

Professor Linda Wooldridge
Chair in Translational Immunology, Faculty of Health Sciences
University of Bristol, UK

CAREER SUMMARY

1st Sept 2013 onwards: Chair in Translational Immunology (University of Bristol)
2013 - 2014: Wellcome Trust Intermediate Clinical Fellowship (University of Bristol)
2006 - 2013: Wellcome Trust Intermediate Clinical Fellowship (Cardiff University)
2001 - 2004: Wellcome Trust Veterinary Prize Studentship (University of Oxford; DPhil)
2000 - 2001: MSc Human Immunity (University of Liverpool: Distinction Awarded)
1996 - 2002: Qualified Veterinary Surgeon in small animal clinical practice

EDUCATION

| Date (mm/yy) | Qualification | Subject | Organisation |
|--------------|-------------------|--------------------|-------------------------|
| 11/2005 | DPhil | Immunology | University of Oxford |
| 07/2001 | MSc (Distinction) | Human Immunity | University of Liverpool |
| 06/1996 | BVSc, MRCVS | Veterinary Science | University of Bristol |

EMPLOYMENT

| Date from (mm/yy) | Date to (mm/yy) | Position | Location |
|-------------------|-----------------|---|---|
| 09/2013 | onwards | Chair in Translational Immunology | University of Bristol |
| 11/2006 | 08/2013 | WT Intermediate Clinical Fellow (3.5 days/wk) | Cardiff University |
| 08/2006 | 10/2006 | Postdoctoral Associate | Cardiff University |
| 10/2001 | 09/2004 | Wellcome Trust Veterinary Prize Student | University of Oxford |
| 09/2000 | 05/2002 | Small animal veterinary surgeon (PART TIME) | The Wood Veterinary Group Animal Hospital, Gloucester |
| 07/1998 | 09/2000 | Small animal veterinary surgeon (FULL TIME) | The Wood Veterinary Group Animal Hospital, Gloucester |
| 10/1997 | 07/1998 | Small animal veterinary surgeon (FULL TIME) | Lucas Veterinary Surgery, Bristol |
| 09/1996 | 10/1997 | Small animal veterinary surgeon (FULL TIME) | Bush Veterinary Centre, Coventry |

FULL PUBLICATION LIST

(H-index: 23, citations > 1900)

1. Cole, D. K., H. A. van den Berg, A. Lloyd, M. D. Crowther, K. Beck, J. Ekeruche-Makinde, J. J. Miles, A. M. Bulek, G. Dolton, A. J. Schauenburg, A. Wall, A. Fuller, M. Clement, B. Laugel, P. J. Rizkallah, [L. Wooldridge*](#), and A. K. Sewell*. 2016. Structural mechanism underpinning cross-reactivity of a CD8+ T-cell clone that recognises a peptide derived from human telomerase reverse transcriptase. J Biol Chem Nov 30 [Epub ahead of print]. (*authors contributed equally).
2. Clement, M., J. A. Pearson, S. Gras, H. A. van den Berg, A. Lissina, S. Llewellyn-Lacey, M. D. Willis, T. Dockree, J. E. McLaren, J. Ekeruche-Makinde, E. Gostick, N. P. Robertson, J. Rossjohn, S. R. Burrows, D. A. Price, F. S. Wong, M. Peakman, A. Skowera, and [L. Wooldridge](#). 2016. Targeted suppression of autoreactive CD8+ T-cell activation using blocking anti-CD8 antibodies. Sci Rep 6:35332.

