

## Associate Professor Stephen J. Ralph – Curriculum Vitae

### Present appointment

Associate Professor  
School of Medical Sciences, Griffith University

Editor of *Oncology Research* and *Immunopharmacology and Immunotoxicology*, and consultant to Australian Botanical Biosciences Pty Ltd (now Active 98 Pty Ltd) involved in developing Australian tea tree oil based products as anticancer drugs, now in clinical trial.

### Employment history

<b>2009 – present</b>	<u>Associate Professor</u> Griffith University, Australia
<b>2002 – 2009</b>	<u>Senior Lecturer</u> Griffith University, Australia
<b>1994 – 2002</b>	<u>Senior Lecturer</u> Monash University, Australia
<b>1992 – 1994</b>	<u>Lecturer</u> Monash University, Australia
<b>1992 – 1994</b>	<u>Research Associate</u> Centre for Molecular Biology and Medicine, Australia
<b>1986 – 1992</b>	<u>Senior Research Officer</u> German Institute of Human Nutrition, Germany
<b>1994 – 1997</b>	<u>Senior Research Officer</u> Molecular Biology Laboratory, Ludwig Institute for Cancer Research, Royal Melbourne Hospital, Australia.
<b>1986 – 1989</b>	<u>QEII Fellowship</u> Australian National Science Council
<b>1980–1984</b>	<u>Malaghan Fellow</u> Wellington Institute of Medical Research

## Qualifications

- 1991** MBA (Master of Business Administration)  
Royal Melbourne Institute of Technology, Australia  
Thesis: IDDA, Integrated DNA Diagnostics Australia – Business Plan
- 1984** PhD (Pathology)  
University of Otago, New Zealand  
Thesis: Surface Antigens on Hemopoietic Stem Cells
- 1979** MSc (Honours, Cell Biology)  
University of Auckland, New Zealand  
Thesis: Structure of the Reovirus Spike
- 1976** BSc (Biochemistry/Physiology)  
University of Otago, New Zealand

## Professional Memberships and Awards

- 1984 – 1986** NZ Cancer Society Fellowship
- 1980 – 1984** Malaghan Fellowship, MIMR
- 2002 – 2004** International Society of Interferon and Cytokine Research,  
Australian President
- 2003 – present** Australian Biotechnology Organisation (AUSBIO), corporate member
- 2009 – present** Australian Society of Immunology, member

## Convenorships

Higher Degrees Research Convenor, School of Medical Sciences

MSC3014 Molecular Biology, 3<sup>rd</sup> year, Semester 1

MSC3022 Molecular Medicine, 3<sup>rd</sup> year, Semester 2 Co-Convenor

## Research profile and achievements

Professor Ralph is the author of over 70 peer-reviewed articles in professional medical journals, including *Biochimie*, *Cancer Immunology*, *International Immunopharmacology*, *Pharmaceuticals*, and *Cell Biology*. He has also published two sole-author articles, for *Clinical Dermatology* (2007) and *Metal-Based Drugs* (2008).

The diverse topics he has covered include melanoma vaccines, metastatic cancers, classification of Mitocans, and the effects of laser irradiation on carcinoma. His total citations are over 2000, averaging nearly 50 citations per publication and a rate of 80 citations or more per year. He is regularly invited to write authoritative reviews for peer-reviewed journals, including *Journal of Biological Chemistry*, *Cancer Letters*, *International Journal of Cancer*, *Journal of Cellular Biochemistry*, *Clinical Advances in Hematology and Oncology*, *Plos One*, *Oncogene*, *BMC Cancer*, *Clinical Cancer Research*, *Cancer Immunology Immunotherapy*, *Cancer Research*, and *Clinical & Experimental Metastasis*.

Professor Ralph is currently Editor of *Oncology Research* and *Immunopharmacology and Immunotoxicology*, and was Guest Co-Editor of a special 'Mitocans' edition of *Molecular Nutrition and Food Research (MNF)* (date). He has co-authored three book articles, published in *Mitochondria and Cancer* (Springer, 2009), and *PCR: A process of replication in vitro* (Lavoisier Press, 1993).

As a leading researcher in his field, Professor Ralph is the holder of four patents: Mitochondrially delivered anti-cancer compounds (2008), Pro-oxidant anti-cancer compounds (2007) (both with Professor Jiri Neuzil), Immunomodulating compositions (2004), and Immune potentiating compositions (2001).

Since 1990, Professor Ralph has received 16 competitive research grants, with over AUD\$3 million in funding awarded. His achievements include two NHMRC grants, one Queensland Cancer Council grant, several ARC project grants, and a prestigious National Breast Cancer Foundation Kathleen Cunningham grant.

Professor Ralph is sole inventor on two full patents, and co-inventor on two additional provisional patent applications. Four patents are based on his research outputs covering cancer vaccines, improved immune adjuvants to enhance the vaccine potency, and design of novel anticancer drugs, with his research well-positioned for commercialisation.

His laboratory has successfully attracted large research investments from pharmaceutical companies and private investors repeatedly to develop cancer vaccines and novel cancer therapies with net worth of over AUD\$2.5 million over the last decade.

Professor Ralph regularly attends conferences, both in Australia and internationally, including the Brisbane Immunology Group Meeting (2011), the Lowy Cancer Symposium (2010), and AH&MRC Melbourne (2010).

He holds a number of internal committee positions, including the Griffith Health Institute Committee, and Deputy Director of the Genomics Research Centre. His current external positions include Managing Director of Genvax Pty Ltd (Melanoma Clinical Trial sponsor),

NHMRC Grant Reviewer, and Consultant Scientist for Australian Botanical Biosciences Pty Ltd as an immunology expert.

