

Herman Waldmann Group leader 1994-2020

ORCID DETAILS:- <https://orcid.org/0000-0001-7519-6720>

Lara Marks biography :-

<https://www.whatisbiotechnology.org/index.php/people/summary/Waldmann>

Curriculum Vitae.

Date of Birth: 27 February 1945, Age: 79 years

Position: Emeritus Professor of Pathology
Former Head of Department, Professor of Pathology
Address: Sir William Dunn School of Pathology
University of Oxford
South Parks Rd
Oxford OX1 3RE

Telephone: 07802435815

Email: herman.waldmann@path.ox.ac.uk

University of Cambridge Degrees

1966	BA Natural Sciences Tripos. Class I
1970	MB, BChir. Distinction in Pharmacology and Therapeutics
1974	PhD
1977	MA.

Professional Qualifications & Membership of Professional Bodies

1981	Member of the Royal College of Pathologists (MRC Path)
1988	member of the Royal College of Physicians (MRCP)
1990	Fellow of the Royal Society (FRS)
1992	Fellow of the Royal College of Pathologists (FRCPath)
1998	(Founding) Fellow of the Academy of medical Sciences.(FMed Sci)
2010	Fellow of the Royal College of Physicians (FRCP)

Posts Held

1969-1970	House Physician and Surgeon, London Hospital
1970-1973	MRC Junior Research Fellowship whilst PhD Student
1973-1976	Demonstrator, Dept of Pathology, University of Cambridge
1973-1978	Research Fellow, King's College, Cambridge
1975-1976	Tutor, King's College, Cambridge & University Lecturer, Dept of Pathology

- 1978-1979 Visiting Scientist with Dr C Milstein, Laboratory of Molecular Biology, Cambridge
- 1982 Senior House Officer, Dept of Medicine, Royal Postgraduate Medical School, London
- 1985 Reader in Therapeutic Immunology, Dept of Pathology, Cambridge
- 1985 Fellow, King's College, Cambridge
- 1987 Eleanor Roosevelt Fellowship, Stanford, USA
- 1989 Kay Kendall Professor of Therapeutic Immunology, Dept of Pathology
- 1994 - 2008 Director of the Therapeutic Antibody Centre, University of Oxford
- 1994- 2012 Head of Department, Professor of Pathology, Sir William Dunn School of Pathology, University of Oxford.

Research

From 1979 until 2020 my major research support was through Medical Research Council (MRC) Programme Grants in the field of therapeutic immunoregulation as well as numerous project grants in related areas.

Prizes, Awards, Scholarships, etc

- 1965 Exhibitioner Sidney Sussex College, Cambridge
- 1966 Honorary Scholar Sidney Sussex College, Cambridge
- 1966 Open Scholarship, London Hospital Medical School
- 1968 Arnold Thompson Prize for Medical and Surgical Diseases of Children.
- 1968 Andrew Elliot Prize for Obstetrics and Gynaecology
- 1974 Hutchinson Prize for Clinical Research, London Hospital
- 1981 Royal Society Guest Research Fellowship Award.
- 1989-90 Graham Bull Prize, Royal College of Physicians
- 1992 Bradshaw Lecture, Royal College of Physicians
- 1996 Honorary Fellow, Queen Mary & Westfield College
- 1999 Heberden Lecture medal, British Society of Rheumatology
- 2005 Jose Carreras Award, European Hematology Association
- 2005 JDRF Excellence in Clinical Research Award
- 2007 Thomas E Starzl Prize in Surgery and Immunology
- 2007 Scrip Lifetime Achievement award from the Pharmaceutical industry.
- 2008 Honorary Fellowship, Sidney Sussex College, Cambridge
- 2008 ScD (Hon) Cambridge University
- 2010 Honorary Fellowship, Kings College, Cambridge
- 2012 Princess Lillian Visiting Professorship (Belgium).
- 2015 Cesare Casella Medal, Collegio Borromeo, University of Pavia, for contributions to Therapeutic Immunology
- 2017 Honorary Life membership of the British Society of Immunology.
- 2023 Royal Medal (Bioogy) of the Royal Society.

Named Lectures

- Hume Memorial Lecturer - American Transplantation Society 1989
- Janssen-Cilag Lecturer - The Transplantation Society of Australia & New Zealand 1990
- Pierre Grabar Lecturer for the French Society for Immunology 2001

Donald Paty Memorial Lecture, Americas Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS) and Consortium of Multiple Sclerosis Centres (CMSC) 2007
University of Iowa Distinguished Professor Lecture 2007
Severo Ochoa Lecture, New York University School of Medicine 2008
Paul Ruseell Visiting Professorship and lecturer MGH 2014

Short biography

I am currently Emeritus Professor of Pathology at the University of Oxford, and in the period 1994-2013. I was Head of the Sir William Dunn School of Pathology at Oxford FROM 1994-2012. As an immunologist, I am best known for my work on regulatory T-cells in therapeutic (infectious) tolerance and for pioneering therapeutic use of monoclonal antibodies, particularly Campath-1 (Alemtuzumab/lemturad developed for lymphocyte depletion and used for the treatment of chronic lymphocytic leukemia and multiple sclerosis, in particular.

I received my undergraduate and graduate degrees from the University of Cambridge and began my scientific career there in the Department of Pathology. In 1989 I became Head of the Immunology Division in that department, and was appointed to the newly endowed Kay Kendall Chair in Therapeutic Immunology. It was at Cambridge in 1971 that I began studies on mechanisms of tolerance in the immune system, and how tolerance might be harnessed for therapeutic purposes.

Since 1980 I have been funded by Programme Grants from the UK Medical Research Council and the European Research Council to study mechanisms of tolerance and therapeutic strategies to achieve this both experimentally and clinically. In 1985 I published the first studies to show that short courses of CD4 antibody therapy could bring about long-term immunological tolerance to foreign proteins in rodents, and this work provided the first evidence for reprogramming of the immune system resulting from short-term antibody treatment.

Our mechanistic studies of tolerance uncovered a role for regulatory T cells in infectious tolerance, published in a seminal paper in Science in 1993. The strategies emerging from my laboratory since that time have been based on the use of therapeutic antibodies to enhance regulation over conventional T cell immunity. In order to apply antibodies clinically, I developed the first academic antibody therapeutic manufacturing facility. My team consequently was able to apply clinical-grade antibodies in a wide range of probing therapeutic studies that enabled us to develop a series of humanized antibodies (CD52, CD3, CD4 and others) which have since been transferred to the pharmaceutical industry.

My work since 1971 has resulted in more than 550 publications, the majority directed to therapeutic antibodies and their mechanisms of action. These contributions have led to my election to the UK Royal Society in 1990. In recognition of my work I have been the recipient of the Jose Carreras Medal of the European Hematology Society, the Juvenile Diabetes Research Foundation Excellence in Clinical Research Award (2005), Thomas E Starzl Prize in Surgery and Immunology, Scrip Lifetime Achievement award (2007), Royal Medal (Biology) of the Royal Society for pioneering Monoclonal Antibody therapy, and have received an Honorary Doctorate (DSc) from University of Cambridge (2008).

One of the important aspects of developing therapeutic antibodies has been to establish ways of avoiding their immunogenicity. With Dr Greg Winter we published from 1988 the first papers demonstrating the feasibility and application of antibody engineering to humanization of a therapeutic antibody. These publications laid the foundation for future applications of antibody engineering to reduce antibody immunogenicity and to enhance efficacy.

1. Waldmann, H. **Regulatory T cells and transplantation tolerance: Emerging from the darkness?** *European Journal of Immunology* **51**, 2021. 1580-1591 (<https://doi.org/10.1002/eji.202048795>).
2. Howie, D., Ten Bokum, A., Cobbold, S.P. and Waldmann, H. A Novel Role for Triglyceride Metabolism in Foxp3 Expression. *Front Immunol*, 2019. 10: p. 1860-
3. Waldmann, H., Human Monoclonal Antibodies: The Benefits of Humanization. *Methods Mol Biol*, 2019. 1904: p. 1- Oxford Textbook of Cancer Biology ed Francesco Pezzella. Oxford University Press Waldmann, H. *Cancer Immunology*. ISBN: [9780198779452](https://doi.org/10.1002/9780198779452)
4. Leung, C.S., Yang, K.Y., Li, X., Chan, V.W., Ku, M., Waldmann, H., Hori, S., Tsang, J.C.H., Lo, Y.M.D., and Lui, K.O. (2018). Single-cell transcriptomics reveal that PD-1 mediates immune tolerance by regulating proliferation of regulatory T cells. *Genome Med* **10**, 7
5. Leung et al. Regulatory T Cells Promote Apelin-Mediated Sprouting Angiogenesis in Type 2 Diabetes. *Cell Rep*. 6. 1610-1626
6. Stockenhuber, K., et al., Foxp3(+) T reg cells control psoriasiform inflammation by restraining an IFN-I-driven CD8(+) T cell response. *J Exp Med*, 2018. 8.1987-1998
7. Cobbold, S.P., et al., CD4(+) T Cell Fate Decisions Are Stochastic, Precede Cell Division, Depend on GITR Co-Stimulation, and Are Associated With Uropodium Development. *Front Immunol*, 2018. **9**: p. 1381.
8. Howie, D., Cobbold, S.P., Adams, E., Ten Bokum, A., Necula, A.S., Zhang, W., Huang, H., Roberts, D.J., Thomas, B., Hester, S.S., et al. (2017). Foxp3 drives oxidative phosphorylation and protection from lipotoxicity. *JCI Insight* **2**, e89160.
9. Howie, D., et al., The Role of Lipid Metabolism in T Lymphocyte Differentiation and Survival. *Front Immunol*, 2017. **8**: p. 1949.
10. Besancon, A., Baas, M., Goncalves, T., Valette, F., Waldmann, H., Chatenoud, L., and You, S. (2017). The Induction and Maintenance of Transplant Tolerance Engages Both Regulatory and Anergic CD4+ T cells. *Front Immunol* **8**, 218.
11. Wallberg, M., et al., Anti-CD3 treatment up-regulates programmed cell death protein-1 expression on activated effector T cells and severely impairs their inflammatory capacity. *Immunology*, 2017. **151**(2): p. 248-260.
12. Tsuda, M., Tone, Y., Ogawa, C., Nagaoka, Y., Katsumata, M., Necula, A., Howie, D., Masuda, E., Waldmann, H., and Tone, M. (2017). A Bacterial Artificial Chromosome Reporter System for Expression of the Human FOXP3 Gene in Mouse Regulatory T-Cells. *Front Immunol* **8**, 279.
13. Fuchs, A., Gliwinski, M., Grageda, N., Spiering, R., Abbas, A.K., Appel, S., Bacchetta, R., Battaglia, M., Berglund, D., Blazar, B., et al. (2017). Minimum Information about T Regulatory Cells: A Step toward Reproducibility and Standardization. *Front Immunol* **8**, 1844.
14. Waldmann, H. (2017). Transplantation tolerance: the big picture. Where do we stand, where should we go? *Clin Exp Immunol* **189**, 135-137.
15. Wallberg, M., Recino, A., Phillips, J., Howie, D., Vienne, M., Paluch, C., Azuma, M., Wong, F.S., Waldmann, H., and Cooke, A. (2017). Anti-CD3 treatment up-regulates programmed cell death protein-1 expression on activated effector T cells and severely impairs their inflammatory capacity. *Immunology* **151**, 248-260.
16. Waldmann H, Howie D, Cobbold S. Induction of Immunological Tolerance as a Therapeutic Procedure *Microbiol Spectr*. 2016 Aug;**4**(4). doi: 10.1128

17. Waldmann, H and Winter, G. The evolution of therapeutic antibodies. 2016 (In press). Oxford textbook of Medicine. Editors Warrell, DA. Cox, TH and Firth, JD. Oxford University Press.
18. Hotta, R., Ohira, M., Matsuura, T et al. CD52-negative NK cells are abundant in the liver and less susceptible to Alemtuzumab treatment. *Plos one* 2016;11(8):e0161618
19. Hilbrands, R., Chen Y., Kendal, AR., Adams, E., Cobbold, SP., Waldmann, H and Howie, D. *Front. Immunol.*, 2016 | Induced Foxp3⁺ T Cells Colonizing Tolerated Allografts Exhibit the Hypomethylation Pattern Typical of Mature Regulatory T Cells. <http://dx.doi.org/10.3389/fimmu.2016.00124>
20. Gilhar, A., Schrum, A.G., Etzioni, A., Waldmann, H., and Paus, R. (2016). Alopecia areata: Animal models illuminate autoimmune pathogenesis and novel immunotherapeutic strategies. *Autoimmunity reviews*. DOI. 10.1016/j.autrev.2016.03.008
21. Waldmann, H. (2016). Mechanisms of immunological tolerance. *Clinical biochemistry* 49, 324-328.
22. Meister, M., Papatriantafyllou, M., Nordstrom, V., Kumar, V., Ludwig, J., Lui, K.O., Boyd, A.S., Popovic, Z.V., Fleming, T.H., Moldenhauer, G., et al. (2015). Dickkopf-3, a tissue-derived modulator of local T-cell responses. *Frontiers in immunology* 6, 78
23. Han, S.O., Li, S., Brooks, E.D., Masat, E., Leborgne, C., Banugaria, S., Bird, A., Mingozzi, F., Waldmann, H., and Koeberl, D. (2015). Enhanced efficacy from gene therapy in Pompe disease using coreceptor blockade. *Human gene therapy* 26, 26-35.
24. Ogawa C, Tone Y, Tsuda M, Peter C, Waldmann H, Tone M. TGF-beta-mediated Foxp3 gene expression is cooperatively regulated by Stat5, Creb, and AP-1 through CNS2. *Journal of immunology*. 2014 Jan 1;192(1):475-83. PubMed PMID: 24298014. Pubmed Central PMCID: 3905572.
25. Tone Y, Kidani Y, Ogawa C, Yamamoto K, Tsuda M, Peter C, et al. Gene Expression in the Gitr Locus Is Regulated by NF-kappaB and Foxp3 through an Enhancer. *Journal of immunology*. 2014 Mar 14. PubMed PMID: 24634496.
26. Waldmann H. Human monoclonal antibodies: the residual challenge of antibody immunogenicity. *Methods in molecular biology*. 2014;1060:1-8. PubMed PMID: 24037833.
27. Whibley N, Maccallum DM, Vickers MA, Zafreen S, Waldmann H, Hori S, et al. Expansion of Foxp3 T-cell populations by *Candida albicans* enhances both Th17-cell responses and fungal dissemination after intravenous challenge. *European journal of immunology*. 2014 Jan 16. PubMed PMID: 24435677.
28. Waldmann H, Hilbrands R, Howie, D and Cobbold SP. Harnessing FOXP3⁺ regulatory T cells for transplantation tolerance *J Clin Invest*. 2014;124:1439–1445. doi:10.1172/JCI67226.
29. Piotti, G., Ma, J., Adams, E., Cobbold, S., and Waldmann, H. (2014). Guiding postablative lymphocyte reconstitution as a route toward transplantation tolerance. *American journal of transplantation : official journal of the American Society of Transplantation and the American Society of Transplant Surgeons* 14, 1678-1689.
30. Waldmann, H. (2014). Drug minimization in transplantation: an opinion. *Current opinion in organ transplantation* 19, 331-333.
31. Howie, D., Garcia Rueda, H., Brown, M.H., and Waldmann, H. (2013). Secreted and transmembrane 1A is a novel co-stimulatory ligand. *PloS one* 8, e73610.
32. Lui, K.O., Howie, D., Ng, S.W., Liu, S., Chien, K.R., and Waldmann, H. (2014). Tolerance induction to human stem cell transplants with extension to their differentiated progeny. *Nature communications* 5, 5629.(Howie et al., 2014)
33. Cobbold, S.P., and Waldmann, H. (2013). Regulatory cells and transplantation tolerance. *Cold Spring Harbor perspectives in Medicine* 3.
34. Regateiro, F.S., Cobbold, S.P., and Waldmann, H. (2013). CD73 and adenosine generation in the creation of regulatory microenvironments. *Clinical and experimental immunology* 171, 1-7.
35. Hilbrands, R., Howie, D., Cobbold, S., and Waldmann, H. (2013). Regulatory T cells and transplantation tolerance. *Immunotherapy* 5, 717-731.
36. Waldmann, H. (2013). Immunological Tolerance. *Brenner's Encyclopedia of Genetics* 4, 32-33.

37. Howie, D., Garcia Rueda, H., Brown, M.H., and Waldmann, H. (2013). Secreted and transmembrane 1A is a novel co-stimulatory ligand. *PloS one* 8, e73610.
38. Sakaguchi, S., Vignali, D.A., Rudensky, A.Y., Niec, R.E., and Waldmann, H. (2013). The plasticity and stability of regulatory T cells. *Nature reviews. Immunology* 13, 461-467.
39. Agorogiannis, E.I., Regateiro, F.S., Howie, D., Waldmann, H., and Cobbold, S.P. (2012). Th17 cells induce a distinct graft rejection response that does not require IL-17A. *American journal of transplantation* 12, 835-845.
40. Chatenoud, L., and Waldmann, H. (2012). CD3 monoclonal antibodies: a first step towards operational immune tolerance in the clinic. The review of diabetic studies : RDS 9, 372-381.
41. Miyao, T., Floess, S., Setoguchi, R., Luche, H., Fehling, H.J., Waldmann, H., Huehn, J., and Hori, S. (2012). Plasticity of Foxp3(+) T cells reflects promiscuous Foxp3 expression in conventional T cells but not reprogramming of regulatory T cells. *Immunity* 36, 262-275.
42. Chen, Y., Adams, E., Regateiro, F.S., Vaux, D.J., Betz, A.G., Andersen, K.G., Waldmann, H., and Howie, D. (2012). Activation rather than Foxp3 expression determines that TGF-beta-induced regulatory T cells out-compete naive T cells in dendritic cell clustering. *European journal of immunology* 42, 1436-1448.
43. Regateiro, F.S., Chen, Y., Kendal, A.R., Hilbrands, R., Adams, E., Cobbold, S.P., Ma, J., Andersen, K.G., Betz, A.G., Zhang, M., *et al.* (2012). Foxp3 expression is required for the induction of therapeutic tissue tolerance. *Journal of immunology* 189, 3947-3956.
44. Kendal, A.R., Chen, Y., Regateiro, F.S., Ma, J., Adams, E., Cobbold, S.P., Hori, S., and Waldmann, H. (2011). Sustained suppression by Foxp3+ regulatory T cells is vital for infectious transplantation tolerance. *J Exp Med* 208, 2043-2053.
45. Cobbold, S.P., Adams, E., and Waldmann, H. (2011). Biomarkers of transplantation tolerance: more hopeful than helpful? *Frontiers in immunology* 2, 9.
46. McIntosh, J.H., Cochrane, M., Cobbold, S., Waldmann, H., Nathwani, S.A., Davidoff, A.M., and Nathwani, A.C. (2011). Successful attenuation of humoral immunity to viral capsid and transgenic protein following AAV-mediated gene transfer with a non-depleting CD4 antibody and cyclosporine. *Gene Ther.*
47. Regateiro, F.S., Howie, D., Nolan, K.F., Agorogiannis, E.I., Greaves, D.R., Cobbold, S.P., and Waldmann, H. (2011). Generation of anti-inflammatory adenosine by leukocytes is regulated by TGF-beta. *Eur J Immunol.*
48. Kuhn, C., You, S., Valette, F., Hale, G., van Endert, P., Bach, J.F., Waldmann, H., and Chatenoud, L. (2011). Human CD3 transgenic mice: preclinical testing of antibodies promoting immune tolerance. *Science translational medicine* 3, 68ra10.
49. Honda, T., Otsuka, A., Tanizaki, H., Minegaki, Y., Nagao, K., Waldmann, H., Tomura, M., Hori, S., Miyachi, Y., and Kabashima, K. (2011). Enhanced murine contact hypersensitivity by depletion of endogenous regulatory T cells in the sensitization phase. *Journal of dermatological science* 61, 144-147.
50. Alkemade, G.M., Hilbrands, R., Vandemeulebroucke, E., Pipeleers, D., Waldmann, H., Mathieu, C., Keymeulen, B., and Roep, B.O. (2011). Preservation of recall immunity in anti-CD3-treated recent onset type 1 diabetes patients. *Diabetes/metabolism research and reviews* 27, 925-927.
51. Regateiro, F.S., Howie, D., Cobbold, S.P., and Waldmann, H. (2011). TGF-beta in transplantation tolerance. *Curr Opin Immunol.*
52. Sekiya, T., Kashiwagi, I., Inoue, N., Morita, R., Hori, S., Waldmann, H., Rudensky, A.Y., Ichinose, H., Metzger, D., Chambon, P., *et al.* (2011). The nuclear orphan receptor Nr4a2 induces Foxp3 and regulates differentiation of CD4+ T cells. *Nature communications* 2, 269.
53. Peter, C., Waldmann, H., and Cobbold, S.P. (2010). mTOR signalling and metabolic regulation of T cell differentiation. *Curr Opin Immunol* 22, 655-661.
54. Kendal, A.R., and Waldmann, H. (2010). Infectious tolerance: therapeutic potential. *Curr Opin Immunol* 22, 560-565.

