

1a. Personal details			
Full name	Dr	Roslyn	Alice Kemp
Present position	Associate Professor		
Organisation/Employer	University of Otago		
Contact Address	Department of Microbiology and Immunology, University of Otago		
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1b. Academic qualifications

2002, *Ph.D., Immunology, University of Otago / Malaghan Institute*

1998, *B.Sc. (Hons I), Microbiology, University of Otago*

1c. Professional positions held

2017-, *Associate Professor, Department of Microbiology and Immunology*

2009-2017, *(Senior) Lecturer, Department of Microbiology and Immunology*

2008-2009, *Research Fellow, Cancer Genetics Laboratory, University of Otago*

2005-2008, *MRC Career Development Fellow, NIMR, UK*

2004-2005, *Post-doctoral Fellow, Oxford University, UK*

2002-2004, *Post-doctoral Fellow, Trudeau Institute, USA*

1d. Present research/professional speciality

*I study the immune responses of the gut, including colorectal cancer and inflammatory bowel diseases. I specialise in effector and memory T cells and how these cells can be modified to improve immune responses. My research uses both in vivo models and clinical samples.*

1e. Total years research experience

20 years

1f. Professional distinctions and memberships (including honours, prizes, scholarships, boards or governance roles, etc)

*Professional Distinctions and Memberships*

2017-2019: *President, New Zealand Society for Oncology (NZSO); Member 2009-ongoing*

2016: *Roche Translational Cancer Research Fellowship*

2016-2019: *Secretary General, International Union of Immunological Societies*

2015: *Member, Ako Aotearoa Academy of Tertiary Teaching Excellence*

2015: *Miriam Dell Award (Association of Women in Sciences)*

2015: *National Tertiary Teaching Excellence Award*

2015: *University of Otago Award for Teaching Excellence*

2013-16: *NZ Councillor; Australasian Society of Immunology (ASI)*

2013: *University of Otago Supervisor of the Year*

2013-ongoing: *Associate Investigator, Maurice Wilkins Centre*

2012, 2017: *NZ ASI Immunology Conference Organising Committee*

2010-ongoing: *Founding and Steering Committee Member; Gut Health Network*

2010-2013: *Member of ASI Annual Meeting Local Organising Committee*

2009-2015: *NZ rep Infection & Immunity Special Interest Group, ASI*

2009-2012: *Steering Committee; Formulation and Delivery of Bioactives*

2009-ongoing: University of Otago Flow Cytometry Facility Committee  
 2009-ongoing: Otago School of Biomedical Sciences (BMS) Maori Student Support (kaitohutohu from 2015)  
 2002-5; 2013-ongoing: Member American Association of Immunologists (AAI)  
 2012-ongoing: Member, New Zealand Gastroenterology Society  
 2012-ongoing: Member, Federation of Clinical Immunological Societies  
 2016-ongoing: Member, NZ Association of Scientists

Invited Speaker

2018: Australasian Cytometry Society, Adelaide, Australia  
 2018: Peruvian Society of Immunology International Congress, Lima, Peru  
 2017: Federation of African Immunological Societies Conference, Tunisia  
 2016: Auckland Cancer Research Network Summer School  
 2015, 2017: NZSO, Christchurch, Auckland  
 2015: Digestive Diseases Queenstown  
 2015: Cancer Trials New Zealand, Auckland (Keynote Speaker)  
 2014: Cancer Drug Discovery satellite meeting, Queenstown Research Week  
 2013: ASI Tumour Immunology Workshop, Wellington  
 2013: Gut Health Network Conference, Christchurch  
 2013: University of Otago Workshop for New Supervisors  
 2013: Riken-Chiba-Maurice Wilkins Centre Workshop, Auckland  
 2012: Diet, Microbiota and Gut Health Workshop, Bologna, Italy

1g. Total number of <i>peer reviewed</i> publications and patents	Journal articles	Books, book chapters, books edited	Conference proceedings	Patents
	31	2	>50	

