（Abroad）Official trip report form（Student） 2013/10/10 (Year/Month/Day)

Name	Nesta Bortey-Sam
Laboratory	Toxicology
Year (Grade)	D2
Destination	University of Benin, Benin City, Nigeria Kwame Nkrumah University of Science & Technology, Kumasi, Ghana
Period of trip	2013.08.24-2013.09.04 Benin City, Nigeria 2013.09.05-2013.09.17 Kumasi, Ghana 25 days
Purpose of trip	Sampling (Nigeria) and Symposium (Ghana)

Sampling in Nigeria

We made a trip to University of Benin, Benin City, Nigeria from 24th August to 4th September, 2013 based on the study **Concentrations and Distribution of Polycyclic Aromatic Hydrocarbons (PAHs) and their Metabolites in Benin City, Nigeria.** Benin City, a famous and well known city in Nigeria, serves as one of the Nation's economic and administrative hub. The metropolis has been subject to heavy anthropogenic influences due to the continuous growth in development and industrialization. As a result high levels of hazardous chemicals e.g. PAHs are released into the environment which could be detrimental to both human and animal health. Prior to the control of these hazardous chemicals, their levels in various environmental matrices will be investigated to have a better understanding and develop best methods to curb the situation. The objectives of this study are therefore to determine the concentrations of PAHs and evaluate the extent and sources of pollution.

I went with my Assistant Prof., Dr. Shouta Nakayama and another PhD student, Balazs. Prior to sampling we had a discussion with our host, Prof. Lawrence Ezemonye, who is a Professor of Ecotoxicology & Environmental Forensics in the Department of Animal and Environmental Biology. The discussion was to draft a sampling strategy which would help us collect enough samples within our stay and also get to know the hot spots within the area. The meeting was very effective and we were assigned various duties to enhance and facilitate the sampling process.

The day after the discussion we started sampling. We went to slaughter houses to collect liver, kidney and muscle of just slaughtered cattle. We also collected soil samples from the same area and bought vegetables from a nearby farm. Sampling of various animals (cattle, goat, chicken and rat), soil and

vegetables went well and by the end of our stay we had gathered and dissected enough samples. The table below gives a rough idea of the number of samples collected within our period of stay in the University of Benin, Nigeria.

Sample Type	**Organs/tissues**	**No. collected**
Cattle	Liver, kidney, muscle	5 each
Goat	Liver, kidney, muscle	24 each
Chicken	Liver, kidney, muscle, spleen, bone, feather, blood, lung	25 each
Rat	Liver, kidney, muscle, spleen, bone, blood, brain, ovary/testes, eye, lung	40 each
Soil	NA	31 tubes

Fig. 1: dissection

Fig. 2: sampling of chicken

Fig. 3: soil sample collection

Fig. 4: traps for wild rats

5th International Toxicology Symposium in Africa, held in Ghana

After the sample collection in Nigeria, I left for Ghana to participate as a presenter in the 5th International Toxicology Symposium which was held at the College of Science Complex at the Kwame Nkrumah University of Science & Technology, Kumasi, Ghana. There was exchange of knowledge, ideas and discussions on current issues relating to environmental toxicology and pollution in Africa and possible remediation methods. A total of approximately 60 participants from different

African countries including Nigeria, Egypt, Cameroon, Uganda, South Africa, Zambia, etc. took part in the symposium. The symposium lecture was given by the current Society for Environmental Toxicology and Chemistry (SETAC) Africa President, Prof. N.H.H Bashir from the University of Gezira, Sudan. His lectured on Pesticides and Toxicology education in Africa. Prof. Bashir mentioned that as Africans we are living in an 'era of poisons' and therefore we must not allow untrained and unlicensed people to deal with pesticides as if they were just regular agricultural inputs. He concluded by saying Africa must revise their priorities, curricula and their way of thinking when dealing with pesticides and all toxicants, otherwise no one can imagine what the future would look like. Pertaining to this symposium, I presented on Distribution of Toxic Metals in Organs of Free Range Chicken, Goat and Sheep near Gold Mines in Tarkwa, Ghana. We had lots of discussion time talking mainly about the possible effects of these highly toxic metals in edible offal and how to curb the situation. With these activities, I believe to have gotten a good experience to become a leader of chemical hazard control.

Fig. 5: Prior to commencement of symposium

Fig. 6: Poster session discussion

Fig. 7: Oral Presentation

Fig. 8: Participants Group Photo