55. Condamine, T., Le Texier, L., Howie, D., Lavault, A., Hill, M., Halary, F., Cobbold, S., Waldmann, H., Cuturi, M.C., and Chiffolleau, E. (2010). Tmem176B and Tmem176A are associated with the immature state of dendritic cells. *J Leukoc Biol* 88, 507-515.
56. Greene, M.I., and Waldmann, H. (2010). Regulation of the immune response. *Curr Opin Immunol* 22, 549-551.
57. Waldmann, H. (2010). Tolerance: an overview and perspectives. *Nature reviews* 6, 569-576.
58. von Boehmer, H., and Waldmann, H. (2010). Immunological tolerance. *Frontiers in immunology* 1, 102.
59. Hale, G., Rebello, P., Al Bakir, I., Bolam, E., Wiczling, P., Jusko, W.J., Vandemeulebroucke, E., Keymeulen, B., Mathieu, C., Ziegler, A.G., et al. (2010). Pharmacokinetics and antibody responses to the CD3 antibody oteelixumab used in the treatment of type 1 diabetes. *Journal of clinical pharmacology* 50, 1238-1248.
60. Tomura, M., Honda, T., Tanizaki, H., Otsuka, A., Egawa, G., Tokura, Y., Waldmann, H., Hori, S., Cyster, J.G., Watanabe, T., et al. (2010). Activated regulatory T cells are the major T cell type emigrating from the skin during a cutaneous immune response in mice. *J Clin Invest* 120, 883-893.
61. Farquhar, C.A., Paterson, A.M., Cobbold, S.P., Garcia Rueda, H., Fairchild, P.J., Yates, S.F., Adams, E., Saunders, N.J., Waldmann, H., and Nolan, K.F. (2010). Tolerogenicity is not an absolute property of a dendritic cell. *Eur J Immunol* 40, 1728-1737.
62. Somerfield, J., Hill-Cawthorne, G.A., Lin, A., Zandi, M.S., McCarthy, C., Jones, J.L., Willcox, M., Shaw, D., Thompson, S.A., Compston, A.S., et al. (2010). A novel strategy to reduce the immunogenicity of biological therapies. *J Immunol* 185, 763-768.
63. Cobbold, S.P., Adams, E., Nolan, K.F., Regateiro, F.S., and Waldmann, H. (2010). Connecting the mechanisms of T-cell regulation: dendritic cells as the missing link. *Immunol Rev* 236, 203-218.
64. Keymeulen, B., Walter, M., Mathieu, C., Kaufman, L., Gorus, F., Hilbrands, R., Vandemeulebroucke, E., Van de Velde, U., Crenier, L., De Block, C., et al. (2010). Four-year metabolic outcome of a randomised controlled CD3-antibody trial in recent-onset type 1 diabetic patients depends on their age and baseline residual beta cell mass. *Diabetologia* 53, 614-623.
65. Mehta, D.S., Christmas, R.A., Waldmann, H., and Rosenzweig, M. (2010). Partial and transient modulation of the CD3-T-cell receptor complex, elicited by low-dose regimens of monoclonal anti-CD3, is sufficient to induce disease remission in non-obese diabetic mice. *Immunology* 130, 103-113.
66. Ponte, J.F., Ponath, P., Gulati, R., Slavonic, M., Paglia, M., O'Shea, A., Tone, M., Waldmann, H., Vaickus, L., and Rosenzweig, M. (2010). Enhancement of humoral and cellular immunity with an anti-glucocorticoid-induced tumour necrosis factor receptor monoclonal antibody. *Immunology* 2, 231-242.
67. Tong, H., Miyazaki, Y., Yamazaki, M., Hara, H., Waldmann, H., Hori, S., and Yoshida, H. (2010). Exacerbation of delayed-type hypersensitivity responses in EBV-induced gene-3 (EBI-3)-deficient mice. *Immunology letters* 128, 108-115.
68. Keymeulen, B., Candon, S., Fafi-Kremer, S., Ziegler, A., Leruez-Ville, M., Mathieu, C., Vandemeulebroucke, E., Walter, M., Crenier, L., Thervet, E., et al. (2010). Transient Epstein-Barr virus reactivation in CD3 monoclonal antibody-treated patients. *Blood* 115, 1145-1155.
69. Lui, K.O., Boyd, A.S., Cobbold, S.P., Waldmann, H., and Fairchild, P.J. (2010). A Role for Regulatory T Cells in Acceptance of Embryonic Stem Cell-Derived Tissues Transplanted Across an MHC Barrier. *Stem cells (Dayton, Ohio)* 28, 1905-1914.
70. Poulton, L.D., Nolan, K.F., Anastasaki, C., Waldmann, H., and Patton, E.E. (2010). A novel role for Glucocorticoid-Induced TNF Receptor Ligand (Gitr) in early embryonic zebrafish development. *Int J Dev Biol* 54, 815-825.
71. Howie, D., Nolan, K.F., Daley, S., Butterfield, E., Adams, E., Garcia-Rueda, H., Thompson, C., Saunders, N.J., Cobbold, S.P., Tone, Y., et al. (2009). MS4A4B is a GITR-associated membrane

- adapter, expressed by regulatory T cells, which modulates T cell activation. *J Immunol* 183, 4197-4204.
72. You, S., Poulton, L.D., Cobbold, S., Liu, C.-P., Rosenzweig, M., Ringler, D., W-H, L., B, S., Bach, J.F., Waldmann, H., et al. (2009). Key Role of the GITR/GITRLigand Pathway in the Development of Murine Autoimmune Diabetes: A Potential Therapeutic Target. *Plos one* 4, e7848.
 73. Waldmann, H. (2010). Tolerance: an overview and perspectives. *Nature reviews. Nephrology* 6, 569-576.
 74. Waldmann, H., and Cobbold, S. (2009). Regulatory T cells: context matters. *Immunity* 30, 613-615.
 75. Cobbold, S.P., Adams, E., Farquhar, C.A., Nolan, K.F., Howie, D., Lui, K.O., Fairchild, P.J., Mellor, A.L., Ron, D., and Waldmann, H. (2009). Infectious tolerance via the consumption of essential amino acids and mTOR signaling. *Proc Natl Acad Sci U S A* 106, 12055-12060.
 76. Tseng, S.Y., Nishimoto, K.P., Silk, K.M., Majumdar, A.S., Dawes, G.N., Waldmann, H., Fairchild, P.J., Lebkowski, J.S., and Reddy, A. (2009). Generation of immunogenic dendritic cells from human embryonic stem cells without serum and feeder cells. *Regen Med* 4, 513-526.
 77. Lui, K.O., Waldmann, H., and Fairchild, P.J. (2009). Embryonic stem cells: overcoming the immunological barriers to cell replacement therapy. *Curr Stem Cell Res Ther* 4, 70-80.
 78. Komatsu, N., Mariotti-Ferrandiz, M.E., Wang, Y., Malissen, B., Waldmann, H., and Hori, S. (2009). Heterogeneity of natural Foxp3⁺ T cells: a committed regulatory T-cell lineage and an uncommitted minor population retaining plasticity. *Proc Natl Acad Sci U S A* 106, 1903-1908.
 79. Clatworthy, M.R., Friend, P.J., Calne, R.Y., Rebello, P.R., Hale, G., Waldmann, H., and Watson, C.J. (2009). Alemtuzumab (CAMPATH-1H) for the treatment of acute rejection in kidney transplant recipients: long-term follow-up. *Transplantation* 87, 1092-1095.
 80. Waldmann, H. (2008). Tolerance can be infectious. *Nat Immunol* 9, 1001-1003.
 81. Waldmann, H., Adams, E., Fairchild, P., and Cobbold, S. (2008). Regulation and privilege in transplantation tolerance. *J Clin Immunol* 28, 716-725.
 82. Daley, S.R., Cobbold, S.P., and Waldmann, H. (2008). Fc-disabled anti-mouse CD40L antibodies retain efficacy in promoting transplantation tolerance. *Am J Transplant* 8, 2265-2271.
 83. Waldmann, H., Adams, E., and Cobbold, S. (2008). Reprogramming the immune system: co-receptor blockade as a paradigm for harnessing tolerance mechanisms. *Immunol Rev* 223, 361-370.
 84. Zhou, Z., Tone, Y., Song, X., Furuuchi, K., Lear, J.D., Waldmann, H., Tone, M., Greene, M.I., and Murali, R. (2008). Structural basis for ligand-mediated mouse GITR activation. *Proc Natl Acad Sci U S A* 105, 641-645.
 85. Waldmann, H. (2008). Special regulatory T cell review: The suppression problem! *Immunology* 123, 11-12.
 86. Lui, K.O., Fairchild, P.J., and Waldmann, H. (2008). Prospects for ensuring acceptance of ES cell-derived tissues. In *StemBook* (Cambridge (MA)).
 87. Lorenzi, A.R., Clarke, A.M., Wooldridge, T., Waldmann, H., Hale, G., Symmons, D., Hazleman, B.L., and Isaacs, J.D. (2008). Morbidity and mortality in rheumatoid arthritis patients with prolonged therapy-induced lymphopenia: twelve-year outcomes. *Arthritis Rheum* 58, 370-375.
 88. Li, Z., Benghiat, F.S., Charbonnier, L.M., Kubjak, C., Rivas, M.N., Cobbold, S.P., Waldmann, H., De Wilde, V., Petein, M., Schuind, F., et al. (2008). CD8⁺ T-Cell depletion and rapamycin synergize with combined coreceptor/stimulation blockade to induce robust limb allograft tolerance in mice. *Am J Transplant* 8, 2527-2536.
 89. Wood, L., Juritz, J., Havemann, J., Lund, J., Waldmann, H., Hale, G., and Jacobs, P. (2008). Pediatric immunohematopoietic stem cell transplantation at a tertiary care center in Cape Town. *Hematol Oncol Stem Cell Ther* 1, 80-89.
 90. Morgan, A.W., Hale, G., Rebello, P.R., Richards, S.J., Gooi, H.C., Waldmann, H., Emery, P., and Isaacs, J.D. (2008). A pilot study of combination anti-cytokine and anti-lymphocyte biological therapy in rheumatoid arthritis. *Qjm* 101, 299-306.

91. Waldman, H., Adams, E., PJ, F., and Cobbold, S. (2008). Regulatory T-cells in Therapeutic Transplantation Tolerance. . In *Regulatory T cells and Clinical Application*. . (Springer), pp. 325-333.
92. Daley, S.R., Ma, J., Adams, E., Cobbold, S.P., and Waldmann, H. (2007). A key role for TGF-beta signaling to T cells in the long-term acceptance of allografts. *J Immunol* 179, 3648-3654.
93. Waldmann, H. (2007). Transplantation. *Curr Opin Immunol* 19, 561-562.
94. Fairchild, P.J., Robertson, N.J., Minger, S.L., and Waldmann, H. (2007). Embryonic stem cells: protecting pluripotency from alloreactivity. *Curr Opin Immunol* 19, 596-602.
95. Yates, S.F., Paterson, A.M., Nolan, K.F., Cobbold, S.P., Saunders, N.J., Waldmann, H., and Fairchild, P.J. (2007). Induction of regulatory T cells and dominant tolerance by dendritic cells incapable of full activation. *J Immunol* 179, 967-976.
96. Robertson, N.J., Brook, F.A., Gardner, R.L., Cobbold, S.P., Waldmann, H., and Fairchild, P.J. (2007). Embryonic stem cell-derived tissues are immunogenic but their inherent immune privilege promotes the induction of tolerance. *Proc Natl Acad Sci U S A* 104, 20920-20925.
97. Waldmann, H. (2007). Regulation and Privilege in Transplantation. *Current Opinion in Organ Transplantation* 12, 340-344.
98. Tuyaerts, S., Van Meirvenne, S., Bonehill, A., Heirman, C., Corthals, J., Waldmann, H., Breckpot, K., Thielemans, K., and Aerts, J.L. (2007). Expression of human GITRL on myeloid dendritic cells enhances their immunostimulatory function but does not abrogate the suppressive effect of CD4+CD25+ regulatory T cells. *J Leukoc Biol* 82, 93-105.
99. Waldman, H. (2007). Monoclonal Antibodies as Therapeutic Agents: Fundamentals, Therapeutic Applications and Latest Advances. In *The Biomedicine Seminar Room*, H. Waldmann, ed. (Henry Stewart Talks).
100. Robertson, N.J., Fairchild, P.J., and Waldmann, H. (2007). Ectopic transplantation of tissues under the kidney capsule. *Methods Mol Biol* 380, 347-354.
101. Nolan, K.F., Cobbold, S.P., and Waldmann, H. (2007). SAGE Analysis of Cell Types Involved in Tolerance Induction. *Methods Mol Biol* 380, 225-252.
102. Fairchild, P.J., Nolan, K.F., and Waldmann, H. (2007). Genetic modification of dendritic cells through the directed differentiation of embryonic stem cells. *Methods Mol Biol* 380, 59-72.
103. Cobbold, S.P., Adams, E., Graca, L., Daley, S., Yates, S., Paterson, A., Robertson, N.J., Nolan, K.F., Fairchild, P.J., and Waldmann, H. (2006). Immune privilege induced by regulatory T cells in transplantation tolerance. *Immunol Rev* 213, 239-255.
104. Coles, A.J., Cox, A., Le Page, E., Jones, J., Trip, S.A., Deans, J., Seaman, S., Miller, D.H., Hale, G., Waldmann, H., et al. (2006). The window of therapeutic opportunity in multiple sclerosis: evidence from monoclonal antibody therapy. *J Neurol* 253, 98-108.
105. Waldmann, H. (2006). Immunology: protection and privilege. *Nature* 442, 987-988.
106. Glatting, G., Muller, M., Koop, B., Hohl, K., Friesen, C., Neumaier, B., Berrie, E., Bird, P., Hale, G., Blumstein, N.M., et al. (2006). Anti-CD45 monoclonal antibody YAM1568: A promising radioimmunoconjugate for targeted therapy of acute leukemia. *J Nucl Med* 47, 1335-1341.
107. van de Linde, P., Tysma, O.M., Medema, J.P., Hale, G., Waldmann, H., Roelen, D.L., and Roep, B.O. (2006). Mechanisms of antibody immunotherapy on clonal islet reactive T cells. *Hum Immunol* 67, 264-273.
108. Neujahr, D.C., Chen, C., Huang, X., Markmann, J.F., Cobbold, S., Waldmann, H., Sayegh, M.H., Hancock, W.W., and Turka, L.A. (2006). Accelerated memory cell homeostasis during T cell depletion and approaches to overcome it. *J Immunol* 176, 4632-4639.
109. Waldmann, H., Chen, T.C., Graca, L., Adams, E., Daley, S., Cobbold, S., and Fairchild, P.J. (2006). Regulatory T cells in transplantation. *Semin Immunol* 18, 111-119.
110. Waldman, H., Adams, E., PJ, F., and Cobbold, S. (2006). Infectious tolerance and the long-term acceptance of transplanted tissue. *Immunological Reviews Vol* 212, , pp301-313
111. Graca, L., and Waldman, H. (2006). Reprogramming the immune system using antibodies. *Methods in Molecular Biology* 333, 247-268.

112. Fairchild, P., and Waldmann, H. (2006). Dendritic Cells and Transplantation Tolerance. In *Handbook of Dendritic Cells and Transplantation Tolerance*, Volume 3. (Wiley-VCH), pp. 983-1016.
113. Nolan, K., Yates, S., Paterson, A., Fairchild PJ, and Waldman, H. (2006). Pharmacologically modified dendritic cells: a route to tolerance genes. In *Handbook of Dendritic Cells. Biology, Diseases and Therapies*, Volume 2, R.N. Lutz MB, ed. (Wiley-VCH), pp. 619-647.
114. Graca, L., Daley, S., Fairchild, P.J., Cobbold, S.P., and Waldmann, H. (2006). Co-receptor and co-stimulation blockade for mixed chimerism and tolerance without myelosuppressive conditioning. *BMC Immunol* 7, 9.
115. Waldmann (2006). CAMPATH (Alemtuzumab) The Development of an Anti-CD52 antibody, from Concept to Clinic. *EJHP Practice* 12, 76-77.
116. Fairchild, P.J., Nolan, K.F., Cartland, S., and Waldmann, H. (2005). Embryonic stem cells: a novel source of dendritic cells for clinical applications. *Int Immunopharmacol* 5, 13-21.
117. Waldmann, H., and Hale, G. (2005). CAMPATH: from concept to clinic. *Philos Trans R Soc Lond B Biol Sci* 360, 1707-1711.
118. Suvas, S., Kim, B., Sarangi, P.P., Tone, M., Waldmann, H., and Rouse, B.T. (2005). In vivo kinetics of GITR and GITR ligand expression and their functional significance in regulating viral immunopathology. *J Virol* 79, 11935-11942.
119. Cox, A.L., Thompson, S.A., Jones, J.L., Robertson, V.H., Hale, G., Waldmann, H., Compston, D.A., and Coles, A.J. (2005). Lymphocyte homeostasis following therapeutic lymphocyte depletion in multiple sclerosis. *Eur J Immunol* 35, 3332-3342.
120. Stebbings, R., Berry, N., Waldmann, H., Bird, P., Hale, G., Stott, J., North, D., Hull, R., Hall, J., Lines, J., et al. (2005). CD8⁺ lymphocytes do not mediate protection against acute superinfection 20 days after vaccination with a live attenuated simian immunodeficiency virus. *J Virol* 79, 12264-12272.
121. You, S., Belghith, M., Cobbold, S., Alyanakian, M.A., Gouarin, C., Barriot, S., Garcia, C., Waldmann, H., Bach, J.F., and Chatenoud, L. (2005). Autoimmune diabetes onset results from qualitative rather than quantitative age-dependent changes in pathogenic T-cells. *Diabetes* 54, 1415-1422.
122. Benghiat, F.S., Graca, L., Braun, M.Y., Detienne, S., Moore, F., Buonocore, S., Flamand, V., Waldmann, H., Goldman, M., and Le Moine, A. (2005). Critical influence of natural regulatory CD25⁺ T cells on the fate of allografts in the absence of immunosuppression. *Transplantation* 79, 648-654.
123. Graca, L., Chen, T.C., Le Moine, A., Cobbold, S.P., Howie, D., and Waldmann, H. (2005). Dominant tolerance: activation thresholds for peripheral generation of regulatory T cells. *Trends Immunol* 26, 130-135.
124. Waldmann, H. (2005). Thomas' hematopoietic cell transplantation. *Bone Marrow Transplant* 35, 633.
125. Keymeulen, B., Vandemeulebroucke, E., Ziegler, A.G., Mathieu, C., Kaufman, L., Hale, G., Gorus, F., Goldman, M., Walter, M., Candon, S., et al. (2005). Insulin needs after CD3-antibody therapy in new-onset type 1 diabetes. *N Engl J Med* 352, 2598-2608.
126. Peggs, K.S., Hunter, A., Chopra, R., Parker, A., Mahendra, P., Milligan, D., Craddock, C., Pettengell, R., Dogan, A., Thomson, K.J., et al. (2005). Clinical evidence of a graft-versus-Hodgkin's-lymphoma effect after reduced-intensity allogeneic transplantation. *Lancet* 365, 1934-1941.
127. Watson, C.J., Bradley, J.A., Friend, P.J., Firth, J., Taylor, C.J., Bradley, J.R., Smith, K.G., Thiru, S., Jamieson, N.V., Hale, G., et al. (2005). Alemtuzumab (CAMPATH 1H) Induction Therapy in Cadaveric Kidney Transplantation-Efficacy and Safety at Five Years. *Am J Transplant* 5, 1347-1353.

