

Achievements of Prof Peter Roeder OBE, FRCVS, PhD, MSc, BVetMed, MRCVS

Peter is a veterinarian with broad experience of disease epidemiology, diagnosis and control. In particular he has developed specialist expertise and extensive practical experience of disciplines relating to the control of infectious and especially epidemic and zoonotic diseases, namely; disease investigation; virology; laboratory diagnostics; epidemiology; reporting and surveillance systems; disease control procedures; official veterinary service structures and functions; disease control policy setting and emergency preparedness planning. He has a proven track record in initiating, planning, executing and assessing research including seminal research on the pathogenesis and epidemiology of several of the most serious pathogens such as foot-and-mouth disease and morbilliviruses, he is skilled at project design and implementation, conducting meetings and workshops (national and international), public presentation and teaching at post-graduate student and professional levels. He has lived and worked on long term assignments for 12 years in developing countries in Africa and Asia. He has broad experience of the recognition, epidemiology, diagnosis and control of virtually all the major infectious diseases of livestock, *inter alia*: foot-and-mouth disease; rinderpest; avian influenza; Newcastle disease; *peste des petits ruminants*; Rift Valley fever; bluetongue; African horse sickness; classical swine fever; African swine fever; sheep and goat pox, lumpy skin disease; rabies; malignant catarrhal fever, contagious bovine pleuro-pneumonia; contagious caprine pleuro-pneumonia; haemorrhagic septicaemia; brucellosis; anthrax; tuberculosis and bovine spongiform encephalopathy. Prior to 1994 he worked in veterinary practice, on assignments in Botswana, Ethiopia and Nigeria and in the UK. He was based in the UK Central Veterinary Laboratory from 1979 to 1988 conducting research on animal diseases; he was awarded a PhD degree in 1994 and was seconded to the Australian Animal Health Laboratory to work on developing diagnostic tests for foot-and-mouth disease which are still the mainstay today.

Moving to The Food and Agriculture Organization (FAO) Rome Headquarters in 1994 from the Philippines, where he had been commissioning the Philippine Animal Health Centre, to form part of FAO's new EMPRES (Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases) programme, Dr Roeder took with him a wealth of technical knowledge, practical field experience and the ability to network connections with scientists and communities in many countries. His technical knowledge had been gained through studying for degrees in veterinary medicine, tropical veterinary science and veterinary virology together with over 10 years of research in veterinary pathology and 12 years of working on long-term, internationally-funded projects relating to the diagnosis, epidemiology and control of the high impact livestock diseases with an international perspective. This experience included rinderpest which he had encountered in Ethiopia in 1975 and then again in the early 1990s. The Ethiopian experience proved critical to later innovations in rinderpest control. Working in the FAO Animal Health Service in close association with senior officers Drs Yves Cheneau and Mark Rweyemamu, assignments for FAO in Rome included emergency preparedness planning and international coordination of FAO's response to major disease outbreaks including, for example, foot-and-mouth disease and Rift Valley fever while making a major contribution to GREP. Based in FAO Rome for 14 years, he travelled extensively to work in some 70 countries in Africa, Asia, the Americas, the Caribbean and Europe. Consequently he has an extensive knowledge of the conditions which prevail in developing countries and countries in transition and has assisted with the development of broadly-based

and specific national strategic plans for combating infectious diseases in such countries as Pakistan, Sudan, Iraq, Indonesia, Ethiopia and Afghanistan.

Most notably, he worked on the international coordination of transboundary animal disease epidemic control and emergency preparedness planning, including rinderpest, from 1994 to 2007. At its inception in 1994 the prime tasks perceived for GREP were to coordinate and monitor progress in eradication, to facilitate the dissemination of technical knowledge and promote a common understanding to help in local and national disease control and a final eradication strategy; it evolved a considerable managerial and supervisory function. That eradication was achieved was due to the efforts of many people in various organisations and national veterinary services. Not least among these was Dr Roeder. He was nominated for the World Food Prize in 2013 (along with FAO's Mark Rweyemamu) for his salient contributions to rinderpest elimination and eradication. In 2000 he was appointed GREP Secretary by FAO after international competition and served in this capacity until 2007 while continuing to work with other diseases such as avian influenza, until retirement from FAO. He continued thereafter to provide consultancy services, for example, to OIE's Ad Hoc Rinderpest Group overseeing accreditation of rinderpest freedom and by writing assignments.

Factors which helped GREP considerably included Dr Roeder's ability to collaborate closely with many colleagues working in the less developed countries to win their trust and respect and to be ingenious in identifying and mobilising funding from a variety of sources to support GREP. A list of some of the members of the network illustrates the eclectic mix involved and the extensive engagement and on-site negotiations and visits involved in ensuring progress. Valued colleagues included, amongst others: Dr Rafaqat Rajah, Dr Manzoor Hussain (Pakistan), Dr Gholam Ali Kiani (Iran), Dr Gijs van't Klooster, Dr Berhanu Admassu (Ethiopia), Dr Ahmed Mustaffa Hassan (Sudan), Dr Bryony Jones (Sudan), Dr Jeff Mariner (Africa and Asia), Dr Mansoor Al Qadassi, Dr Najib Al Hammadi (Yemen), Dr Habiba Sheikh Hassan Hamud (Somalia), Dr Chultemdorjiin Tungalag (Mongolia), Dr Evgeny Nepoklonov, Dr Sergei Starov (Russian Federation), Dr Feng Jing Lang, Dr Yang Shibao (China), Dr William Taylor (Asia and Africa) and Dr Richard Kock, Dr Paul Rossiter (eastern Africa) together with colleagues in the FAO IAEA Joint Division, the African Union Inter-African Bureau of Animal Resources, the Pirbright Institute and the European Commission.

Amongst the many, arguably two of his seminal contributions were of special significance in facilitating the eradication process. The first of these was establishing an understanding of the global distribution and epidemiology of rinderpest during the first four years of GREP (and continuously refining it thereafter) by field investigation and commissioning studies with colleagues such as those mentioned above. Assimilating this information led to the second important contribution which was the formulation and inception of an Intensified GREP in which a limited number of geographically defined reservoirs of persisting infection were targeted intensively using surveillance-led vaccination to terminate virus circulation. This was launched in 1999 and was originally scheduled to take five years but in retrospect it became clear that it had been successful by 2002 allowing accreditation of global freedom to proceed. Many contributed to this remarkable achievement but undoubtedly Dr Roeder's seminal contributions were pivotal in the success of GREP and the closing chapter of this centuries-long effort.

On reaching mandatory UN retirement age in June 2007 he retired from FAO and has worked since as a UK-based independent veterinary consultant. His achievements in international animal health were acknowledged by award of a Fellowship of the Royal College of Veterinary

Surgeons and being appointed an Officer of the British Empire. In addition to short term consultancies on a broad range of issues relating to animal health and veterinary services, since retirement he has been active in promoting development of a global programme for the progressive control of peste des petits ruminants through international contacts and assisting with the development of regional and national control programmes. He holds an honorary professorship at his *alma mater*, the Royal Veterinary College of London University and sits on the Scientific Advisory Board of the UK Animal and Plant Health Agency.