang W\*. (2017). Accelerated biological age in the China suboptimal health: a case control study of relative telomere length from a real-life community, China. *OMICS: A Journal of Integrative Biology*. 21(6):1-8.
- 21. Feng L<sup>#</sup>, Yang X, **Asweto CO**, Wu J, Zhang Y, Hu H, Shi Y, Duan J, Sun Z\*. (2017). Genome-wide transcriptional analysis of cardiovascular-related genes and pathways induced by PM2. 5 in human myocardial cells. *Environmental Science and Pollution Research*, 1-11.
- 22. Hu H<sup>#</sup>, Shi Y, Zhang Y, Wu J, **Asweto CO**, Feng L, Yang X, Duan J, Sun Z.\* (2017). Comprehensive gene and microRNA expression profiling on cardiovascular system in zebrafish co exposured of SiNPs and MeHg. *Sci. Total Environ*. 607-608(17), 795-805.

- 23. Zhang Y\*, Hu H, Shi Y, Yang X, Cao L, Wu J, **Asweto CO**, Feng L, Duan J, Sun Z\*. (2017). 1H NMR-based metabolomics study on repeat dose toxicity of fine particulate matter in rats after intratracheal instillation. *Science of the Total Environment*, 589, 212–221.
- 24. Wu J<sup>#</sup>, Shi Y, **Asweto CO**, Lin F, Xiaozhe Y, Zhang Y, Duan J, Sun Z\*. (2016). Co-exposure to amorphous silica nanoparticles and benzo[a]pyrene at low level in human bronchial epithelial BEAS-2B cells. *Environmental Science and Pollution Research*, 23(22). DOI: 10.1007/s11356-016-7559-3
- 25. Hu H<sup>#</sup>, Wu J<sup>#</sup>, Li Q, **Asweto CO**, Lin F, Xiaozhe Y, Duan F, Duan J, Sun Z\*. (2016). Fine particulate matter induces vascular endothelial activation 4 via IL-6 dependent JAK1/STAT3 signaling pathway. *Toxicol. Res.*, 3, 946-953.
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# **CONFERENCES AND WORKSHOPS ATTENDED**

7 – 11 January, 2022	The Implementation Research (IR) Methodology and Applications workshop held at Kabira Country Club, Kampala, Uganda.
19-20 October, 2018	3 <sup>rd</sup> International Convention on Geosciences and Remote Sensing & Geochemistry, Environmental Chemistry and Atmospheric Chemistry, Ottawa, Canada. Presented a paper titled: Combined Effect of Silica Nanoparticles and Benzo[a]pyrene on Cell Cycle Arrest Induction and Apoptosis in Human Umbilical Vein Endothelial Cells.
19-20 October, 2017	12th International Conference on Environmental Toxicology and Ecological Risk Assessment Atlanta, Georgia, USA. Presented a paper titled: Combined Effect of Silica Nanoparticles and Benzo[a]pyrene on Cell Cycle Arrest Induction and Apoptosis in Human Umbilical Vein Endothelial Cells.
25 November 2016	Annual Key laboratory conference for Clinical Epidemiology, organized by Epidemiology and Health Statistic Department.  Beijing, PR China. Presented a paper titled: Early Mobilization and Physical Activity Improve Stroke Recovery: A Cohort Study of Stroke Inpatients in Kisumu County Referral Hospitals, Kenya.
18-21 October 2016	International Conference of Nanomedicine, China Nanomedicine 2016 held in Wuhan, PR China.
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20 November 2015	Annual Key laboratory conference for Clinical Epidemiology, organized by Epidemiology and Health Statistic Department. Beijing, PR China.Presented a paper titled: Maternal Autonomy, Distance to Health Care Facility and ANC Attendance: Findings From Madiany Division of Siaya County, Kenya.
24 November 2014	Annual Key laboratory conference for Clinical Epidemiology, organized by Epidemiology and Health Statistic Department. Beijing, PR China.Presented a paper titled: Women empowerment and skilled attendance/Facility Delivery in a Rural Community of Western Kenya.
12-14 October 2014	2014 Workshop on Mitochondrial Toxicity and Pathway-Based Chemical Safety Assessment An Inaugural Symposium of the Society of Toxicological Alternatives and Translational Toxicology, organized by China Society of Toxicology at Beijing, PR China.
15 August 2014	Scholarly workshop on "Improving basic urban services in informal settlements – Linking waste research in global south

cities." Presented a paper titled "Solid waste management in

informal settlement – A case study of Nyalenda, Kisumu county,

Kenya."

15-17 April 2014 University of East African Baraton Annual Conference, presented

paper on "Maternal Autonomy, Distance to Health Care Facility and ANC Attendance: Findings from Madiany Division of Siaya

County, Kenya"

20<sup>TH</sup> – 21<sup>ST</sup> January 2014 Attended 5<sup>th</sup> UCSF East African Collaborative Scientific

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