128. Coles, A.J., Cox, A., Le Page, E., Jones, J., Trip, S.A., Deans, J., Seaman, S., Miller, D.H., Hale, G., Waldmann, H., et al. (2005). The window of therapeutic opportunity in multiple sclerosis Evidence from monoclonal antibody therapy. *J Neurol*.
129. Waldmann, H. (2005). Contact between good friends: what limiting dilution analysis taught us. *Scand J Immunol* 62 Suppl 1, 30-32.
130. Yee, C.S., Yao, Y., Xu, Q., McCarthy, B., Sun-Lin, D., Tone, M., Waldmann, H., and Chang, C.H. (2005). Enhanced production of IL-10 by dendritic cells deficient in CIITA. *J Immunol* 174, 1222-1229.
131. Paterson, A.M., Yates, S.F., Nolan, K.F., and Waldmann, H. (2005). The new immunosuppression: intervention at the dendritic cell-T-cell interface. *Curr Drug Targets Immune Endocr Metabol Disord* 5, 397-411.
132. Hisaeda, H., Hamano, S., Mitoma-Obata, C., Tetsutani, K., Imai, T., Waldmann, H., Himeno, K., and Yasutomo, K. (2005). Resistance of regulatory T cells to glucocorticoid-induced [corrected] TNFR family-related protein (GITR) during *Plasmodium yoelii* infection. *Eur J Immunol* 35, 3516-3524.
133. Fairchild, P.J., Robertson, N.J., Cartland, S., Nolan, K.F., and Waldmann, H. (2005). Cell replacement therapy and the evasion of destructive immunity. *Stem Cell Rev* 1, 159-167.
134. Waldmann, H., Graca, L., Adams, E., Fairchild, P., and Cobbold, S. (2005). Regulatory T cells in transplantation tolerance. *Curr Top Microbiol Immunol* 293, 249-264.
135. Fairchild, P.J., Cartland, S., Nolan, K.F., and Waldmann, H. (2004). Embryonic stem cells and the challenge of transplantation tolerance. *Trends Immunol* 25, 465-470.
136. Winsor-Hines, D., Merrill, C., O'Mahony, M., Rao, P.E., Cobbold, S.P., Waldmann, H., Ringler, D.J., and Ponath, P.D. (2004). Induction of immunological tolerance/hyposresponsiveness in baboons with a nondepleting CD4 antibody. *J Immunol* 173, 4715-4723.
137. Mellor, A.L., Chandler, P., Baban, B., Hansen, A.M., Marshall, B., Pihkala, J., Waldmann, H., Cobbold, S., Adams, E., and Munn, D.H. (2004). Specific subsets of murine dendritic cells acquire potent T cell regulatory functions following CTLA4-mediated induction of indoleamine 2,3 dioxygenase. *Int Immunol* 16, 1391-1401.
138. Chen, T.C., Cobbold, S.P., Fairchild, P.J., and Waldmann, H. (2004). Generation of anergic and regulatory T cells following prolonged exposure to a harmless antigen. *J Immunol* 172, 5900-5907.
139. Cobbold, S.P., Castejon, R., Adams, E., Zelenika, D., Graca, L., Humm, S., and Waldmann, H. (2004). Induction of foxP3+ regulatory T cells in the periphery of T cell receptor transgenic mice tolerized to transplants. *J Immunol* 172, 6003-6010.
140. Avivi, I., Chakrabarti, S., Milligan, D.W., Waldmann, H., Hale, G., Osman, H., Ward, K.N., Fegan, C.D., Yong, K., Goldstone, A.H., et al. (2004). Incidence and outcome of adenovirus disease in transplant recipients after reduced-intensity conditioning with alemtuzumab. *Biol Blood Marrow Transplant* 10, 186-194.
141. Chen, T.C., Waldmann, H., and Fairchild, P.J. (2004). Induction of dominant transplantation tolerance by an altered peptide ligand of the male antigen DbY. *J Clin Invest* 113, 1754-1762.
142. Chakrabarti, S., Hale, G., and Waldmann, H. (2004). Alemtuzumab (Campath-1H) in allogeneic stem cell transplantation: where do we go from here? *Transplant Proc* 36, 1225-1227.
143. Murphy, C.C., Greiner, K., Pliskova, J., Duncan, L., Frost, A., Isaacs, J.D., Rebello, P., Waldmann, H., Hale, G., Forrester, J.V., et al. (2004). Neutralizing tumor necrosis factor activity leads to remission in patients with refractory noninfectious posterior uveitis. *Arch Ophthalmol* 122, 845-851.
144. Waldmann, H., and Cobbold, S. (2004). Exploiting tolerance processes in transplantation. *Science* 305, 209-212.
145. Graca, L., Le Moine, A., Lin, C.Y., Fairchild, P.J., Cobbold, S.P., and Waldmann, H. (2004). Donor-specific transplantation tolerance: The paradoxical behavior of CD4+CD25+ T cells. *Proc Natl Acad Sci U S A* 101, 10122-10126.

146. Nolan, K.F., Strong, V., Soler, D., Fairchild, P.J., Cobbold, S.P., Croxton, R., Gonzalo, J.A., Rubio, A., Wells, M., and Waldmann, H. (2004). IL-10-conditioned dendritic cells, decommissioned for recruitment of adaptive immunity, elicit innate inflammatory gene products in response to danger signals. *J Immunol* 172, 2201-2209.
147. Gupta, V., Ball, S.E., Yi, Q.L., Sage, D., McCann, S.R., Lawler, M., Ortin, M., Freires, M., Hale, G., Waldmann, H., et al. (2004). Favorable effect on acute and chronic graft-versus-host disease with cyclophosphamide and in vivo anti-CD52 monoclonal antibodies for marrow transplantation from HLA-identical sibling donors for acquired aplastic anemia. *Biol Blood Marrow Transplant* 10, 867-876.
148. Hale, G., Rebello, P., Brettman, L.R., Fegan, C., Kennedy, B., Kimby, E., Leach, M., Lundin, J., Mellstedt, H., Moreton, P., et al. (2004). Blood concentrations of alemtuzumab and antiglobulin responses in patients with chronic lymphocytic leukemia following intravenous or subcutaneous routes of administration. *Blood* 104, 948-955.
149. Waldmann, H., Graca, L., Cobbold, S., Adams, E., Tone, M., and Tone, Y. (2004). Regulatory T cells and organ transplantation. *Seminars in Immunology* 16, 119-126.
150. Fairchild, P., Chen, T.C., and Waldmann, H. (2004). Altered peptide ligands as therapeutic agents for the treatment of allograft rejection. *Current Topics in Peptide & Protein Research* 6, 237-244.
151. Novitzky, N., Thomas, V., Stubbings, H., Hale, G., and Waldmann, H. (2004). Radiotherapy-based conditioning is effective immunosuppression for patients undergoing transplantation with T-cell depleted stem cell grafts for severe aplasia. *Cytotherapy* 6, 450-456.
152. Novitzky, N., Thomas, V., Hale, G., and Waldmann, H. (2004). Campath-1 Abs 'in the bag' for hematological malignancies: the Cape Town experience. *Cytotherapy* 6, 172-181.
153. Hale, G., and Waldmann, H. (2004). Use of monoclonal antibodies for preventing graft-host tolerance. In *Clinical Bone Marrow and Blood Stem Cell transplantation*, Third Edition, C. Atkinson, Ritz, Fibbe, Ljungman & Brenner, ed. (Cambridge University Press), pp. 1717-1722.
154. D'Sa, S., Peggs, K., Pizzey, A., Verfuerth, S., Thurai Sundaram, D., Watts, M., White, H., Hale, G., Waldmann, H., Goldstone, A., et al. (2003). T- and B-cell immune reconstitution and clinical outcome in patients with multiple myeloma receiving T-cell-depleted, reduced-intensity allogeneic stem cell transplantation with an alemtuzumab-containing conditioning regimen followed by escalated donor lymphocyte infusions. *Br J Haematol* 123, 309-322.
155. Graca, L., Moine, A.L., Cobbold, S.P., and Waldmann, H. (2003). Dominant transplantation tolerance. *Opinion. Curr Opin Immunol* 15, 499-506.
156. Cobbold, S.P., Graca, L., Lin, C.Y., Adams, E., and Waldmann, H. (2003). Regulatory T cells in the induction and maintenance of peripheral transplantation tolerance. *Transpl Int* 16, 66-75.
157. Lockwood, C.M., Hale, G., Waldman, H., and Jayne, D.R. (2003). Remission induction in Behcet's disease following lymphocyte depletion by the anti-CD52 antibody CAMPATH 1-H. *Rheumatology (Oxford)* 42, 1539-1544.
158. Cobbold, S.P., Adams, E., Graca, L., and Waldmann, H. (2003). Serial analysis of gene expression provides new insights into regulatory T cells. *Semin Immunol* 15, 209-214.
159. Graca, L., Le Moine, A., Cobbold, S.P., and Waldmann, H. (2003). Antibody-induced transplantation tolerance: the role of dominant regulation. *Immunol Res* 28, 181-191.
160. Waldmann, H. (2002). Transplantation--caught in the crossfire! *Nat Immunol* 3, 803-804.
161. Symons, J.A., Adams, E., Tschärke, D.C., Reading, P.C., Waldmann, H., and Smith, G.L. (2002). The vaccinia virus C12L protein inhibits mouse IL-18 and promotes virus virulence in the murine intranasal model. *J Gen Virol* 83, 2833-2844.
162. Tone, M., Tone, Y., Babik, J.M., Lin, C.Y., and Waldmann, H. (2002). The role of Sp1 and NF-kappa B in regulating CD40 gene expression. *J Biol Chem* 277, 8890-8897.
163. Graca, L., Cobbold, S.P., and Waldmann, H. (2002). Identification of regulatory T cells in tolerated allografts. *J Exp Med* 195, 1641-1646.

164. Chakrabarti, S., Mackinnon, S., Chopra, R., Kottaridis, P.D., Peggs, K., O'Gorman, P., Chakraverty, R., Marshall, T., Osman, H., Mahendra, P., et al. (2002). High incidence of cytomegalovirus infection after nonmyeloablative stem cell transplantation: potential role of Campath-1H in delaying immune reconstitution. *Blood* 99, 4357-4363.
165. Graca, L., Thompson, S., Lin, C.Y., Adams, E., Cobbolt, S.P., and Waldmann, H. (2002). Both CD4(+)CD25(+) and CD4(+)CD25(-) regulatory cells mediate dominant transplantation tolerance. *J Immunol* 168, 5558-5565.
166. Waldmann, H. (2002). Reprogramming the immune system. *Immunol Rev* 185, 227-235.
167. Zelenika, D., Adams, E., Humm, S., Graca, L., Thompson, S., Cobbolt, S.P., and Waldmann, H. (2002). Regulatory T cells overexpress a subset of Th2 gene transcripts. *J Immunol* 168, 1069-1079.
168. Chakraverty, R., Peggs, K., Chopra, R., Milligan, D.W., Kottaridis, P.D., Verfuether, S., Geary, J., Thuraissundaram, D., Branson, K., Chakrabarti, S., et al. (2002). Limiting transplantation-related mortality following unrelated donor stem cell transplantation by using a nonmyeloablative conditioning regimen. *Blood* 99, 1071-1078.
169. Novitzky, N., Davison, G.M., Hale, G., and Waldmann, H. (2002). Immune reconstitution at 6 months following T-cell depleted hematopoietic stem cell transplantation is predictive for treatment outcome. *Transplantation* 74, 1551-1559.
170. Lin, C.Y., Graca, L., Cobbolt, S.P., and Waldmann, H. (2002). Dominant transplantation tolerance impairs CD8+ T cell function but not expansion. *Nat Immunol* 3, 1208-1213.
171. Chakrabarti, S., Avivi, I., Mackinnon, S., Ward, K., Kottaridis, P.D., Osman, H., Waldmann, H., Hale, G., Fegan, C.D., Yong, K., et al. (2002). Respiratory virus infections in transplant recipients after reduced-intensity conditioning with Campath-1H: high incidence but low mortality. *Br J Haematol* 119, 1125-1132.
172. Hale, G., Slavin, S., Goldman, J.M., Mackinnon, S., Giral, S., and Waldmann, H. (2002). Alemtuzumab (Campath-1H) for treatment of lymphoid malignancies in the age of nonmyeloablative conditioning? *Bone Marrow Transplant* 30, 797-804.
173. Lundin, J., Kimby, E., Bjorkholm, M., Broliden, P.A., Celsing, F., Hjalmar, V., Mollgard, L., Rebello, P., Hale, G., Waldmann, H., et al. (2002). Phase II trial of subcutaneous anti-CD52 monoclonal antibody alemtuzumab (Campath-1H) as first-line treatment for patients with B-cell chronic lymphocytic leukemia (B-CLL). *Blood* 100, 768-773.
174. Waldmann, H. (2002). A personal history of the CAMPATH-1H antibody. *Med Oncol* 19 Suppl, S3-9.
175. Willis, F., Marsh, J.C., Bevan, D.H., Killick, S.B., Lucas, G., Griffiths, R., Ouwehand, W., Hale, G., Waldmann, H., and Gordon-Smith, E.C. (2001). The effect of treatment with Campath-1H in patients with autoimmune cytopenias. *Br J Haematol* 114, 891-898.
176. Issacs, J.D., Greer, S., Sharma, S., Symmons, D., Smith, M., Johnston, J., Waldmann, H., Hale, G., and Hazleman, B.L. (2001). Morbidity and mortality in rheumatoid arthritis patients with prolonged and profound therapy-induced lymphopenia. *Arthritis Rheum* 44, 1998-2008.
177. Waldmann, H., and Cobbolt, S. (2001). Approaching tolerance in transplantation. *Int Arch Allergy Immunol* 126, 11-22.
178. Waldmann, H. (2001). Therapeutic approaches for transplantation. *Curr Opin Immunol* 13, 606-610.
179. Chakraverty, R., Robinson, S., Peggs, K., Kottaridis, P.D., Watts, M.J., Ings, S.J., Hale, G., Waldmann, H., Linch, D.C., Goldstone, A.H., et al. (2001). Excessive T cell depletion of peripheral blood stem cells has an adverse effect upon outcome following allogeneic stem cell transplantation. *Bone Marrow Transplant* 28, 827-834.
180. Waldmann, H., Hale, G., and Cobbolt, S. (2001). Appropriate targets for monoclonal antibodies in the induction of transplantation tolerance. *Philos Trans R Soc Lond B Biol Sci* 356, 659-663.
181. Barge, R.M., Brouwer, R.E., Beersma, M.F., Starrenburg, C.W., Zwinderman, A.H., Hale, G., Waldmann, H., den Ottolander, G.J., Falkenburg, J.H., Willemze, R., et al. (2001). Comparison of

- allogeneic T cell-depleted peripheral blood stem cell and bone marrow transplantation: effect of stem cell source on short- and long-term outcome. *Bone Marrow Transplant* 27, 1053-1058.
182. Taylor, P.A., Lees, C.J., Waldmann, H., Noelle, R.J., and Blazar, B.R. (2001). Requirements for the promotion of allogeneic engraftment by anti-CD154 (anti-CD40L) monoclonal antibody under nonmyeloablative conditions. *Blood* 98, 467-474.
 183. Tone, M., Tone, Y., Fairchild, P.J., Wykes, M., and Waldmann, H. (2001). Regulation of CD40 function by its isoforms generated through alternative splicing. *Proc Natl Acad Sci U S A* 98, 1751-1756.
 184. Waldmann, H., Cobbold, S.P., Fairchild, P., and Adams, E. (2001). Therapeutic aspects of tolerance. *Curr Opin Pharmacol* 1, 392-397.
 185. Zelenika, D., Adams, E., Humm, S., Lin, C.Y., Waldmann, H., and Cobbold, S.P. (2001). The role of CD4+ T-cell subsets in determining transplantation rejection or tolerance. *Immunol Rev* 182, 164-179.
 186. Waldmann, H., and Cobbold, S. (2001). Regulating the immune response to transplants. a role for CD4+ regulatory cells? *Immunity* 14, 399-406.
 187. Graca, L., and Waldmann, H. (2001). Dominant Transplantation Tolerance. *Graft* 4, 174-179.
 188. Thiru, S., and Waldmann, H. (2001). Pathology and Immunology of Transplantation and Rejection. In *Current Biology 2001*, Volume 10(3). (Blackwell Science Oxford), pp. 1515-1518.
 189. Waldmann, H., Cobbold, S., and Hale, G. (2001). Graft versus host disease, its control and prospects for allogeneic bone marrow transplantation. In *Immunology of Transplantation and rejection*, W.H. Thiru S, ed. (Blackwell Science, Oxford, UK), pp. 438-445.
 190. Waldmann, H. (2001). Tolerance induction with CD4 Monoclonal Antibodies. In *Autoimmunity and emerging diseases*, Steinman L, ed. (Centre for study of Emerging Diseases CSED), pp. 240-246.
 191. Hale, G., Cobbold, S., Novitzky, N., Bunjes, D., Willemze, R., Prentice, H.G., Milligan, D., MacKinnon, S., and Waldmann, H. (2001). CAMPATH-1 antibodies in stem-cell transplantation. *Cytotherapy* 3, 145-164.
 192. Kottaridis, P.D., Milligan, D.W., Chopra, R., Chakraverty, R.K., Chakrabarti, S., Robinson, S., Peggs, K., Verfuerth, S., Pettengell, R., Marsh, J.C., et al. (2001). In vivo CAMPATH-1H prevents GvHD following nonmyeloablative stem-cell transplantation. *Cytotherapy* 3, 197-201.
 193. Kottaridis, P.D., Milligan, D.W., Chopra, R., Chakraverty, R.K., Chakrabarti, S., Robinson, S., Peggs, K., Verfuerth, S., Pettengell, R., Marsh, J.C., et al. (2000). In vivo CAMPATH-1H prevents graft-versus-host disease following nonmyeloablative stem cell transplantation. *Blood* 96, 2419-2425.
 194. Fairchild, P.J., and Waldmann, H. (2000). Dendritic cells and prospects for transplantation tolerance. *Curr Opin Immunol* 12, 528-535.
 195. Fairchild, P.J., Brook, F.A., Gardner, R.L., Graca, L., Strong, V., Tone, Y., Tone, M., Nolan, K.F., and Waldmann, H. (2000). Directed differentiation of dendritic cells from mouse embryonic stem cells. *Curr Biol* 10, 1515-1518.
 196. Graca, L., Honey, K., Adams, E., Cobbold, S.P., and Waldmann, H. (2000). Cutting edge: anti-CD154 therapeutic antibodies induce infectious transplantation tolerance. *J Immunol* 165, 4783-4786.
 197. Cull, G.M., Haynes, A.P., Byrne, J.L., Carter, G.I., Mifflin, G., Rebello, P., Hale, G., Waldmann, H., and Russell, N.H. (2000). Preliminary experience of allogeneic stem cell transplantation for lymphoproliferative disorders using BEAM-CAMPATH conditioning: an effective regimen with low procedure-related toxicity. *Br J Haematol* 108, 754-760.
 198. Calne, R., Moffatt, S.D., Friend, P.J., Jamieson, N.V., Bradley, J.A., Hale, G., Firth, J., Bradley, J., Smith, K.G., and Waldmann, H. (2000). Prope tolerance with induction using Campath 1H and low-dose cyclosporin monotherapy in 31 cadaveric renal allograft recipients. *Nippon Geka Gakkai Zasshi* 101, 301-306.

