



2011 AWARD Fellow
Nimmo W. Gicheru Ngatiri

Position	PhD student
Institution	International Livestock Research Institute (ILRI)
Country	Kenya
MSc	Immunology, London School of Hygiene & Tropical Medicine University of London
Mentor	Dr. Brigitte L. Maass, Forage agronomist International Center for Tropical Agriculture

Research area: Testing of pleuropneumonia diagnostics in cattle.

Malaria research was the first field Nimmo Gicheru Ngatiri entered fresh out of college with a BSc in medical science, but during her master's studies in London she was drawn to a different area: improving human nutrition. Growing up with a supportive father and a mother who was always testing new ideas and improved technologies for her farming and livestock-rearing activities, Ngatiri developed an interest in improving food security and nutrition in Kenya through high-quality protein. She soon realized the challenges livestock farmers face, and one of the most devastating, pleuropneumonia, has become the focus of her research.

"This disease is very common in Africa, killing cattle after a prolonged period of suffering and low productivity," she explains. "In addition, it is highly infectious." Culling and quarantine to contain the disease worked in Europe, but this has not been successful or acceptable in Africa due to pastoralism. The vaccine currently in use is neither effective nor appropriate, because it requires a cold chain system and is only available through veterinary services departments.

Ngatiri determined that better diagnosis of pleuropneumonia is required. There is not much literature, despite the acute challenge of coming up with something that works well and is affordable. She would love to see diagnostics for pleuropneumonia that are as uncomplicated as the kit used to detect HIV, which enables scientists to identify a protein that characterizes all types of the virus. Her aim is to identify a protein that is ubiquitous in cattle that carry the disease. "We could then develop a simple kit and distribute it widely throughout Africa," she emphasizes. "Livestock farmers—and often these are women with only a couple of cows—need to be able to identify clear signs of the disease and know how to react. Isolation is often too late and all the cattle in a herd die, ruining the livelihood of entire families."

Planning to become a research leader, Ngatiri would like to help build up women in her field, where they are rather scarce, and encourage them to grow in their careers. As a personal commitment, she spends considerable time working with rural women in semi-arid areas, most of them grandmothers who care for AIDS orphans. Ngatiri began a small charity with friends, known in Kiswahili as *Watoto ni Wetu* (Children

Belong to Us), which helps these women improve their livelihoods and sends the orphans to school. She introduced fast-growing crops, such as improved sweet potato varieties from the International Potato Center, and taught the women to effectively harvest rainwater. They have adopted better agricultural technologies as a result, and the charity helps them to improve their own initiatives with local rabbits, which require less feed than hybrids and are considered a good source of protein.

Ngatiri hopes that AWARD will help her learn how to have a better work-life balance, as her research requires long hours in the lab and reading reports at night. "Work is not always the answer to everything. One learns a lot in play as well," she says. "AWARD has already taught me how important a life purpose roadmap is for my career and how to be assertive rather than aggressive. I am really looking forward to building more leadership skills and to the mentoring meetings with a role model providing guidance." She also wants to use all opportunities the fellowship provides to increase her already impressive network at ILRI, one of the Consultative Group on International Agricultural Research centers.

Ngatiri is one of a growing number of African woman scientists who have won an AWARD Fellowship. AWARD is a professional development program that strengthens the research and leadership skills of African women in agricultural science, empowering them to contribute more effectively to poverty alleviation and food security in sub-Saharan Africa. For more information, visit www.awardfellowships.org