3. Grant, E. J., Josephs, T. M., Valkenburg, S. A., Wooldridge, L., Hellard, M., Rossjohn, J., Bharadwaj, M., Kedzierska, K., and Gras, S. 2016. Lack of Heterologous Cross-reactivity toward HLA-A*02:01 Restricted Viral Epitopes Is Underpinned by Distinct alphabeta T Cell Receptor Signatures. *J Biol Chem* 291, 24335-24351.
4. Dockree, T., C. Holland, M. Clement, K. Ladell, J. E. McLaren, H. A. Van den Berg, E. Gostick, S. Llewellyn-Lacey, S. man, D. M. Bailey, S. R. Burrows, D. A. Price, and L. Wooldridge. 2016. CD8+ T-cell specificity is compromised at a defined MHCI/CD8 affinity threshold. *Immunology & Cell Biology* 291: 24335-24351.
5. Cole, D. K., A. M. Bulek, G. Dolton, A. J. Schauenburg, B. Szomolay, W. Rittase, A. Trimby, P. Jothikumar, A. Fuller, A. Skowera, J. Rossjohn, C. Zhu, J. J. Miles, M. Peakman, L. Wooldridge, P. J. Rizkallah, and A. K. Sewell. 2016. Hotspot autoimmune T cell receptor binding underlies pathogen and insulin peptide cross-reactivity. *J Clin Invest* 126:2191-2204.
6. Szomolay, B., J. Liu, P. E. Brown, J. J. Miles, M. Clement, S. Llewellyn-Lacey, G. Dolton, J. Ekeruche-Makinde, A. Lissina, A. J. Schauenburg, A. K. Sewell, S. R. Burrows, M. Roederer, D. A. Price, L. Wooldridge*, and H. A. van den Berg*. 2016. Identification of human viral protein-derived ligands recognized by individual major histocompatibility complex class I (MHCI)-restricted T-cell receptors. *Immunol Cell Biol*. In Press. (*authors contributed equally).
7. Mellanby, R. J., J. Price, L. Wooldridge, N. N. Jonsson, P. D. Clegg, R. D. Emes, G. Engalnd, S. A. Corr, R. J. Piercy, G. Mulcahy, J. L. Wood, B. R. Walker, and D. J. Argyle. 2015. Clinical research: developing an appropriate career structure. *Vet Rec*. Nov 28 177: 544-7.
8. Neller, M. A., K. Ladell, J. E. McLaren, K. K. Matthews, E. Gostick, J. M. Pentier, G. Dolton, A. J. Schauenburg, D. Koning, A. I. Fontaine Costa, T. S. Watkins, V. Venturi, C. Smith, R. Khanna, K. Miners, M. Clement, L. Wooldridge, D. K. Cole, D. van Baarle, A. K. Sewell, S. R. Burrows, D. A. Price, and J. J. Miles. 2015. Naive CD8 T-cell precursors display structured TCR repertoires and composite antigen-driven selection dynamics. *Immunol Cell Biol*. Mar 24 [epub ahead of print].
9. Hill, B. J., P. A. Darrach, Z. Ende, D. R. Ambrozak, K. M. Quinn, S. Darko, E. Gostick, L. Wooldridge, H. A. van den Berg, V. Venturi, M. Larsen, M. P. Davenport, R. A. Seder, D. A. Price, and D. C. Douek. 2014. Epitope specificity delimits the functional capabilities of vaccine-induced CD8 T cell populations. *J Immunol* 193:5626-5636.
10. Szomolay, B., T. Williams, L. Wooldridge, and H. A. van den Berg. 2014. Co-Receptor CD8-Mediated Modulation of T-Cell Receptor Functional Sensitivity and Epitope Recognition Degeneracy. *Front Immunol* 4:329.
11. van den Berg, H. A., K. Ladell, K. Miners, B. Laugel, S. Llewellyn-Lacey, M. Clement, D. K. Cole, E. Gostick, L. Wooldridge, A. K. Sewell, J. S. Bridgeman, and D. A. Price. 2013. Cellular-level versus receptor-level response threshold hierarchies in T-cell activation. *Front Immunol* 4:250.
12. Wooldridge, L. 2013. Individual MHCI-restricted T-cell receptors are characterized by a unique peptide recognition signature. *Frontiers in Immunology* 4:199.
13. Ekeruche, J., J. J. Miles, H. A. van den Berg, A. Skowera, D. Cole, A. J. Schauenburg, M. Ping Tan, J. M. Pentier, S. Llewellyn-Lacey, K. M. Miles, A. M. bulek, M. Clement, T. Williams, A. Trimby, M. Bailey, P. Rizkallah, J. Rossjohn, M. Peakman, D. A. Price, S. R. Burrows, A. K. Sewell, and L. Wooldridge. 2013. Peptide length determines the outcome of T cell receptor/peptide-MHCI engagement. *Blood* 121:1112-23.

