

- ◆ REFEREED JOURNAL PAPERS AND BOOK CHAPTERS
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**REFEREED SCIENCE JOURNAL PAPERS AND BOOK CHAPTERS:**

1. **Stelwagen, K** 2025. Invited review: Hormonal control of the mammary blood-milk barrier and its role in establishing and maintaining milk production. *Journal of Dairy Research* 92: 4-11.
2. **Stelwagen, K, J. B. Pinxterhuis, S. J. Lacy-Hulbert and C. V. C. Phyn.** 2024. Invited review: A review of extended lactation in dairy cows managed in high-input and pasture-based farming systems. *Animal Production Science* 64: AN24167.
3. **Stelwagen, K.** 2022. Mammary gland, milk biosynthesis and secretion: milk protein. In: McSweeney, P. L. H., J.P. McNamara (Eds.). *Encyclopedia of Dairy Sciences, Third Edition*, Vol. 2. Elsevier, Academic Press, pp. 198-205.
4. **Stelwagen, K.** 2022. Mammary gland, milk biosynthesis and secretion: milk lactose. In: McSweeney, P. L. H., J.P. McNamara (Eds.). *Encyclopedia of Dairy Sciences, Third Edition*, Vol. 2. Elsevier, Academic Press, pp. 184-189.
5. **Stelwagen, K, P. C. Beukes and C. Hemmings.** 2021. Effect of zeolite administration on nitrogen metabolism and excretion in lactating dairy cows offered pasture herbage. *Animal Production Science* 61: 560-567.
6. Phyn, C. V. C, S. R. Davis, J. M. Dobson, **K. Stelwagen** and K. Singh. 2017. Induced physical distension of rat mammary glands accelerates the onset of apoptosis and involution. *Journal of Cell Signalling* 2: e160.
7. Singh, K., C. V. C. Phyn, M. Reinsch, J.M. Dobson, K. Oden, S. R. Davis, **K. Stelwagen**, H.V. Henderson and A. J. Molenaar. 2017. Temporal and spatial heterogeneity in milk and immune-related gene expression during mammary gland involution in dairy cows. *Journal of Dairy Science* 100: 7669-7685.
8. Phyn, C. V. C, **K. Stelwagen**, S. R. Davis, C. D. McMahon, J. M. Dobson, and K. Singh. 2017. Tight junction protein abundance and apoptosis during involution of rat mammary glands. *Journal of Cellular Physiology* 232: 2075-2082.
9. Singh, K., I. Vetharanim, J. Dobson, M. Prewitz, K. Oden, R. Murney, K. Swanson, R. McDonald, H. Henderson, and **K. Stelwagen**. 2016. Cell survival signalling in the bovine mammary gland during the transition from lactation to involution. *Journal of Dairy Science* 99: 7523-7543.
10. Biet, J., C. A. Poole, **K. Stelwagen**, J. K. Margerison and K. Singh. 2016. Primary cilia distribution and orientation during involution of the bovine mammary gland. *Journal of Dairy Science* 99: 3966-3978.
11. Singh, K., K. Swanson, H. Henderson, R. Erdman and **K. Stelwagen**. 2015. The effect of milking reinitiation following extended non-milking periods on lactation in primiparous dairy cows. *Journal of Dairy Science* 98: 7666-7644.

12. Murney, R., **K. Stelwagen**, T. T. Wheeler, J. K. Margerison and K. Singh. 2015. The effects of milking frequency on insulin-like growth factor I signaling within the mammary gland of dairy cows. *Journal of Dairy Science* 98: 5422-5428.
13. Murney, R. **K. Stelwagen**, T. T. Wheeler, J. K. Margerison and K. Singh. 2015. Activation of signal transducer and activator of transcription 5 (STAT5) is linked to  $\beta$ 1-integrin protein abundance in unilaterally milked bovine mammary glands. *Journal of Dairy Science* 98: 3133-3142.
14. Murney, R., **K. Stelwagen**, T. T. Wheeler, J. K. Margerison and K. Singh. 2015. The effects of milking frequency in early lactation on milk yield, mammary cell turnover and secretory activity in grazing dairy cows. *Journal of Dairy Science* 98: 305-311.
15. Smolenski, G. A., M. K. Broadhurst, **K. Stelwagen**, B. J. Haigh and T. T. Wheeler. 2014. Host defence related responses in bovine milk during an experimentally induced *Streptococcus uberis* infection. *Proteome Science* 12: 19 (14 pages).
16. **Stelwagen, K.** and K. Singh. 2014. The role of tight junctions in mammary gland function. *Journal of Mammary Gland Biology and Neoplasia* 19: 131-138.
17. Reis, M.G., N. Roy, E. Bermingham, L. Ryan, R. Bibiloni, W. Young, L. Krause, B. Berger, M. North, **K. Stelwagen** and M.Reis. 2013. Impact of dietary dairy polar lipids on lipid metabolism in mice fed high-fat a diet. *Journal of Agriculture and Food Chemistry* 61:2729-2738.
18. **Stelwagen, K.**, C. V. C. Phyn, S. R. Davis, J. Guinard-Flament, D. Pomiès, J. R. Roche, J. K. Kay. 2013. Reduced milking frequency: milk production and management implications. *Journal of Dairy Science* 96: 3401-3413.
19. Guinard-Flament, J., P.G. Marnet, I. Verdier-Metz, C. Hurtaud, M.C. Montel, **K. Stelwagen** and D. Pomiès. 2013. La traite, un outil de pilotage du système et de maîtrise de la qualité du lait en élevage bovin laitier [Milking, a tool for herd and milk quality management in dairy farms]. *Productions Animales*, 26: 193-205.
20. Singh, K., A.J. Molenaar, K.M. Swanson, B. Gudex, J.A. Arias, R.A Erdman and **K. Stelwagen**. 2012. Epigenetics: a possible role in acute and transgenerational regulation of dairy cow milk production. *Animal* 6: 375-381.
21. **Stelwagen, K.** and R. M. Bruckmaier. 2012. Lactation Biology. *Animal* 6:353-354.
22. Wheeler, T.T, G.A. Smolenski, D. P. Harris, S. K. Gupta, B. J. Haigh, M. K. Broadhurst, A. J. Molenaar and **K. Stelwagen**. 2012. Host-defense-related proteins in cows' milk. *Animal* 6:415-422.
23. Reis, M. G., M. M. dos Reis, S. Leath and **K. Stelwagen**. 2011. Direct analysis of fatty acid profile from milk by thermochemolysis-gas chromatography-mass spectrometry. *Journal of Chromatography A* 1218: 316-323.
24. **Stelwagen, K.** 2011. Milk biosynthesis and secretion: protein. In: *Encyclopedia of Dairy Sciences*. Fuquay, J.W, P.F. Fox and P.L.H. McSweeney (Eds.). *Second Edition*, vol. 3, pp. 359-366. Elsevier, Academic Press.
25. **Stelwagen, K.** 2011. Milk biosynthesis and secretion: lactose. In: *Encyclopedia of Dairy Sciences*. Fuquay, J.W, P.F. Fox and P.L.H. McSweeney (Eds.). *Second Edition*, vol. 3, pp. 367-372. Elsevier, Academic Press.
26. Singh, K., R.A. Erdman, K.M. Swanson, A.J. Molenaar, N.J. Maqbool, T.T. Wheeler, J. Arias, E. Quinn-Walsh, **K. Stelwagen**. 2010. Epigenetic regulation of milk production in dairy cows. *Journal of Mammary Gland Biology and Neoplasia* 15:101-112

