



Prof Celia Abolnik

Department of Production Animal Studies,
Veterinary Science Faculty

celia.abolnik@up.ac.za

Key Publications

Abolnik, C., Fehrsen, J., Olivier, A., Van Wyngaardt, W., Fosgate, G. & Ellis, C. 2013. Serological investigation of highly pathogenic avian influenza H5N2 in ostriches (*Struthio camelus*) *Avian Pathol.* 2013; 42(3): 206-14.

Gaidet, N., Caron, A., Cappelle, J., Cumming, G.S., Balança, G., Hammoumi, S., Cattoli, G., Abolnik, C., De Almeida, R.S., Gil, P., Fereidouni, S.R., Grosbois, V., Tran, A., Mundava, J., Fofana, B., El Mamy, A.B., Ndlovu, M., Mondain-Monval, J.Y., Triplett, P., Hagemeyer, W., Karesh, W.B., Newman, S.H. & Dodman, T. 2012. Understanding the ecological drivers of avian influenza virus infection in wildfowl: a continental-scale study across Africa. *Proc. Biol. Sci.* 2012 March 22; 279(1731): 1 131-1 141.

Abolnik, C., Olivier, A.J., Grewar, J., Gers, S. & Romito, M. 2012. Molecular analysis of the 2011 HPAI H5N2 outbreak in ostriches, South Africa. *Avian Dis.* 2012 December; 56 (4 Suppl): 865-879.

Avian / poultry diseases

Celia Abolnik (née Stipinovich) obtained her PhD (Zoology) through the University of Pretoria in 2007. She was appointed as a junior researcher at ARC-OVI in 2000 and successfully applied for a senior researcher position in 2003, which she held until July 2012. Her research at ARC-OVI focused on avian influenza and Newcastle disease. In August 2012 she was appointed as the Research Chair: Poultry Health and Production in the Department of Production Animal Studies, which is funded by the Southern African Poultry Association. She is considered a sub-regional expert in avian influenza, is the South African representative of the OIE's OFFLU network and is the author of 30 scientific publications.

Research

Highly pathogenic strains of H5- and H7-type avian influenza (HPAI) periodically emerge from the poultry population, causing highly infectious and lethal disease in both poultry and humans. South African ostriches have been affected by numerous outbreaks of HPAI H5N2 and, more recently, low pathogenic H7N1 influenza (LPAI) – with disastrous economic consequences. Monitoring wild bird populations (the natural reservoirs of the precursor LPAI viruses) is an important activity, complicated by the lack of predictability of movements of sub-Saharan duck species compared to the populations of the northern hemisphere. When transmission occurs, the ostrich thus far appears to be the only non-gallinaceous terrestrial bird that is capable of converting LPAI to HPAI. The mechanism of this conversion and the potential of the ostrich to produce potentially pandemic human influenza strains is a key focus area. Identifying the sources, strains, epidemiology and pathogenicity of and vaccine efficacy against poultry pathogens such as infectious bronchitis virus, salmonella, mycoplasmas and avian paramyxoviruses in both South Africa and other parts of Africa remains a priority, since outbreaks regularly compromise sustainable livelihoods of resource-poor communities.

