Foreword

This issue of *Animal Production Science* is dedicated to papers written for the Festschrift held at the University of Sydney on 17 and 18 February 2016 to celebrate the career in animal science of Professor John L. Black AM.

In our fast-moving world, we do not pause often enough to reflect and honour those who have made significant contributions to their profession and the industries they serve. In the field of agriculture, few have contributed as meaningfully as Professor John Black. Spanning the lamb, wool, pork, poultry, dairy, beef, grain and apiculture sectors to name a few, John has been a scientific leader and mentor since 1965. In February 2016, his friends and colleagues delivered a series of presentations as part of an outstanding scientific program that covered the breadth of John's research career, highlighted the high standard and innovation in his research and how outcomes from his work forms part of modern animal production on a daily basis.

The first paper by Dr Roger Campbell and Dr Ian Williams provides an overview of the diverse range of activities John has covered during his career and highlights his work across animal species and across scientific disciplines.

The next group of papers covers many aspects of the fundamental mechanisms of nutrition where John has made a significant contribution to that understanding. These papers cover the physiological and metabolic control of diet selection, feed intake, digestion, relationships between energy and protein–amino acid utilisation, the importance of methyl donors and the impacts of nutrition on the immune system of animals.

The next group of papers covers practical outcomes from fundamental scientific principles developed by John. These include major reductions in methane emissions from ruminants using seaweed, development of artificial pollen for European honeybees, simulation modelling for integrating disparate pieces of information to improve understanding of scientific principles and for practical applications. Others cover the development of near infra-red spectroscopy for determining the nutritional value of cereal grains for different livestock species, predicting diet selection of dairy cows, and a description of how a beef producer integrated essential information to improve productivity and profitability of his enterprise.

Finally, John provides his thoughts on the future for animal research and its application.

We thank the large number of people who contributed is many ways to the success of the Festschrift and particularly the sponsors.

Professor Robert J. van Barneveld, Dr Roger G. Campbell and Professor Frank R. Dunshea