27. Smolenski, G.A., R.J. Wieliczko, T. Pernthaner, M.K. Broadhurst, **K. Stelwagen**, W. Hein, T.T. Wheeler, B.J. Haigh. 2010. Cathelicidin: a potential diagnostic biomarker for early detection of mastitis in dairy cows. In: Hillerton J.E. (ed.). *Mastitis Research into Practice - Proceedings of the 5th IDF Mastitis Conference*, pp. 545-551. Wellington, New Zealand: VetLearn Publishers.
28. **Stelwagen, K.**, E. Carpenter, B. Haigh, A. Hodgkinson and T. Wheeler. 2009. Immune components of bovine colostrum and milk. *Journal of Animal Science (Suppl. 1)* 87:3-9.
29. Molenaar, A., P. Harris, G. Rajan, M. Pearson, M. Callaghan, L. Sommer, V. Farr, K. Oden, R. Petrova, L. Good, K. Singh, R. McLaren, C. Prosser, K. Kim, R. Wieliczko, M. Dines, K. Johannesen, M. Grigor, S. Davis and **K. Stelwagen**. 2009. The acute phase protein serum Amyloid A3 is expressed in the bovine mammary gland and plays a role in host defence. *Biomarkers* 14: 26-37.
30. Swanson, K. M., **K. Stelwagen**, J. Dobson, H. V. Henderson, S. R. Davis, V. C. Farr, K. Singh. 2009. Transcriptome profiling of *Streptococcus uberis*-induced mastitis reveals fundamental differences between immune gene expression in the mammary gland and in a primary cell culture model. *Journal of Dairy Science* 92: 117-129.
31. Singh, K., S.R. Davis, J.M. Dobson, A.J. Molenaar, T.T. Wheeler, C.G. Prosser, V.C. Farr, K. Oden, K. M. Swanson, C.V.C. Phyn, D. Hyndman, D.T. Wilson, H.V. Henderson and **K. Stelwagen**. 2008. cDNA microarray analysis reveals that antioxidant and immune genes are up-regulated during involution of the bovine mammary gland. *Journal of Dairy Science* 91:2236-2246.
32. **Stelwagen, K.**, V.C. Farr, G.D. Nicholas, S.R. Davis, C.G. Prosser. 2008. Effect of milking interval on milk yield and quality and the rate of recovery during subsequent frequent milking. *Livestock Science* 114:176-180.
33. Smolenski, G., S. Haines, F. Kwan, J. Bond, V. Farr, S.R. Davis, **K. Stelwagen** and T.T. Wheeler. 2007. Characterisation of host defence proteins in milk using a proteomics approach. *Journal of Proteome Research* 6:207-215.
34. Palmquist, D.L., **K. Stelwagen** and P.H. Robinson. 2006. Modifying milk composition to increase use of dairy products in healthy diets. *Animal Feed Science and Technology* 131: 149-153.
35. Singh, K. J. Dobson, C.V.C. Phyn, S.R. Davis, V.C. Farr, A.J. Molenaar and **K. Stelwagen**. 2005. Milk accumulation decreases expression of genes involved in cell-extracellular matrix communication and is associated with induction of apoptosis in the bovine mammary gland. *Livestock Production Science* 98: 67-78.
36. Bai, Y.H., S.C. Pak, S.H. Lee, C.S. Bae, C. Prosser, **K. Stelwagen**, J. H. Lee and S. D. Park. 2005. Assessment of a bioactive compound for its potential antiinflammatory property by tight junction permeability. *Phytotherapy Research* 19: 1009-1012
37. Swanson, K., S. Gorodetsky, L. Good, S. Davis, D. Musgrave, **K. Stelwagen**, V. Farr and A. Molenaar. 2004. Expression of a  $\beta$ -defensin mRNA, Lingual Antimicrobial Peptide, in bovine mammary epithelial tissue is induced with mastitis. *Infection and Immunity* 72:7311-7214.
38. Cooper, C.V., **Stelwagen, K.**, Singh, K. Farr, V.C., Prosser, C.G and Davis, S.R. 2004. Expression of the tight junction protein zonula occludens-1 during mammary engorgement. *Proceedings of the New Zealand Society of Animal Production* 64: 43-47.
39. Prosser, C.G., **K. Stelwagen**, R. Cummins, P. Guerin, N. Gill and C. Milne. 2004. Reduction in heat-induced gastrointestinal hyperpermeability in rats by bovine colostrum and goat milk powders. *Journal of Applied Physiology* 96: 650-654.
40. **Stelwagen, K.** and M.R. Callaghan. 2003. Regulation of mammary tight junctions through PTHrP-induced activation of apical calcium channels. *Journal of Endocrinology* 178:257-264.

41. **Stelwagen, K.** 2002. Milk biosynthesis and secretion: protein. In: Roginski, H., J.W. Fuquay and P.F. Fox (eds.). *Encyclopedia of Dairy Sciences*, pp. 1835-1842. London: Academic Press.
42. **Stelwagen, K.** 2002. Milk biosynthesis and secretion: lactose. In: Roginski, H., J.W. Fuquay and P.F. Fox (eds.). *Encyclopedia of Dairy Sciences*, pp. 1842-1847. London: Academic Press.
43. Nicholas, G.D., M.J. Auld, P.C. Molan, **K. Stelwagen** and C.G. Prosser. 2002. Effects of stage of lactation and time of year on plasmin-derived proteolytic activity in bovine milk in New Zealand. *Journal of Dairy Research* 69: 533-540.
44. **Stelwagen, K.** 2001. Effect of milking frequency on mammary functioning and shape of the lactation curve. *Journal of Dairy Science* 84: E204-E211.
45. Hoogeveen, H., W. Ouweltjes, C.J.A.M. de Koning and **K. Stelwagen**. 2001. Milking interval, milk yield and milk flow rate in an automatic milking system. *Livestock Production Science* 72: 157-167.
46. **Stelwagen, K.**, H. Hopster, J.T.N. Van der Werf and H.J. Blokhuis. 2000. Effects of isolation stress on mammary tight junctions in lactating dairy cows. *Journal of Dairy Science* 83:48-51.
47. Davis, S.R., V.C. Farr and **K. Stelwagen**. 1999. Regulation of milk yield loss and composition during once daily milking: a review. *Livestock Production Science* 59: 77-94.
48. **Stelwagen, K.**, H.A. McFadden and J. Demmer. 1999. Prolactin, alone or in combination with glucocorticoids, enhances tight junction formation and expression of the tight junction protein occludin in mammary cells. *Molecular and Cellular Endocrinology* 156: 55-61.
49. Lacy-Hulbert, S.J., M.W. Woolford, G. Nicholas, C.G. Prosser and **K. Stelwagen**. 1999. Effect of milking frequency and pasture intake on milk yield and composition of late lactation cows. *Journal of Dairy Science* 82:1232-1239.
50. **Stelwagen, K.**, V.C. Farr and H.A. McFadden. 1999. Alteration of the sodium to potassium ratio and the effect on milk secretion in goats. *Journal of Dairy Science* 82: 52-59.
51. Davis, S.R., V.C. Farr, P.J.A. Copeman, V.R. Carruthers, C.H. Knight and **K. Stelwagen**. 1998. Partitioning of milk accumulation between cisternal and alveolar compartments of the bovine udder: relationship to production loss during once-daily milking. *Journal of Dairy Research* 65:1-8.
52. **Stelwagen, K.**, R.D. McLaren, S.A. Turner, H.A. McFadden and C.G. Prosser. 1998. No evidence for basolateral milk protein secretion in the lactating goat mammary gland. *Journal of Dairy Science* 81:434-437.
53. **Stelwagen, K.** and D.J. Ormrod. 1998. An anti-inflammatory component derived from milk of hyperimmunised cows reduces tight junction permeability in vitro. *Inflammation Research*: 47:384-388.
54. **Stelwagen, K.**, D.C. Van Espen, G.A. Verkerk, H.A. McFadden and V.C. Farr. 1998. Elevated plasma cortisol reduces permeability of mammary tight junctions in the lactating bovine mammary epithelium. *Journal of Endocrinology* 159:173-175.
55. Verkerk, G.A., A.M. Phipps, J.F. Carraghar, L.R. Matthews and **K. Stelwagen**. 1998. Characterization of milk cortisol concentrations as a measure of short-term stress responses in lactating dairy cows. *Animal Welfare* 7:77-86.
56. **Stelwagen, K.** and C.H. Knight. 1997. Effect of unilateral once or twice daily milking of cows on milk yield and udder characteristics in early and late lactation. *Journal of Dairy Research* 64: 487-494.
57. **Stelwagen, K.**, V.C. Farr, H.A. McFadden, C.G. Prosser and S.R. Davis. 1997. Time course of milk accumulation-induced opening of mammary tight junctions, and blood clearance of milk components. *American Journal of Physiology* 273: R379-R386.

