（Abroad）Official trip report form（Student） 2013/12/13 (Year/Month/Day)

Name	Oroszlany Balazs Ferenc
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

The first half of our trip (from the 24th of August until the 4th of September) we visited Benin, Nigeria. Nigeria is the most popular African country, and due to the recent growth, it has the biggest economy in the continent. But these developments have hindrances too. A growing percentage of the population concentrates in the cities, and even in the countryside, the toll of the side effects of mining and oil extractions are a serious concern. Yet exact data regarding the scale and source of this pollution is still scarce. As a pilot project, our aim was to collect animal and soil samples from Benin City, the heavily industrialized capital of Edo state. After imported to Japan and analyzed, the results would indicate the aim of our future research and collaboration across Nigeria.

We were grateful to our collaborator, Professor Lawrence Ezemonye and all his colleagues at the Ecotoxicology & Environmental Forensics in the Department of Animal and Environmental Biology, Benin University.

From the very first day we were working as a team, first of all identifying possible hotspots for pollution, distributing task, and planning the projects. I realized how important was this selection of the object, as the following days we had to recalibrate our sampling strategy only a little bit. The team from Hokkaido was divided into two: while Bortey-Sam Nesta (with the help of the local researchers) was collecting samples from slaughter houses, and distributing rat traps, Dr. Shouta Nakayama and me were

dissecting chicken and rats in the laboratory. The sampling was successful: we collected liver, kidney and muscle samples from goat and cattle, chicken samples (8 organs each) from five target areas, and were especially lucky with rat samples (around 40 specimens). Vegetable and soil samples were also collected.

A. Dissection lecture by Dr. Nakayama B. Chickens waiting for dissection
C. Adamawa cattle at the market

Nigeria is also one of the West-African countries with the highest reptile biodiversity. While this time we were focusing on sampling domestic animals, we had time to investigate the possibility of future reptile sampling. Possible target species were Nile monitor (*Varanus niloticus*), West-African dwarf crocodile (*Osteolaemus tetraspis*), and common agama (*Agama agama*). The first two species are hunted and trapped for food consumption, while agamas are abundant lizards that could be seen everywhere.

Common agama
Agama agama

Nile monitor
Varanus niloticus

Dwarf crocodile
Osteolaemus tetraspis

5th International Toxicology Symposium in Africa, held in Ghana

The symposium was held at the College of Science Complex at the Kwame Nkrumah University of Science & Technology, Kumasi, Ghana. More than fifty participants, poster or oral presenters were attending from all around Africa; Egypt, Ethiopia, Cameroon, Uganda, Zambia, South Africa and other countries were present. Ghana not only provided excellent presenters, but eager students helped us to fill the halls. The meeting was only two days long, but the wide range of raised issues and innovative solutions showed me how important environmental toxicology is for the future of Africa.

And to show how important this symposium is to the future of environmental toxicology in Africa, I should mention the keynote from Professor Nabil H. H. Bashir, current president of the Society for Environmental Toxicology and Chemistry Africa. His speech was a call to arms not only for future scientist, but also for educators to form and reform the toxicology education in Africa, to provide the continent with a professional army of future environmental toxicologists.

During the poster session I had the opportunity to present about my current research. While my research is not connected directly with Africa, I still received lot of useful advice, from the poster format to the future direction of the research. Most importantly several professors urged me to summarize the results into a manuscripts, which I am currently working on.

Group photo of the participants

The sampling in Nigeria taught me a lot about program coordination, project leadership, and gave me the opportunity to learn and teach all of the little expertise I've got. The symposium was – again – an eye-opener not only about the problems Africa is facing, but how diligently the researching working to resolve these problems.