

ASSOCIATION FOR THE ADVANCEMENT OF ANIMAL BREEDING AND GENETICS

FELLOWS OF THE ASSOCIATION

“Persons who have rendered eminent service to animal breeding in Australia and/or New Zealand or elsewhere in the world, may be elected to Fellowship of the Association...”

<i>Elected February 1990</i> R.B.M. Dun F.H.W. Morley (deceased) A.L. Rae H.N. Turner (deceased)	<i>Elected September 2005</i> B.M. Bindon M.E. Goddard H.-U. Graser F.W. Nicholas
<i>Elected September 1992</i> K. Hammond	<i>Elected September 2007</i> K.D. Atkins R.G. Banks G.H. Davis
<i>Elected July 1995</i> C.H.S. Dolling J.R. Hawker J. Litchfield	<i>Elected September 2009</i> N. Fogarty A. Fyfe J. McEwan R. Mortimer R. Ponzoni
<i>Elected February 1997</i> J.S.F. Barker R.E. Freer	<i>Elected September 2011</i> B.P. Kinghorn A. McDonald
<i>Elected June 1999</i> J. Gough J.W. James	<i>Elected October 2013</i> H. Burrow P. Fennessy G. Nicoll P. Parnell
<i>Elected July 2001</i> J.N. Clarke A.R. Gilmour L.R. Piper	

HONORARY MEMBERS OF THE ASSOCIATION

“Members who have rendered eminent service to the Association may be elected to Honorary Membership...”

Elected September 2009

W.A. Pattie
J. Walkley

HEATHER BURROW



Heather was raised in the bush and began her science career by undertaking a BA at UNSW (1976) in conjunction with Prince Henry and Prince of Wales Hospitals as part of a pilot graduate nursing degree. Through a convoluted series of events she ended up working for CSIRO at Rockhampton. In 1991 she completed a Postgraduate Certificate in Animal Breeding and Genetics at UNE and in 1998 she was awarded her PhD from UNE. During the past 10 years she has completed multiple courses with the Australian Institute of Company Directors and an MBA (UNE) where she was commended for her high level of achievement.

Heather is an incredibly committed and tireless worker for her beloved Northern Australian Beef Industry and has been so for over 30 years. She initiated, conducted and led ground-breaking research on temperament of beef cattle and its relationships with economically important attributes (1986-2003), an issue that has become a major focus for research groups worldwide over the past decade because of its impact on animal welfare, on-farm productivity and beef quality. During the first Beef Cooperative Research Centre (1993-1999) she led the major Northern Breeding component. During the second Beef CRC (1999-2005), Heather continued leadership of the Northern Program and was Deputy Chief Executive Officer. Also during this time (1999-2008) she led an ACIAR project with some of the world's most disadvantaged farmers in South Africa, enabling them to become commercially-oriented beef producers trading through commercial beef value chains. In 2004 she was appointed CEO and led the bid for the third CRC and left CSIRO as a Senior Principal Research Scientist and. This was successful (2005-2012) and during the early stages Heather led the process of transitioning from an unincorporated joint venture to an incorporated company with a transformed board and management committee structure.

Heather has an exceptional record of communication to scientific and beef industry audiences through oral and written presentations as a regular invited presenter at scientific, government and industry forums in Australia and internationally. She is author or co-author of ~190 refereed journal and conference papers, five book chapters and a producer-oriented technical manual. She also provided leadership for delivery of six Special Editions in two scientific journals, including initiation and advocacy of the concept with the publishers. Heather has been on the committee of at least two AAABG conferences including President in 2005 and Chairman of a very successful Genomics Conference in 2011. Heather's passion, ability to communicate to a wide range of people, embracing of management of science and work ethic is inspirational. Thank you for your contribution to our Beef Cattle Industry and our Association. You are a very worthy Fellow.

PETER FENNESSY



Peter Fennessy graduated from the then Lincoln College with a B Agr Sc (1969) and an M Agr Sc (Hons) in 1971. He worked as a research scientist at the Ministry of Agriculture and Fisheries Invermay Research Centre for a year before commencing a PhD programme at the Waite Research Institute which he completed in 1976. Peter then returned to Invermay Research Centre where he worked on a wide range of programmes as a research scientist. In 1992, the government established AgResearch as a Crown-Owned Research Institute, and Peter took the role of General Manager of its Sheep, Deer and Equine Division for five years. After leaving AgResearch in 1997, Peter established his own business consulting to the agricultural and biotechnology industries, and went on to establish Abacus Biotech Ltd (now AbacusBio Ltd) in 2001, mainly with a group of his Invermay colleagues. Peter was Managing Director of AbacusBio through its start-up period until 2010, after which he stepped aside to return to the consulting work he enjoys so much.