14. Weidong X., D. M. Watts, M. C. Costanzo, L. A. Venegas, F. Jiao, X. Tang, A. Sette², J. Sidney, A. K. Sewell, [L. Wooldridge](#), S. Makino, J. C. Morrill, C. J. Peters, and J. Kan-Mitchell. 2013. The Nucleocapsid Protein of Rift Valley Fever Virus is a Potent Human CD8+ T Cell Antigen and Elicits Memory Responses. *Plos One* 8:e59210.
15. Knight, R. R., D. Kronenberg, M. Zhao, G. C. Huang, M. Eichmann, A. Bulek, [L. Wooldridge](#), D. K. Cole, A. K. Sewell, M. Peakman, and A. Skowera. 2013. Human beta-Cell Killing by Autoreactive Preproinsulin-Specific CD8 T Cells Is Predominantly Granule-Mediated With the Potency Dependent Upon T-Cell Receptor Avidity. *Diabetes* 62:205-2013.
16. [Wooldridge, L.](#), J. Ekeruche-Makinde, H. A. van den Berg, A. Skowera, J. J. Miles, M. P. Tan, G. Dolton, M. Clement, S. Llewellyn-Lacey, D. A. Price, M. Peakman, and A. K. Sewell. 2012. A single autoimmune T-cell receptor recognizes over a million different peptides. *J Biol Chem* 287:1168-1177.
17. Ekeruche-Makinde, J., M. Clement, D. K. Cole, E. S. Edwards, K. Ladell, J. J. Miles, K. K. Matthews, A. Fuller, K. A. Lloyd, F. Madura, G. M. Dolton, J. Pentier, A. Lissina, E. Gostick, T. K. Baxter, B. M. Baker, P. J. Rizkallah, D. A. Price, [L. Wooldridge*](#), and A. K. Sewell*. 2012. T-cell receptor-optimized peptide skewing of the T-cell repertoire can enhance antigen targeting. *J Biol Chem* 287:37269-37281. (* authors contributed equally).
18. Humphreys, I. R., M. Clement, M. Marsden, K. Ladell, J. E. McLaren, K. Smart, J. P. Hindley, H. M. Bridgeman, H. A. van den Berg, D. A. Price, A. Ager, [L. Wooldridge](#), A. Godkin, and A. M. Gallimore. 2012. Avidity of influenza-specific memory CD8(+) T-cell populations decays over time compromising antiviral immunity. *Eur J Immunol* 42:3235-42.
19. Cole, D. K., B. Laugel, M. Clement, D. A. Price, [L. Wooldridge](#), and A. K. Sewell. 2012. The molecular determinants of CD8 co-receptor function. *Immunology* 137:139-148.
20. Bulek, A. M., D. K. Cole, A. Skowera, G. Dolton, S. Gras, F. Madura, A. Fuller, J. J. Miles, E. Gostick, D. A. Price, J. W. Drijfhout, R. R. Knight, G. C. Huang, N. Lissin, P. E. Molloy, [L. Wooldridge](#), B. K. Jakobsen, J. Rossjohn, M. Peakman, P. J. Rizkallah, and A. K. Sewell. 2012. Structural basis for the killing of human beta cells by CD8(+) T cells in type 1 diabetes. *Nat Immunol* 13:283-289.
21. Clement, M., K. Ladell, J. Ekeruche-Makinde, J.J. Miles, E.S. Edwards, G. Dolton, T. Williams, A.J. Schauenburg, D.K. Cole, S.N. Lauder, A.M. Gallimore, A.J. Godkin, S.R. Burrows, D.A. Price, A.K. Sewell, and [L. Wooldridge](#). 2011. Anti-CD8 antibodies can trigger CD8 T cell effector function in the absence of TCR engagement and improve peptide-MHCI tetramer staining. *J Immunol* 187:654-663.
22. Iglesias, M.C., J.R. Almeida, S. Fastenackels, D.J. van Bockel, M. Hashimoto, V. Venturi, E. Gostick, A. Urrutia, [L. Wooldridge](#), M. Clement, S. Gras, P.G. Wilmann, B. Autran, A. Moris, J. Rossjohn, M.P. Davenport, M. Takiguchi, C. Brander, D.C. Douek, A.D. Kelleher, D.A. Price, and V. Appay. 2011. Escape from highly effective public CD8+ T-cell clonotypes by HIV. *Blood* 118:2138-2149.
23. Laugel, B., D.K. Cole, M. Clement, [L. Wooldridge](#), D.A. Price, and A. Sewell, K. 2011. The multiple roles of the CD8 coreceptor in T cell biology: opportunities for the selective modulation of self-reactive cytotoxic T cells. *J Leukoc Biol* 90: 1089-1099.
24. [Wooldridge, L.](#), B. Laugel, J. Ekeruche, M. Clement, H.A. van den Berg, D.A. Price, and A.K. Sewell. 2010. CD8 controls T cell cross-reactivity. *J Immunol* 185:4625-4632.
25. [Wooldridge, L.](#), M. Clement, A. Lissina, E. S. Edwards, K. Ladell, J. Ekeruche, R. E. Hewitt, B. Laugel, E. Gostick, D. K. Cole, R. Debets, C. Berrevoets, J. J. Miles, S. R. Burrows, D. A. Price, and A. K. Sewell. 2010. MHC class I molecules with Superenhanced CD8 binding