58. Farr, V.C., **K. Stelwagen**, L.R. Cate, A.J. Molenaar, T.B. McFadden and S.R. Davis. 1996. An improved method for routine biopsy of bovine mammary tissue. *Journal of Dairy Science* 79: 543-549.
59. **Stelwagen, K.**, C.H. Knight, V.C. Farr, S.R. Davis, C.G. Prosser and T.B. McFadden. 1996. Continuous versus single drainage of milk from the bovine mammary gland during a 24-hour period. *Experimental Physiology* 81: 141-149.
60. **Stelwagen, K.** and S.J. Lacy-Hulbert. 1996. Effect of milking frequency on somatic cell count characteristics and mammary secretory cell damage in cows. *American Journal of Veterinary Research* 57: 902-905.
61. **Stelwagen, K.**, V.C. Farr, S.R. Davis and C.G. Prosser. 1995. EGTA-induced disruption of epithelial cell tight junctions in the lactating caprine mammary gland. *American Journal of Physiology* 268: R848-R855.
62. **Stelwagen, K.**, I. Politis, M.R. Guo, P.S. Kindstedt, S.R. Davis and V.C. Farr. 1994. Mammary-derived growth inhibitor (MDGI) in bovine milk: the effect of milking frequency and somatotropin administration. *Canadian Journal of Animal Science* 74: 695-698.
63. **Stelwagen, K.**, I. Politis, J.W. White, B. Zavizion, C.P. Prosser, S.R. Davis and V.C. Farr. 1994. Effect of milking frequency and somatotropin on the activity of plasminogen activator, plasminogen, and plasmin in bovine milk. *Journal of Dairy Science* 77: 3577-3583.
64. **Stelwagen, K.**, S.R. Davis, V.C. Farr, S.J. Eichler and I. Politis. 1994. Effect of once daily milking and concurrent somatotropin on mammary tight junction permeability and production in cows. *Journal of Dairy Science* 77: 2995-3001.
65. **Stelwagen, K.**, S.R. Davis, V.C. Farr, C.G. Prosser and R.A. Sherlock. 1994. Mammary epithelial cell tight junction integrity and mammary blood flow during an extended milking interval in goats. *Journal of Dairy Science* 77: 426-432.
66. **Stelwagen, K.**, D.G. Grieve, J.S. Walton, J.L. Ball and B.W. McBride. 1994. Effect of bovine somatotropin administration during the last trimester of gestation on maternal growth, and foetal and placental development in primigravid ewes. *Animal Production* 58: 87-94.
67. **Stelwagen, K.**, D.G. Grieve, J.S. Walton, J.L. Ball. and B.W. McBride. 1993. Effect of prepartum bovine somatotropin in primigravid ewes on mammogenesis, milk production, and hormone concentrations. *Journal of Dairy Science* 76: 992-1002.
68. **Stelwagen, K.**, A.M.V. Gibbins and B.W. McBride, 1992. Possible applications of recombinant DNA techniques to improve milk production: a review. *Livestock Production Science* 31: 153-178.
69. **Stelwagen, K.** and D.G. Grieve. 1992. Effect of plane of nutrition between 6 and 16 months of age on body composition, plasma hormone concentrations and first lactation milk production in Holstein heifers. *Canadian Journal of Animal Science* 72: 337-346.
70. **Stelwagen, K.**, D.G. Grieve, B.W. McBride and J.D. Rehman. 1992. Growth and subsequent lactation in primigravid Holstein heifers after prepartum bovine somatotropin treatment. *Journal of Dairy Science* 75: 463-471.
71. **Stelwagen, K.** and D.G. Grieve. 1990. Effect of plane of nutrition on growth and mammary gland development in Holstein replacement heifers. *Journal of Dairy Science* 73: 2333-2341.
72. **Stelwagen, K.**, B.W. McBride, D.G. Grieve and R.A. Towner. 1990. Nuclear magnetic resonance (NMR) imaging and proton spectroscopy used as technique to assess mammary gland development in Holstein heifers. *Canadian Journal of Animal Science* 70: 1151-1154.

## REFEREED CONFERENCE PROCEEDINGS

1. **Stelwagen, K.** 2017. More value from milk: value-added opportunities. *Proceedings of the 56<sup>th</sup> Annual Conference of the National Mastitis Council (NMC)*, St. Pete Beach, Florida, USA, pp. 9-21.
2. MacLean, P.H, **K. Stelwagen**, N. Maqbool, K. Oden, R. Murney, C. Couldrey, and K. Singh. 2013. The effect of milking frequency in early lactation on gene expression in the bovine mammary gland. *Proceedings of the New Zealand Society of Animal Production* 73: 45-47.
3. Murney, R., K. Singh and **K. Stelwagen**. 2012. The effect of milking frequency in early lactation on milk yield and milk protein gene expression in the bovine mammary gland. *Proceedings of the New Zealand Society of Animal Production* 71: 67-69.
4. Backmann, E.C., B.C. Hine, M.K. Broadhurst, K. Kim, G.A. Smolenski, **K. Stelwagen** and T.T. Wheeler. 2012. Host-defence related bioactive proteins in cows' milk during mastitis and after drying off. *Proceedings of the New Zealand Society of Animal Production* 71: 240-242.
5. Singh, K, K. Swanson, H. Henderson and **K. Stelwagen**. 2012. The effect of re-milking following extended non-milking periods on lactation in dairy cows. *Proceedings of the New Zealand Society of Animal Production* 71: 70-72.
6. Pryor, S.M.N., G.A. Smolenski, R.J. Wieliczko, M.K. Broadhurst, **K. Stelwagen**, T.T. Wheeler and B. J. Haigh. 2010. Cathelicidin levels in milk from cows infected with a range of mastitis causing pathogens. *Proceedings of the New Zealand Society of Animal Production* 70: 243-245.
7. Phynn, C.V.C., J.K. Kay, A.G. Rius, S.R. Davis, **K. Stelwagen**, J.E.H. Hillerton and J.R. Roche. 2010. Impact of short-term alterations to milking frequency in early lactation. *Proceedings of the 4<sup>th</sup> Australasian Dairy Science Symposium*, Lincoln, New Zealand, pp. 156-164.
8. Singh, K., K. Swanson, C. Couldrey, H.-M. Seyfert and **K. Stelwagen**. 2009. DNA Methylation events associated with the suppression of milk protein gene expression during involution of the bovine mammary gland. *Proceedings of the New Zealand Society of Animal Production* 69: 57-59.
9. Singh, K., I. Vetharanim, M. Prewitz, J. Dobson and **K. Stelwagen**. 2009. Understanding the interaction of prolactin and leukaemia Inhibitory factor signalling during the switch from lactation to involution. *Proceedings of the New Zealand Society of Animal Production* 69: 65-67.
10. Phyn, C.V.C., J.M. Dobson, S.R. Davis, **K. Stelwagen** and K. Singh. 2007. Induced physical distension of rat mammary glands accelerates the onset of apoptosis and involution compared with milk accumulation alone. *Proceedings of the New Zealand Society of Animal Production* 67:403-406.
11. Swanson, K., H.V Henderson, V.C. Farr , S.R. Davis, K. Oden, **K. Stelwagen**, A. Molenaar, K. Singh and C.G Prosser. 2004. The use of microarrays to investigate gene regulation in the bovine mammary gland during *Streptococcus uberis* mastitis. *Proceedings of the New Zealand Society of Animal Production* 64: 14-16.
12. Molenaar, A., V. Farr, K. Oden, T. Wheeler, C. McMahon, L. Good, **K. Stelwagen**, **K. Singh** and S. Davis. 2004. Northern analysis of temporal and spatial variation in milk protein expression during early mammary involution in dairy cows. *Proceedings of the New Zealand Society of Animal Production* 64: 5-7.
13. Singh, K., J. Dobson, **K. Stelwagen**, C. G. Prosser, V. C. Farr, A. Molenaar and S. R. Davis, 2004. Decreased expression of integrins in the epithelial cells during mammary engorgement. *Proceedings of the New Zealand Society of Animal Production* 64: 11-13.
14. Singh, K., A. Molenaar, **K. Stelwagen**, V. Farr, L. Good, K. Swanson, K. Oden, T. Wheeler, C. McMahon, H. Henderson, T. Wilson, D. Hyndman, D. Baird, A. McCulloch and S. Davis. 2004. The use of cDNA microarrays to investigate changes in gene expression in the involuting bovine mammary gland. *Proceedings of the New Zealand Society of Animal Production* 64: 8-10.

