We are pleased to announce that Ms. Mariem Rouatbi, Phd candidate and young Dryland Systems scientist has won an award by the International Center for Agricultural Research for Development (CIRAD) for the best research summary presented at the first Joint International Conference of the Association of Institutions for Tropical Veterinary Medicine (AIVTM) and the Society of Tropical Veterinary Medicine (STVM), which took place recently at Humboldt University of Berlin. The conference brought together animal health and production experts, senior and junior career researchers and students from the North and the South, the East and the West to address the holistic concept of “One World-One Health” and issues related to Tropical Animal Diseases and Veterinary Public Health.

Mariem’s work, supported by the CGIAR Research Program on Dryland Systems, focuses on examining the interactions between parasites and sheep reproduction. In particular, the research she presented in Berlin investigates the prevalence of infection by toxoplasmosis in sheep in Northen and Central Tunisia. Toxoplasmosis is a parasitic disease that can cause abortion and barrenness in sheep. In the studied areas, Mariem and her team confirmed that toxoplasmosis is present with high prevalence of infection, affecting the local economy and posing great risk to both animal and human health.

“Although in Tunisia small ruminants face important health problems due to several parasitic infections like Toxoplasma gondii, fasciolosis, lungworms and gastrointestinal helminths, there are few studies that address the interactions between parasitism and reproduction in sheep. Therefore, research on this topic is critical to clarify the causes of health problems in sheep and find appropriate prevention options,” says Mariem.

Humans can also be infected by the parasite primary through the consumption of undercooked contaminated meat or food containing Toxoplasma oocysts. Pregnant women should be particularly careful when handling or consuming sheep’s meat. In fact, the transmission of Toxoplasma to the fetus might induce mental health issues, seizures, blindness, hydrocephalus, cerebral...
calcification and ultimately death of the fetus.

More insight into interactions between parasitic diseases and reproduction in sheep will benefit farmers as well as consumers. Instead of spending time and money on treating sheep parasites, farmers could select the breed with higher adaptive capacity to cope with harsh environmental conditions and with the studied parasite. This will reduce economic losses due to herd reduction and prevent human health problems linked with ruminant parasites.

More research is needed in this area and Mariem’s work opens up new horizons and throws up new research questions, which she has avowed to explore.

“I am interested in research that is relevant, useful and beneficial to many dryland farming communities in my country, so that they can enjoy better and healthier livelihoods. In fact, we need more and more studies to improve our knowledge about parasitology in Tunisia,” states Mariem.

An agronomic engineer by training, she holds a masters degree in Biology Applied to Animal Health and Production from the University of Rennes 1, France. In 2012-2013, Mariem initiated her doctoral project about the interactions between parasites and sheep reproduction at the Laboratory of Parasitology of the National School of Veterinary Medicine of Sidi Thabet in Tunisia. The first part of her doctoral thesis on the effects on a nematode on haematological, biochemical, clinical and reproductive traits in rams was recently published here.

We have no doubt Mariem will continue to make a considerable contribution in this regard. She is the shining example of the passionate young researcher we must continues to support in order to enable sustainable development in the Middle East and North Africa (MENA) region.

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