199. Tone, M., Powell, M.J., Tone, Y., Thompson, S.A., and Waldmann, H. (2000). IL-10 gene expression is controlled by the transcription factors Sp1 and Sp3. *J Immunol* 165, 286-291.
200. Powell, M.J., Thompson, S.A., Tone, Y., Waldmann, H., and Tone, M. (2000). Posttranscriptional regulation of IL-10 gene expression through sequences in the 3'-untranslated region. *J Immunol* 165, 292-296.
201. Hale, G., Jacobs, P., Wood, L., Fibbe, W.E., Barge, R., Novitzky, N., Toit, C., Abrahams, L., Thomas, V., Bunjes, D., et al. (2000). CD52 antibodies for prevention of graft-versus-host disease and graft rejection following transplantation of allogeneic peripheral blood stem cells. *Bone Marrow Transplant* 26, 69-76.
202. Fairchild, P.J., and Waldmann, H. (2000). Extrathymic signals regulate the onset of T cell repertoire selection. *Eur J Immunol* 30, 1948-1956.
203. Dick, A.D., Meyer, P., James, T., Forrester, J.V., Hale, G., Waldmann, H., and Isaacs, J.D. (2000). Campath-1H therapy in refractory ocular inflammatory disease. *Br J Ophthalmol* 84, 107-109.
204. Byrne, J.L., Stainer, C., Cull, G., Haynes, A.P., Bessell, E.M., Hale, G., Waldmann, H., and Russell, N.H. (2000). The effect of the serotherapy regimen used and the marrow cell dose received on rejection, graft-versus-host disease and outcome following unrelated donor bone marrow transplantation for leukaemia. *Bone Marrow Transplant* 25, 411-417.
205. Honey, K., Cobbold, S.P., and Waldmann, H. (2000). Dominant tolerance and linked suppression induced by therapeutic antibodies do not depend on Fas-FasL interactions. *Transplantation* 69, 1683-1689.
206. Honey, K., Bemelman, F., Cobbold, S.P., and Waldmann, H. (2000). High dose bone marrow transplantation induces deletion of antigen-specific T cells in a Fas-independent manner. *Transplantation* 69, 1676-1682.
207. Davison, G.M., Novitzky, N., Kline, A., Thomas, V., Abrahams, L., Hale, G., and Waldmann, H. (2000). Immune reconstitution after allogeneic bone marrow transplantation depleted of T cells. *Transplantation* 69, 1341-1347.
208. Thiru S, W.H. (2000). Pathology and Immunology of Transplantation and Rejection.
209. Wise, M., Bemelman, F., Cobbold, S., and H, W. (2000). Infectious Tolerance with CD4 Monoclonal Antibodies: A Role for Minors in Linked Suppression. In *Minor Histocompatibility Antigens: From the Laboratory to the Clinic*, Volume Chapter 14, R.a. Simpson, ed. (Landes Bioscience).
210. Waldmann, H., Cobbold, S., and Hale, G. (2000). T-cell regulation and transplantation tolerance. *Current Opinion in Organ Transplantation* 5, 83-89.
211. Waldmann, H. (2000). Prospects for the application of antibodies in medicine, Volume 40 *Diagnostic and Therapeutic antibodies*, (Humana Press).
212. Waldmann, H. (2000). Transplantation (Editorial Overview). *Current Opinion in Immunology* 12.
213. Hale, G., and Waldmann, H. (2000). From Laboratory to Clinic: the story of CAMPATH-1H in *Molecular Medicine*, Volume 40, U. George AJT, CE, Eds., ed. (Humana Press, Totowa, NJ), pp. 243-266.
214. Williams, R.J., Clarke, E., Blair, A., Evely, R., Hale, G., Waldmann, H., Brookes, S., and Pamphilon, D.H. (2000). Impact on T-cell depletion and CD34+ cell recovery using humanised CD52 monoclonal antibody (CAMPATH-1H) in BM and PSBC collections; comparison with CAMPATH-1M and CAMPATH-1G. *Cytotherapy* 2, 5-14.
215. Tone, M., Nolan, K.F., Walsh, L.A., Tone, Y., Thompson, S.A., and Waldmann, H. (1999). Structure and chromosomal location of mouse and human CD52 genes. *Biochim Biophys Acta* 1446, 334-340.
216. Coles, A.J., Wing, M.G., Molyneux, P., Paolillo, A., Davie, C.M., Hale, G., Miller, D., Waldmann, H., and Compston, A. (1999). Monoclonal antibody treatment exposes three mechanisms underlying the clinical course of multiple sclerosis. *Ann Neurol* 46, 296-304.
217. Conaghan, P.G., Sommer, S., McGonagle, D., Veale, D., Waldmann, H., Hale, G., Goodfield, M., Emery, P., and Isaacs, J. (1999). The relationship between pityriasis rubra pilaris and

- inflammatory arthritis: case report and response of the arthritis to anti-tumor necrosis factor immunotherapy. *Arthritis Rheum* 42, 1998-2001.
218. Green, A., Clarke, E., Hunt, L., Canterbury, A., Lankester, A., Hale, G., Waldmann, H., Goodman, S., Cornish, J.M., Marks, D.I., et al. (1999). Children with acute lymphoblastic leukemia who receive T-cell-depleted HLA mismatched marrow allografts from unrelated donors have an increased incidence of primary graft failure but a similar overall transplant outcome. *Blood* 94, 2236-2246.
 219. Milstein, C., and Waldmann, H. (1999). Optimism after much pessimism: what next? *Curr Opin Immunol* 11, 589-591.
 220. Calne, R., Moffatt, S.D., Friend, P.J., Jamieson, N.V., Bradley, J.A., Hale, G., Firth, J., Bradley, J., Smith, K.G., and Waldmann, H. (1999). Campath 1H allows low-dose cyclosporine monotherapy in 31 cadaveric renal allograft recipients. *Transplantation* 68, 1613-1616.
 221. Rebello, P.R., Hale, G., Friend, P.J., Cobbold, S.P., and Waldmann, H. (1999). Anti-globulin responses to rat and humanized CAMPATH-1 monoclonal antibody used to treat transplant rejection. *Transplantation* 68, 1417-1420.
 222. Coles, A.J., Wing, M., Smith, S., Coraddu, F., Greer, S., Taylor, C., Weetman, A., Hale, G., Chatterjee, V.K., Waldmann, H., et al. (1999). Pulsed monoclonal antibody treatment and autoimmune thyroid disease in multiple sclerosis. *Lancet* 354, 1691-1695.
 223. Honey, K., Cobbold, S.P., and Waldmann, H. (1999). CD40 ligand blockade induces CD4+ T cell tolerance and linked suppression. *J Immunol* 163, 4805-4810.
 224. Lockwood, C.M., Elliott, J.D., Brettman, L., Hale, G., Rebello, P., Frewin, M., Ringler, D., Merrill, C., and Waldmann, H. (1999). Anti-adhesion molecule therapy as an interventional strategy for autoimmune inflammation. *Clin Immunol* 93, 93-106.
 225. Waldmann, H. (1999). Transplantation tolerance-where do we stand? *Nat Med* 5, 1245-1248.
 226. Parry-Jones, N., Haque, T., Ismail, M., Jones, L., Hale, G., Waldmann, H., Gordon-Smith, E.C., Crawford, D.H., and Marsh, J.C. (1999). Epstein-Barr virus (EBV) associated B-cell lymphoproliferative disease following HLA identical sibling marrow transplantation for aplastic anaemia in a patient with an EBV seronegative donor. *Transplantation* 67, 1373-1375.
 227. Hudde, T., Rayner, S.A., Comer, R.M., Weber, M., Isaacs, J.D., Waldmann, H., Larkin, D.F., and George, A.J. (1999). Activated polyamidoamine dendrimers, a non-viral vector for gene transfer to the corneal endothelium. *Gene Ther* 6, 939-943.
 228. Gilliland, L.K., Walsh, L.A., Frewin, M.R., Wise, M.P., Tone, M., Hale, G., Kioussis, D., and Waldmann, H. (1999). Elimination of the immunogenicity of therapeutic antibodies. *J Immunol* 162, 3663-3671.
 229. James, L.C., Hale, G., Waldmann, H., and Bloomer, A.C. (1999). 1.9 A structure of the therapeutic antibody CAMPATH-1H fab in complex with a synthetic peptide antigen. *J Mol Biol* 289, 293-301.
 230. Naparstek, E., Delukina, M., Or, R., Nagler, A., Kapelushnik, J., Varadi, G., Strauss, N., Cividalli, G., Aker, M., Brautbar, C., et al. (1999). Engraftment of marrow allografts treated with Campath-1 monoclonal antibodies. *Exp Hematol* 27, 1210-1218.
 231. Tone, M., Diamond, L.E., Walsh, L.A., Tone, Y., Thompson, S.A., Shanahan, E.M., Logan, J.S., and Waldmann, H. (1999). High level transcription of the complement regulatory protein CD59 requires an enhancer located in intron 1. *J Biol Chem* 274, 710-716.
 232. Wise, M., Zelenika, D., Bemelman, F., Latinne, D., Bazin, H., Cobbold, S., and Waldmann, H. (1999). CD4 T cells can reject major histocompatibility complex class I-incompatible skin grafts. *Eur J Immunol* 29, 156-167.
 233. Novitzky, N., Thomas, V., Hale, G., and Waldmann, H. (1999). Ex vivo depletion of T cells from bone marrow grafts with CAMPATH-1 in acute leukemia: graft-versus-host disease and graft-versus-leukemia effect. *Transplantation* 67, 620-626.

234. Friend, P.J., Hale, G., Chatenoud, L., Rebello, P., Bradley, J., Thiru, S., Phillips, J.M., and Waldmann, H. (1999). Phase I study of an engineered aglycosylated humanized CD3 antibody in renal transplant rejection. *Transplantation* 68, 1632-1637.
235. Babik, J.M., Adams, E., Tone, Y., Fairchild, P.J., Tone, M., and Waldmann, H. (1999). Expression of murine IL-12 is regulated by translational control of the p35 subunit. *J Immunol* 162, 4069-4078.
236. Waldman, H., Gilliland, L.K., Cobbold, S., and G, H. (1999). Immunotherapy. In *Fundamental Immunology*, Fourth edition, W.E. Paul, ed. (Lippincott-Raven Publishers), p. Chapter 45.
237. Lefkovits, I., and Waldmann, H. (1999). *Limiting Dilution Analysis of Cells of the Immune System*, (Oxford University Press).
238. Honey, K., Cobbold, S.P., and Waldmann, H. (1999). Dominant regulation: a common mechanism of monoclonal antibody induced tolerance? *Immunol Res* 20, 1-14.
239. Isaacs, J.D., and Waldmann, H. (1998). Regaining self-control--regulation and immunotherapy. *Br J Rheumatol* 37, 926-929.
240. Isaacs, J.D., Greenwood, J., and Waldmann, H. (1998). Therapy with monoclonal antibodies. II. The contribution of Fc gamma receptor binding and the influence of C(H)1 and C(H)3 domains on in vivo effector function. *J Immunol* 161, 3862-3869.
241. Cobbold, S., and Waldmann, H. (1998). Infectious tolerance. *Curr Opin Immunol* 10, 518-524.
242. Cheetham, G.M., Hale, G., Waldmann, H., and Bloomer, A.C. (1998). Crystal structures of a rat anti-CD52 (CAMPATH-1) therapeutic antibody Fab fragment and its humanized counterpart. *J Mol Biol* 284, 85-99.
243. Fournel, S., Robinet, E., Bonnefoy-Berard, N., Assossou, O., Flacher, M., Waldmann, H., Bismuth, G., and Revillard, J.P. (1998). A noncomitogenic CD2R monoclonal antibody induces apoptosis of activated T cells by a CD95/CD95-L-dependent pathway. *J Immunol* 160, 4313-4321.
244. Woods, M., Guy, R., Waldmann, H., Glennie, M., and Alexander, D.R. (1998). A humanised therapeutic CD4 mAb inhibits TCR-induced IL-2, IL-4, and IL-10 secretion and expression of CD25, CD40L, and CD69. *Cell Immunol* 185, 101-113.
245. Bemelman, F., Honey, K., Adams, E., Cobbold, S., and Waldmann, H. (1998). Bone marrow transplantation induces either clonal deletion or infectious tolerance depending on the dose. *J Immunol* 160, 2645-2648.
246. Calne, R., Friend, P., Moffatt, S., Bradley, A., Hale, G., Firth, J., Bradley, J., Smith, K., and Waldmann, H. (1998). Prope tolerance, perioperative campath 1H, and low-dose cyclosporin monotherapy in renal allograft recipients. *Lancet* 351, 1701-1702.
247. Dick, A.D., Duncan, L., Hale, G., Waldmann, H., and Isaacs, J. (1998). Neutralizing TNF-alpha activity modulates T-cell phenotype and function in experimental autoimmune uveoretinitis. *J Autoimmun* 11, 255-264.
248. Nolan, K.F., Greaves, D.R., and Waldmann, H. (1998). The human interleukin 18 gene IL18 maps to 11q22.2-q22.3, closely linked to the DRD2 gene locus and distinct from mapped IDDM loci. *Genomics* 51, 161-163.
249. Revillard, J.P., Adorini, L., Goldman, M., Kabelitz, D., and Waldmann, H. (1998). Apoptosis: potential for disease therapies. *Immunol Today* 19, 291-293.
250. Clarke, E., Potter, M.N., Hale, G., Waldmann, H., Lankester, A., Cornish, J.M., Steward, C.G., Marks, D.I., Oakhill, A., and Pamphilon, D.H. (1998). Double T cell depletion of bone marrow using sequential positive and negative cell immunoaffinity or CD34+ cell selection followed by Campath-1M; effect on CD34+ cells and progenitor cell recoveries. *Bone Marrow Transplant* 22, 117-124.
251. Hale, G., Zhang, M.J., Bunjes, D., Prentice, H.G., Spence, D., Horowitz, M.M., Barrett, A.J., and Waldmann, H. (1998). Improving the outcome of bone marrow transplantation by using CD52 monoclonal antibodies to prevent graft-versus-host disease and graft rejection. *Blood* 92, 4581-4590.

252. Wise, M.P., Bemelman, F., Cobbold, S.P., and Waldmann, H. (1998). Linked suppression of skin graft rejection can operate through indirect recognition. *J Immunol* 161, 5813-5816.
253. Zelenika, D., Adams, E., Mellor, A., Simpson, E., Chandler, P., Stockinger, B., Waldmann, H., and Cobbold, S.P. (1998). Rejection of H-Y disparate skin grafts by monospecific CD4⁺ Th1 and Th2 cells: no requirement for CD8⁺ T cells or B cells. *J Immunol* 161, 1868-1874.
254. Hale, G., and Waldmann, H. (1998). Risks of developing Epstein-Barr virus-related lymphoproliferative disorders after T-cell-depleted marrow transplants. *CAMPATH Users. Blood* 91, 3079-3083.
255. Waldmann, H., Bemelman, F., and Cobbold, S. (1998). Tolerance Induction with CD4 Monoclonal Antibodies. *Ciba F Symp* 215, 146-152.
256. Wise, M., Cobbold, S., and Waldman, H. (1998). Tolerance induction with CD4 monoclonal antibodies: a role for minors in linked suppression Minor Histocompatibility Antigens.
257. Adorini, L., Goldman, M., Kabelitz, D., Revillard, J.-P., and Waldmann, H. (1998). Apoptosis, tolerance and immunoregulation - integrated pathways for immune system homeostasis. *The Immunologist* 6/2, 92-94.
258. Waldmann, H. (1998). The applications of antibodies in medicine. In *Diagnostic and Therapeutic antibodies*. (Human Press).
259. Lockwood, C.M., Thiru, S., Steward, S., Drummond, C., Elliott, J., Hale, G., Flower, C.D., Wraight, E.P., and Waldmann, H. (1998). Refractory Wegener's granulomatosis: a model for shorter term therapy of autoimmune diseases. *Journal of the Royal College of Physicians* 32, 473.
260. Waldmann, H., and Cobbold, S. (1998). How do monoclonal antibodies induce tolerance? A role for infectious tolerance? *Annu Rev Immunol* 16, 619-644.
261. Waldmann, H., Bemelman, F., and Cobbold, S. (1998). Tolerance induction with CD4 monoclonal antibodies. *Novartis Found Symp* 215, 146-152; discussion 152-148, 186-190.
262. Elliott, J.D., Lockwood, C.M., Hale, G., and Waldmann, H. (1998). Semi-specific immunosuppression and monoclonal antibody therapy in ANCA positive vasculitis: experience in four cases. *Autoimmunity* 28, 163-171.
263. Hale, G., and Waldmann, H. (1997). Use of Ceprate CD34-positive selection system for depletion of T cells in allogeneic transplantation. *Bone Marrow Transplant* 20, 709-710.
264. Genestier, L., Paillot, R., Bonnefoy-Berard, N., Meffre, G., Flacher, M., Fevre, D., Liu, Y.J., Le Bouteiller, P., Waldmann, H., Engelhard, V.H., et al. (1997). Fas-independent apoptosis of activated T cells induced by antibodies to the HLA class I alpha1 domain. *Blood* 90, 3629-3639.
265. Isaacs, J.D., Burrows, N., Wing, M., Keogan, M.T., Rebello, P.R., Watts, R.A., Pye, R.J., Norris, P., Hazelman, B.L., Hale, G., et al. (1997). Humanized anti-CD4 monoclonal antibody therapy of autoimmune and inflammatory disease. *Clin Exp Immunol* 110, 158-166.
266. Killick, S.B., Marsh, J.C., Hale, G., Waldmann, H., Kelly, S.J., and Gordon-Smith, E.C. (1997). Sustained remission of severe resistant autoimmune neutropenia with Campath-1H. *Br J Haematol* 97, 306-308.
267. Mehta, J., Powles, R., Treleaven, J., Horton, C., Shepherd, V., Hale, G., Waldmann, H., and Singhal, S. (1997). Autologous transplantation with CD52 monoclonal antibody-purged marrow for acute lymphoblastic leukemia: long-term follow-up. *Leuk Lymphoma* 25, 479-486.
268. Davies, J.D., Cobbold, S.P., and Waldmann, H. (1997). Strain variation in susceptibility to monoclonal antibody-induced transplantation tolerance. *Transplantation* 63, 1570-1573.
269. Dyer, M.J., Kelsey, S.M., Mackay, H.J., Emmett, E., Thornton, P., Hale, G., Waldmann, H., Newland, A.C., and Catovsky, D. (1997). In vivo 'purging' of residual disease in CLL with Campath-1H. *Br J Haematol* 97, 669-672.
270. Scully, R., Cobbold, S.P., Mellor, A.L., Wissing, M., Arnold, B., and Waldmann, H. (1997). A role for Th2 cytokines in the suppression of CD8⁺ T cell-mediated graft rejection. *Eur J Immunol* 27, 1663-1670.

