Dr Rafat Al Jassim, *BSc, MSc, PhD*
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Dr Al Jassim is a Nutrition Biochemist and Gut Microbiologist who is holding an Honorary Associate Professor position at the Centre of Animal Science, Queensland Alliance for Agriculture and Food Innovation (QAAFI), The University of Queensland, Australia.

Dr Rafat Al Jassim is an animal scientist with specialisation in Nutrition Biochemistry and Gut Microbiology and their application to bovine, equine and camel husbandry. He has experience in nutrition research especially of the ruminant animals. During the past 20 years, the focus of his research programs was on the impact of commensal gut microorganisms in large animal health and disease and the role of gut microbial ecology in the nutrition of domesticated and wild herbivores. Interaction between diet and the microbial community of the intensively managed animals has been of particular interest. Recent research programs have dealt with variety of topics including the use of plant extracts to control pathogenic microorganisms such as Campylobacter, isolation of bacteria with the ability to degrade mimosine and prevent leucaena toxicity, monensin toxicity in camels, seasonal changes in tropical grass quality and its impact on methane emission and rumen microbiota, impact of heat stress on rumen microbiota, the development of probiotic bacteria to reduce or prevent the risk of acidosis in ruminants and the effect of indospicine in camels.

Dr Rafat Al Jassim is a graduate of Baghdad University (BSc Animal Science), the University of Wales UK (MSc Animal Nutrition) and the University of New South Wales, Australia (PhD Animal Nutrition). Before joining UQ in 2000, Dr Al Jassim was a Senior Research fellow at the University of New England (1997-2000), visiting Scientist at Ian Clunies Ross Laboratories CSIRO Sydney (1995-1997), Associate Professor at Jordan University of Science and Technology (1991-1995), and Associate Professor at Baghdad University (1985-1991).

Dr Al Jassim has recently retired from The University of Queensland after 16 years of service at Gatton Campus and 30 years in academia.

Publications:
Peer refereed journals: 78
Book chapters: 4
Selected invited and refereed conference papers: 46
Others (studies, patents, reports): 5

Publications in peer refereed journal in the past five years

2020

1. A.M. Abudabos; M.M. Abdelrahman; R.M. Alatiyat; M. R. Aljumaah; R. Al Jassim and D. Stanley. 2020. Effect of dietary inclusion of graded levels of distillers dried grains with solubles on the performance, blood profile and rumen microbiota of Najdi lambs. *Heliyon*, 2020: e05683, 1-10.
2. Eddie T.T. Tan, Jack C. Ng, Rafat Al Jassim, Bruce R. D'Arcy, Gabriele Netzel, Mary T. Fletcher. 2020. Emerging Food Safety Risk of Hepatotoxic Indospicine in Feral Australian Camel Meat. *Food Control*. First published online on 26 Feb 2020. https://www.sciencedirect.com/science/article/abs/pii/S0956713520301213?via%3Dihub
3. D. S. Al Ajmi, J. B. Gaughan, J. Cudmore, C. S. McSweeney and R. A. M. Al Jassim, 2019, Dietary effects on the shedding of Escherichia coli O157:H7 by naturally colonized feedlot steers. In preparation.
4. Lindsey Perry, Rafat Al Jassim, Nigel Tomkins, Rosalind Gilbert, Athol Klieve and Mark Morrison. 2019. Archaeal communities associated with seasonal diet quality in Bos indicus cattle grazing forages representative of northern Australia. *Animal Production Science*, submitted.

2019

5. Gabriele Netzel, Eddie T. T. Tan, Mukan Yin, Cindy Giles, Ken W.L. Yong, Rafat Al Jassim, Mary T. Fletcher. 2019. Bioaccumulation and distribution of indospicine and its rumen metabolites in camels fed *Indigofera spicata.*11, 169; doi:10.3390/toxins11030169.
6. Al Jassim, R. 2019. Metabolisable energy and protein requirements of the Arabian camel (*Camelus dromedarius*), *J Camelid Sci*., 12: 33-45. http://www.isocard.net/en/journal.

2018

7. **A reference genome set for the ruminant microbiome, 2018,** Rekha Seshadri, Sinead C Leahy, Graeme T Attwood, Koon Hoong Teh, Suzanne C Lambie, Emiley Eloe-Fadrosh, Georgios Pavlopoulos, Michalis Hadjithomas, Neha Varghese, **Hungate1000 project collaborators**, Rechelle Perry, Gemma Henderson, Christopher J Creevey, Nicolas Terrapon, Pascal Lapebie, Elodie Drula, Vincent Lombard, Edward Rubin, Nikos Kyrpides, Bernard Henrissat, Tanja Woyke, Natalia Ivanova, William J Kelly. *Nature Biotechnology*; New York, Vol 36, Issue 4 (April 2018)**:** 359-367**. IF: 41.667**

2017

8. L. A. Perry, **R. Al Jassim**, J. B Gaughan and N. W Tomkins. 2017. Methane production in *Bos indicus* steers is affected by seasonal changes in the chemical composition of tropical C4 grasses, *Animal Production Science*, 57: 2033–2041.
9. Alaeldein Mahmood Abudabos1 & Raed Muhammad Al-Atiyat1 & Dragons Stanley & Rafat Aljassim & Hamad Ali Albatshan. 2017.The effect of corn distiller's dried grains with solubles (DDGS) fortified with enzyme on growth performance of broiler. Environ Sci Pollut Res, 24:21412–21421.