15. Molenaar, A. D. Eckersall, S Davis, R. Dempster and **K. Stelwagen**. 2004. Acute phase proteins – their use as animal health diagnostics and implications for NZ trade. *Proceedings of the Food Safety, Animal Welfare & Biosecurity, Epidemiology & Health management, and Industry Branches of the NZVA, Proceedings of the Food Safety & Biosecurity Branch of the NZVA*. FCE Publication No. 239, pp. 49-59.
16. **Stelwagen, K.** and D.J. Ormrod. 1999. A hyperimmune milk-derived anti-inflammatory component acts by reducing tight junction permeability *in vitro*. In: Progress in Microcirculation Research, ed. Neild, T. O. and C. J. Carati. *Proceedings of the Tenth Australian and New Zealand Microcirculation Symposium, Adelaide*, pp. 83-85.
17. Davis, S.R., V.C. Farr and **K. Stelwagen**. 1998. Once-daily milking of dairy cows: an appraisal. *Proceedings of the New Zealand Society of Animal Production* 58: 36-40.
18. Farr, V.C., **K. Stelwagen** and S.R. Davis. 1998. Rates of recovery of milk yield and composition following preceding milking intervals of varying lengths. *Proceedings of the New Zealand Society of Animal Production* 58: 47-48.
19. Farr, V.C., S.R. Davis and **K. Stelwagen**. 1997. Removal of cisternal milk following milk accumulation for 9 hours does not increase total yield during once-daily milking. *Proceedings of the New Zealand Society of Animal Production* 57:217.
20. Lacy-Hulbert, S.J., M.J. Woolford, G.D. Nicholas and **K. Stelwagen**. 1996. Effects of *Streptococcus uberis* on milk characteristics of individual quarters. *Proceedings of the New Zealand Society of Animal Production* 56: 65-67.
21. Nicholas, G.D., **K. Stelwagen**, C.G. Prosser and T.R. Mackle. 1996. Influence of level of nutrition and stage of lactation on proteolytic activity in milk. *Proceedings of the New Zealand Society of Animal Production* 56: 114-117.
22. Farr, V.C., **K. Stelwagen**, M.A. Kerr, S.R. Davis and S.J. Eichler. 1995. Effect of once daily milking (ODM) on enzyme activities in the bovine mammary gland. *Proceedings of the New Zealand Society of Animal Production* 55: 12-13.
23. Prosser, C.G, G.D. Nicholas, **K. Stelwagen**, S.J. Lacy-Hulbert, M.W. Woolford and T.B. McFadden. 1995. Influence of milking frequency and nutrition/on plasmin activity in milk and casein degradation. *Proceedings of the New Zealand Society of Animal Production* 55: 9-11.
24. **Stelwagen, K.**, J.H. White, B. Zavizion, C.G. Prosser, S.R. Davis, V.C. Farr and I. Politis. 1995. Effect of once daily milking and bovine somatotropin administration in Friesian cows on milk protease activity during late lactation. *Proceedings of the New Zealand Society of Animal Production* 55: 7-8.
25. **Stelwagen, K.**, S.R. Davis and V.C. Farr. 1994. Effect of once-daily milking and concurrent somatotropin (bST) on production and mammary tight junction permeability in cows. *Proceedings of the New Zealand Society of Animal Production* 54: 101-102.
26. **Stelwagen, K.**, S.R. Davis, V.C. Farr and C.G. Prosser. 1993. The effect of an extended milking interval on mammary blood flow and the integrity of tight junctions between mammary epithelial cells in goats. *Proceedings of the New Zealand Society of Animal Production* 53: 159-161.
27. **Stelwagen, K.**, R.A. Towner, D.G. Grieve and B.W. McBride. 1991. In vitro magnetic resonance imaging (MRI) and proton spectroscopy tissue analysis of bovine and ovine mammary glands. *Proceedings of the 12<sup>th</sup> Symposium on Energy Metabolism of Farm Animals*, Switzerland. EAAP Publication No. 58, pp. 238-241.

#### BOOKS AND THESES

1. Resilient Dairy Farming Systems, 6th Australasian Dairy Science Symposium, Hamilton, New Zealand. Editors: Roche, J. R. and **K. Stelwagen**. Special issue of Animal Production Science, Volume 55, Issue 7, 2015. CSIRO Publishing, Australia, pp 823-948.
2. Sixth International Workshop on the Biology of Lactation in Farm Animals, Quebec City, Canada. Editors: Lacasse, P., **K. Stelwagen** and W. Hurley. CAB International (Also in: Journal of Animal Science, 2003, 81, Suppl. 3: 1-84), pp. 1-84.
3. Fifth International Workshop on the Biology of Lactation in Farm Animals, The Hague, The Netherlands. Editors: Baldi, A. and **K. Stelwagen**. Livestock Production Science, Volume 70, Issue 1-2, 2001. Elsevier, Amsterdam, pp 1-182.
4. **Stelwagen K.** 1992. Effect of recombinant bovine somatotropin on mammogenesis and subsequent milk yield in primigravid heifers and ewes. *PhD Thesis, University of Guelph, Canada.*
5. **Stelwagen, K.** 1988. Effect of Plane of Nutrition on Growth and Mammary Gland Development in Holstein Replacement Dairy Heifers. *MSc Thesis, University of Guelph, Canada.*

#### CONFERENCE ABSTRACTS

1. **Stelwagen, K.** 2024. Hormonal control of the mammary blood-milk barrier. *Proceedings of the joint BOLFA and ICFAE conference, Page 23, <https://bolfa-icfae.unibe.ch/>*
2. Stelwagen, K., E. H. Wall and D. M. Bravo. 2016. Effect of rumen-protected caprylic acid on milk production in early lactating cows in a pasture-based system. *Journal of Dairy Science (E-Suppl. 1)* 99: 644.
3. Singh, K., P. H. McLean, V. M. Cave, R. Murney, K. Oden and **K. Stelwagen**. 2013. Identification of microRNAs of the mammary gland associated with milk production of dairy cows. *Proceedings of the 8th World Congress on Developmental Origins of Health and Disease (DOHaD), Singapore.*
4. Aveling, J. B., M. R. Walton, and **K. Stelwagen**. 2013. Effect of supplementation with dehydrated molasses lick blocks on performance of growing dairy-beef steers grazing pasture. *Journal of Animal Science (E-Suppl 2.)* 91: 5.
5. Murney, R., **K. Stelwagen**, T. T. Wheeler, J. K. Margerison and K. Singh. 2013. Effects of milking frequency on integrin signalling in mammary glands of dairy cows. *Journal of Dairy Science (E-Suppl. 1)* 95: 151.
6. Biet, J., **K. Stelwagen**, J. Margerison, C. A. Poole, A. Cullum and K. Singh. 2013. Changes in the mechanical microenvironment of the bovine mammary gland and their effect on mammary function. *Journal of Dairy Science (E-Suppl. 1)* 95: 570.
7. **Stelwagen, K.** 2012. Milk removal and the innate immune system. *Proceedings of the Symposium on Lactation Research in Mammals and Humans: The Mammary Gland in Health and Disease, Uppsala, Sweden.* Page 14-15.
8. Biet, J., **K. Stelwagen**, J. Margerison, T. Poole and K. Singh. 2012. The effect of saline infusion of the bovine mammary gland on mammary epithelial cell shape. *Queenstown Molecular Biology Conference, Queenstown, New Zealand.*
9. Murney, R., **K. Stelwagen**, T. T. Wheeler, J. K. Margerison and K. Singh. 2012. Effects of milking frequency on integrin signalling in mammary glands of dairy cows. *Queenstown Molecular Biology Conference, Queenstown, New Zealand.*
10. Broadhurst, M., Beddis, K., Black J., Henderson H., Nair, A., Humphrey, R., Clothier, B., Hodgkinson, A., **Stelwagen, K.** and Wheeler, T. 2012. Immune defence proteins in human milk: differences between

pre-term and term deliveries. *Proceedings of the Waikato Clinical School Biannual Research Seminar, Journal of the New Zealand Medical Association*, 125: 3-4.

