Not simply content to push boundaries in vector control, the Vestergaard-NMIMR Vector Labs are determined to reach new heights in research collaboration, staff development and gender equality.

L'article en français

When Felicia Dorlah finished her studies in the Ghanaian capital of Accra in 2012 and applied for a job at the Vestergaard-NMIMR Vector Labs (VNVL), she had no idea it was the beginning of an enlightening personal journey.

After working as a receptionist for a year, Ms Dorlah started a two-year degree in management and administrative studies at Ghana's Central University, fully funded by Vestergaard. Since then, she has been promoted to the role of administrative assistant at the VNVL and is soon to start another course in accounting and finance.

Since Felicia Dorah joined Vestergaard, the company has financed her studies, which has led to a promotion.

"Joining the company has helped me develop my career and develop myself," she says.

At the core of VNVL is capacity building: research collaborations, partnerships and knowledge sharing, and the personal and professional development of both administrative and scientific staff.

For Rebecca Pwalia, Chief Research Assistant at VNVL, a highlight was attending the Pan-African Mosquito Control Association (PAMCA) Conference and visiting the KCMUCo-PAMVERC testing facility Moshi, Tanzania in 2018.

The facility in Tanzania is certified for the WHO's Good Laboratory Practice, a requirement for labs that test and commercialise new vector control products.

"It was very, very interesting," Ms Pwalia says. "We were able to learn how they managed

the insectary and what processes they had to go through to achieve certification."

Promoting the role of women

Ms Pwalia and Ms Dorlah are among an all-female management team at VNVL, which to them feels refreshing in a sector where men continue to hold most leadership positions.

"Vestergaard is doing its best to encourage women in science. We are given equal opportunity to take leadership roles and our ideas are welcome," Ms Dorlah said.

WHO's Africa's Women in Science report quotes 2013 data from UNESCO indicating that only 30 per cent of researchers employed in research and development in Sub-Saharan Africa are women. With seven women and seven men, the Vestergaard-NMIMR Vector labs strive for gender parity.

The inequality has dire consequences on the sector, the report says.

"The dearth of women scientists often means a lack of diverse perspectives essential to addressing gender dimensions and the burden of infectious diseases, which often disproportionately affect women."

Ms Pwalia says women need role models to find their voice.

"If you don't have someone as a mentor, you aren't confident to venture into certain areas. Exposure plays a major role, especially in this field."

Chief research assistant, Rebecca Pwalia, feels the all-women management team at VNVL is refreshing in a sector where men hold most of the leadership roles.

Ms Pwalia has found support among women from other African countries in a Women in Vector Control group, which was set up in 2018 at the annual PAMCA conference, when the organisers realised how few women there were at the event.

They regularly share their experiences, their challenges and professional development opportunities.“We are trying in our own small way to encourage each other. We have all become champions of women in vector control in our various countries.”

Mentoring and collaboration

VNVL regularly hosts researchers and visitors from other African countries. The lab has

trained Masters students from the African Regional Postgraduate Programme in Insect Science (ARPPIS), as well as welcoming Ghanaian students who must undertake a year of national service after they complete their studies.

Ms Pwalia says fresh perspectives power new opportunities.

“The students may be looking at some kind of insecticide resistance or some new genetic marker, so through doing that work we learn together.”

VNVL also collaborates with external entities, which can lead to exciting discoveries. The facility is currently working with technology developed at the Liverpool School of Tropical Medicine to capture the mosquitoes’ movements on video as they come into contact with insecticide-treated materials.

“We also record how long the mosquito can survive after the exposure, if it can lay eggs after it’s been blood fed,” Ms Pwalia says. “We’ve never really done anything like this before.”

Vestergaard supports women in science and sees women as playing a key role in science and the eradication of malaria.

Mapping out the future

One of Vestergaard’s key allies in Africa is Ghana’s National Malaria Control Program (NMCP). Otubea Owusu Akrofi, the programme’s resident entomologist, says it’s a mutually beneficial partnership.

Vestergaard provides the personnel and the VNVL insectary, which enables the team to generate data and draw insecticide resistance maps.

“We have nearly seven years of data on the insecticide resistance partnership so I can say their support was tremendous,” Mrs Akrofi says.

VNVL also supports the Ghanaian National Insecticide Resistance Monitoring Partnership (NIRMOP) in its annual resistance monitoring activities by offering testing materials and the lab as a training venue for field staff.

Through these collaborations, Vestergaard enjoys a bird's-eye view of both current and future vector control projects in Ghana.

Ms Akrofi would love to see more women in the field of science and entomology, and more entomologists playing key roles in vector control. The importance of capacity building, she says, cannot be overemphasised.

Crucially, she believes future malaria control efforts will rely on inspiring and empowering new talent to the sector.

"We need to establish scholarship programmes and learning programmes for those who are already in the field and those who want to enter," she says."Capacity building projects make it attractive for people to look at entomology, vector control and the kind of work that Vestergaard does as a juicy field."