271. Genestier, L., Paillot, R., Bonnefoy-Berard, N., Waldmann, H., and Revillard, J.P. (1997). T cell sensitivity to HLA class I-mediated apoptosis is dependent on interleukin-2 and interleukin-4. *Eur J Immunol* 27, 495-499.
272. Tone, M., Thompson, S.A., Tone, Y., Fairchild, P.J., and Waldmann, H. (1997). Regulation of IL-18 (IFN-gamma-inducing factor) gene expression. *J Immunol* 159, 6156-6163.
273. Hale, G., and Waldman, H. (1997). Use of monoclonal antibodies for preventing graft rejection and inducing graft-host tolerance. In *Clinical Bone Marrow and Blood Stem Cell Transplantation*, E.K. Atkinson, ed. (Cambridge University Press 1997).
274. Waldmann, H., Cobbold, S.P., and Hale, G. (1997). Graft versus Host Disease. Its control and prospects for allogeneic bone marrow transplantation. In *Immunology and Pathology of Transplantation*, W.H. Thiru S, ed. (Blackwell Science).
275. Oakhill, A., Pamphilon, D.H., Potter, M.N., Steward, C.G., Goodman, S., Green, A., Goulden, P., Goulden, N.J., Hale, G., Waldmann, H., et al. (1996). Unrelated donor bone marrow transplantation for children with relapsed acute lymphoblastic leukaemia in second complete remission. *Br J Haematol* 94, 574-578.
276. Fournel, S., Vincent, C., Assossou, O., Gorman, S.D., Robinet, E., Phillips, J.M., Flacher, M., Cordier, G., Waldmann, H., and Revillard, J.P. (1996). CD4 mAbs prevent progression of alloactivated CD4+ T cells into the S phase of the cell cycle without interfering with early activation signals. *Transplantation* 62, 1136-1143.
277. Chen, Z.K., Cobbold, S.P., Waldmann, H., and Metcalfe, S. (1996). Amplification of natural regulatory immune mechanisms for transplantation tolerance. *Transplantation* 62, 1200-1206.
278. Cornish, J.M., Pamphilon, D.H., Potter, M.N., Steward, C.G., Goodman, S., Green, A., Goulden, P., Goulden, N., Knechtli, C., Hale, G., et al. (1996). Unrelated donor bone marrow transplant in childhood ALL. The role of T-cell depletion. *Bone Marrow Transplant* 18 Suppl 2, 31-35.
279. Davies, J.D., Leong, L.Y., Mellor, A., Cobbold, S.P., and Waldmann, H. (1996). T cell suppression in transplantation tolerance through linked recognition. *J Immunol* 156, 3602-3607.
280. Hamblin, M., Marsh, J.C., Lawler, M., McCann, S.R., Wickham, N., Dunlop, L., Ball, S., Davies, E.G., Hale, G., Waldmann, H., et al. (1996). Campath-1G in vivo confers a low incidence of graft-versus-host disease associated with a high incidence of mixed chimaerism after bone marrow transplantation for severe aplastic anaemia using HLA-identical sibling donors. *Bone Marrow Transplant* 17, 819-824.
281. Hale, G., and Waldmann, H. (1996). Recent results using CAMPATH-1 antibodies to control GVHD and graft rejection. *Bone Marrow Transplant* 17, 305-308.
282. Tone, Y., Thompson, S.A., Babik, J.M., Nolan, K.F., Tone, M., Raven, C., and Waldmann, H. (1996). Structure and chromosomal location of the mouse interleukin-12 p35 and p40 subunit genes. *Eur J Immunol* 26, 1222-1227.
283. Isaacs, J.D., Hazleman, B.L., Chakravarty, K., Grant, J.W., Hale, G., and Waldmann, H. (1996). Monoclonal antibody therapy of diffuse cutaneous scleroderma with CAMPATH-1H. *J Rheumatol* 23, 1103-1106.
284. Davies, J.D., Martin, G., Phillips, J., Marshall, S.E., Cobbold, S.P., and Waldmann, H. (1996). T cell regulation in adult transplantation tolerance. *J Immunol* 157, 529-533.
285. Moreau, T., Coles, A., Wing, M., Thorpe, J., Miller, D., Moseley, I., Issacs, J., Hale, G., Clayton, D., Scolding, N., et al. (1996). CAMPATH-1H in multiple sclerosis. *Mult Scler* 1, 357-365.
286. Moreau, T., Coles, A., Wing, M., Isaacs, J., Hale, G., Waldmann, H., and Compston, A. (1996). Transient increase in symptoms associated with cytokine release in patients with multiple sclerosis. *Brain* 119 (Pt 1), 225-237.
287. Cobbold, S.P., Adams, E., Marshall, S.E., Davies, J.D., and Waldmann, H. (1996). Mechanisms of peripheral tolerance and suppression induced by monoclonal antibodies to CD4 and CD8. *Immunol Rev* 149, 5-33.
288. Marshall, S.E., Cobbold, S.P., Davies, J.D., Martin, G.M., Phillips, J.M., and Waldmann, H. (1996). Tolerance and suppression in a primed immune system. *Transplantation* 62, 1614-1621.

289. Wing, M.G., Moreau, T., Greenwood, J., Smith, R.M., Hale, G., Isaacs, J., Waldmann, H., Lachmann, P.J., and Compston, A. (1996). Mechanism of first-dose cytokine-release syndrome by CAMPATH 1-H: involvement of CD16 (FcγRIII) and CD11a/CD18 (LFA-1) on NK cells. *J Clin Invest* 98, 2819-2826.
290. Isaacs, J.D., Wing, M.G., Greenwood, J.D., Hazleman, B.L., Hale, G., and Waldmann, H. (1996). A therapeutic human IgG4 monoclonal antibody that depletes target cells in humans. *Clin Exp Immunol* 106, 427-433.
291. Lockwood, C.M., Thiru, S., Stewart, S., Hale, G., Isaacs, J., Wraight, P., Elliott, J., and Waldmann, H. (1996). Treatment of refractory Wegener's granulomatosis with humanized monoclonal antibodies. *Qjm* 89, 903-912.
292. Waldmann, H., and Cobbold, S. (1996). How may immunosuppression lead to tolerance. In *Immune Tolerance*, D.G. Banachereau J, Schwartz R, Trannoy E, ed. (Elsevier, Paris), pp. 221-227.
293. Routledge, E.G., Falconer, M.E., Pope, H., Lloyd, I.S., and Waldmann, H. (1995). The effect of aglycosylation on the immunogenicity of a humanized therapeutic CD3 monoclonal antibody. *Transplantation* 60, 847-853.
294. Spencer, A., Szydlo, R.M., Brookes, P.A., Kaminski, E., Rule, S., van Rhee, F., Ward, K.N., Hale, G., Waldmann, H., Hows, J.M., et al. (1995). Bone marrow transplantation for chronic myeloid leukemia with volunteer unrelated donors using ex vivo or in vivo T-cell depletion: major prognostic impact of HLA class I identity between donor and recipient. *Blood* 86, 3590-3597.
295. Isaacs, J.D., Hale, G., Waldmann, H., Dick, A.D., Haynes, R., Forrester, J.V., Watson, P., and Meyer, P.A. (1995). Monoclonal antibody therapy of chronic intraocular inflammation using Campath-1H. *Br J Ophthalmol* 79, 1054-1055.
296. Chatenoud, L., Waldmann, H., and Emmerich, F. (1995). Tolerance induction in the adult: 'danger' at Le Bischenberg. *Immunol Today* 16, 121-123.
297. Naperstek, E., or, R., Nagler, A., Cividalli, G., Engelhard, D., Gimon, Z., Manny, N., Weiss, L., Samuel, S., Brautbar, H., et al. (1995). T-cell depleted allogeneic bone-marrow transplantation for acute-leukemia using Campath-1 antibodies and posttransplant administration of donors peripheral-blood lymphocytes for prevention of relapse. *Br J Haematol* 89, 506-515.
298. Kooyman, D.L., Byrne, G.W., McClellan, S., Nielsen, D., Tone, M., Waldmann, H., Coffman, T.M., McCurry, K.R., Platt, J.L., and Logan, J.S. (1995). In vivo transfer of GPI-linked complement restriction factors from erythrocytes to the endothelium. *Science* 269, 89-92.
299. Brons, I.G., Davies, H.F., Rasmussen, A., Watson, C.J., Thiru, S., Cobbold, S.P., Waldmann, H., and Calne, R.Y. (1995). Islet allografting in the dog model: potential therapies for tolerance induction. *Transplant Proc* 27, 609-610.
300. Hale, G., and Waldmann, H. (1995). Availability of Campath-1 antibodies for bone marrow transplantation. *Bone Marrow Transplant* 15, 327.
301. Watson, C.J., Davies, H.F., Cobbold, S.P., Rasmussen, A., Rebello, P.R., Thiru, S., Waldmann, H., Calne, R.Y., and Metcalfe, S.M. (1995). CD4 and CD8 monoclonal antibody therapy in the dog: strategies to induce tolerance to renal allografts. *Transplant Proc* 27, 123-124.
302. Brons, I.G., Davies, H.S., Watson, C.J., Cobbold, S.P., Waldmann, H., and Calne, R.Y. (1995). Substantial peripheral T-cell depletion before grafting is beneficial in islet transplantation. *Transplant Proc* 27, 3181.
303. Diamond, L.E., McCurry, K.R., Oldham, E.R., Tone, M., Waldmann, H., Platt, J.L., and Logan, J.S. (1995). Human CD59 expressed in transgenic mouse hearts inhibits the activation of complement. *Transpl Immunol* 3, 305-312.
304. Wing, M.G., Waldmann, H., Isaacs, J., Compston, D.A., and Hale, G. (1995). Ex-vivo whole blood cultures for predicting cytokine-release syndrome: dependence on target antigen and antibody isotype. *Ther Immunol* 2, 183-190.
305. Friend, P.J., Rebello, P., Oliviera, D., Manna, V., Cobbold, S., G, H., Jamieson, N.V., Calne, R., Harris, D., and Waldmann, H. (1995). Successful treatment of renal-allograft rejection with a humanized antilymphocyte monoclonal-antibody. *Transplantation* 27, 869-870.

306. Newman, D.K., Isaacs, J.D., Watson, P.G., Meyer, P.A., Hale, G., and Waldmann, H. (1995). Prevention of immune-mediated corneal graft destruction with the anti-lymphocyte monoclonal antibody, CAMPATH-1H. *Eye* 9 (Pt 5), 564-569.
307. Hale, G., and Waldmann, H. (1994). CAMPATH-1 monoclonal antibodies in bone marrow transplantation. *J Hematother* 3, 15-31.
308. Greenwood, J., Gorman, S.D., Routledge, E.G., Lloyd, I.S., and Waldmann, H. (1994). Engineering multiple-domain forms of the therapeutic antibody CAMPATH-1H: effects on complement lysis. *Ther Immunol* 1, 247-255.
309. Waldmann, H., Cobbold, S., and Hale, G. (1994). What can be done to prevent graft versus host disease? *Curr Opin Immunol* 6, 777-783.
310. Scully, R., Qin, S., Cobbold, S., and Waldmann, H. (1994). Mechanisms in CD4 antibody-mediated transplantation tolerance: kinetics of induction, antigen dependency and role of regulatory T cells. *Eur J Immunol* 24, 2383-2392.
311. Hale, G., and Waldmann, H. (1994). Control of graft-versus-host disease and graft rejection by T cell depletion of donor and recipient with Campath-1 antibodies. Results of matched sibling transplants for malignant diseases. *Bone Marrow Transplant* 13, 597-611.
312. Watson, C.J., Cobbold, S.P., Davies, H.S., Rebello, P.R., Thiru, S., McNair, R., Rasmussen, A., Waldmann, H., Calne, R.Y., and Metcalfe, S.M. (1994). Immunosuppression of canine renal allograft recipients by CD4 and CD8 monoclonal antibodies. *Tissue Antigens* 43, 155-162.
313. Gorman, S.D., Frewin, M.R., Cobbold, S.P., and Waldmann, H. (1994). Isolation and expression of cDNA encoding the canine CD4 and CD8 alpha antigens. *Tissue Antigens* 43, 184-188.
314. Diamond, L.E., Oldham, E.R., Platt, J.L., Waldmann, H., Tone, M., Walsh, L.A., and Logan, J.S. (1994). Cell- and tissue-specific expression of a human CD59 minigene in transgenic mice. *Transplant Proc* 26, 1239.
315. Kooyman, D., Byrne, G., McClellan, S., Nielsen, D., Kagan, D., Coffman, T., Masahide, T., Waldmann, H., Platt, J., and Logan, J. (1994). Erythroid-specific expression of human CD59 and transfer to vascular endothelial cells. *Transplant Proc* 26, 1241.
316. Jacobs, P., Wood, L., Fullard, L., Waldmann, H., and Hale, G. (1994). T cell depletion by exposure to Campath-1G in vitro prevents graft-versus-host disease. *Bone Marrow Transplant* 13, 763-769.
317. Chen, Z., Cobbold, S.P., Waldmann, H., and Metcalfe, S.M. (1994). Tolerance induction in concordant heart-xenografted mice by CD4 and CD8 monoclonal antibodies. *Transplant Proc* 26, 1199-1200.
318. Moreau, T., Thorpe, J., Miller, D., Moseley, I., Hale, G., Waldmann, H., Clayton, D., Wing, M., Scolding, N., and Compston, A. (1994). Preliminary evidence from magnetic resonance imaging for reduction in disease activity after lymphocyte depletion in multiple sclerosis. *Lancet* 344, 298-301.
319. Isaacs, J.D., and Waldmann, H. (1994). Helplessness as a strategy for avoiding antiglobulin responses to therapeutic monoclonal antibodies. *Ther Immunol* 1, 303-312.
320. Abbs, I.C., Clark, M., Waldmann, H., Chatenoud, L., Koffman, C.G., and Sacks, S.H. (1994). Sparing of first dose effect of monovalent anti-CD3 antibody used in allograft rejection is associated with diminished release of pro-inflammatory cytokines. *Ther Immunol* 1, 325-331.
321. Davies, H.S., Cobbold, S.P., Watson, C.J., Metcalfe, S.M., Rebello, P.R., Thiru, S., McNair, R., Rasmussen, A., Waldmann, H., and Calne, R.Y. (1994). Production, selection, and testing of monoclonal antibodies to canine leukocytes in the dog kidney allograft model. *Transplant Proc* 26, 1941-1942.
322. Chen, Z., Cobbold, S., Waldmann, H., and Metcalfe, S. (1994). Combined use of RS61443 with CD4 and CD8 MAbs to generate tolerance to skin xenografts from rat to mouse. *Transplant Proc* 26, 2433-2434.
323. Brons, I.G., Davies, H.S., Makisalo, H., Rasmussen, A., Cobbold, S.P., Waldmann, H., and Calne, R.Y. (1994). Transplantation of immunomodulated dog islets. *Transplant Proc* 26, 754.

324. Marshall, S.E., and Waldmann, H. (1994). Monoclonal antibodies in therapeutic transplantation. In *New immunosuppressive modalities in anti-rejection approaches in organ transplantation*, K. Weginski, ed. (Reed Intelligence Unit).
325. Fuller, B.E., Giraldo, A.A., Waldmann, H., Cobbold, S.P., and Kong, Y.C. (1994). Depletion of CD4+ and CD8+ cells eliminates immunologic memory of thyroiditogenicity in murine experimental autoimmune thyroiditis. *Autoimmunity* 19, 161-168.
326. Watson, C.J., Cobbold, S.P., Davies, H.F., Rebello, P.R., Waldmann, H., Calne, R.Y., and Metcalfe, S.M. (1994). CD4 and CD8 monoclonal antibody therapy in canine renal allografts. *Transpl Int* 7 Suppl 1, S322-324.
327. Waldmann, H., and Cobbold, S. (1993). Monoclonal antibodies for the induction of transplantation tolerance. *Curr Opin Immunol* 5, 753-758.
328. Watson, C.J., Cobbold, S.P., Davies, H.S., Rebello, P.R., Waldmann, H., Calne, R.Y., and Metcalfe, S.M. (1993). CD4 and CD8 monoclonal antibody therapy: strategies to prolong renal allograft survival in the dog. *Br J Surg* 80, 1389-1392.
329. Parish, N.M., Hutchings, P.R., Waldmann, H., and Cooke, A. (1993). Tolerance to IDDM induced by CD4 antibodies in nonobese diabetic mice is reversed by cyclophosphamide. *Diabetes* 42, 1601-1605.
330. Greenwood, J., Clark, M., and Waldmann, H. (1993). Structural motifs involved in human IgG antibody effector functions. *Eur J Immunol* 23, 1098-1104.
331. Waldmann, H., Cobbold, S.P., Isaacs, J., Hale, G., Hazleman, B., Cooke, A., and Lockwood, M. (1993). Reprogramming the immune system: a possible therapeutic approach to established autoimmune disease. *Clin Exp Rheumatol* 11 Suppl 8, S137.
332. Watts, R.A., Isaacs, J.D., Hale, G., Hazleman, B.L., and Waldmann, H. (1993). CAMPATH-1H in inflammatory arthritis. *Clin Exp Rheumatol* 11 Suppl 8, S165-167.
333. Lockwood, C.M., Thiru, S., Isaacs, J.D., Hale, G., and Waldmann, H. (1993). Long-term remission of intractable systemic vasculitis with monoclonal antibody therapy. *Lancet* 341, 1620-1622.
334. Hayward, A.R., Shriber, M., Cooke, A., and Waldmann, H. (1993). Prevention of diabetes but not insulinitis in NOD mice injected with antibody to CD4. *J Autoimmun* 6, 301-310.
335. O'Neill, J.K., Baker, D., Davison, A.N., Allen, S.J., Butter, C., Waldmann, H., and Turk, J.L. (1993). Control of immune-mediated disease of the central nervous system with monoclonal (CD4-specific) antibodies. *J Neuroimmunol* 45, 1-14.
336. Waldmann, H., and Cobbold, S. (1993). The use of monoclonal antibodies to achieve immunological tolerance. *Immunol Today* 14, 247-251.
337. Lim, S.H., Hale, G., Marcus, R.E., Waldmann, H., and Baglin, T.P. (1993). CAMPATH-1 monoclonal antibody therapy in severe refractory autoimmune thrombocytopenic purpura. *Br J Haematol* 84, 542-544.
338. Qin, S., Cobbold, S.P., Pope, H., Elliott, J., Kioussis, D., Davies, J., and Waldmann, H. (1993). "Infectious" transplantation tolerance. *Science* 259, 974-977.
339. Bolt, S., Routledge, E., Lloyd, I., Chatenoud, L., Pope, H., Gorman, S.D., Clark, M., and Waldmann, H. (1993). The generation of a humanized, non-mitogenic CD3 monoclonal antibody which retains in vitro immunosuppressive properties. *Eur J Immunol* 23, 403-411.
340. Chen, Z., Cobbold, S., Waldmann, H., and Metcalfe, S. (1993). Stability of tolerance in mice generated by CD4 and CD8 monoclonal antibody treatment: cell transfer experiments. *Transplant Proc* 25, 790-791.
341. Watson, C.J., Davies, H.S., Metcalfe, S.M., Cobbold, S.P., Rebello, P.R., Collier, D.S., Waldmann, H., and Calne, R.Y. (1993). CD4 monoclonal antibodies in the preclinical dog renal allograft model. *Transplant Proc* 25, 804-806.
342. Sims, M.J., Hassal, D.G., Brett, S., Rowan, W., Lockyer, M.J., Angel, A., Lewis, A.P., Hale, G., Waldmann, H., and Crowe, J.S. (1993). A humanized CD18 antibody can block function without cell destruction. *J Immunol* 151, 2296-2308.