11. Singh, K., K. M. Swanson, A. J. Molenaar, J. Dobson and **K. Stelwagen**. 2011. Bovine  $\alpha$ S1-casein gene expression during involution and re-initiation of lactation is associated with acute DNA methylation changes at a STAT5-binding site in the  $\alpha$ S1-casein promoter. *Queenstown Molecular Biology Conference, Queenstown, New Zealand*.
12. Murney, R., **K. Stelwagen** and K. Singh. 2011. The effect of short-term milking frequency during early lactation on milk yield and mammary IGF signalling in dairy cows. *8<sup>th</sup> International Symposium on Milk Genomics and Human Health, Melbourne, Australia*.
13. Molenaar, A.J., H.V. Henderson, C.A. Morris, S.M. Hickey, T. Chikazhe, R. J. Murney, E. Brijs, J. Biet, **K. Stelwagen** and K. Singh. 2011. Improving lactation persistency in dairy cows. *8<sup>th</sup> International Symposium on Milk Genomics and Human Health, Melbourne, Australia*
14. Smolenski, G., B. Haigh, M. Broadhurst, **K. Stelwagen** and T. Wheeler. 2011. Proteomic profiling of defence-related proteins in bovine milk during an experimentally induced *Streptococcus uberis* infection. *8<sup>th</sup> International Symposium on Milk Genomics and Human Health, Melbourne, Australia*.
15. Reis, M.G., M.M. Reis, N. Roy, E. Bermingham, L. Ryan, M. North, **K. Stelwagen**, D. Otter, W. Young, L. Krause, B. Berger and R. Bibiloni. 2011. Nutritional application of polar dairy lipids on diet-induced stress. *10<sup>th</sup> ILPS Phospholipid Congress, Rotterdam, The Netherlands*.
16. Singh, K., J. Dobson, K. Oden, A. Molenaar, R. Murney, K. Swanson and **K. Stelwagen**. 2011. Regulation of STAT and IGF signalling during reversible and irreversible involution of the bovine mammary gland. *Journal of Dairy Science (E-Suppl. 1)* 94: 751.
17. Swanson, K.M, **K. Stelwagen**, R.A. Erdman and K. Singh. 2011. Acute DNA methylation changes are associated with involution and re-initiation of lactation in dairy cows. *Journal of Dairy Science (E-Suppl. 1)* 94: 433.
18. **Stelwagen, K.**, M.K. Broadhurst, K. Kim, A.J. Molenaar, D.P. Harris and T.T. Wheeler. 2011. Reduced milking frequency increases the concentration of host-defense proteins in milk. *Journal of Dairy Science (E-Suppl. 1)* 94: 751.
19. Molenaar, A., J. Biet, H.-M. Seyfert, **K. Stelwagen** and K. Singh. 2010. Compaction of the alpha-S1-casein and opening of a defensin promoter occurs during infection and in forced involution of the bovine mammary gland. *7<sup>th</sup> International Symposium on Milk Genomics and Human Health, Davis, California, USA*
20. Singh, K, A.J. Molenaar, K.M. Swanson and **K. Stelwagen**. 2010. DNA methylation is associated with a suppression of  $\alpha$ S1-casein gene expression during involution and mastitis of the bovine mammary gland. *IDF World Dairy Summit, Auckland, New Zealand*
21. Singh, K, R.A. Erdman, J.A. Arias, A.J. Molenaar, K.M. Swanson, H.V. Henderson and **K. Stelwagen**. 2010. Epigenetic regulation of milk production in dairy cows. *61<sup>st</sup> Annual meeting of the European Association of Animal Production (EAAP). ), Herklion, Greece. Book of abstracts Nr. 16, Page 1.*
22. Wheeler, T., B. Haigh, A. Molenaar and **K. Stelwagen**. 2010. Host-defence related proteins in cows' milk. *61<sup>st</sup> Annual meeting of the European Association of Animal Production (EAAP), Herklion, Greece. Book of abstracts Nr. 16, Page 5*
23. **Stelwagen, K.**, M.K. Broadhurst, K. Kim, A.J. Molenaar, D.P. Harris and T.T. Wheeler. 2009. Reduced milking frequency increases the concentration of host-defense proteins in milk. *ComBio, Christchurch, New Zealand*

24. Swanson, K., **K. Stelwagen** and K. Singh. 2009. Epigenetic regulation of milk protein expression in the bovine mammary gland during extended involution. *Queenstown Molecular Biology Conference, Queenstown, New Zealand.*
25. Molenaar A., H.-M. Seyfert, K. Swanson, **K. Stelwagen** and K. Singh. 2009. Compaction of the alpha-S1-casein and opening of a defensin promoter occurs during *S. uberis* infection of the bovine mammary gland. *Queenstown Molecular Biology Conference, Queenstown, New Zealand.*
26. Singh, K., K. Swanson, H.-M Seyfert and **K. Stelwagen**. 2009. Involution of the bovine mammary gland: evidence of epigenetic regulation. *6th International Symposium on Milk Genomics and Human Health, Paris, France.*
27. Erdman, R.A. J.A. Arias, E. Quinn-Walsh, P. Fisher, **K. Stelwagen** and K. Singh. 2009. Putative in utero epigenetic impact of dam lactation yield and tissue energy stores on daughter first lactation milk production in dairy cattle. *Journal of Dairy Science (E-Suppl. 1)* 92:i. **(One of 10 late breaking abstracts)**
28. Swanson, K., **K. Stelwagen**, C. Couldrey, H.-M. Seyfert and K. Singh. 2008. Increased DNA methylation is associated with the suppression of bovine  $\alpha$ S1-casein gene during mammary involution. *Queenstown Molecular Biology Conference, Queenstown, New Zealand.*
29. Harris, P., M. Callaghan, K. Johannessen, M. Dines, L. Summer, R. Wieliczko, B. Haigh, K.M. Rijnkels, N. Maqbool, **K. Stelwagen** and A. Molenaar. 2008 Serum Amyloid A3 from the bovine mammary gland; progress toward function and purification. *7th International Meeting of Acute Phase Proteins celebrated during the Congress of the International Society for Animal Clinical Pathology and European Society of Animal Clinical Pathology.* Barcelona, Spain. 1-3 October 2008.
30. Singh, K., K. Swanson, P. Maclean, A. Molenaar, S. Davis, T. Wheeler and **K. Stelwagen**. 2008. Bovine mammary involution versus *Streptococcus uberis* induced mastitis: a microarray comparison. *5th International Symposium on Milk Genomics and Human Health, Sydney, Australia.*
31. Molenaar, A., M. Grigor, S. Davis, K. Kim, J. McCracken, M. Callaghan, P. Harris, M. Rijnkels, N. Maqbool, K. Oden, L. Good, K. Singh, B. Haigh, R. Wieliczko and **K. Stelwagen**. 2008. The histatherin gene – a chimera of histatin and statherin in cattle, identified through targeted screening of an EST database. *5th International Symposium on Milk Genomics and Human Health, Sydney, Australia.*
32. **Stelwagen, K.**, T. T. Wheeler and E. A. Carpenter. 2008. Immune components of colostrum and milk. *Journal of Dairy Science (E-Suppl. 1)* 91/*J. Anim. Sci. (E-Suppl. 2)* 86: 614.
33. Singh, K., K. Swanson, C. Couldrey, H.-M. Seyfert and **K. Stelwagen**. 2008. Suppression of bovine  $\alpha$ S1-casein gene expression during involution of the mammary gland is associated with increased DNA methylation at a STAT5-binding site in the  $\alpha$ S1-casein promoter. *Journal of Dairy Science (E-Suppl. 1)* 91/*J. Anim. Sci. (E-Suppl. 1)* 86: 378.
34. Cummins, R., M. Agnew, **K. Stelwagen**, N. Gill, C. Angus, S. Dannapfel, M. Driller, S. Edgar, A. Irvine and C. Milne C. 2007. Intestinal hyperpermeability from an exercise/Heat/NSAID challenge. *Journal of Science and Medicine in Sport (Suppl. December)* 10: 100.
35. Singh, K., K. Swanson, S. Davis, A. Molenaar, T. Wheeler and **K. Stelwagen**. 2008. Dissecting Mammary Signalling Pathways Through Microarray Analysis. *5th International Symposium on Milk Genomics and Human Health, Sydney, Australia.*
36. **Stelwagen, K.** 2007. The biological opportunities and limitations related to milk quality in a sustainable dairy production system. *58th Annual meeting of the European Association of Animal Production (EAAP).*, Dublin, Ireland. *Book of abstracts Nr.13, Page 34.*
37. Singh, K., M. Prewitz, J. Dobson and **K. Stelwagen**. 2007. SOC3 and STAT3 are upregulated and STAT5 down-regulated during induced involution of the bovine mammary gland. *Journal of Dairy*

