André de Almeida (Short CV)

André M. de Almeida was born in Lisbon (Portugal), December 1974. AM Almeida obtained a Degree in Animal Science by the University of Évora (1998), an MSc in Tropical Veterinary Medicine by the Fac. Vet. Medicine (Lisbon, 2000) and a PhD in Biology by the Instituto de Tecnologia Química e Biológica (ITQB, 2005).

AM Almeida was a Researcher at the Instituto de Investigação Científica Tropical (Lisboa, Portugal) from 2008-2014, after a 3 year post-doc at the same institution. AM Almeida was Professor of Animal Nutrition and Animal Science at Ross University School of Veterinary Medicine (St. Kitts, West Indies) during 2015 and 2016. Since 2017 he is Professor of Animal Science at the Faculty of Agriculture of the University of Lisbon (Portugal).

AM Almeida has made research stays at several institutions outside of Portugal: CSIC/IBMB Molecular Biology Institute Barcelona (Spain), University of the Free State (South Africa), Dryland Research Station (WA, Australia), Rothamstead Research (st. Albans, UK) and Agreearch (Lincoln, New Zealand), among others.

Research interests are vast but are mainly dedicated to studies in the physiology, disease and production of farm animals, using Proteomics and Mass Spectrometry.

AM Almeida has attended 2 EMBO courses (Proteomics and Mass spectrometry, Odense, Denmark 2007; Tissue Microarray, Dublin, Ireland 2008).

AM Almeida participate(d) in numerous national and international Research projects and was awarded a visiting Scientist Research grant from the government of the State of Western Australia (Perth, WA, Australia) and was Vice-Chair of COST action FA1002 – Proteomics in Farm Animals, financed by the European Science Foundation.

Research collaborations include: CSIC/IBMB (Spain), Dryland Research Station (Australia), AgResearch (New Zealand), University of Aarhus (Denmark), University of Bonn (Germany), Canary Islands Agronomical Research, Institute (Spain), University of Las Palmas de Gran Canaria (Spain), University of the Free State (South Africa), Rothamstead Research (UK), CIRAD/INRA (Guadeloupe, FWI, France) and more recently the Faculty of Veterinary Medicine in Košice (Slovakia); and in Portugal, the University of Évora, the Faculty of Sciences (Lisbon), the Faculty of Veterinary Medicine (Lisbon), the Agronomical Research Institute (Lisbon), the National Animal Science Research Station (Santarém) and the Marine Sciences Research Centre (Oporto). AM Almeida has finally participated as a consultant to two Development Projects in Guinea Bissau, financed by the European Commission and is a member of COST evaluation committee.

AM Almeida has published 4 books, 24 international book chapters (including one edited by the Food and Agricultural Organization of the United Nations) and over 80 papers in international peer-reviewed journals, as well as numerous International Congress Proceedings and technical publications. AM Almeida is presently the editor in chief of Tropical Animal Health and Production (Springer) and an invited editor of Journal of Proteomics (Elsevier) and is a regular reviewer for several journals (. AM Almeida has presented over 50 posters and oral communications in international conferences and lectured several invited oral presentations in Portugal, Spain, Sweden, Norway, Turkey, Austria, Australia and New Zealand, among others. He is regularly invited for teaching seminars at the Faculty of Sciences and the Faculty of Veterinary Medicine and the Faculty of Sciences, both in Lisbon.

André Almeida currently supervises one PhD student and has supervised 7 MSc students, and has been a member of the jury of PhD thesis in Portugal, France and Spain.

Grants obtained (selected)

European funded Projects

- 1. 2018-2020 Dairy4future, Atlantic Space Interreg project
- 2. PRIME-XS-0000241 The sheep (Ovis aries) muscle proteome: decoding the mechanisms of tolerance to Seasonal Weight Loss. Experimental Project financed by the PRIME-XS consortium (7th Framework Program: http://www.primexs.eu/).
- 3. PRIME-XS 286 project Pasture based vs. industrial beef production meat proteome. Experimental Project financed by the PRIME-XS consortium (7th Framework Program: http://www.primexs.eu/) Coordination
- 4. COST FA1308 Dairycare, Member of the Managing Committee
- 5. COST TD1101 A collaborative European Network on Rabbit Genome Biology (RGB-Net). Member of the Managing Committee.
- 6. COST FA1002 Farm Animals Proteomics. Participation in the proposal elaboration committee and member of the Management Committee. Elected Vice-Chair of the Action.