343. Xia, M.Q., Hale, G., Lively, M.R., Ferguson, M.A., Campbell, D., Packman, L., and Waldmann, H. (1993). Structure of the CAMPATH-1 antigen, a glycosylphosphatidylinositol-anchored glycoprotein which is an exceptionally good target for complement lysis. *Biochem J* 293 (Pt 3), 633-640.
344. Xia, M.Q., Hale, G., and Waldmann, H. (1993). Efficient complement-mediated lysis of cells containing the CAMPATH-1 (CDw52) antigen. *Mol Immunol* 30, 1089-1096.
345. Hutchings, P.R., Cooke, A., Dawe, K., Waldmann, H., and Roitt, I.M. (1993). Active suppression induced by anti-CD4. *Eur J Immunol* 23, 965-968.
346. Waldman, H., Qin, S., Leong, L., and Cobbold, S. (1993). Reprogramming the immune system. In *Application of Basic Science to Hematopoiesis and Treatment of Disease.*, T.D. ed., ed. (Raven Press).
347. Davies, J.D., and Waldmann, H. (1993). Monoclonal Antibodies in Transplantation. In *Immunology of Heart and Lung Transplantation*, Y.M. Rose M, ed. (Edward Arnold), pp. 93-116.
348. Arnold, R., Bunjes, D., Wiesneth, M., Hertenstein, B., Theobald, M., Heimpel, H., Hale, G., and Waldmann, H. (1993). In vitro and in vivo depletion of T cells. *Bone Marrow Transplant* 12 Suppl 3, S11-12.
349. Cullis, J.O., Szydlo, R.M., Cross, N.C., Marks, D.I., Schwarzer, A.P., Hughes, T.P., Mackinnon, S., Hale, G., Waldmann, H., Hows, J.M., et al. (1993). Matched unrelated donor bone marrow transplantation for chronic myeloid leukaemia in chronic phase: comparison of ex vivo and in vivo T-cell depletion. *Bone Marrow Transplant* 11 Suppl 1, 107-111.
350. Waldmann, H., Qin, S., and Cobbold, S.P. (1993). Monoclonal antibodies for the therapeutic induction of tolerance. *Immunol Ser* 59, 85-99.
351. Isaacs, J.D., Watts, R.A., Hazleman, B.L., Hale, G., Keogan, M.T., Cobbold, S.P., and Waldmann, H. (1992). Humanised monoclonal antibody therapy for rheumatoid arthritis. *Lancet* 340, 748-752.
352. Tone, M., Walsh, L.A., and Waldmann, H. (1992). Gene structure of human CD59 and demonstration that discrete mRNAs are generated by alternative polyadenylation. *J Mol Biol* 227, 971-976.
353. Cobbold, S.P., Qin, S., Leong, L.Y., Martin, G., and Waldmann, H. (1992). Reprogramming the immune system for peripheral tolerance with CD4 and CD8 monoclonal antibodies. *Immunol Rev* 129, 165-201.
354. Walsh, L.A., Tone, M., Thiru, S., and Waldmann, H. (1992). The CD59 antigen--a multifunctional molecule. *Tissue Antigens* 40, 213-220.
355. Leong, L.Y., Qin, S., Cobbold, S.P., and Waldmann, H. (1992). Classical transplantation tolerance in the adult: the interaction between myeloablation and immunosuppression. *Eur J Immunol* 22, 2825-2830.
356. Isaacs, J.D., Clark, M.R., Greenwood, J., and Waldmann, H. (1992). Therapy with monoclonal antibodies. An in vivo model for the assessment of therapeutic potential. *J Immunol* 148, 3062-3071.
357. Chen, Z., Cobbold, S., Metcalfe, S., and Waldmann, H. (1992). Tolerance in the mouse to major histocompatibility complex-mismatched heart allografts, and to rat heart xenografts, using monoclonal antibodies to CD4 and CD8. *Eur J Immunol* 22, 805-810.
358. Brons, I.G., Tavora, P.F., Cobbold, S.P., Davies, H.S., Waldmann, H., and Calne, R.Y. (1992). Synergistic monoclonal antibodies for in vitro immunomodulation of dog islets. *Transplant Proc* 24, 1032-1033.
359. Hutchings, P., O'Reilly, L., Parish, N.M., Waldmann, H., and Cooke, A. (1992). The use of a non-depleting anti-CD4 monoclonal antibody to re-establish tolerance to beta cells in NOD mice. *Eur J Immunol* 22, 1913-1918.
360. Waldmann, H., Cobbold, S.P., Wraith, D., and Isaacs, J. (1992). Therapeutic immunosuppression of T cells. *Curr Opin Biotechnol* 3, 668-674.

361. Waldmann, H., Qin, S., and Cobbold, S. (1992). Monoclonal antibodies as agents to reinduce tolerance in autoimmunity. *J Autoimmun* 5 Suppl A, 93-102.
362. Willemze, R., Richel, D.J., Falkenburg, J.H., Hale, G., Waldmann, H., Zwaan, F.E., and Fibbe, W.E. (1992). In vivo use of Campath-1G to prevent graft-versus-host disease and graft rejection after bone marrow transplantation. *Bone Marrow Transplant* 9, 255-261.
363. Brons, I., Champeney, R., Cobbold, S., Davies, H., Waldmann, H., and Calne, R. (1992). Immunomodulation of dog islets using a cocktail of monoclonal antibodies. *Transplant int Supplement* 1, S484-486.
364. Watts, R., Isaacs, J.D., G, H., Hazelman, B., and Waldmann, H. (1992). Treatment of refractory Wegener's granulomatosis with humanized monoclonal antibodies.
365. Wise, M., Benjamin, R., Qin, S., Cobbold, S., and Waldmann, H. (1992). Tolerance induction in the peripheral immune system. In *Molecular Mechanisms of Immunological Self-Recognition*, H. Vogel and F. Alt, eds. (Academic Press Inc.), pp. 149-155.
366. Waldmann, H., Qin, S., Leong, L.Y.W., and Cobbold, S. (1992). In vivo use of monoclonal antibodies for modulation of the immune response. *Forum trends in experimental and clinical medicine* 2, 250-261.
367. Waldmann, H. (1992). Selective depletion of alloreactive cells in transplantation. In *The HLA system in clinical transplantation*, Solheim, ed. (Springer Verlag), p. Chapter 22.
368. Nabozny, G.H., Cobbold, S.P., Waldmann, H., and Kong, Y.C. (1991). Suppression in murine experimental autoimmune thyroiditis: in vivo inhibition of CD4+ T cell-mediated resistance by a nondepleting rat CD4 monoclonal antibody. *Cell Immunol* 138, 185-196.
369. Meri, S., Waldmann, H., and Lachmann, P.J. (1991). Distribution of protectin (CD59), a complement membrane attack inhibitor, in normal human tissues. *Lab Invest* 65, 532-537.
370. Kyle, V., Roddy, J., Hale, G., Hazleman, B.L., and Waldmann, H. (1991). Humanized monoclonal antibody treatment in rheumatoid arthritis. *J Rheumatol* 18, 1737-1738.
371. Routledge, E.G., Lloyd, I., Gorman, S.D., Clark, M., and Waldmann, H. (1991). A humanized monovalent CD3 antibody which can activate homologous complement. *Eur J Immunol* 21, 2717-2725.
372. Gorman, S.D., Clark, M.R., Routledge, E.G., Cobbold, S.P., and Waldmann, H. (1991). Reshaping a therapeutic CD4 antibody. *Proc Natl Acad Sci U S A* 88, 4181-4185.
373. Walsh, L.A., Tone, M., and Waldmann, H. (1991). Transfection of human CD59 complementary DNA into rat cells confers resistance to human complement. *Eur J Immunol* 21, 847-850.
374. Watt, S.M., Sala-Newby, G., Hoang, T., Gilmore, D.J., Grunert, F., Nagel, G., Murdoch, S.J., Tchilian, E., Lennox, E.S., and Waldmann, H. (1991). CD66 identifies a neutrophil-specific epitope within the hematopoietic system that is expressed by members of the carcinoembryonic antigen family of adhesion molecules. *Blood* 78, 63-74.
375. Xia, M.Q., Tone, M., Packman, L., Hale, G., and Waldmann, H. (1991). Characterization of the CAMPATH-1 (CDw52) antigen: biochemical analysis and cDNA cloning reveal an unusually small peptide backbone. *Eur J Immunol* 21, 1677-1684.
376. Varey, A.M., Hutchings, P., O'Reilly, L., Hussell, T., Waldmann, H., Simpson, E., and Cooke, A. (1991). The development of insulin-dependent diabetes mellitus in non-obese diabetic mice: the role of CD4+ and CD8+ T cells. *Biochem Soc Trans* 19, 187-191.
377. Friend, P.J., Waldmann, H., Cobbold, S., Tighe, H., Rebello, P., Wight, D., Gore, S., Pollard, S., Lim, S., Johnston, P., et al. (1991). The anti-IL-2 receptor monoclonal antibody YTH-906 in liver transplantation. *Transplant Proc* 23, 1390-1392.
378. Friend, P.J., Waldmann, H., Hale, G., Cobbold, S., Rebello, P., Thiru, S., Jamieson, N.V., Johnston, P.S., and Calne, R.Y. (1991). Reversal of allograft rejection using the monoclonal antibody, Campath-1G. *Transplant Proc* 23, 2253-2254.
379. Cullis, J., Goldman, J.M., Hale, G., and Waldmann, H. (1991). Bone-marrow transplantation using unrelated donors for CML in chronic phase. *Experimental Haematology* 18, 540.

380. Waldmann, H., Cobbold, S., Qin, S., and Leong, L. (1991). Transplantation Tolerance with Monoclonal Antibodies. In *Monoclonal Antibody Therapy*, W. Burlingham, ed. (CRC Press), pp. 67-78.
381. Waldmann, H. (1991). Limiting Dilution Analysis. In *Encyclopedia of Immunology*. pp. 979-981.
382. Waldmann, H., and Cobbold, S.P. (1991). Is tolerance therapy a plausible possibility? *Br J Rheumatol* 30 Suppl 1, 75.
383. Meri, S., Morgan, B.P., Davies, A., Daniels, R.H., Olavesen, M.G., Waldmann, H., and Lachmann, P.J. (1990). Human protectin (CD59), an 18,000-20,000 MW complement lysis restricting factor, inhibits C5b-8 catalysed insertion of C9 into lipid bilayers. *Immunology* 71, 1-9.
384. Cobbold, S.P., Qin, S.X., and Waldmann, H. (1990). Reprogramming the immune system for tolerance with monoclonal antibodies. *Semin Immunol* 2, 377-387.
385. Hale, G., Xia, M.Q., Tighe, H.P., Dyer, M.J., and Waldmann, H. (1990). The CAMPATH-1 antigen (CDw52). *Tissue Antigens* 35, 118-127.
386. Mathieson, P.W., Cobbold, S.P., Hale, G., Clark, M.R., Oliveira, D.B., Lockwood, C.M., and Waldmann, H. (1990). Monoclonal-antibody therapy in systemic vasculitis. *N Engl J Med* 323, 250-254.
387. Bindon, C.I., Hale, G., and Waldmann, H. (1990). Complement activation by immunoglobulin does not depend solely on C1q binding. *Eur J Immunol* 20, 277-281.
388. Qin, S.X., Wise, M., Cobbold, S.P., Leong, L., Kong, Y.C., Parnes, J.R., and Waldmann, H. (1990). Induction of tolerance in peripheral T cells with monoclonal antibodies. *Eur J Immunol* 20, 2737-2745.
389. Cobbold, S.P., Martin, G., and Waldmann, H. (1990). The induction of skin graft tolerance in major histocompatibility complex-mismatched or primed recipients: primed T cells can be tolerized in the periphery with anti-CD4 and anti-CD8 antibodies. *Eur J Immunol* 20, 2747-2755.
390. Hutchings, P.R., Simpson, E., O'Reilly, L.A., Lund, T., Waldmann, H., and Cooke, A. (1990). The involvement of Ly2+ T cells in beta cell destruction. *J Autoimmun* 3 Suppl 1, 101-109.
391. Waldmann, H., Hale, G., Cobbold, S., Clark, M., Qin, S., Benjamin, R., and Dyer, M.J.S. (1990). Monoclonal antibody therapy for the prevention of Graft-vs-Host Disease. In *Haematology*, Volume 12, S.J. Burakoff, J. Deeg, Ferrara and A. K, eds. (Marcel Dekker Inc.), pp. 277-293.
392. Waldmann, H., Cobbold, S., Clark, M., Hale, G., Qin, S., and Wise, M. (1990). The Generation of Immunological Tolerance as a Therapeutic Procedure. In *Horizons in Medicine*, L.K. Borusiewicz, ed.
393. Waldmann, H. (1990). Therapeutic approaches to the induction of specific unresponsiveness. In *Seminars in Immunology*. (Saunders Scientific Publications).
394. Routledge, E., Lloyd, I., Gorman, S., and Waldmann, H. (1990). A monovalent humanized antibody bispecific for the human CD3 antigen complex. In *Bispecific antibodies and targeted cellular cytotoxicity*, J.L. Romet-Lemonne, M.W. Fanger and D.M. Segal, eds., pp. 157-164.
395. Mackinnon, S., Hows, J.M., Goldman, J.M., Arthur, C.K., Hughes, T., Apperley, J.F., Jones, L., Batchelor, J.R., Brookes, P., Catovsky, D., et al. (1990). Bone Marrow Transplantation for Chronic Myeloid Leukemia: The Use of Histocompatible Unrelated Volunteer Donors. *Experimental Haematology* 18, 421-425.
396. Dyer, M.J., Hale, G., Marcus, R., and Waldmann, H. (1990). Remission induction in Patients with Lymphoid Malignancies Using Unconjugated CAMPATH-1H Monoclonal Antibodies. In *Leukemia and Lymphoma* 2. pp. 179-193.
397. Clark, M., Bolt, S., Tunnacliffe, A., and Waldmann, H. (1990). Use of bispecific monoclonal antibodies to treat hematological malignancies: a model system using CD3 transgenic mice. In *Bispecific antibodies and targeted Cellular cytotoxicity*, J.L. Romet-lemonne, M.W. Fanger and D.M. Segal, eds.
398. Cobbold, S.P., Hale, G., Clark, M.R., and Waldmann, H. (1990). Purging in auto- and allografts: monoclonal antibodies which use human complement and other natural effector mechanisms. *Prog Clin Biol Res* 333, 139-151; discussion 152-134.

399. Weiss, L., Weigensberg, M., Morecki, S., Bar, S., Cobbold, S., Waldmann, H., and Slavin, S. (1990). Characterization of effector cells of graft vs leukemia following allogeneic bone marrow transplantation in mice inoculated with murine B-cell leukemia. *Cancer Immunol Immunother* 31, 236-242.
400. Davies, A., Simmons, D.L., Hale, G., Harrison, R.A., Tighe, H., Lachmann, P.J., and Waldmann, H. (1989). CD59, an LY-6-like protein expressed in human lymphoid cells, regulates the action of the complement membrane attack complex on homologous cells. *J Exp Med* 170, 637-654.
401. Bruggemann, M., Caskey, H.M., Teale, C., Waldmann, H., Williams, G.T., Surani, M.A., and Neuberger, M.S. (1989). A repertoire of monoclonal antibodies with human heavy chains from transgenic mice. *Proc Natl Acad Sci U S A* 86, 6709-6713.
402. Kong, Y.M., Waldmann, H., Cobbold, S., Giraldo, A.A., Fuller, B.E., and Simon, L.L. (1989). Pathogenic mechanisms in murine autoimmune thyroiditis: short- and long-term effects of in vivo depletion of CD4+ and CD8+ cells. *Clin Exp Immunol* 77, 428-433.
403. Flynn, J.C., Conaway, D.H., Cobbold, S., Waldmann, H., and Kong, Y.C. (1989). Depletion of L3T4+ and Lyt-2+ cells by rat monoclonal antibodies alters the development of adoptively transferred experimental autoimmune thyroiditis. *Cell Immunol* 122, 377-390.
404. Brewer, Y., Palmer, A., Taube, D., Welsh, K., Bewick, M., Bindon, C., Hale, G., Waldmann, H., Dische, F., Parsons, V., et al. (1989). Effect of graft perfusion with two CD45 monoclonal antibodies on incidence of kidney allograft rejection. *Lancet* 2, 935-937.
405. Bruggemann, M., Teale, C., Clark, M., Bindon, C., and Waldmann, H. (1989). A matched set of rat/mouse chimeric antibodies. Identification and biological properties of rat H chain constant regions mu, gamma 1, gamma 2a, gamma 2b, gamma 2c, epsilon, and alpha. *J Immunol* 142, 3145-3150.
406. Dyer, M.J., Hale, G., Hayhoe, F.G., and Waldmann, H. (1989). Effects of CAMPATH-1 antibodies in vivo in patients with lymphoid malignancies: influence of antibody isotype. *Blood* 73, 1431-1439.
407. Kyle, V., Coughlan, R.J., Tighe, H., Waldmann, H., and Hazleman, B.L. (1989). Beneficial effect of monoclonal antibody to interleukin 2 receptor on activated T cells in rheumatoid arthritis. *Ann Rheum Dis* 48, 428-429.
408. Qin, S.X., Cobbold, S., Benjamin, R., and Waldmann, H. (1989). Induction of classical transplantation tolerance in the adult. *J Exp Med* 169, 779-794.
409. Liew, F.Y., Millott, S., Lechuk, R., Cobbold, S., and Waldmann, H. (1989). Effect of CD4 monoclonal antibody in vivo on lesion development, delayed-type hypersensitivity and interleukin 3 production in experimental murine cutaneous leishmaniasis. *Clin Exp Immunol* 75, 438-443.
410. Frame, J.N., Collins, N.H., Cartagena, T., Waldmann, H., O'Reilly, R.J., Dupont, B., and Kernan, N.A. (1989). T cell depletion of human bone marrow. Comparison of Campath-1 plus complement, anti-T cell ricin A chain immunotoxin, and soybean agglutinin alone or in combination with sheep erythrocytes or immunomagnetic beads. *Transplantation* 47, 984-988.
411. Zamoyska, R., Waldmann, H., and Matzinger, P. (1989). Peripheral tolerance mechanisms prevent the development of autoreactive T cells in chimeras grafted with two minor incompatible thymuses. *Eur J Immunol* 19, 111-117.
412. Clark, M., Bindon, C., Dyer, M., Friend, P., Hale, G., Cobbold, S., Calne, R., and Waldmann, H. (1989). The improved lytic function and in vivo efficacy of monovalent monoclonal CD3 antibodies. *Eur J Immunol* 19, 381-388.
413. Bruggemann, M., Winter, G., Waldmann, H., and Neuberger, M.S. (1989). The immunogenicity of chimeric antibodies. *J Exp Med* 170, 2153-2157.
414. Vignali, D.A., Crocker, P., Bickle, Q.D., Cobbold, S., Waldmann, H., and Taylor, M.G. (1989). A role for CD4+ but not CD8+ T cells in immunity to *Schistosoma mansoni* induced by 20 krad-irradiated and Ro 11-3128-terminated infections. *Immunology* 67, 466-472.