- Science (Suppl. 1)* 90/ *J. Anim. Sci. (Suppl. 1)* 85/ *Poult. Sci. (Suppl. 1)* 86: 207.
38. **Stelwagen, K.** 2007. The New Zealand dairy sector: challenging or exciting times ahead? *Proceedings of the Annual Conference of the New Zealand Institute of Food Science and Technology, Wellington, New Zealand.* Page 21.
  39. Phyn, C. V. C., S. R. Davis, J. M. Dobson, **K. Stelwagen** and K. Singh. 2006. Stretching rodent mammary epithelial cells in vitro initiates changes in protein expression. . *Proceedings of the 8th International Workshop on the Biology of Lactation in Farm Animals, Brazil,* Page. 46
  40. Singh, K., M. Prewitz, J. Dobson, C.V.C. Phyn, A. Molenaar, V.C. Farr, S.R. Davis and **K. Stelwagen.** 2006. Intramammary *Streptococcus uberis* infection induces innate immune responses and apoptosis in bovine mammary epithelial cells. *Proceedings of the 8th International Workshop on the Biology of Lactation in Farm Animals, Brazil,* Page 40.
  41. Singh, K, J. Dobson, **K. Stelwagen,** A.J. Molenaar, V.C. Farr, T.T. Wheeler and S.R. Davis. 2006. Oxidative stress plays a role in the induction of apoptosis during involution of the bovine mammary gland. *Proceedings of the 8th International Workshop on the Biology of Lactation in Farm Animals, Brazil,* Page 37.
  42. Cummins R.A., C. Prosser, **K. Stelwagen** N. Gill and C. Milne. 2006. Bovine colostrum and goat milk powders reduce heat-induced “leaky gut” in rats. *Proceedings of the 11th Annual Congress of the European College of Sports Science, University of Lausanne, Switzerland,* Page 492.
  43. Phyn, C.V.C., J.M. Dobson, C.D. McMahon, S.R. Davis, **K. Stelwagen** and K. Singh. 2006. The tight junction (TJ) protein zonula occludens-1 (ZO-1) is down-regulated during apoptosis of rat mammary glands. *Journal of Dairy Science (Suppl. 1)* 89/ *J. Anim. Sci. (Suppl. 1)* 84: 148.
  44. Phyn, C.V.C., J.M. Dobson, S.R. Davis, **K. Stelwagen** and K. Singh. 2006. Acute physical distension of rat mammary glands induces apoptosis and decreases  $\beta$ 1-integrin and tight junction (TJ) protein signalling. *Journal of Dairy Science (Suppl. 1)* 89/ *J. Anim. Sci. (Suppl. 1)* 84: 427.
  45. Sing, K., J. Dobson, C. Phyn, S. Davis, V. Farr, A. Molenaar and **K. Stelwagen.** 2006. *Streptococcus uberis* increases apoptosis of bovine mammary epithelial cells (MEC) and decreases integrin and focal adhesion kinase (FAK) mRNA. *Journal of Dairy Science (Suppl. 1)* 89/ *J. Anim. Sci. (Suppl. 1)* 84: 148.
  46. Sing, K., J. Dobson, C. Phyn, C. Prosser, V. Farr and **K. Stelwagen.** 2006. Short-term once-daily milking decreases expression of integrins and cell survival factors with no changes in apoptosis in the bovine mammary gland. *Journal of Dairy Science (Suppl. 1)* 89/ *J. Anim. Sci. (Suppl. 1)* 84: 332.
  47. Phyn, C.V.C., J.M. Dobson, C.D. McMahon, **K. Stelwagen,** K. Singh, and S.R. Davis. 2006. Expression of tight junction proteins during apoptosis of rat mammary glands. *NZBio Conference.* Auckland, New Zealand.
  48. Molenaar A., Eckersall, D., Mathews, L., Walshe, K., Adamski, F., Davis, S. and **Stelwagen, K.** 2005. A potential roadworthiness/warrant-of-fitness test for animals using serum amyloid proteins. *Proceedings of the Horizons in Livestock Science: Redesigning Animal Agriculture Meeting,* Gold Coast, Australia.
  49. Wieliczko R., P. Harris, **K. Stelwagen,** T. Wheeler, M. Broadhurst, M. Callaghan, K. Johannessen, K. Kim, K. Oden, G. Smolenski and A. Molenaar. 2005. The expression of angiogenin transcripts in the bovine mammary gland. *Proceedings of the 15th Annual Queenstown Molecular Biology Meeting,* Queenstown, New Zealand.
  50. Molenaar, A., P. Harris, G. Rajan, M. Pearson, M. Miles, P. Petrova, K. Oden, V. Farr, K. Singh, R. McLaren, C. Prosser, K. Johannessen, K. Kim, M. Grigor, S. Davis, R. Watson, J. Dalziel, **K. Stelwagen.** 2005. Mammary serum amyloid A (3), progress toward determining structure and function. *Proceedings of the Fourth European Colloquium on Acute Phase Proteins,* Dublin, Ireland.

51. Swanson, K.M, H.V. Henderson, V.C. Farr, K. Singh, **K. Stelwagen**, A. Molenaar, R.W. Jack, J.R. Tagg and C.G. Prosser. 2005. The use of microarrays to investigate gene regulation in the bovine mammary gland during *Streptococcus uberis* mastitis. Fourth IDF International Mastitis Conference. Maastricht, The Netherlands.
52. Cooper, C.V., **K. Stelwagen**, K. Singh, V.C. Farr, C.G. Prosser and S.R. Davis. 2004. Expression of tight junction proteins during bovine mammary engorgement. *Proceedings of the 14th Annual Queenstown Molecular Biology Meeting, Queenstown, New Zealand.*
53. Miles, M.C., S.R. Davis, K. Hood, M.K. Broadhurst, T.T. Wheeler, D.M. Musgrave, **K. Stelwagen** and A. Molenaar. 2004. Expression of lipopolysaccharide binding protein (LBP) in the bovine mammary gland. *Proceedings of the 14th Annual Queenstown Molecular Biology Meeting, Queenstown, New Zealand.*
54. Dobson J, C. Cooper, A. Molenaar, **K. Stelwagen** and K. Singh. 2004. Changes in expression of Bax and Bcl-x1 are associated with an increase in apoptosis of epithelial cells in involuting bovine mammary gland. *14th Annual Queenstown Molecular Biology Conference, Queenstown, New Zealand.*
55. Singh, K., J. Dobson, V. C. Farr, Molenaar A.J., **K. Stelwagen**. 2004. Milk accumulation decreases expression of genes involved in cell-extracellular matrix (ECM) communication and initiates apoptosis in the bovine mammary gland. *Proceedings of the the 7th International Workshop on the Biology of Lactation in Farm Animals, Bled, Slovenia*
56. Oden, K., T. Wilson, D. Hyndeman, H. Henderson, D. Baird, K. Singh, T. Wheeler, C. McMahon, L. Good, K. Swanson, S. Davis, V. Farr, **K. Stelwagen** and A. Molenaar. 2003. The utility of cDNA microarrays as a tool to investigate changes in gene expression in the bovine udder. *Proceedings of the 13th Annual Queenstown Molecular Biology Meeting, Queenstown, New Zealand.*
57. Davis, S.R, A.J. Molenaar, **K. Stelwagen**, T.T. Wheeler, C.J. McMahon, D.B. Baird, H.V. Henderson, V.C. Farr, L. Good, K. Oden, K. Singh, D.L. Hyndman and T. Wilson. 2003. Microarray analysis of bovine mammary gene expression following abrupt cessation of lactation. *Journal of Dairy Science (Suppl. 1) 86/ J. Anim. Sci. (Suppl. 1): 81: 117.*
58. Cooper, C.V., **K. Stelwagen**, C.D. McMahon, K. Singh, V.C. Farr and S.R. Davis. 2003. Tight junction protein expression during engorgement of rat and bovine mammary glands. *Journal of Dairy Science (Suppl. 1) 86/ J. Anim. Sci. (Suppl. 1): 81: 303*
59. Cummins, R., N. Gill, C. Milne, C. Prosser and **Kerst Stelwagen**. 2003. Can nutritional supplementation reduce “leaky gut”? *Annual Sport Science New Zealand Conference, Nelson, New Zealand 20-22 November.* Page 52.
60. Cummins, R. A., N. Gill, R. Hamilton, C. Milne, C. Prosser and **K. Stelwagen**. 2002. Measurement of gut permeability at rest and during running in the heat. *Journal of Science and Medicine in Sport (Suppl.) 5: 126.*
61. Good, L., K. Oden, S. R. Davis, V. C. Farr, **K. Stelwagen** and A. Molenaar. 2002. Temporal and spatial variation in milk protein expression during mammary engorgement in dairy cows. *Proceedings of the 12th Annual Queenstown Molecular Biology Meeting, Queenstown, New Zealand.* Page M13.
62. **Stelwagen, K.** and M.R. Callaghan. 2002. Parathyroid hormone-related peptide (PTHrP) enhances mammary tight junction (TJ) formation under low-calcium (Ca) conditions through maintaining intracellular Ca stores. *Journal of Dairy Science (Suppl. 1) 85/ Journal of Animal Science (Suppl. 1) 80: 53*
63. **Stelwagen, K.**, V.C. Farr and S.R. Davis. 2002. Effect of milking interval on milk yield and quality and the rate of recovery during subsequent frequent milking. *Journal of Dairy Science (Suppl. 1) 85/ Journal of Animal Science (Suppl. 1) 80: 6.*