10. Hafida Trabelsi, Abdelmadjid Chehma, Rafat Al Jassim, Abdelhakim Senoussi. 2017. Camel as seed disperser in the northern Sahara rangelands of Algeria, *International Journal of Biosciences*, 10 (4): 58-65.
11. Alaeldein M. Abudabos & Raed M. Al-Atiyat & Hamad A. Albatshan & Rafat Aljassim & Mashael R. Aljumaah & Manal M. Alkhulaifi & Dragana M. Stanley. 2017. Effects of concentration of corn distillers dried grains with solubles and enzyme supplementation on cecal microbiota and performance in broiler chickens, *Applied Microbiology and Biotechnology*, **101**: 7017-7026.
12. Eddie T. T. Tan, Rafat Al Jassim, Bruce R. D'Arcy, and Mary T. Fletcher. 2017. *In vitro* biodegradation of hepatotoxic indospicine in *Indigofera spicata* and its degradation derivatives by camel foregut and cattle rumen fluids, *Journal of Agricultural and Food Chemistry*, *65* (34), pp 7528–7534.
13. Rafat Al Jassim and Allan Lisle. 2017. Prediction and Management of the Feral Camel Population in Australia, proceedings of the 2016 Conference on Conservation of Wildlife through Sustainable Use, (30 Aug- 1 Sept. 2016), Brisbane, Australia. Pp. 74-77.
14. L. A. Perry, R. Al Jassim, J. B. Gaughan and N. W. Tomkins. 2017. Effect of feeding forage characteristic of wet- or dry-season tropical C4 grass in northern Australia, on methane production, intake and rumen outflow rates in Bos indicus steers. *Animal Production Science*. 57: 2033-2041

2016

15. Eddie T. T. Tan, Christopher Materne, Richard Silcock, Bruce R. D'Arcy, Rafat Al Jassim and Mary T. Fletcher. 2016. Seasonal and Species Variation of the Hepatotoxin Indospicine in Australian *Indigofera* Legumes as Measured by UPLC−MS/MS, *Journal of Agriculture and Food Chemistry*. 64: 6613-6621.
16. Tan, Eddie; Yong, Ken; Wong, Siew Hoon; D'Arcy, Bruce; Al Jassim, Rafat; De Voss, James; Fletcher, Mary. 2016. Thermo-alkaline Treatment as a Practical Degradation Strategy to Reduce Indospicine Contamination in Camel Meat. *Journal of Agricultural and Food Chemistry*
17. Eddie T. T. Tan, Rafat Al Jassim, Bruce D'Arcy, and Mary T. Fletcher. 2016. Level of Natural Hepatotoxin (Indospicine) Contamination in Australian Camel Meat. *Food Additives and Contaminants*, Part A, 33:10, 1587-1595.
18. Tan, Eddie; Al Jassim, Rafat; Cawdell-Smith, Judy; Ossedryver, Selina; D'Arcy, Bruce; Fletcher, Mary. 2016. Accumulation, persistence and effects of indospicine residues in camels fed Indigofera plant. *Journal of Agricultural and Food Chemistry*, 64: 6622-6629.
19. Al Jassim R.A.M., Shahsavari A., Owen H. and Khamas W. 2016. Gross pathology, biochemistry and histology of selected organs of camels suffering from suspected monensin toxicosis in Australia. *Journal of Veterinary Science and technology*, 7 (3): 1-5.
20. Hooman Derakhshani, Sean W. Corley, and **Rafat Al Jassim**. 2016. Isolation and characterisation of mimosine, 3, 4 DHP and 2, 3 DHP degrading bacteria from a commercial rumen inoculum. *Journal of Basic Microbiology*, 56 (5): 580-585.
21. Arash Shahsavari, Michael J. D'Occhio and **Rafat Al Jassim**. 2016. The role of rumen-protected choline in hepatic function and performance of transition dairy cows. *British Journal of Nutrition*, 116 (1): 35-44.
22. Rafat Al Jassim and Veerasamy Sejian. 2016. Review paper: Climate change and camel production: impact and contribution. *Journal of Camelid Science*, 8: 1-17.