National Projects

1. 2018-2020 - PTDC/CAL-ZOO/29654/2017 - a multi-Omics approach to study rumen lipid metabolism to improve ruminant products. Funded by the National Science and Technology Foundation (Lisbon, Portugal)

- 2018-2020 "Preparing Hispanic students for internship positions in dairy science through experiential learning and English enhancement". Funded by the The National Institute of Food and Agriculture (NIFA) of the United States Department of Agriculture (USDA) – Participation as external collaborator (PI Guillermo Colon, University of Puerto Rico, Recinto de Mayaguez, Puerto Rico)
- 3. 2016-2017"Hepatic biochemical pathways and seasonal weight loss tolerance in sheep 2: the mitochondrial proteome" Project funded by Ross University School of Veterinary Medicine Coordination;
- 4. 2016-2017 "Immune and metabolic relationship associated with performance-based physical activity in bottlenose dolphins (Tursiops truncatus)" Project funded by Ross University School of Veterinary Medicine Participation (PI Don Bergfelt, Ross University School of Veterinary Medicine, St. Kitts)
- 5. 2015-2016 "Sheep Liver Omics: the effect of feed restriction" Project funded by Ross University School of Veterinary Medicine Coordination
- 6. 2015-2016 "Blood proteins and non-protein metabolic hormones associated with short-term physical activity in bottlenose dolphins (Tursiops truncatus)" Project funded by RUSVM Participation (PI Don Bergfelt, Ross University School of Veterinary Medicine, St. Kitts);
- 7. 2015-2016 "The slick hair phenotype in dairy cattle: the hair proteome and adaptation to warm environments". Project funded by Ross University School of Veterinary Medicine Coordination
- 8. 2012-2015 Lactation and milk production in Goat (Capra hircus): identifying molecular markers underlying adaptation to seasonal weight loss. Project financed by FCT Fundação para a Ciência e a Tecnologia (PTDC/CVT/116499/2010);
- 9. 2011-2013 ER_TRANSPROT "Ehrlichia ruminantium proteome analysis: a complementary approach to transcriptomics towards increased knowledge on heartwater pathogenesis and vaccine development" Principal Investigator: Isabel Marcelino (IBET and CIRAD). Project financed by FCT Fundação para a Ciência e a Tecnologia (PTDC/CVT/114118/2009)
- 10. 2011-2014 Deciphering grain filling mechanisms in Phaseolus vulgaris L. under water deficit Principal Investigator: Susana Sousa Araújo (IICT). Project financed by FCT Fundação para a Ciência e a Tecnologia (PTDC/AGR-GPL/110244/2009)
- 11. 2010-2013 Plant responses to trace element toxicity: cellular mechanisms for detoxification and tolerance Principal Investigator: Miguel Mourato (ISA/UTL). Project financed by FCT Fundação para a Ciência e a Tecnologia (PTDC/AGR-AAM/102821/2008)
- 12. 2010-2012: Integration of transcriptomic, proteomic and metabolomics profiles to understand the role of T6P in the water deficit response and recovery in *Medicago truncatula* Principal Investigator: Susana Sousa Araújo (ITQB/UNL). Project financed by FCT Fundação para a Ciência e a Tecnologia (PTDC/AGR-GPL/099866/2008).
- 13. 2007-2008: A comparison of Damara, Dorper and Merino sheep breeds to nutritional stress, Principal Investigators (PI): André de Almeida and Tanya Kilminster. Project financed by the Department of Agricuture and Food, Government of Western Australia, Perth, WA, Australia Finished
- 14. 2004-2008: Studies on genetic and physiological characterization of sheep adaptation to food restriction, Principal Investigator: Luís Alfaro Cardoso. Project financed by FCT Fundação para a Ciência e a Tecnologia (POCI/CVT/57820/2004) Finished.