Peter has an incredible passion for science, an encyclopaedic knowledge of a wide range of fields and the energy and ability to make science and technology work in businesses. His many interests have included nutrition and metabolism, intake and growth, biological efficiency, genetics of growth and carcass traits, selection and breeding, deer antlers, pubertal and seasonality traits, photoperiodic manipulation of growth and reproduction, artificial reproductive technologies, evolution and its implications in farmed species, interspecies hybrids, gene mapping and quantitative traits. This work has been undertaken mainly in sheep and deer and perhaps not surprisingly given his interests in thoroughbreds, also in horses. These efforts have contributed enormously to, and significantly underpinned, the growth of the deer and sheep farming industries in New Zealand. Peter's contribution to the New Zealand sheep and deer industries was recognised in 1990 with the awarding of the New Zealand Society of Animal Production's McMeekan Memorial Award for an outstanding individual contribution to animal science in New Zealand.

Amongst his many achievements, Peter established the Invermay Lean and Fat Coopworth selection lines in 1979 to address the "overfat" lamb problem. The selection lines were used to understand the genetics of carcass composition, in particular to investigate responses to selection for leanness in the sheep industry. This contributed to the rapid uptake of ultrasound scanning to improve carcass composition in the sheep industry. These lines were subsequently used in a large scale programme to detect quantitative trait loci for growth and meat quality traits.

Peter was a driving force in the creation of the AgResearch Molecular Biology Unit (now the AgResearch Genomics Group), which was a joint venture between AgResearch and Otago University. The Molecular Biology Unit developed the first map of the sheep genome using microsatellite markers, which was used in a number of large scale QTL experiments. Peter was also a key person in the establishment of Ovita, the Sheep biotechnology research consortium that commenced in 2001. Peter was a director and a key person behind the scenes in setting up the consortium, which has resulted in eight commercial DNA tests for production traits and genomic predictions for 28 traits including facial eczema in a variety of New Zealand sheep breeds.

In addition to his research accomplishments, Peter has also had a huge number of interactions with commercial farmers, breeders and farm businesses with a strong focus on how to make science work on farm.

For his outstanding contributions to the science of genetics and animal improvement The Association for the Advancement of Animal Breeding and Genetics is pleased to enrol him as a fellow of the Society.

GEOFF NICOLL



Geoff Nicoll graduated with a BAgrSc degree from Massey University in 1972. He followed this with an MAgrSc(Hons) degree (1975) under the tutelage of Professor Al Rae while at the same time working as a Junior Lecturer in the Sheep Husbandry Department. Upon leaving Massey, Geoff took up a farm advisory position and then became a research scientist before travelling to Grange, Ireland, to undertake his PhD with the National University of Ireland. Geoff returned to New Zealand in 1981 and was seconded from the Lands and Survey Department to work as a scientist at Whatawhata Hill Country Research Station, and subsequently at MAF's Ruakura Agricultural Centre. In 1987, Geoff became Head of the Genetics and Nutrition Unit for Landcorp Farming Ltd. In 2011, the Landcorp Genetics operation merged with Rissington Breedline to form a joint venture company called Focus Genetics. Geoff has recently announced his retirement.

As Head of Landcorp's Genetics and Nutrition Unit, Geoff was responsible for (amongst other roles) the scientific and technical integrity of Landcorp's sire-breeding programmes. This operation provided seedstock for Landcorp's considerable animal resources, which included about 600,000 ewes, 70,000 beef cows and 65,000 hinds. This necessitated the management of 11 sire-breeding programmes involving some 25,700 fully performance-recorded animals in 17 individual flocks and herds.