415. Friend, P.J., Hale, G., Waldmann, H., Gore, S., Thiru, S., Joysey, V., Evans, D.B., and Calne, R.Y. (1989). Campath-1M--prophylactic use after kidney transplantation. A randomized controlled clinical trial. *Transplantation* 48, 248-253.
416. Kong, Y.M., Giraldo, A.A., Waldmann, H., Cobbold, S.P., and Fuller, B.E. (1989). Resistance to experimental autoimmune thyroiditis: L3T4+ cells as mediators of both thyroglobulin-activated and TSH-induced suppression. *Clin Immunol Immunopathol* 51, 38-54.
417. Waldman, H. (1989). Prospects for Tolerance Therapy with Anti-T-Cell Monoclonal Antibodies. In *Immunotherapy of Type 1 Diabetes*. (John Wiley & sons Ltd), pp. 29-34.
418. Hale, G., Xia, M., and Waldmann, H. (1989). Purification and preliminary characterisation of the CAMPATH-1H antigen. *Tissue Antigens* 33, 290.
419. Cobbold, S., Barel, D., and Waldmann, H. (1989). Manipulating the immune system with monoclonal antibodies: mouse model for immunotherapy. In *T Cells*, M. Feldmann, ed. (John Wiley).
420. Waldmann, H. (1989). Manipulation of T-cell responses with monoclonal antibodies. *Annu Rev Immunol* 7, 407-444.
421. Waldmann, H., Cobbold, S.P., Qin, S., Benjamin, R.J., and Wise, M. (1989). Tolerance induction in the adult using monoclonal antibodies to CD4, CD8, and CD11a (LFA-1). *Cold Spring Harb Symp Quant Biol* 54 Pt 2, 885-892.
422. Williams, R.O., Whyte, A., and Waldmann, H. (1989). Resistance to collagen-induced arthritis in DBA/1 mice by intraperitoneal administration of soluble type II collagen involves both CD4+ and CD8+ T lymphocytes. *Autoimmunity* 4, 237-245.
423. Day, M.J., Elson, C.J., Cobbold, S.P., and Waldmann, H. (1989). Adoptive suppression of erythrocyte autoantibodies in Lyt-2+ depleted recipients. *Autoimmunity* 3, 39-45.
424. Bindon, C.I., Hale, G., and Waldmann, H. (1988). Importance of antigen specificity for complement-mediated lysis by monoclonal antibodies. *Eur J Immunol* 18, 1507-1514.
425. Gilliland, L.K., Clark, M.R., and Waldmann, H. (1988). Universal bispecific antibody for targeting tumor cells for destruction by cytotoxic T cells. *Proc Natl Acad Sci U S A* 85, 7719-7723.
426. Hale, G., Waldmann, H., and Dyer, M. (1988). Specificity of monoclonal antibody Campath-1. *Bone Marrow Transplant* 3, 237-239.
427. Riechmann, L., Clark, M., Waldmann, H., and Winter, G. (1988). Reshaping human antibodies for therapy. *Nature* 332, 323-327.
428. Bindon, C.I., Hale, G., Bruggemann, M., and Waldmann, H. (1988). Human monoclonal IgG isotypes differ in complement activating function at the level of C4 as well as C1q. *J Exp Med* 168, 127-142.
429. Benjamin, R.J., Qin, S.X., Wise, M.P., Cobbold, S.P., and Waldmann, H. (1988). Mechanisms of monoclonal antibody-facilitated tolerance induction: a possible role for the CD4 (L3T4) and CD11a (LFA-1) molecules in self-non-self discrimination. *Eur J Immunol* 18, 1079-1088.
430. Tighe, H., Friend, P.J., Collier, S.J., Decurtins, M., Lim, S., Cobbold, S.P., Thiru, S., Calne, R.Y., and Waldmann, H. (1988). Delayed allograft rejection in primates treated with anti-IL-2 receptor monoclonal antibody Campath-6. *Transplantation* 45, 226-228.
431. Friend, P.J., Tighe, H., Waldmann, H., Lim, S., Collier, D.S.J., Campbell, D., Thiru, S.W.H., and Calne, R. (1988). Monoclonal-antibodies that recognize activated human-lymphocytes - experimental and clinical studies. *Transplant Proc* 20, 265-266.
432. Bruggemann, M., Delmastro-Galfre, P., Waldmann, H., and Calabi, F. (1988). Sequence of a rat immunoglobulin gamma 2c heavy chain constant region cDNA: extensive homology to mouse gamma 3. *Eur J Immunol* 18, 317-319.
433. Hayward, A.R., Cobbold, S.P., Waldmann, H., Cooke, A., and Simpson, E. (1988). Delay in onset of insulinitis in NOD mice following a single injection of CD 4 and CD 8 antibodies. *J Autoimmun* 1, 91-96.
434. Waldmann, H. (1988). Monoclonal antibodies for organ transplantation: prospects for the future. *Am J Kidney Dis* 11, 154-158.

435. Gerritsen, W.R., Wagemaker, G., Jonker, M., Kenter, M.J., Wielenga, J.J., Hale, G., Waldmann, H., and van Bekkum, D.W. (1988). The repopulation capacity of bone marrow grafts following pretreatment with monoclonal antibodies against T lymphocytes in rhesus monkeys. *Transplantation* 45, 301-307.
436. Hale, G., Dyer, M.J., Clark, M.R., Phillips, J.M., Marcus, R., Riechmann, L., Winter, G., and Waldmann, H. (1988). Remission induction in non-Hodgkin lymphoma with reshaped human monoclonal antibody CAMPATH-1H. *Lancet* 2, 1394-1399.
437. Waldmann, H. (1988). Immunosuppression with monoclonal antibodies: some speculations about tolerance in the context of tissue grafting. *Transplant Proc* 20, 46-52.
438. Hale, G., Cobbold, S., and Waldmann, H. (1988). T cell depletion with CAMPATH-1 in allogeneic bone marrow transplantation. *Transplantation* 45, 753-759.
439. Waldmann, H. (1988). Immunosuppression with monoclonal antibodies - some speculations about tolerance in the context of tissue grafting. *Transplant Proc* 20, 46-52.
440. Mackinnon, S., Apperley, J.F., Arthur, C.K., Jones, L., Hows, J.M., Hale, G., Waldmann, H., and Goldman, J.M. (1988). Bone-Marrow Transplantation for chronic phase CML - The role of T-cell depletion. *Bone Marrow Transplant* 3, 150-151.
441. Friend, P.J., G, H., Waldman, H., Evans, D., Rolles, K., Thiru, S., Gore, S., and Calne, R. (1988). Campath-1 for prevention of graft-versus-host disease and graft rejection - summary of results from a multi-centre study. *European Surg Res* 20, 93-94.
442. Hale, G., and Waldmann, H. (1988). Campath-1 for prevention of graft-versus-host disease and graft rejection - summary of results from a multi-centre study. *Bone Marrow Transplant* 3, 11-14.
443. Waldmann, H., Cobbold, S., Benjamin, R., and Qin, S. (1988). A Theoretical Framework for Self-tolerance and its Relevance to Therapy for Auto-immune Disease. *Journal of Autoimmunology* 1, 623-629.
444. Waldmann, H., Hale, G., Clark, M., Cobbold, S., Benjamin, R., Friend, P., Bindon, C., Dyer, M., Qin, S.X., Bruggemann, M., et al. (1988). Monoclonal antibodies for immunosuppression. *Prog Allergy* 45, 16-30.
445. Clark, M., Gilliland, L., and Waldmann, H. (1988). Hybrid antibodies for therapy. *Prog Allergy* 45, 31-49.
446. Clark, M., Gilliland, L., and Waldmann, H. (1988). The potential of hybrid antibodies secreted by hybrid-hybridomas in tumour therapy. *Int J Cancer Suppl* 2, 15-17.
447. Slavin, S., Or, R., Cividalli, G., Brautbar, C., Hale, G., Waldmann, H., and Rachmilewitz, E. (1988). Bone marrow transplantation in beta-thalassemia major with prevention of graft-vs-host disease. *Birth Defects Orig Artic Ser* 23, 313-316.
448. Lightman, S., Cobbold, S., Waldmann, H., and Askonas, B.A. (1987). Do L3T4+ T cells act as effector cells in protection against influenza virus infection. *Immunology* 62, 139-144.
449. Muller, I., Cobbold, S.P., Waldmann, H., and Kaufmann, S.H. (1987). Impaired resistance to Mycobacterium tuberculosis infection after selective in vivo depletion of L3T4+ and Lyt-2+ T cells. *Infect Immun* 55, 2037-2041.
450. Hale, G., Cobbold, S.P., Waldmann, H., Easter, G., Matejtschuk, P., and Coombs, R.R. (1987). Isolation of low-frequency class-switch variants from rat hybrid myelomas. *J Immunol Methods* 103, 59-67.
451. Friend, P.J., Tighe, H., Lim, S., Collier, D.S., Decurtins, M., Gilliland, L.K., Thiru, S., Calne, R., and Waldmann, H. (1987). The use of monoclonal antibodies against activated human T cells following renal allografting in the baboon. *Transplant Proc* 19, 4317-4318.
452. Bruggemann, M., Williams, G.T., Bindon, C.I., Clark, M.R., Walker, M.R., Jefferis, R., Waldmann, H., and Neuberger, M.S. (1987). Comparison of the effector functions of human immunoglobulins using a matched set of chimeric antibodies. *J Exp Med* 166, 1351-1361.
453. Nash, A.A., Jayasuriya, A., Phelan, J., Cobbold, S.P., Waldmann, H., and Prospero, T. (1987). Different roles for L3T4+ and Lyt 2+ T cell subsets in the control of an acute herpes simplex virus infection of the skin and nervous system. *J Gen Virol* 68 (Pt 3), 825-833.

454. Bindon, C.I., Hale, G., Hughes-Jones, N., Gorick, B., and Waldmann, H. (1987). Synergistic complement lysis by monoclonal antibodies to the human leukocyte common antigen requires both the classical and alternative pathways. *Mol Immunol* 24, 587-594.
455. Moskophidis, D., Cobbold, S.P., Waldmann, H., and Lehmann-Grube, F. (1987). Mechanism of recovery from acute virus infection: treatment of lymphocytic choriomeningitis virus-infected mice with monoclonal antibodies reveals that Lyt-2+ T lymphocytes mediate clearance of virus and regulate the antiviral antibody response. *J Virol* 61, 1867-1874.
456. Waldmann, H., Cobbold, S., and Hale, G. (1987). Leukaemic relapse after Campath 1-treated bone-marrow transplantation for leukaemia. *Lancet* 1, 44.
457. Friend, P.J., Calne, R.Y., Hale, G., Waldmann, H., Evans, D.B., Rolles, K., Thiru, S., and Gore, S. (1987). Prophylactic use of an antilymphocyte monoclonal antibody following renal transplantation: a randomized controlled trial. *Transplant Proc* 19, 1898-1900.
458. Tighe, H., Clark, M., and Waldmann, H. (1987). Blocking of cytotoxic T cell function by monoclonal antibodies against the CD45 antigen (T200/leukocyte-common antigen). *Transplantation* 44, 818-823.
459. Kantwerk, G., Cobbold, S., Waldmann, H., and Kolb, H. (1987). L3T4 and Lyt-2 T cells are both involved in the generation of low-dose streptozotocin-induced diabetes in mice. *Clin Exp Immunol* 70, 585-592.
460. Clark, M.R., and Waldmann, H. (1987). T-cell killing of target cells induced by hybrid antibodies: comparison of two bispecific monoclonal antibodies. *J Natl Cancer Inst* 79, 1393-1401.
461. Watt, S.M., Gilmore, D.J., Davis, J.M., Clark, M.R., and Waldmann, H. (1987). Cell-surface markers on haemopoietic precursors. Reagents for the isolation and analysis of progenitor cell subpopulations. *Mol Cell Probes* 1, 297-326.
462. Qin, S., Cobbold, S., Tighe, H., Benjamin, R., and Waldmann, H. (1987). CD4 monoclonal antibody pairs for immunosuppression and tolerance induction. *Eur J Immunol* 17, 1159-1165.
463. Aqel, N.M., Clark, M., Jones, D.B., Arno, J., and Waldmann, H. (1987). Identification of cells of the human mononuclear phagocyte system with rat monoclonal antibodies. *J Pathol* 152, 265-273.
464. Leist, T.P., Cobbold, S.P., Waldmann, H., Aguet, M., and Zinkernagel, R.M. (1987). Functional analysis of T lymphocyte subsets in antiviral host defense. *J Immunol* 138, 2278-2281.
465. Slavin, S., Or, R., Naperstek, E., Weiss, L., Mumcuoglu, M., Weshler, Z., Brautbar, H., Cividalli, G., M, G., Hale, G., et al. (1987). Allogeneic Bone-Marrow Transplantation without graft-v-host disease - True tolerance of graft against the host through depletion of donor lymphocytes-T pregrafting in malignant and nonmalignant disorders. *Transplant Proc* 19, 1898-1900.
466. Waldmann, H., Cobbold, S., Qin, S., R, B., Nash, T., Welsh, J., and Tarnesby, G. (1987). Monoclonal antibodies for the depletion of specific subpopulations of lymphocytes. *Ciba F Symp* 129, 172-183.
467. Waldmann, H., Cobbold, S., and Lefkovits, I. (1987). *Limiting Dilution Analysis.*, G.G.B. Klaus, ed. (IRL Press).
468. Waldmann, H., Hale, G., and Cobbold, S. (1987). The immunobiology of bone marrow transplantation. In *Leucocyte Typing III.* (Oxford University Press), p. 932.
469. Hale, G., Buckie, C., Lovat, P., Prospero, T., and Waldmann, H. (1987). Epitope mapping of the human leukocyte common antigen by competitive binding and synergistic lysis., A. McMichael, ed. (Oxford University Press).
470. Cobbold, S., Hale, G., and Waldmann, H. (1987). None-lineage LFA-1 family, and leucocyte common antigens: new and previously defined clusters. In *Leucocyte Typing III*, A. McMichael, ed. (Oxford University Press), p. 780.
471. Waldmann, H., Cobbold, S., Qin, S., Benjamin, R., Nash, T., Welsh, J., and Tarnesby, G. (1987). Monoclonal antibodies for the depletion of specific subpopulations of lymphocytes. *Ciba Found Symp* 129, 194-208.

472. Wilson, A.B., Harris, J.M., Waldmann, H., and Coombs, R.R. (1986). Direct antibody rosette-forming reactions using monoclonal markers of lymphocyte subpopulations. Methodology and applications illustrated by investigations with rat pan-T antibodies of the CAMPATH series. *J Immunol Methods* 92, 241-249.
473. Cobbold, S.P., Martin, G., Qin, S., and Waldmann, H. (1986). Monoclonal antibodies to promote marrow engraftment and tissue graft tolerance. *Nature* 323, 164-166.
474. Cobbold, S., Martin, G., and Waldmann, H. (1986). Monoclonal antibodies for the prevention of graft-versus-host disease and marrow graft rejection. The depletion of T cell subsets in vitro and in vivo. *Transplantation* 42, 239-247.
475. Hale, G., Waldmann, H., Friend, P., and Calne, R. (1986). Pilot study of CAMPATH-1, a rat monoclonal antibody that fixes human complement, as an immunosuppressant in organ transplantation. *Transplantation* 42, 308-311.
476. Waldmann, H., and Cobbold, S.P. (1986). Monoclonals and marrow transplants. *Nature* 323, 586.
477. Heit, W., Bunjes, D., Wiesneth, M., Schmeiser, T., Arnold, R., Hale, G., Waldmann, H., and Heimpel, H. (1986). Ex vivo T-cell depletion with the monoclonal antibody Campath-1 plus human complement effectively prevents acute graft-versus-host disease in allogeneic bone marrow transplantation. *Br J Haematol* 64, 479-486.
478. Cobbold, S., and Waldmann, H. (1986). Skin allograft rejection by L3/T4+ and Lyt-2+ T cell subsets. *Transplantation* 41, 634-639.
479. Apperley, J.F., Jones, L., Hale, G., Waldmann, H., Hows, J., Rombos, Y., Tsatalas, C., Marcus, R.E., Goolden, A.W., Gordon-Smith, E.C., et al. (1986). Bone marrow transplantation for patients with chronic myeloid leukaemia: T-cell depletion with Campath-1 reduces the incidence of graft-versus-host disease but may increase the risk of leukaemic relapse. *Bone Marrow Transplant* 1, 53-66.
480. Morgan, G., Linch, D.C., Knott, L.T., Davies, E.G., Sieff, C., Chessells, J.M., Hale, G., Waldmann, H., and Levinsky, R.J. (1986). Successful haploidentical mismatched bone marrow transplantation in severe combined immunodeficiency: T cell removal using CAMPATH-I monoclonal antibody and E-rosetting. *Br J Haematol* 62, 421-430.
481. Benjamin, R.J., Cobbold, S.P., Clark, M.R., and Waldmann, H. (1986). Tolerance to rat monoclonal antibodies. Implications for serotherapy. *J Exp Med* 163, 1539-1552.
482. Goldman, J.M., Apperley, J.F., Jones, L., Marcus, R., Goolden, A.W., Batchelor, R., Hale, G., Waldmann, H., Reid, C.D., Hows, J., et al. (1986). Bone marrow transplantation for patients with chronic myeloid leukemia. *N Engl J Med* 314, 202-207.
483. Bruggemann, M., Free, J., Diamond, A., Howard, J., Cobbold, S., and Waldmann, H. (1986). Immunoglobulin heavy chain locus of the rat: striking homology to mouse antibody genes. *Proc Natl Acad Sci U S A* 83, 6075-6079.
484. Benjamin, R.J., and Waldmann, H. (1986). Induction of tolerance by monoclonal antibody therapy. *Nature* 320, 449-451.
485. Waldmann, H., and Cobbold, S. (1986). Bone Marrow Transplantation in Malignant disease. In *Monoclonal antibodies and bone marrow transplantation*, J.C. Edwards and A. Nethersall, eds. (Wellcome), pp. 29-36.
486. Slavin, S., Or, R., Weshler, Z., Hale, G., and Waldmann, H. (1986). The use of total lymphoid irradiation for abrogation of host resistance to T-cell depleted bone marrow allografts. *Bone Marrow Transplantation, Supplement* 1, 98.
487. Slavin, S., Hale, G., and Waldmann, H. (1986). New approaches for the prevention of rejection and graft-versus-host disease in clinical bone marrow transplantation. *Journal of Medical Sciences* 22, 264-267.
488. Slavin, S., Naparstek, E., Cividalli, G., Weshler, Z., Weiss, L., Mumchoglu, M., Brautbar, C., Schlensinger, M.H., G., Waldmann, H., and Or, R. (1986). The use of CAMPATH-1H for