Selected Publications

Books (last 5 years)

- 1. Proteomics in Domestic Animals: from Farm to Systems Biology, Edited By AM Almeida, DE Eckersall and I Miller, Springer Verlag, Berlin, Germany). ISBN: 978-3-319-69681-2 (printed) and ISBN: 978-3-319-69682-9 (ebook).
- 2. Farm animal proteomics 2014 Proceedings of the 5th Managing Committee Meeting and 4th Meeting of Working Groups 1, 2 & 3 of COST Action FA1002. Edited by AM Almeida, F Ceciliani, D Eckersall, I Miller, J Renaut, P Roncada, and M Turk, Wageningen Academic Press (Wageningen, The Netherlands). ISBN: 9086862624.
- 3. Farm animal proteomics 2013 Proceedings of the 4th Managing Committee Meeting and 3rd Meeting of Working Groups 1, 2 & 3 of COST Action FA1002. Edited by AM Almeida, D Eckersall, E Bencurova, S Dolinska, P Mlynarcik, M Vincova and M Bhide, Wageningen Academic Press (Wageningen, The Netherlands). ISBN: 978-90-8686-222-1.
- 4. Farm Animal Proteomics Proceedings of the 3rd Managing Committee Meeting and 2nd Meeting of Working Groups 1, 2 & 3 of COST Action FA1002. Edited by P. Rodrigues, D. Eckersall and A.M. Almeida, Wageningen Academic Press (Wageningen, The Netherlands). ISBN: 978-90-8686-195-8.

Book Chapters (last 5 years)

1. Almeida AM, Miller I, Eckersall D (2018). Proteomics in Domestic Animals on a Farm to Systems Biology Perspective: Introductory Note. In Proteomics in Domestic Animals: from Farm to Systems Biology, Edited By AM Almeida, DE Eckersall and I Miller, Springer Verlag, Berlin, Germany). ISBN: 978-3-319-69681-2 (printed) and ISBN: 978-3-319-69682-9 (ebook): 1-6.

- 2. Osorio H, Almeida AM, Campos AM (2018). Sample preparation for 2DE using samples of animal-origin. In Proteomics in Domestic Animals: from Farm to Systems Biology, Edited By AM Almeida, DE Eckersall and I Miller, Springer Verlag, Berlin, Germany). ISBN: 978-3-319-69681-2 (printed) and ISBN: 978-3-319-69682-9 (ebook): 37-54.
- 3. Veiseth-Kent E, Almeida AM, Picard B, Hollung K (2018). Proteomics in skeletal muscle research. In Proteomics in Domestic Animals: from Farm to Systems Biology, Edited By AM Almeida, DE Eckersall and I Miller, Springer Verlag, Berlin, Germany). ISBN: 978-3-319-69681-2 (printed) and ISBN: 978-3-319-69682-9 (ebook): 195-218.
- 4. Almeida AM, D Eckersall (2018). Proteomics and mammary gland research in dairy species. In Proteomics in Domestic Animals: from Farm to Systems Biology, Edited By AM Almeida, DE Eckersall and I Miller, Springer Verlag, Berlin, Germany). ISBN: 978-3-319-69681-2 (printed) and ISBN: 978-3-319-69682-9 (ebook): 255-280.
- 5. Palma M, Almeida AM, Matzapetakis M (2018). NMR Metabolomics pari passu with Proteomics: two relevant tools for animal sciences. In Proteomics in Domestic Animals: from Farm to Systems Biology, Edited By AM Almeida, DE Eckersall and I Miller, Springer Verlag, Berlin, Germany). ISBN: 978-3-319-69681-2 (printed) and ISBN: 978-3-319-69682-9 (ebook): 447-442.
- 6. Almeida AM, Miller I, Eckersall D (2018). Proteomics in Domestic Animals on a Farm to Systems Biology Perspective: Final Remarks and Future Prospects. In Proteomics in Domestic Animals: from Farm to Systems Biology, Edited By AM Almeida, DE Eckersall and I Miller, Springer Verlag, Berlin, Germany). ISBN: 978-3-319-69681-2 (printed) and ISBN: 978-3-319-69682-9 (ebook): 487-489.
- 7. Almeida AM (2016). Chapter 13: Poultry and rabbit meat proteomics. In Proteomics in Food Science From Farm to Fork. Edited by Michelle Colgrave, Elsevier publishing (Oxford, UK) ISBN: 978-0-12-804007-2: 215-224.
- 8. Parreira JR, Branco D, Almeida AM, Czubacka A, Agacka-Moldoch M, Paiva J, Tavares-Cadete F, SS Araujo (2016). Systems Biology approaches to improve drought stress in plants: state of the art and future challenges. In Drought tolerance in plants vol 2: Molecular and Genetics prespectives. Edited by Hossain MA, Wani SH, Bhattacharjee S, Burrit DJ and Tran LM. Springer Verlag (Berlin, Germany) ISBN: 978-3-319-32421-0 (Print) and ISBN 978-3-319-32423-4 (eBook): 433-472.
- 9. Duranthon V, Araújo SS, Palma M, Rau A, Matzapetakis M, Almeida AM. Rabbit research in the post-genomic era: transcriptome, proteome and metabolome analysis. Edited by L Fontanesi, CAB Publishers (in press).
- 10. Almeida AM (2014) The Portuguese Black Merino. In Timeless Coloured Sheep: 48-50. Edited by D DuToit. M Imhof Verlag, Petersberg, Germany.
- 11. Vaz Patto MC, A Vaz Patto, AM Almeida (2014) A Brief introduction to Serra da Estrela sheep. In Timeless Coloured Sheep: 51-53. Edited by D DuToit. M Imhof Verlag, Petersberg, Germany.