2a. Research publications and dissemination

Peer-reviewed journal articles

1. Norton SE, Ward-Hartstonge KA, McCall JLK, Leman JKH, Taylor ES, Munro F, Black MA, Fazekas de St Groth B, McGuire HM, **Kemp RA**. High dimensional mass cytometric analysis reveals an increase in effector regulatory T cells as a distinguishing feature of colorectal tumors. *J Immunol*. First published 6 February 2019. <https://doi.org/10.4049/jimmunol.1801368>.
2. Lepletier, A, Lutzky VP, Mittal D, Stannard K, Watkins TS, Ratnatunga CN, Smith C, McGuire HM, **Kemp RA**, Mukhopadhyay P, Waddell N, Smyth MJ, Dougall WC, Miles JJ. The immune checkpoint CD96 defines a distinct lymphocyte phenotype & is highly expressed on tumor-infiltrating T cells. 2018. *Immunol Cell Biol*. First published: 17 September 2018. <https://doi.org/10.1111/imcb.12205>
3. Taylor ES, McCall JL, Shen S, Girardin A, Munro F, Black MA, Ward-Hartstonge KA, **Kemp RA**. Prognostic roles for IL-2-producing and CD69+ T cell subsets in colorectal cancer patients. *Int J Cancer* 2018 Oct 15; 143(8):2008-2016
4. Ward-Hartstonge KA, **Kemp RA**. Regulatory T cell heterogeneity and the cancer immune response. *Clin Trans Immunol*. 2017; 6(9):e154
5. Ward-Hartstonge KA, McCall JL, McCulloch TR, Kamps A-K, Girardin A, Cretney E, Munro FM, **Kemp RA**. Inclusion of BLIMP-1+ effector regulatory T cells improves the Immunoscore in a cohort of New Zealand colorectal cancer patients: a pilot study. *Cancer Immunol Immunother*, 2017; 66(4):515-522

6. Taylor ES, McCall JL, Girardin A, Munro FM, Black MA, **Kemp RA**. Functional impairment of infiltrating T cells in human colorectal cancer. *Oncoimmunol.* 2016; 5(11) e1234573
7. Highton AJ, Girardin A, Bell GM, Hook SM, **Kemp RA**. Chitosan gel vaccine protects against tumour growth in an intracaecal mouse model of cancer by modulating systemic immune responses. *BMC Immunol.* 2016; 17(1):39
8. Neumann S, Shirley SA, **Kemp RA**, Hook SM. Improved antitumour activity of a therapeutic melanoma vaccine through the use of the dual COX-2/5-IO inhibitor licoferlene. *Front Immunol.* 2016; 7:537
9. Parayath NN, Nehoff H, Norton SE, Highton AJ, Taurin S, **Kemp RA**, Greish K. Styrene maleic acid encapsulated paclitaxel micelles: anti-tumour activity and toxicity studies following oral administration in a murine orthotopic colon cancer model. *Int J Nanomedicine.* 2016 :11 3979-91
10. Norton SE, Dunn ETJ, McCall JL, Munro F, **Kemp RA**. Gut macrophage phenotype is dependent on the tumor microenvironment in colorectal cancer. *Clinical Transl Med.* 2016. 5, e76; doi: 10.1038/cti.2016.21
11. Dunn ETJ, Taylor ES, Stebbings S, Schultz M, Butt AG, **Kemp RA**. Distinct immune signatures in the colon of Crohn's Disease and Ankylosing Spondylitis patients in the absence of inflammation. *Imm Cell Biol.* 2016. 94(5):421
12. Norton SE, Ward-Hartstonge KA, Taylor ES, **Kemp RA**. Immune cell interplay in colorectal cancer prognosis. *World J Gastrointest Oncol.* 2015 7(10)221-32 (invited review)
13. Highton AJ, Kojarunchitt T, Girardin A, Hook S, **Kemp RA**. Chitosan hydrogel vaccine generates protective CD8 T cell memory against mouse melanoma. *Imm Cell Biol* 2015. 93 (7):634-40
14. Neumann S, Burkert K, **Kemp R**, Rades T, Dunbar PR, Hook S. Activation of the NLRP3 inflammasome is not a feature of all particulate vaccine adjuvants. *Imm Cell Biol.* 2014. 92(6):535-42
15. **Kemp R**, Dunn E, Schultz M. Immunomodulators in Inflammatory Bowel Disease: an emerging role for biologic agents *BioDrugs* 2013 27(6):585-90
16. Girardin A, McCall J, Black MA, Edwards F, Phillips V, Taylor ES, Reeve AE, **Kemp RA** Inflammatory and regulatory T cells contribute to a unique microenvironment in tumor tissue of colorectal cancer patients *Int J Cancer* 2013 132: 1842-50
17. Gordon S, Young K, Wilson R, Rizwan S, **Kemp RA**, Rades T, Hook SM.. Chitosan hydrogels containing liposomes and cubosomes as particulate sustained release vaccine delivery systems. *Journal of Liposome Research* 2012 22:193-204
18. **Kemp RA**, Black MA, McCall J, Yoon H-S, Phillips V, Anjomshoaa A, Reeve AE. T cell subpopulations in lymph nodes may not be predictive of patient outcome in colorectal cancer. *J Exp Clin Cancer Res* 2011 30:78.
19. Ting YT, Coates PT, Marti HP, Dunn AC, Parker RM, Jack RW, **Kemp RA**, Walker RJ, McLellan AD. Urinary soluble HLA-DR is a potential biomarker for acute renal transplant rejection. *Transplantation.* 2010 89(9):1071-8
20. Bower AL, Netter P, **Kemp RA**, McLellan AD. A defined serum-free medium useful for monitoring anti-melanoma responses induced by dendritic cell immunotherapy. *J. Imm. Methods.* 2010 352:178-181.
21. **Kemp RA**, Pearson CF, Cornish GH, Seddon BP. Evidence of STAT5 dependent and independent routes to CD8 memory formation and a preferential role for IL-7 over IL-15 in STAT5 activation. *Imm. Cell. Biol.* 2010 88:213.