- prevention of graft-vs-host disease and total lymphoid irradiation for abrogation of host resistance to T-cell depleted allografts. In UCLA Symposia.
489. Or, R., Cividalli, G., Brautbar, C., Weiss, L., Weschler, Z., Samuel, S., Hale, G., and Waldmann, H. (1986). Bone marrow transplantation in beta-thalassemia major (TM) using T-cell depleted HLA-identical bone marrow allografts. *Bone Marrow Transplantation*, Supplement, 337.
 490. Muller, S., Cobbold, S., Waldmann, H., and Kaufmann, S.H.E. (1986). Role of T lymphocytes in protection against mycobacterium tuberculosis. *Immunobiology* 173, 415.
 491. Hale, G., Edwards, J.C., and Waldmann, H. (1986). Prevention of graft-versus-host disease by T cell depletion with CAMPATH 1H. Overview of results using antibody produced in Cambridge. In *Bone Marrow Transplantation in Malignant Disease.*, C. Edward and A. Nethersall, eds. (Wellcome Trust).
 492. Hale, G., and Waldmann, H. (1986). Depletion of T cells with CAMPATH-1H and Human Complement. Analysis of GVHD and Graft Failure in a Multicentre study. *Bone Marrow Transplantation*, Supplement 1, 93.
 493. Clark, M., and Waldmann, H. (1986). Production of murine monoclonal antibodies. In *Methods in Haematology*, Volume 13, P. Beverley, ed. (Churchill Livingstone), pp. 1-20.
 494. Thierfelder, S., Cobbold, S., Kummer, U., Waldmann, H., and Schuh, R. (1985). Antilymphocytic antibodies and marrow transplantation. VII. Two of nine monoclonal anti-Thy-1 antibodies used for pretreatment of donor marrow suppressed graft-versus-host reactions without added complement. *Exp Hematol* 13, 948-955.
 495. Bindon, C.I., Hale, G., Clark, M., and Waldmann, H. (1985). Therapeutic potential of monoclonal antibodies to the leukocyte-common antigen. Synergy and interference in complement-mediated lysis. *Transplantation* 40, 538-544.
 496. Hale, G., Swirsky, D., Waldmann, H., and Chan, L.C. (1985). Reactivity of rat monoclonal antibody CAMPATH-1 with human leukaemia cells and its possible application for autologous bone marrow transplantation. *Br J Haematol* 60, 41-48.
 497. Hale, G., Clark, M., and Waldmann, H. (1985). Therapeutic potential of rat monoclonal antibodies: isotype specificity of antibody-dependent cell-mediated cytotoxicity with human lymphocytes. *J Immunol* 134, 3056-3061.
 498. Aqel, N.M., Ball, R.Y., Waldmann, H., and Mitchinson, M.J. (1985). Identification of macrophages and smooth muscle cells in human atherosclerosis using monoclonal antibodies. *J Pathol* 146, 197-204.
 499. Waldman, H., G. H., Cobbold, S., Clark, M., Tighe, H., and Bindon, C. (1985). Rat Monoclonal Antibodies for Bone-Marrow Transplantation (BMT) - The Campath Series. *Experimental Haematology* 13, 431.
 500. Slavin, S., Or, R., Weiss, L., D, S., G, C., Brautbar, C., Z, W., D, G., S, S., D, G., et al. (1985). Elimination of graft-versus-host disease by invitro depletion of alloreactive lymphocytes with a monoclonal rat anti-human lymphocyte antibody (Campath-1). *Adv Exp Med Biol* 186, 813-818.
 501. Slavin, S., Waldmann, H., Or, R., and al, e. (1985). Prevention of Graft-versus-Host Disease in Allogeneic Bone Marrow transplantation for Leukaemia by T cell Depletion in vitro, Prior to Transplantation. *Transplantation Proceedings* 17, 465-467.
 502. Hale, G., and Waldmann, H. (1985). Human Complement Fixing Antibodies in Transplantation, in *Hybridoma technology in the biosciences and medicine*. Springer T. ed. (Plenum Press).
 503. Bindon, C., Hale, G., and Waldmann, H. (1985). Therapeutic potential of monoclonal antibodies to the leucocyte common antigen. *Adv Exp Med Biol* 186, 805-812.
 504. Cobbold, S.P., Martin, G., Lovat, P.E., and Waldmann, H. (1985). Immunosuppression with monoclonal antibodies--rules for effective serotherapy. *Adv Exp Med Biol* 186, 789-795.
 505. Waldmann, H., Cobbold, S., Wilson, A., Clark, M., Watt, S., Hale, G., and Tighe, H. (1985). Rat monoclonal antibodies for bone marrow transplantation--the CAMPATH series. *Adv Exp Med Biol* 186, 869-875.

506. Clark, M., Hale, G., and Waldmann, H. (1985). Interaction of rat monoclonal antibodies with human killer cells. *Adv Exp Med Biol* 186, 797-803.
507. Waldmann, H., Polliak, A., Hale, G., Or, R., Cividalli, G., Weiss, L., Weshler, Z., Samuel, S., Manor, D., Brautbar, C., et al. (1984). Elimination of graft-versus-host disease by in-vitro depletion of alloreactive lymphocytes with a monoclonal rat anti-human lymphocyte antibody (CAMPATH-1). *Lancet* 2, 483-486.
508. Watt, S.M., Gilmore, D.J., Clark, M.R., Davis, J.M., Swirsky, D.M., and Waldmann, H. (1984). Haemopoietic progenitor cell heterogeneity revealed by a single monoclonal antibody, YW 13.1.1. *Mol Biol Med* 2, 351-368.
509. Cobbold, S.P., and Waldmann, H. (1984). Therapeutic potential of monovalent monoclonal antibodies. *Nature* 308, 460-462.
510. Zamoyska, R., and Waldmann, H. (1984). Allosuppression: evidence for the involvement of both "noncytotoxic" and cytotoxic T cells. *Eur J Immunol* 14, 645-651.
511. Clark, M.R., Cobbold, S.P., Waldmann, H., and Coombs, R.R. (1984). Detection of monoclonal antibodies against cell surface antigens: the use of antiglobulins coupled to red blood cells. *J Immunol Methods* 66, 81-87.
512. Sullivan, C.P., Kenny, G., and Waldmann, H. (1984). The role of the major histocompatibility complex in in vitro antibody responses; MHC restriction in responses involving linked recognition of antigenic determinants is not solely consequent to T cell-accessory cell restrictions. *Immunology* 51, 351-360.
513. Sullivan, C.P., and Waldmann, H. (1984). T cell help mechanisms in the in vitro antibody response: the role of linked and non-linked recognition interactions. *Immunology* 51, 343-350.
514. Cobbold, S.P., Jayasuriya, A., Nash, A., Prospero, T.D., and Waldmann, H. (1984). Therapy with monoclonal antibodies by elimination of T-cell subsets in vivo. *Nature* 312, 548-551.
515. Aqel, N.M., Ball, R.Y., Waldmann, H., and Mitchinson, M.J. (1984). Monocytic origin of foam cells in human atherosclerotic plaques. *Atherosclerosis* 53, 265-271.
516. Aqel, N.M., Clark, M., Cobbold, S.P., and Waldmann, H. (1984). Immunohistological screening in the selection of monoclonal antibodies: the use of isotype-specific antiglobulins. *J Immunol Methods* 69, 207-214.
517. Matzinger, P., Zamoyska, R., and Waldmann, H. (1984). Self tolerance is H-2-restricted. *Nature* 308, 738-741.
518. Hale, G., Clark, M., and Waldman, H. (1984). Interaction of rat monoclonal-antibodies with human killer cells (K-cells). *Biochem Soc T* 12, 877-878.
519. Waldmann, H., and Lefkovits, I. (1984). Limiting dilution analysis of cells of the immune system II: What can be learnt? *Immunology Today* 5, 295-298.
520. Slavin, S., Or, R., and Waldmann, H. (1984). Elimination of graft-versus-host disease in matched allogeneic leukaemic transplant recipients using CAMPATH-1H. In 8th International Conference on Lymphatic Tissues and Germinal Centres., G.G. Kralus, ed. (Plenum).
521. Levinsky, R.J., Morgan, D., Davies, E.G., and Waldmann, H. (1984). Mismatched bone marrow transplantation for severe combined immunodeficiency - The Great Ormond Street experience. C. BGriscelli and J. Vossen, eds. (Excerpta Medica), pp. 393-399.
522. Lefkovits, I., and Waldmann, H. (1984). Limiting dilution analysis of the cells of the immune system., Volume 5.
523. Cobbold, S.P., Thierfelder, S., and Waldmann, H. (1983). Immunosuppression with monoclonal antibodies. A model to determine the rules for effective serotherapy. *Mol Biol Med* 1, 285-304.
524. Hale, G., Bright, S., Chumbley, G., Hoang, T., Metcalf, D., Munro, A.J., and Waldmann, H. (1983). Removal of T cells from bone marrow for transplantation: a monoclonal antilymphocyte antibody that fixes human complement. *Blood* 62, 873-882.
525. Hale, G., Hoang, T., Prospero, T., Watt, S.M., and Waldmann, H. (1983). Removal of T cells from bone marrow for transplantation. Comparison of rat monoclonal anti-lymphocyte antibodies of different isotypes. *Mol Biol Med* 1, 305-319.

526. Hale, G., Swirsky, D.M., Hayhoe, F.G., and Waldmann, H. (1983). Effects of monoclonal anti-lymphocyte antibodies in vivo in monkeys and humans. *Mol Biol Med* 1, 321-334.
527. Hoang, T., Gilmore, D., Metcalf, D., Cobbold, S., Watt, S., Clark, M., Furth, M., and Waldmann, H. (1983). Separation of hemopoietic cells from adult mouse marrow by use of monoclonal antibodies. *Blood* 61, 580-588.
528. Swirsky, D.M., Watt, S.M., Gilmore, D.J., Hayhoe, F.G., and Waldmann, H. (1983). The characterisation of monoclonal antibodies against haemopoietic cells: comparison of an immunoperoxidase method with fluorescence activated cell sorting. *J Immunol Methods* 61, 171-182.
529. Watt, S.M., Metcalf, D., Gilmore, D.J., Stenning, G.M., Clark, M.R., and Waldmann, H. (1983). Selective isolation of murine erythropoietin-responsive progenitor cells (CFU-E) with monoclonal antibodies. *Mol Biol Med* 1, 95-115.
530. Watt, S.M., Gilmore, D.J., Metcalf, D., Cobbold, S.P., Hoang, T.K., and Waldmann, H. (1983). Segregation of mouse hemopoietic progenitor cells using the monoclonal antibody, YBM/42. *J Cell Physiol* 115, 37-45.
531. Clark, M., Cobbold, S., G, H., and Waldman, H. (1983). Advantages of rat monoclonal antibodies. *Immunology Today* 4, 100-101.
532. Downie, D.M., Voak, D., Jarvis, J., Waldmann, H., and Spitz, M. (1983). The use of monoclonal antibodies in human Ig blood transfusion serology. *Bio. Bull.* 4, 348-352.
533. Zamoyska, R., Waldmann, H., Prospero, T., and lennox, E. (1983). Identification of Phenotypically Distinct Subpopulations of Cytotoxic T Lymphocytes. *Mol. Biol.Med.* 1, 137-150.
534. Waldmann, H., and Milstein, C. (1982). Monoclonal antibodies 1. In *Clinical Aspects of Immunology*, P.S. Lachmann and K. Peters, eds. (Blackwell).
535. Waldmann, H., Munro, A.J., and Maurer, P. (1982). The Thymus and its Influence on the Expression of Immune Response Genes., Volume 70. (Behring Institute, Mitteilungen), pp. 167-172.
536. McConnell, I., Munro, A.J., and Waldmann, H. (1981). The Immune System. In *A textbook of immunology*. (Blackwell).
537. Cobbold, S.P., and Waldmann, H. (1981). A rapid solid-phase enzyme-linked binding assay for screening monoclonal antibodies to cell surface antigens. *J Immunol Methods* 44, 125-133.
538. Waldmann, H., and Phillips, J. (1980). How many T cells help one B cell? *Springer Semin Immunopathol* 3, 129-144.
539. Takei, F., Waldmann, H., Lennox, E.S., and Milstein, C. (1980). Monoclonal antibody H9/25 reacts with functional subsets of T and B cells: killer, killer precursor and plaque-forming cells. *Eur J Immunol* 10, 503-509.
540. Desaynard, C., Shinton, R.A., and Waldmann, H. (1980). Differences in calcium requirements for B-cell tolerance and immunity. *Immunology* 39, 61-65.
541. Waldmann, H., Munro, A., and Maurer, P.H. (1980). The role of MHC gene products in the development of the T-cell repertoire. *Haematol Blood Transfus* 25, 93-100.
542. Waldmann, H. (1979). Interactions between T and B cells: a review. *J R Soc Med* 72, 198-202.
543. Waldmann, H., Pope, H., Beetles, C., and Davies, A.J. (1979). The influence of thymus on the development of MHC restrictions exhibited by T-helper cells. *Nature* 277, 137-138.
544. Waldmann, H., and Lefkovits, I. (1979). *Limiting dilution analysis of cells of the immune system*, (Cambridge University Press).
545. Waldmann, H., Kenny, G., Brown, D., and Feinstein, A. (1979). Restrictions in the helper activity of T-cells. In *12th Leukocyte Culture Conference "Biochemistry and cell biology of leukocyte functions"*, Quastel, ed.
546. Munro, A., and Waldmann, H. (1978). The major histocompatibility system and the immune response. *Br Med Bull* 34, 253-258.

547. Waldmann, H., Pope, H., Brent, L., and Bighouse, K. (1978). Influence of the major histocompatibility complex on lymphocyte interactions in antibody formation. *Nature* 274, 166-168.
548. Waldmann, H., and Howard, J.C. (1978). Cellular Basis of the Immune Response. In *Defence and Recognition*, E. Lennox, ed.
549. Waldmann, H. (1978). The influence of the major histocompatibility complex on the function of T-helper cells in antibody formation. *Immunol Rev* 42, 202-223.
550. Waldmann, H., and Pope, H. (1977). The influence of antigen presentation on the generation of T-helper cells with different functions. *Immunology* 33, 721-725.
551. Waldmann, H., and Pope, H. (1977). Can B-cell tolerance be induced by oligovalent thymus dependent antigens? *Immunology* 32, 657-667.
552. Lefkovits, I., and Waldmann, H. (1977). Heterogeneity of B cells reacting with T-cell factors. Evidence for matching T-cell and B-cell subsets. *Immunology* 32, 915-922.
553. Waldmann, H., Pope, H., and Kenny, G. (1977). Co-operation across histocompatibility differences. The role of inhibitory T cells in preventing successful T-B interaction. *Immunology* 33, 129-139.
554. Phillips, J.M., and Waldmann, H. (1977). Monogamous T helper cell. *Nature* 268, 641-642.
555. Waldmann, H. (1977). Conditions determining the generation and expression of T helper cells. *Immunol Rev* 35, 121-145.
556. Waldmann, H., Pope, H., and Lefkovits, I. (1976). Limiting dilution analysis of helper T-cell function. II. An approach to the study of the function of single helper T cells. *Immunology* 31, 343-352.
557. Waldmann, H., Lefkovits, I., and Feinstein, A. (1976). Restriction in the function of single helper T cells. *Immunology* 31, 353-362.
558. Waldmann, H., Poulton, P., and Desaynard, C. (1976). Antigen-non-specific T-cell factor in B-cell activation. Origin, biological properties and failure to show a relationship to H-2. *Immunology* 30, 723-733.
559. Desaynard, C., and Waldmann, H. (1976). Evidence for the inactivation of precursor B cells in high dose unresponsiveness. *Nature* 264, 780-782.
560. Waldmann, H., Pope, H., and Munro, A.J. (1976). Cooperation across the histocompatibility barrier: H2d T cells primed to antigen in an H-2d environment can cooperate with H-2k B cells. *J Exp Med* 144, 1707-1711.
561. Clark, M., Benjamin, R., Bindon, C., Bruggeman, M., Cobbold, S., Gilliland, L.K., G, H., Qin, S., Tighe, H., and Waldmann, H. (1976). Interaction of monoclonal antibodies with the immune system. *British Journal of Cancer* 54, 525.
562. Waldmann, H. (1976). Breaking tolerance to self molecules. In *Physiological effects of immunity against reproductive hormones*, R.G. Edwards and M.H. Johnson, eds. (Cambridge University Press).
563. Slowe, A., and Waldmann, H. (1975). The 'intrinsic adjuvanticity' and immunogenicity of trinitrophenylated lipopolysaccharide. *Immunology* 29, 825-834.
564. Waldmann, H., and Lachmann, P.J. (1975). The failure to show a necessary role for C3 in the in vitro antibody response. *Eur J Immunol* 5, 185-193.
565. Waldmann, H. (1975). T cell-dependent mediator in the immune response. III. The role of non-specific factor (NSF) in the in vitro immune response. *Immunology* 28, 497-507.
566. Waldmann, H., and Munro, A. (1975). The inter-relationship of antigenic structure, thymus-independence and adjuvanticity. IV. A general model for B-cell induction. *Immunology* 28, 509-522.
567. Waldmann, H., Lefkovits, I., and Quintans, J. (1975). Limiting dilution analysis of helper T-cell function. *Immunology* 28, 1135-1148.
568. Lefkovits, I., J, Q.U., Munro, A., and Waldmann, H. (1975). T cell-dependent mediator and B-cell clones. *Immunology* 28, 1149-1154.

- 569. Waldmann, H., Pope, H., and Munro, A.J. (1975). Cooperation across the histocompatibility barrier. *Nature* 258, 728-730.
- 570. Waldmann, H., and Pope, H. (1975). Low dose unresponsiveness with a thymus independent antigen. *Nature* 258, 730-731.
- 571. Waldmann, H., and Munro, A. (1975). B cell activation. *Transplant Rev* 23, 213-222.
- 572. Waldmann, H., and Munro, A.J. (1974). T cell dependence of B cell unresponsiveness in vitro. *Eur J Immunol* 4, 410-416.
- 573. Waldmann, H., and Munro, A. (1974). T cell-dependent mediator in the immune response. II. Physical and biological properties. *Immunology* 27, 53-64.
- 574. Waldmann, H., and Munro, A. (1973). Letter: T cell-dependent mediator in the immune response. *Nature* 243, 356-357.
- 575. Waldmann, H., Munro, A.J., and Hunter, P. (1973). Properties of educated T-cells. The ability of educated T-cells to facilitate the immune response to non-cross reacting antigens in vitro. *European Journal of Immunology* 3, 167-172.