Scientific papers in international peer-reviewed journals (cited in ISI) last 5 years

- 1. Miller BA, Selevsek N, Grossman J, Kilminster T, Scanlon T, Daniels M, Nanni P, Milton J, Oldham C, Greeff J, Chapwanya A, Bergfelt D, de Almeida AM (2018). Ovine liver proteome: assessing mechanisms of seasonal weight loss tolerance between Merino and Damara sheep. Journal of Proteomics (in press).
- 2. Bergfelt DR, Lippolis J, Vandenplas M, Davis S, Miller BA, Madan R, Kline M, Martinez M, Sanchez-Okrucky R, Almeida AM (2018). The proteome of exhaled breath condensate proteome in bottlenose dolphins (Tursiops truncatus): relationship to the plasma proteome. Aquatic Mammals (in press).
- 3. Palma M, Alves S, Hernández-Castellano LE, Capote J, Castro N, Arguello A, Matzapetakis M, Bessa RJ, Almeida AM (2017). Mammary gland and milk fatty acid composition of two dairy goat breeds under feed-restriction. Journal of Dairy Research 84: 264-271.
- 4. Ferreira AM, Grossmann J, Fortes C, Kilminster T, Scanlon T, Milton J, Greeff J, Oldham C, Nanni P, Almeida AM (2017). The sheep (Ovis aries) muscle proteome: Decoding the mechanisms of tolerance to Seasonal Weight Loss using label-free proteomics. Journal of Proteomics 161:57-67
- 5. Miller BA, Nanni P, Fortes C, Gorssmann J, Arreola MR, Vences M, Canales R, Sanchez-Okrucky R, Almeida AM, Bergfelt D (2017). Plasma Proteome and Clinical Biochemistry Associated with Performance-Based Physical Activity in Bottlenose Dolphins (Tursiops truncatus). Aquatic Mammals 43: 453-464.
- 6. Palma M, Scanlon T, Kilminster T, Milton J, Oldham C, Greeff J, Matzapetakis M, Almeida AM (2017). The hepatic and skeletal muscle ovine metabolomes as affected by weight loss: a study in three sheep breeds using NMR-metabolomics. Scientific Reports 2016 Dec 14;6:39120.
- 7. Campos AMO, Almeida AM (2016). Top-Down Proteomics and farm animal and aquatic sciences. Proteomes 4: pii: E38. doi: 10.3390/proteomes4040038.
- 8. Almeida AM, Nanni P, Ferreira AM, Fortes C, Grossmann J, Bessa RJB, Costa P (2017). The longissimus thoracis muscle proteome in Alentejana bulls as affected by growth path. Journal of Proteomics 152: 206-215.
- 9. Pires VM, Madeira MS, Dowle AA, Thomas J, Almeida AM, Prates JA (2016). Increased intramuscular fat induced by reduced dietary protein in finishing pigs: effects on the longissimus lumborum muscle proteome. Molecular Biosystems 12: 2447-2457.
- 10. Hernandez-Castellano LE, Almeida AM, Renaut J, Arguello A, Castro N (2016). A proteomics study of colostrum and milk from the two major small ruminant dairy breeds from the Canary Islands: a bovine milk comparison prespective. Journal of Dairy Research 83: 366-374.
- 11. Cugno G, Parreira JR, Ferlizza E, Hernández-Castellano LE, Carneiro M, Renaut J, Castro N, Arguello A, Capote J, Campos AM, Almeida AM (2016). The Goat (Capra hircus) Mammary Gland Mitochondrial Proteome: A Study on the Effect of Weight Loss Using Blue-Native PAGE and Two-Dimensional Gel Electrophoresis. PLoS One. 2016 Mar 31;11(3):e0151599.