22. **Kemp RA**, Backstrom BT, Ronchese F. The phenotype of Type 1 and Type 2 CD8+ T cells activated in vitro is affected by culture conditions and correlates with effector activity. *Immunol.* 2005 115(3) 315-24.
23. Jelley-Gibbs DM, Dibble JP, Filipson S, Haynes L, **Kemp RA**, Swain SL. Repeated stimulation of CD4 effector T cells can limit their protective function. *J Exp Med.* 2005 210(7):1101-12
24. Powell TJ, Brown DM, Hollenbaugh JA, Charbonneau T, **Kemp RA**, Swain SL, Dutton RW. CD8+ T cells responding to influenza infection reach and persist at higher numbers than CD4+ T cells independently of precursor frequency. *Clin Immunol.* 2004 113(1):89-100.
25. **Kemp RA**, Powell TJ, Dwyer DW, Dutton RW. Cutting edge: regulation of CD8+ T cell effector population size. *J Immunol.* 2004 173(5):2923-7.
26. Begg, D, **Kemp R**, Griffin JFT. Normal levels of immunocompetence in possums (*Trichosurus vulpecula*) exposed to different laboratory housing conditions post capture. *Immunol Cell Biol.* 2004 82(3):253-6.
27. **Kemp RA**, Ronchese F. Tumor-specific Tc1, but not Tc2, cells deliver protective antitumor immunity. *J Immunol.* 2001 167(11):6497-502.
28. \*Chtanova T, \***Kemp RA**, Sutherland AP, Ronchese F, Mackay CR. Gene microarrays reveal extensive differential gene expression in both CD4(+) and CD8(+) type 1 and type 2 T cells. *J Immunol.* 2001 167(6):3057-63. \* *contributed equally*
29. Ritchie DS, Hermans IF, Lumsden JM, Scanga CB, Roberts JM, Yang J, **Kemp RA**, Ronchese F. Dendritic cell elimination as an assay of cytotoxic T lymphocyte activity in vivo. *J Immunol Methods.* 2000 246(1-2):109-17.

Peer reviewed books, book chapters, books edited

1. Highton A, **Kemp RA**. *Immunological Background* 2015.  
C. Foged et al. (eds.), *Subunit Vaccine Delivery*, Advances in Delivery<sup>[L]</sup><sub>[SEP]</sub> Science and Technology, DOI 10.1007/978-1-4939-1417-3\_1
2. Norton SE, **Kemp RA**, *Computational Analysis of High Dimensional Mass Cytometry Data from Clinical Tissue Samples*. *Methods Mol Biol.* 2018;1770 (In Press)