- properties bypass the requirement for cognate TCR recognition and nonspecifically activate CTLs. *J Immunol* 184:3357-3366.
26. Miles, J.J., A.M. Bulek, D.K. Cole, E. Gostick, A.J. Schauenburg, G. Dolton, V. Venturi, M.P. Davenport, M.P. Tan, S.R. Burrows, [L. Wooldridge](#), D.A. Price, P.J. Rizkallah, and A.K. Sewell. 2010. Genetic and structural basis for selection of a ubiquitous T cell receptor deployed in Epstein-Barr virus infection. *PLoS Pathog* 6:e1001198.
 27. Cole, D.K., E.S. Edwards, K.K. Wynn, M. Clement, J.J. Miles, K. Ladell, J. Ekeruche, E. Gostick, K.J. Adams, A. Skowera, M. Peakman, [L. Wooldridge](#), D.A. Price, and A.K. Sewell. 2010. Modification of MHC anchor residues generates heteroclitic peptides that alter TCR binding and T cell recognition. *J Immunol* 185:2600-2610.
 28. Chen, J. L., A. J. Morgan, G. Stewart-Jones, D. Shepherd, G. Bossi, [L. Wooldridge](#), S. L. Hutchinson, A. K. Sewell, G. M. Griffiths, P. A. van der Merwe, E. Y. Jones, A. Galione, and V. Cerundolo. 2010. Ca²⁺ release from the endoplasmic reticulum of NY-ESO-1-specific T cells is modulated by the affinity of TCR and by the use of the CD8 coreceptor. *J Immunol* 184:1829-1839.
 29. Lissina, A., K. Ladell, A. Skowera, M. Clement, E. Edwards, R. Seggewiss, H. A. van den Berg, E. Gostick, K. Gallagher, E. Jones, J. J. Melenhorst, A. J. Godkin, M. Peakman, D. A. Price, A. K. Sewell and [L. Wooldridge](#). 2009. Protein kinase inhibitors substantially improve the physical detection of T-cells with peptide-MHC tetramers. *J Immunol Methods* 340:11-24.
 30. [Wooldridge, L.](#), A. Lissina, D. K. Cole, H. A. van den Berg, D. A. Price, and A. K. Sewell. 2009. Tricks with tetramers: how to get the most from multimeric peptide-MHC. *Immunology* 126:147-164.
 31. Horlock, C., B. Stott, J. Dyson, G. Ogg, T. McPherson, L. Jones, A. K. Sewell, [L. Wooldridge](#), D. K. Cole, J. Stebbing, and P. Savage. 2009. ELISPOT and functional T cell analyses using HLA mono-specific target cells. *J Immunol Methods* 350:150-160.
 32. Weichsel, R., C. Dix, [L. Wooldridge](#), M. Clement, A. Fenton-May, A. K. Sewell, J. Zezula, E. Greiner, E. Gostick, D. A. Price, H. Einsele, and R. Seggewiss. 2008. Profound inhibition of antigen-specific T-cell effector functions by dasatinib. *Clinical Cancer Res* 14:2484-2491.
 33. Chattopadhyay, P. K., J. J. Melenhorst, K. Ladell, E. Gostick, P. Scheinberg, A. J. Barrett, [L. Wooldridge](#), M. Roederer, A. K. Sewell, and D. A. Price. 2008. Techniques to improve the direct ex vivo detection of low frequency antigen-specific CD8⁺ T cells with peptide-major histocompatibility complex class I tetramers. *Cytometry A* 73:1001-1009.
 34. Melenhorst, J. J., P. Scheinberg, P. K. Chattopadhyay, A. Lissina, E. Gostick, D. K. Cole, [L. Wooldridge](#), H. A. van den Berg, E. Bornstein, N. F. Hensel, D. C. Douek, M. Roederer, A. K. Sewell, A. J. Barrett, and D. A. Price. 2008. Detection of low avidity CD8(+) T cell populations with coreceptor-enhanced peptide-major histocompatibility complex class I tetramers. *J Immunol Methods* 338:31-39.
 35. [Wooldridge, L.](#), A. Lissina, J. Vernazza, E. Gostick, B. Laugel, S. L. Hutchinson, F. Mirza, P. R. Dunbar, J. M. Boulter, M. Glick, V. Cerundolo, H. A. van den Berg, D. A. Price, and A. K. Sewell. 2007. Enhanced immunogenicity of CTL antigens through mutation of the CD8 binding MHC class I invariant region. *Eur J Immunol* 37:1323-1333.
 36. van den Berg, H. A., [L. Wooldridge](#), B. Laugel, and A. K. Sewell. 2007. Coreceptor CD8-driven modulation of T cell antigen receptor specificity. *J Theor Biol* 249:395-408.
 37. Laugel, B., H. A. van den Berg, E. Gostick, D. K. Cole, [L. Wooldridge](#), J. Boulter, A. Milicic, D. A. Price, and A. K. Sewell. 2007. Different T cell receptor affinity thresholds and CD8