- 12. Palma M, Hernández-Castellano LE, Castro N, Arguëllo A, Capote J, Matzapetakis M, de Almeida AM (2016). NMR-metabolomics profiling of mammary gland secretory tissue and milk serum in two goat breeds with different levels of tolerance to seasonal weight loss. Molecular Biosystems 12: 2094-2107.
- 13. Ferreira AM, Marques A, Fontanesi L, Thulin C-G, Sales-Baptista E, Araujo SS, Almeida AM (2016). Identification of a Bitter-Taste Receptor Gene Repertoire in Different Lagomorphs Species. Frontiers in Genetics Livestock Genomics 7: 55.
- 14. Hernández-Castellano LE, Ferreira AM, Nanni P, Grossmann J, Argüello A, Capote J, Cai G, Lippolis J, Castro N, Almeida AM (2016). The goat (Capra hircus) mammary gland secretory tissue proteome as influenced by weight loss: A study using label free proteomics. Journal of Proteomics 145: 60-69.
- 15. Marco-Ramell A, Almeida AM, Cristobal S, Rodrigues PM, Roncada P, Bassols A (2016). Proteomics and the search for welfare and stress biomarkers in animal production in the one-health context. Molecular Biosystems 12: 2024-2035.
- 16. Marcos C, Viegas C, Almeida AM, Guerra MM (2016). Portuguese traditional sausages: different types, nutritional composition, and novel trends. Journal of Ethnic Foods 3: 51-60.
- 17. Parreira JR, Bouraada J, Silvestre S, Bernardes da Silva AB, Marques da Silva J, Almeida AM, Altelaar AF, Fevereiro PS, Araujo SS (2016). Differential proteomics reveals the hallmarks of seed development in common bean (Phaseolus vulgaris L.). Journal of Proteomics 143: 188-198.
- 18. Almeida AM, Palhinhas RG, Kilminster T, Scanlon T, van Harten S, Milton J, Blache D, Greeff J, Oldham C, Coelho AV, Cardoso LA (2016). The Effect of Weight Loss on the Muscle Proteome in the Damara, Dorper and Australian Merino Ovine Breeds. PLoS One. 2016 Feb 1;11(2):e0146367
- 19. Alves S, Raundrup K, Cabo A, Bessa RJB, Almeida AM (2015). Fatty Acid Composition of Muscle, Adipose Tissue and Liver from Muskoxen (Ovibos moschatus) Living in West Greenland. PLoS One. 2015 Dec 17;10(12):e0145241.
- 20. Bustos AY, Font de Valdez G, Raya R, Almeida AM, Fadda S, Taranto MP (2015). Proteomic analysis of the probiotic Lactobacillus reuteri CRL1098 reveals novel tolerance biomarkers to bile acid-induced stress. Food Research International 77: 599-607.
- 21. Fadda S, Almeida AM (2016). Proteomics in Argentina limitations and future perspectives: a special emphasis on meat proteomics. Proteomics 5(21):3676-87.
- 22. Ferreira AM, Marques AT, Cubric-Curik V, Hollung K, Knight C, Raundrup K, Lippolis JD, Palmer MV, Baptista ES, Araujo SS, Almeida AM (2015). Sequence analysis of a bitter taste receptor (T2R) genes repertoire in diverse ruminant species. PLoS One. 2015 Jun 10;10(6):e0124933.
- 23. Lerias JR, Pena R, Hernandez-Castellano LE, Capote J, Castro N, Arguello A, Araujo S, Saco Y, Bassols A, Almeida AM (2015). Establishment of the biochemical and endocrine blood profiles in the Majorera and Palmera dairy goat breeds: the effect of feed restriction. Journal of Dairy Research 82(4):416-425.
- 24. van Harten S, Kilminster T, Scanlon T, Milton J, Oldham C, Greeff J, Almeida AM (2015). Fatty acid composition of the ovine Longissimus dorsi muscle: effect of feed restriction in three breeds of different origin. J. Sci. Food and Agriculture 96: 1777-1782.
- 25. Madar M, Bencurova E, Mlynarcik P, Almeida AM, Soares R, Bhide K, Pulzova L, Kovac A, Coelho AV, Bhide B (2015). Exploitation of Complement Regulatory Proteins by Borrelia and Francisella. Molecular Biosystems 11(6):1684-1695.
