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# Dr GR Thomson

## *Biography*

Although born in Johannesburg in 1943, I grew up and did my schooling in Zimbabwe (then Rhodesia) before graduate training in South Africa (one year at University of Natal [Pietermaritzburg] and 4 at University of Pretoria), earning a BVSc with the class of '66.

In line with conditions for the bursary and loan I received from the Rhodesian Government to study as a vet, I worked as a Government Veterinary Officer (GVO) in Rhodesia for 3 years in many locations after graduation (being the only bachelor GVO I was posted to wherever a "stop gap" was needed).

My main recreational activity was playing rugby and I had the good fortune to play for various first league clubs around the country and even made it as a reserve for the Rhodesian team that played against the British Lions in 1968 but did not get onto the field. Work as a GVO was not taxing although sometimes interesting but it certainly did not satisfy the desire dating from my 3rd student year at Onderstepoort to become a virologist.

Realising that immunology is a pillar of practical virology, I enrolled for a MSc course in immunology in the Medical School of Birmingham University (UK), graduating in 1970. That year was most rewarding as the Department of Experimental Pathology that ran the course was highly academic and had a number of internationally recognised researchers, enabling interaction with leading immunologists at a time that field was developing rapidly.

I then returned to Rhodesia and worked in the vet laboratory in Salisbury (Harare), setting up the first virology unit there. However, the opportunity for academic advancement was limited in Rhodesia so I applied for and obtained a position as a virologist at the Royal Veterinary College, London (part of London University). That job enabled me to use my research to obtain a PhD in virology.

The work was aimed at better understanding respiratory infections of Thoroughbreds, under the supervision of Prof Walter Plowright, a world-renowned virologist (he developed the vaccine that enabled the eradication of rinderpest). My research colleague, Dr Jenny Mumford, and I made some worthwhile contributions in the fields of equine influenza and what was then commonly known as equine rhinopneumonitis, more correctly equine herpesvirus 4 (EHV-4) infection. We also described a new virus: acid-stable picornavirus of horses.

I made the trip to London on a Union Castle liner that provided the good luck to meet my wife, Marguerite (Rice) of Grahamstown who was on her way to UK for a holiday. We had a great social time in London before our first child (Charlotte) arrived; thereafter domestic life and the grind of post-grad study ended our care-free existence! We had another daughter (Rowena) before returning to RSA. Our third daughter Robyn was born in Pretoria.

Charlotte is a lawyer who emigrated to Australia with her husband some years ago - they have two children and live in southern NSW (a beautiful part of the world).

Robyn - a graphic designer - and her husband live in New York. Fortunately for Margie and me, Rowena - a homoeopath - and husband and one grandson still live in Johannesburg.

By the time I completed my PhD studies (1977), the Rhodesian "war" was raging; I therefore applied for a position at the OVI and joined the Virology Department under the then leadership of Dr Baltus Erasmus. Initially I worked on pig diseases, mainly African swine fever (ASF). One of the outcomes of that research was explaining how the transmission cycle between warthogs and *Ornithodoros* spp. ticks is completed; until that time nobody could explain how the low levels of viraemia found in warthogs could provide a source of infection for ticks.



**Onderstepoort Class of 1966**  
**Gavin Thomson: Back row, far left.**

In 1980 I moved to the newly established FMD Lab at Onderstepoort as the head of the diagnostic/research section - under the overall leadership of Dr Atillio Pini. After Dr Pini returned to Italy I was appointed Director of the Institute for Exotic Diseases, as the FMD Laboratory was by then known.

My position at Exotic Diseases enabled me not only to do interesting and practical research on FMD and ASF but also to obtain some international recognition, the basis of my election as a member of what is now known as the OIE's Scientific Commission for Animal Diseases. I served on that Commission for 12 years, three years as President. That provided exposure to scientific issues associated with animal diseases around the world - invaluable.

Apart from work on FMD - mainly aimed at better understanding the interplay between SAT serotype FMD viruses and buffalo populations. Field work, was carried out mainly in the Kruger National Park in association with Dr Roy Bengis and his colleagues - I also for a time headed the OVI research team on rabies.