64. Molenaar, A., G. Rajan, M. Pearson, M. Miles, R. Petrova, S. Davis and **K. Stelwagen**. 2002. A serum amyloid protein homologue is expressed by the mammary gland in a similar pattern to lactoferrin. *Food Safety and Acute Phase Proteins, Proceedings of the Third European Colloquium on Acute Phase Proteins, Doorn, The Netherlands*. Page 42.
65. Prosser, C.G., **K. Stelwagen**, E. Arnold, R. Cummins, P. Guerrin, C. Milne and N. Gill. 2001. Intestinal permeability induced by heat stress. *The Nutrition Society of New Zealand Conference, Wellington, New Zealand*. 17-19 October.
66. Guerin, P.B., R.A. Cummins, N. Gill, C.G. Prosser and **K. Stelwagen**. 2000. Rats in running wheels: the effects of colostrum. *The New Zealand Behaviour Analysis Symposium, Hamilton, New Zealand*.
67. Molenaar, A., G. Rajan and **K. Stelwagen**. 2000. A serum amyloid protein homologue is expressed by the mammary gland. *New Zealand Medical Journal* 113: 85.
68. Hogeveen, H., W. Ouweltjes, C.J.A.M. De Koning and **K. Stelwagen**. 2000. Relationships between milking interval, milk yield and milking duration. *Book of Abstracts of the 51st Annual Meeting of the European Association for Animal Production (EAAP), The Hague, The Netherlands*. Page 220.
69. **Stelwagen, K.** 2000. Effect of milking interval on mammary function and shape of the lactation curve. *Journal of Dairy Science (Suppl. 1)* 83/*Journal of Animal Science (Suppl. 1)* 78: 24.
70. **Stelwagen, K.** and D.J. Ormrod. 1999. Regulation of epithelial tight junction permeability by a milk-derived anti-inflammatory component. *New Zealand Medical Journal* 112: 214.
71. McFadden, H.A. and **K. Stelwagen**. 1998. Comparative effects of epinephrine on tight junction (TJ) permeability in mammary and non-mammary epithelia. *Journal of Dairy Science (Suppl. 1)* 81/*Journal of Animal Science (Suppl. 1)* 76 : 376.
72. **Stelwagen, K.**, V.C. Farr, S.R. Davis and H.A. McFadden. 1998. Inhibition of milk secretion and the extent of filling of the bovine mammary gland. *Journal of Dairy Science (Suppl. 1)* 81/*Journal of Animal Science (Suppl. 1)* 76: 376.
73. **Stelwagen, K.** and H.A. McFadden. 1998. Enhancement of mammary tight junction formation by prolactin may be mediated by the  $\alpha$ - isoform of tight junction associated protein ZO-1. *Journal of Dairy Science (Suppl. 1)* 81/*Journal of Animal Science (Suppl. 1)* 76: 212.
74. Van Espen, D.C., **K. Stelwagen**, V.C. Farr, H.A. McFadden, G.A. Verkerk and S.R. Davis. 1997. Effect of cortisol on the permeability of tight junctions (TJ) in the lactating bovine mammary epithelium. *Journal of Dairy Science (Suppl. 1)* 80: 205.
75. **Stelwagen, K.**, R.D. McLaren, S.A. Turner, H.A. McFadden and C.G. Prosser. 1997. No evidence for basolateral milk protein secretion in the goat mammary gland. *Journal of Dairy Science (Suppl. 1)* 80: 156.
76. **Stelwagen, K.**, V.C. Farr and H.A. McFadden. 1997. Elevated sodium content in milk affects milk synthesis, but not mammary tight junction integrity in goats. *Livestock Production Science* 50: 39-40.
77. **Stelwagen, K.**, G.A. Verkerk., A.M. Phipps and L.R. Matthews. 1997. Effect of cortisol on mammary tight junction permeability in lactating dairy cows. *Livestock Production Science* 50: 170-171.
78. Gilmore, J., K. Levitt, J.H. White, B. Zavizion, I. Politis and **K. Stelwagen**. 1995. Milk production and the plasmin-plasminogen system in pregnant versus open cows. *Journal of Dairy Science (Suppl. 1)* 78: 203.
79. Lacy-Hulbert, J., **K. Stelwagen**, V.C. Farr and S.R. Davis. 1995. Effect of milking frequency on SCC characteristics and mammary secretory cell damage in cows. *Journal of Dairy Science (Suppl. 1)* 78: 204.

80. Levitt, K., J.H. White, F. Fantuz, B. Zavizion, I. Politis and **K. Stelwagen**. 1995. Preliminary results on the characterization of plasminogen activators in ruminant mammary tissue. *Journal of Dairy Science (Suppl. 1)* 78: 202.
81. Nicholas, G.D., **K. Stelwagen**, C.G. Prosser, V.C. Farr and I. Politis. 1995. Effect of milking interval during early lactation on plasmin and plasminogen derived activity in bovine milk. *Journal of Dairy Science (Suppl. 1)* 78: 165.
82. **Stelwagen, K.** and C.H. Knight. 1995. Effect of simultaneous once (ODM) and twice (TDM) daily milking of cows during early and late lactation on milk yield and udder characteristics. *Journal of Dairy Science (Suppl. 1)* 78: 204.
83. **Stelwagen, K.**, V.C. Farr and S.R. Davis. 1995. Timing of once daily milking-induced disruption of bovine mammary tight junctions (TJ) during early lactation. *Journal of Dairy Science (Suppl. 1)* 78: 204.
84. Farr, V.C., **K. Stelwagen**, S.R. Davis and L.R. Cate. 1994. An improved method for routine biopsy of bovine mammary tissue. *Journal of Dairy Science (Suppl. 1)* 77/*Journal of Animal Science (Suppl. 1)* 72: 117.
85. Knight, C.H., **K. Stelwagen**, V.C. Farr and S.R. Davis. 1994. Use of an oxytocin analogue to determine cisternal and alveolar milk pool sizes in goats. *Journal of Dairy Science (Suppl. 1)* 77/*Journal of Animal Science (Suppl. 1)* 72: 84.
86. **Stelwagen, K.**, V.C. Farr, S.R. Davis and C.G. Prosser. 1994. Induced disruption of mammary epithelial cell tight junctions (TJ) in the lactating goat. *Journal of Dairy Science (Suppl. 1)* 77/*Journal of Animal Science (Suppl. 1)* 72: 227.
87. **Stelwagen, K.**, M.R. Guo, P.S. Kindstedt, I. Politis, S.R. Davis and V.C. Farr. 1994. Mammary-derived growth inhibitor (MDGI) in bovine milk: effect of milking frequency and bST. *Journal of Dairy Science (Suppl. 1)* 77/*Journal of Animal Science (Suppl. 1)* 72: 176.
88. **Stelwagen, K.**, J.H. White, B. Zavizion, C.G. Prosser, S.R. Davis, V.C. Farr and I. Politis. 1994. Effect of milking frequency and bST on milk plasminogen activator (PA), plasminogen (PGN) and plasmin (PN) activities in cows. *Journal of Dairy Science (Suppl. 1)* 77/*Journal of Animal Science (Suppl. 1)* 72: 226.
89. **Stelwagen, K.**, S.R. Davis, V.C. Farr, C.G. Prosser. and R.A. Sherlock. 1993. The effect of an extended milking interval on mammary epithelial cell tight junction integrity and mammary blood flow in lactating goats. *Journal of Dairy Science (Suppl. 1)* 76: 187.
90. **Stelwagen, K.**, C.H. Knight, V.C. Farr, S.R. Davis, T.B. McFadden and C.G. Prosser. 1993. Continuous versus once-daily milk drainage during a 24-h period: cisternal capacity may be limiting during once-daily milking (ODM). *Journal of Dairy Science (Suppl. 1)* 76: 187.
91. **Stelwagen, K.**, D.G. Grieve, J.S. Walton, J.L. Ball and B.W. McBride. 1992. Effect of prepartum bovine somatotropin (bST) administration on mammogenesis and subsequent milk yield in primigravid lambs. *Proceedings of the Endocrine Society of Australia* 35: 150.
92. **Stelwagen, K.**, D.G. Grieve, J.S. Walton, J.L. Ball and B.W. McBride. 1992. Effect of prepartum recombinant bovine somatotropin (bST) administration to pregnant ewes on mammogenesis, subsequent milk yield, and plasma insulin-like growth factor-I (IGF-I) concentrations. *Livestock Production Science* 35: 184-185.
93. **Stelwagen, K.**, D.G. Grieve, J.S. Walton and J.L. Ball. 1991. Effect of recombinant bovine somatotropin (rbST) during late gestation in primigravid ewes. 1. Mammogenesis and subsequent milk yield. *Journal of Dairy Science (Suppl. 1)* 74: 167.

94. **Stelwagen, K.**, D.G. Grieve, J.S. Walton and J.L. Ball. 1991. Effect of recombinant bovine somatotropin (rbST) during late gestation in primigravid ewes. 2. Fetal development. *Journal of Dairy Science (Suppl. 1)* 74: 167.
95. **Stelwagen, K.**, D.G. Grieve, J.S. Walton and J.L. Ball. 1991. The effect of prepartum administration of recombinant bovine somatotropin (rbST) on body and wool growth, body composition and organ weights in primigravid ewes. *Canadian Journal of Animal Science* 71: 1287.
96. **Stelwagen, K.**, D.G. Grieve, B.W. McBride and J.D. Rehman. 1990. Early lactation performance of Holstein heifers treated with rbST during the last trimester of first lactation. *Journal of Dairy Science (Suppl. 1)* 73:137.
97. **Stelwagen, K.**, B.W. McBride and D.G. Grieve. 1989. Nuclear magnetic resonance (NMR) spectroscopy and proton imaging of bovine mammary glands. *Journal of Dairy Science (Suppl. 1)* 72/*Journal of Animal Science (Suppl. 1)* 67:42.
98. **Stelwagen, K.** and D.G. Grieve. 1988. Effect of feeding level on mammary development in Holstein heifers. *Journal of Dairy Science (Suppl. 1)* 71:129.