- 26. Lerias J, Kilminster T, Scanlon T, Milton J, Oldham C, Greef J, Martins LL, Mourato M, Almeida AM (2015). The fat-tail of Damara sheep: an assessment of mineral content as influenced by weight loss. Animal Production Science 56: 1492-1495.
- 27. Ferlizza E, Campos A, Neagu A, Cuoghi A, Bellei E, Monari E, Dondi F, Almeida AM, Isani G (2015). The effect of chronic kidney disease on the urine proteome in the domestic cat (Felis catus). The Veterinary Journal 204: 73-81.
- 28. Almeida AM, Bassols A, Bendixen E, Bhide M, Ceciliani F, Cristobal S, Eckersall PD, Hollung K, Lisacek F, Mazzucchelli G, McLaughlin M, Miller I, Nally JE, Plowman J, Renaut J, Rodrigues P, Roncada P, Staric J, Turk R (2015). Animal board invited review: advances in proteomics for animal and food sciences. Animal 9: 1-17.
- 29. Hernández-Castellano LE, Argüello A, Almeida AM, Castro N, Bendixen E (2015). Colostrum protein uptake in neonatal lambs examined by descriptive and quantitative liquid chromatography-tandem mass spectrometry. Journal of Dairy Science 98: 135-147.
- 30. Almeida AM, Plowman JE, Harland DP, Thomas A, Kilminster T, Scanlon T, Milton J, Greeff J, Oldham C, Clerens S. (2014). Influence of feed restriction on the wool proteome: a combined iTRAQ and fibre structural study. Journal of Proteomics 103: 170-177.
- 31. Hernandez-Castellano LE, Almeida AM, Ventosa M, Coelho AV, Castro N, Arguello A (2014). The effect of colostrum intake on blood plasma proteome profile in newborn lambs: low abundance proteins. BMC Veterinary Research: 10: 85.
- 32. Lérias J, Hernandez-Castellano LE, Suárez-Trujillo A, Castro N, Pourlis A, Almeida AM (2014). The mammary gland in small ruminants: major morphological and functional events underlying milk production a review. Journal of Dairy Research 81: 304-318.
- 33. Martins LL, Mourato MP, Baptista S, Reis R, Carvalheiro F, Almeida AM, Fevereiro P, Cuypers A (2014). Response to oxidative stress induced by Cadmium and Copper in tobacco plants (Nicotiana tabacum) engineered with the trehalose-6-phosphate synthase gene (AtTPS1). Acta Physiologiae Plantarum 36: 755-765.
- 34. Cruz de Carvalho R, Silva AB, Soares R, Almeida AM, Coelho AV, Silva JM, Branquinho C (2014). Differential proteomics of dehydration and rehydration in bryophytes: evidence towards a common desiccation tolerance mechanism. Plant Cell and Environment 37: 1499-1515.
- 35. Miller I, Rogel-Gaillard C, Spina D, Fontanesi L, Almeida AM (2014). The rabbit as an experimental and production animal: from Genomics to Proteomics. Current Protein and Peptide Science 15(2): 134-145.
- 36. Hernandez-Castellano LE, Almeida AM, Castro N, Arguello A (2014). The colostrum proteome, ruminant nutrition and immunity: a review. Current Protein and Peptide Science 15(1): 64-74.

- 37. Almeida AM, Bassols A, Ceciliani F (2014). Editorial: Proteomics in farm animals: quo vadis? Current Protein and Peptide Science 15(1): 2-3.
- 38. Ferreira AM, Bislev SL, Bendixen E, Almeida AM (2013). The mammary gland in domestic ruminants: A systems biology perspective. Journal of Proteomics 94: 110-123.
- 39. Alves S, Bessa RJB, Quaresma M, Kilminster T, Scanlon S, Oldham C, Milton J, Greeff J, Almeida AM (2013). Does the fat tailed Damara ovine breed have a distinct lipid metabolism leading to a high concentration of branched chain fatty acids in tissues? PLOS ONE 8(10):e77313.