That team, together with international collaborators (Dr Arthur King (UK) in particular), initiated use of then new molecular techniques (monoclonal antibodies & direct genome sequencing) to better understand the relationship between the two biotypes of rabies virus that occur in RSA, i.e. canid and viverrid. Our team demonstrated significant antigenic and genomic differences between these two biotypes that has subsequently been built upon.

After the retirement of Dr Daan Verwoerd and the 1 re-amalgamation of the OVI and the Institute for Exotic Diseases, I was appointed Director of the OVI in April 1999. That experience was not positive from my perspective, mainly because ARC Head office largely (in my opinion) removed authority for any worthwhile decision-making from directors of ARC Institutes,

leaving the impression that one was required to field the blame for whatever went wrong while having little authority to implement measures that could forestall or remedy problems.



Therefore, when I was offered an international position by the FAO (Food & Agriculture Organisation of the UN) at the end of 2000 I was happy to accept and resigned from the ARC-OVI. That brought an end to, for me, 23 very productive and happy years at Onderstepoort. However, working for most of the time in a high security lab had a down-side in that it constrained social interaction with colleagues working at the OVI and the Vet Faculty because of bio-security rules in place at that time.

While at Onderstepoort my main recreational activities involved marathon running, cycle road-racing, canoeing and squash. In none of these was I any better than average but they kept me fit and were highly enjoyable. I also became a co-editor of the first edition of the book "Infectious Diseases of Livestock" which Prof. Koos Coetzer initiated and was lead editor. Production of that book took 7 years during which time I rose at 03:45 every morning to work on "the book" before going to my day job at Onderstepoort. The success of the book was a satisfactory reward for me but not for my family!

On joining the FAO in 2000 I was seconded to work on a large European Union-funded project (Pan-African Programme for the Control of Epizootics - PACE) involving 30 countries of East, Central and West Africa; my role being 'main epidemiologist'. That job, based in Nairobi, turned out to be difficult but very stimulating; our task being to help improve surveillance for epizootic diseases in all those countries as well as ensuring the final eradication of rinderpest.

The epidemiology team that I headed comprised people of different nationalities and cultures, trained in very different places (Cuba, USSR, eastern Europe). None of these people had ever heard of me so gaining acceptance as a credible leader was challenging.

Before joining the FAO I had assumed that UN agencies would be way ahead of RSA when it came to administration and general organisation, if not knowledge of African animal diseases. However, that turned out to be a misperception. Nevertheless, I learned a tremendous amount about "Africa" and the ways of international organisations. A product of that Project was the concept of "commodity-based trade" which, after a 12 year struggle, is now becoming accepted internationally as a way of enabling trade in commodities and products derived from countries or zones that are not free from trans boundary animal diseases (TADs) like FMD. It is still controversial but I'm sure it'll be widely applied one day even if not in my life-time.

Since 2005 I have been involved in consulting - most on behalf of a small company (TAD Scientific) that Dr Mary-Lou Penrith and I co-direct. We have variety of clients both within and outside RSA. That has enabled me to work in some exotic locations such the Philippines, Mongolia, India, Pakistan and many if not most sub-Saharan African countries.

My main recent endeavour has been, together with the AHEAD Group (initially affiliated to the Wildlife Conservation Society but more recently to Cornell University), to develop mechanisms whereby wildlife conservation and commercialisation of livestock production can be made more compatible in and around southern Africa's transfrontier conservation areas (TFCAs), with the Kavango-Zambezi (KAZA) - one of the largest in the world - being the major research focus.

I have been fortunate, over many years now, to be able to conduct research into epidemic viral diseases with a wildlife component and, more importantly, help develop ways that render wild life conservation and livestock production more compatible in the extensive rangeland systems of sub-Saharan Africa. Although progress has been slow things are finally beginning to move in the right direction in my opinion.

Most recently my main effort has been directed at proposing better ways of managing the escalating FMD problem in Southern Africa, in South Africa particularly. This problem, as most vets will be aware, presents an unprecedented threat to healthy rural development in our region.

Hopefully I can continue to do that while body and mind remain together and more-or-less functional!

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***Gavin Thomson passed away on 23 April 2021,  
surrounded by his family, in Pretoria***