#### EXTENSION AND TECHNICAL ARTICLES

1. **Stelwagen, K.** 2024. How much milk replacer should you feed your calves? *Enrich*. April issue, p29.
2. **Stelwagen, K.** 2023. Whole milk powder-based milk replacer provides early growth and health benefits for lambs. [www.nzagbiz.co.nz](http://www.nzagbiz.co.nz)
3. **Stelwagen, K.** 2020. Don't stray - why whole milk powder is the better whey. *Enrich*. May issue, p25.
4. **Stelwagen K.** 2019. Selisseo – A novel selenium water soluble supplement that work. *Fact Sheet, BEC Feed Solutions*. <https://becfeedsolutions.co.nz/products/selenium/nz-on-farm-evaluation/>
5. **Stelwagen, K.** 2019. Future-proofing your calves. *Enrich*, April issue, P21.
6. **Stelwagen, K.** and Aveling J. 2015. Crystallyx benefits lamb survival. *Research Fact Sheet SealesWinslow*, [www.sealeswinslow.co.nz](http://www.sealeswinslow.co.nz)
7. **Stelwagen K.**, C. Phynn, J. Kay and J. Roche. 2012. Milking your cows once-a-day throughout lactation. *DairyNZ Technical Series*, Issue 9:12-15.
8. **Stelwagen K.** 2008. Why you should worry about SCC. *The Dairy Man*, February issue, P35-36.
9. **Stelwagen K.** 2007. Colostrum – Mother Nature's Ready-Made Health Food. *Food Technology New Zealand*, October 2007 issue.
10. **Stelwagen, K.** 2004. What future after antibiotics. *Dairy Exporter*, October issue, pp 92.
11. **Stelwagen, K.** 2004. Keeping an eye out for mastitis. *The Dairyman*, September issue, pp. 32
12. **Stelwagen, K.** 2004. AgResearch discovers milk marker for once daily milking. *Press release*.
13. **Stelwagen, K.** 2004. Dairy Science Today: Milking frequency: weighing "optimum" against "practical". *Dairy Exporter*, February issue, pp 74-75.
14. Davis, S.R and **K. Stelwagen**. 2003. Dairy Science Today: Enlightened dairying. *Dairy Exporter*, October issue, pp 105.
15. Molenaar, A., S.R. Davis and **K. Stelwagen**. 2003. A potential warrant of fitness test for animals using serum amyloid proteins. *AgVax News & Views*, No. 19, December issue.

16. **K. Stelwagen** and S.R. Davis. 2003. Dairy Science Today: Slumber milk, a bedtime story. *Dairy Exporter*, April issue, pp 92-93.
17. Davis, S.R and **K. Stelwagen**. 2003. Dairy Science Today: Genes and milk production. *Dairy Exporter*, March issue, pp 88-89
18. Davis, S.R and **K. Stelwagen**. 2002. Dairy Science Today: World demand increasing for low-volume, high-return lactoferrin. *Dairy Exporter*, December issue, pp 78.
19. Davis, S.R and **K. Stelwagen**. 2002. Dairy Science Today: Food scares – who needs them. *Dairy Exporter*, October issue, pp 104-105
20. Davis, S.R and **K. Stelwagen**. 2002. Dairy Science Today: The Kiwi cow and once-daily milking. *Dairy Exporter*, July issue, pp 106-107.
21. Davis, S.R and **K. Stelwagen**. 2002. *Dairy Science Today*: Potential benefits from feeding during milking. *Dairy Exporter*, May issue, pp 102-103.
22. **Stelwagen, K.** and S.R. Davis 2002. *Dairy Science Today*: Consequences of missed milkings. *Dairy Exporter*, March issue, pp 124-125.
23. Molenaar, A. K. Swanson, S. Gorodetsky, S. Davis, **K. Stelwagen**. 2001. Defensins and antibacterial defenses of the bovine mammary gland. The C. Alma Baker Trust Report on Activities 2000-2001, Publication 24 (ISSN 01125583), pp. 27-28.
24. Davis, S.R. and **K. Stelwagen**. 2001. *Dairy Science Today*: A warrant of fitness for cows? *Dairy Exporter*, December issue, pp. 94
25. Davis, S.R. and **K. Stelwagen**. 2001. *Dairy Science Today*: Time for a fresh look at year-round milking. *Dairy Exporter*, October issue, pp. 116.
26. Davis, S.R and **K. Stelwagen**. 2001. *Dairy Science Today*: A cow for all seasons: Year-round milking in New Zealand can we do it?. *Dairy Exporter*, August issue, pp. 116-117.
27. Davis, S.R and **K. Stelwagen**. 2001. *Dairy Science Today*: Year-round milking: is it a viable goal? *Dairy Exporter*, April issue, pp. 105.
28. Davis, S.R. and **K. Stelwagen**. 2000. *Dairy Science Today*: Genes map way to future. *Dairy Exporter*, November issue, pp. 90-91.
29. **Stelwagen, K.**, J. Zonderland, T. Boxem, R.L.G. Zom, G. Van Duinkerken and E.A.A. Smolders. 2000. [Mineral feeding during the dry period: the cation-anion balance] (in Dutch). Research Institute for Animal Husbandry. Lelystad, The Netherlands. Publication No. 247.
30. **Stelwagen, K** and S.R. Davis. 2000. *Dairy Science Today*: New Zealand keeps weather eye open on nitrogen developments in Europe. *Dairy Exporter*, February issue, pp. 82-83.
31. Davis, S.R. and **K. Stelwagen**. 1999. *Dairy Science Today*: Dietary calcium helps health. *Dairy Exporter*, December issue, pp 64-65.
32. Davis, S.R. and **K. Stelwagen**. 1999. *Dairy Science Today*: Hormonal induction of lactation. *Dairy Exporter*, August issue, pp 116-117.
33. **Stelwagen, K.** and S.R. Davis. 1999. *Dairy Science Today*: Extracting the dollars from milk. *Dairy Exporter*, June issue, pp 112-113.
34. Davis, S.R. and **K. Stelwagen**. 1999. *Dairy Science Today*: Minimising yield losses with once-daily milking. *Dairy Exporter*, February issue, pp 100-101.

35. Davis, S.R. and **K. Stelwagen**. 1998. *Dairy Science Today: Beyond 2000: long-life cows*. *Dairy Exporter*, December issue, pp 64-65.
36. **Stelwagen, K.** and S.R. Davis. 1998. *Dairy Science Today: To be or not to BST*. *Dairy Exporter*, October issue, pp. 104-106.
37. **Stelwagen, K.** and S.R. Davis. 1998. *Dairy Science Today: Colostrum is the key to healthy calves (and healthy humans)*. *Dairy Exporter*, August issue, pp 130-131.
38. Davis, S.R. and **K. Stelwagen**. 1998. *Dairy Science Today: 20:20 and 2050 vision*. *Dairy Exporter*, July issue, pp. 144-145.
39. **Stelwagen, K.** 1994. Once daily milking and milk quality. DRC Research Update, Dairying Research Corporation Ltd., March issue, p. 8.
40. **Stelwagen, K.** 1993. Once daily milking. DRC Research Update, Dairying Research Corporation Ltd., March issue, p. 7.
41. **Stelwagen, K.**, D.G. Grieve, J.S. Walton, J.L. Ball and B.W. McBride. 1992. Effect of bovine somatotropin administration during late first gestation in ewes on fetal development and subsequent milk yield. Guelph Dairy Research Report, University of Guelph, OAC Publication No. 1092, pp. 51-53.
42. **Stelwagen, K.** and D.G. Grieve. 1991. The effect of feeding level between 6 and 16 months of age on body composition, plasma somatotropin levels and first lactation milk production in Holstein heifers. Guelph Dairy Research Report, University of Guelph, OAC Publication No. 1691, pp. 43-46.
43. **Stelwagen, K.** and D.G. Grieve. 1990. Early lactation performance of first-calf Holstein heifers treated with recombinant bovine somatotropin. Guelph Dairy Research Report, University of Guelph. O.A.C. Publication No. 1290, pp. 114-11.
44. **Stelwagen, K.** and D.G. Grieve. 1988. Effect of plane of nutrition on growth and mammary gland development in Holstein heifers. Guelph Dairy Research Report, University of Guelph, Canada. O.A.C. Publication No. 0688, pp. 211-216.

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