- coreceptor dependence govern cytotoxic T lymphocyte activation and tetramer binding properties. *J Biol Chem* 282:23799-23810.
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 40. Wooldridge, L., van den Berg, H., Glick, M., Gostick, E., Laugel, B., Hutchinson, S. L., Milicic, A., Brenchley, J. M., Douek, D. C., Price, D. A., and Sewell, A. K. 2005. Interaction between the CD8 coreceptor and MHC class I stabilizes TCR-antigen complexes at the cell surface. *J Biol Chem* 280:27491-27501.
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 42. Chen, J. L., Stewart-Jones, G., Bossi, G., Lissin, N., Wooldridge, L., Choi, E. M. L., Dunbar, P. R., Esnouf, R. M., Sami, M., Boulter, J. M., Rizkallah, P., Renner, C. Sewell, A., van der Merwe, P. A., Jakobsen, B. K., Griffiths, G., Jones, Y. and Cerundolo, V. 2005. Structural and kinetic basis for heightened immunogenicity of T-cell vaccines. *J Exp Med* 201:1243-1255.
 43. Wooldridge, L., Hutchinson, S. L., Choi, E. M., Lissina, A., Jones, E., Mirza, F., Dunbar, P. R., Price, D. A., Cerundolo, V., and Sewell, A. K. 2003. Anti-CD8 antibodies can inhibit or enhance peptide-MHC class I (pMHCI) multimer binding: this is paralleled by their effects on CTL activation and occurs in the absence of an interaction between pMHCI and CD8 on the cell surface. *J Immunol* 171:6650-6660.
 44. S. L. Hutchinson*, Wooldridge, L.*, S. L., Tafuro, S., Laugel, B., Glick, M., Boulter, J. M., Jakobsen, B. K., Price, D. A., and Sewell, A. K. 2003. The CD8 T cell coreceptor exhibits disproportionate biological activity at extremely low binding affinities. *J Biol Chem* 278:24285-24293. (* authors contributed equally).
 45. Wooldridge, L. 2003. Framework for veterinary education and training. *Vet Record* 152:375.
 46. Man-Lik Choi, E., Chen, J., Wooldridge, L., Salio, M., Lissina, A., Lissin, N., Hermans, I. F., Silk, J. D., Mirza, F., Palmowski, M. J., Dunbar, P. R., Jakobsen, B. K., Sewell, A. K. and Cerundolo, V. 2003. High Avidity Antigen-Specific CTL Identified by CD8-Independent Tetramer Staining. *J Immunol* 171:5116-5123.
 47. Wooldridge, L., and Sewell, A. K. 2002. HIV strategically targets HIV specific T cells. *Trends in Immunology* 23:474.

INTERNATIONAL PATENT

Sewell, A. K. and L. Wooldridge. 2010. Use of PKI in cell staining/detection. International Patent PCT/GB2009/002251 March 25.