Human population growth continues unabated and is expected to reach about 11 billion by the end of the century, of whom about 4 billion will live in Africa.

The pressure to feed the population in a sustainable way is challenged by limited and decreasing land availability, severely constrained water sources, political instability and unique disease challenges. Currently over 2 billion people lack food security, 6 million children die of malnutrition every year and over a quarter of children in the developing world are malnourished. Meeting the demand for food in Africa will require all the creative talent of our scientists in the coming decades and will place special demands on veterinary scientists to enhance animal health and productivity and especially to do so within prevailing resource constraints and without contaminating air, soil or water. These expectations may appear overwhelming but if we all contribute in our own areas of expertise I remain confident that innovation and creativity in the profession will prevail to meet these challenges.

My own investigation of uterine disease was rooted in my frustration by the lack of commonly accepted diagnostic and therapeutic approaches that prevailed 25 years ago; some people argued that endometritis was not detrimental to reproduction and the evidence on both sides was poor. We set out to define the condition and measure its impact, establishing that, amongst dairy cows in North America it was both highly prevalent and severely detrimental. We went on to examine the epidemiology of the condition and investigate bacterial pathogens that played a role, culminating in the development of a vaccine that reduced incidence of metritis and improved reproduction. We also focused on periparturient immune and metabolic status in the pathogenesis of uterine disease.

Apart from the obvious benefit of research in enhancing animal health, welfare or productivity and adding to the arsenal of veterinary diagnostic, therapeutic and preventative tools, research is personally and intellectually satisfying. Research enriches the educational environment by encouraging a deeper understanding of subject material, by developing enthusiasm for discovery and a sense of excitement. However, research is not the exclusive preserve of academia – veterinary practitioners should be an integral part of the overall research effort and the barriers between practice and academia for research collaboration should be removed. Practitioners often have access to more cases of a specific kind than academic hospitals, and the advent of electronic records and the ability to manipulate and analyze vast databases has facilitated investigations involving many patients, herds or veterinary practices. Some practicing veterinarians find participation in research provides an outlet for their creative faculties. The vital ingredient is curiosity and an enthusiasm for the subject.

Our ability to advance veterinary practice, to feed a growing population in a healthy and sustainable way, to advance health, welfare and productivity of animals, and indeed whole populations and ecosystems, and to educate veterinarians able to adapt and flourish for 50 years after they graduate, depends on a vigorous and productive research enterprise that engages the whole profession.