Geoff made major contributions in overseeing the introduction of new technologies into the Landcorp breeding schemes including use of DNA markers, CT scanning and the formation of new composites such as Landcorp Lamb Supreme and Landcorp Landmark. Not all explorations went as successfully as these prior examples, but for those pushing the boundaries of technology, the occasional misfire is bound to happen. With Geoff's animal breeding and genetics expertise the application of CT scanning achieved 30% greater genetic gain in weight of meat in the carcass, while at the same time halving the weight of fat and doubling the improvement in eye muscle area, compared with using ultrasound-based selections. Another of Geoff's successes was the importation of semen from rams carrying a major gene for muscling (Carwell). Research by staff at Landcorp and AgResearch demonstrated that animals expressing the gene had approximately 8% more muscle weight in the loin, with no significant effect elsewhere in the carcass, when compared to contemporaries that did not express the gene. Follow-up research located the gene responsible. Geoff was a major contributor at all stages in this work including the management of the genetic resource animals, the design and implementation of the experimental programme and as Landcorp's representative on the management committee for the programme. It should be clear from these examples that Geoff added significant value to an already well-oiled genetic improvement programme. While the initial intent was to only provide seed-stock for Landcorp farms, surplus animals have been made available to the wider industry, enabling others to benefit from Geoff's successes.

Geoff's advice on genetic improvement has been regularly sought by industry breeders both within New Zealand and offshore, and he was regularly invited to speak at international meetings on the implementation of genetics and breeding theory to on-farm genetic improvement. Geoff has a strong publication record, with the majority of these being technical reports and conference papers which spoke to his primary audiences. Geoff published his first AAABG paper in 1987 and has been a regular contributor ever since. Geoff was a member of the Eighth AAABG Committee in 1990 and is currently AAABG Vice President. He has also contributed significantly to other professional societies including the New Zealand Society for Animal Production

(Secretary 1983 to 1985; President, 1994) and the Asian-Australasian Association of Animal Production (Secretary-General 1985 to 1987).

Dr Geoff Nicoll has made an outstanding contribution to the New Zealand livestock industry, not only directly through his leadership in the application of genetic principles to benefit Landcorp's livestock, but also through his support for good science and his production of scientific papers. His ability to develop and translate science in a commercial and practical manner is exceptional.

For Geoff's major contribution to the application of animal breeding and genetics to livestock industries in New Zealand, the Association for the Advancement of Animal Breeding and Genetics is pleased to elect him as a Fellow of the Association.

PETER PARNELL



Dr Peter Parnell has made an outstanding contribution to research and application of genetic technologies in Australia.

Peter graduated from the University of New England in 1981 with a Bachelor of Rural Science with 2nd Class Honours. He went on to do a PhD at the Animal Genetics and Breeding Unit under the supervision of Professor Stewart Barker and Dr Keith Hammond, completing his thesis in 1988.

From March 1985 to April 1995 Peter worked as a Senior Research Officer for the NSW DPI leading the research project into Feed Efficiency of high and low feed efficiency lines of Angus cattle. He established Net Feed Efficiency as the measure of Feed Efficiency in these selection lines.

From April 1995 to April 1996 Peter was employed as the breed development officer of the Murray Grey Breed Society and introduced a scientific approach to this breed society.

From April 1996 to July 2001 Peter was the Breed Development Manager for Angus Australia during which he developed a very strong performance based ethos for the society.

From August 2001 until April 2009 Peter was the Centre Director of the NSW DPI Beef Industry Centre of Excellence based in Armidale. From July 2004 to April 2009 he was NSW DPI's Research Leader of Beef Genetics and Improvement.

During this time Peter played a key role in the design of the Maternal Productivity Project, which was a major program in the Co-operative Research Centre for Genetic Technologies in Beef Cattle.

He was also the leader of the very successful CRC Accelerated Adoption Project which utilised "Beef Profit Partnerships" (BPPs) across Australia and New Zealand. BPPs were a system of partnerships between beef businesses, value chains and the broader beef industry designed to accelerate improvements, innovations and adoption for sustainable and quantifiable impact on business profit.

From August 2003 until April 2009, Peter was an Adjunct Associate Professor of the University of New England.

Since May 2009 Peter has been the Chief Executive Officer of Angus Australia with a strong input into the applications of genetic technologies to the Australian cattle breeding industry.

Peter is currently a consultant to the Southern Beef Technologies Service (SBTS), which is a joint venture between Meat and Livestock Australia, ABRI and 15 temperate cattle breed societies aimed at increasing the understanding and use of genetic technologies by beef cattle seedstock and commercial breeders.

Peter has authored 25 refereed research publications including a number of papers presented to AAABG Conferences and has presented over 70 conference papers.

Peter has a passion for the application of innovation into the beef industry. He has excellent communication abilities, which have allowed him to translate research outcomes into readily useable on-farm applications.

For his outstanding contributions to the genetic improvement of the Australian beef herd, the Association for the Advancement of Animal Genetics and Breeding is pleased to enrol him as a Fellow of the Association.