Professor Ralph regularly performs community service in aid of cancer research. He has frequently appeared on television, giving presentations to help promote trial awareness and gather public support for breakthrough cancer research and the treatment of Alzheimer's Disease.

### Research Publications

1. Yu X, Scott SA, Pritchard R, Houston TA, **Ralph SJ**, Blanchard H. Redox state influence on human galectin-1 function. *Biochimie*. 2015 Jun 24. pii: S0300-9084(15)00184-4.
2. Powell KL, Stephens AS, **Ralph SJ**. Development of a potent melanoma vaccine capable of stimulating CD8(+) T-cells independently of dendritic cells in a mouse model. *Cancer Immunol. Immunother*. 2015 Jul;64(7):861-72.
3. Low P, Clark AM, Chou TC, Chang TC, Reynolds M, **Ralph SJ**. Immunomodulatory activity of *Melaleuca alternifolia* concentrate (MAC): inhibition of LPS-induced NF- $\kappa$ B activation and cytokine production in myeloid cell lines. *Int Immunopharmacol*. 2015 May;26(1):257-64.
4. **Ralph, S.J.**, Pritchard, R., Rodríguez-Enríquez, S., Moreno-Sánchez, R., Ralph, R.K. Hitting the Bull's-Eye in Metastatic Cancers—NSAIDs Elevate ROS in Mitochondria, Inducing Malignant Cell Death. *Pharmaceuticals* 2015. 8: 62-106.
5. Moreno-Sánchez R, Marín-Hernández A, Saavedra E, Pardo JP, **Ralph SJ**, Rodríguez-Enríquez S. Who Controls the ATP Supply in Cancer Cells? Biochemistry lessons to understand cancer energy metabolism. *Int. J. Biochem. Cell Biol*. 2014 Feb 7;50C:10-23.
6. Kimura R, Senba M, Cutler SJ, **Ralph SJ**, Xiao G, Mori N. Human T cell leukemia virus type I tax-induced I $\kappa$ B- $\zeta$  modulates tax-dependent and tax-independent gene expression in T cells. *Neoplasia*. 2013 Sep;15(9):1110-24.
7. Stapelberg M, Zabalova R, Nguyen MN, Walker T, Stantic M, Goodwin J, Pasdar EA, Thai T, Prokopova K, Yan B, Hall S, de Pennington N, Thomas SR, Grant G, Stursa J, Bajzikova M, Meedeniya AC, Truksa J, **Ralph SJ**, Ansorge O, Dong LF, Neuzil J. Indoleamine-2,3-dioxygenase elevated in tumor-initiating cells is suppressed by mitocans. *Free Radic Biol Med*. 2013 Oct 18;67C:41-50.
8. Philip B, Ito K, Moreno-Sánchez R, **Ralph SJ**. HIF expression and the role of hypoxic microenvironments within primary tumours as protective sites driving cancer stem cell renewal and metastatic progression. *Carcinogenesis*. 2013 Aug;34(8):1699-707.
9. Amalraj J, Cutler SJ, Ghazawi I, Boyle GM, **Ralph SJ**. REST negatively and ISGF3 positively regulates the human STAT1 gene in melanoma. *Mol Cancer Ther*. 2013 Apr 18.

10. Moreno-Sánchez R, Hernández-Esquivel L, Rivero-Segura NA, Marín-Hernández A, Neuzil J, **Ralph SJ**, Rodríguez-Enríquez S. Reactive oxygen species are generated by the respiratory complex II - evidence for lack of contribution of the reverse electron flow in complex I. *FEBS J.* 2013 Feb;280(3):927-38
11. Neuzil J, Dong LF, Rohlena J, Truksa J, **Ralph SJ**. Classification of mitocans, anti-cancer drugs acting on mitochondria. *Mitochondrion.* 2013 May;13(3):199-208.
12. Ito K, Stannard K, Gabutero E, Clark AM, Neo SY, Onturk S, Blanchard H, **Ralph SJ**. Galectin-1 as a potent target for cancer therapy: role in the tumor microenvironment. *Cancer Metastasis Rev.* 2012 Dec;31(3-4):763-78.
13. Rodríguez-Enríquez S, Hernández-Esquivel L, Marín-Hernández A, Dong LF, Akporiaye ET, Neuzil J, **Ralph SJ**, Moreno-Sánchez R. Molecular mechanism for the selective impairment of cancer mitochondrial function by a mitochondrially targeted vitamin E analogue. *Biochim Biophys Acta.* 2012 Sep;1817(9):1597-607.
14. Ito K, **Ralph SJ**. Inhibiting galectin-1 reduces murine lung metastasis with increased CD4(+) and CD8 (+) T cells and reduced cancer cell adherence. *Clin Exp Metastasis.* 2012 Aug;29(6):561-72.
15. Hahn T, Polanczyk MJ, Borodovsky A, Ramanathapuram LV, Akporiaye ET, **Ralph SJ**. Use of anti-cancer drugs, mitocans, to enhance the immune responses against tumors. *Curr Pharm Biotechnol.* 2013 Mar 1;14(3):357-76.
16. **Ralph SJ**, Moreno-Sánchez R, Neuzil J, Rodríguez-Enríquez S. (2011). Inhibitors of the succinate:quinone reductase/Complex II regulate production of mitochondrial reactive oxygen species and protect normal cells from ischemic damage but induce specific cancer cell death. *Pharm Res.* 28(11):2695-730. (IF 4.44).
17. Rohlena J, Dong L, Ralph S, Neuzil J. (2011). Anti-cancer drugs targeting the mitochondrial electron transport chain. *Antioxid Redox Signal.* 15(12):2951-74. (IF 8.46)
18. Neuzil J, Cerny J, Dyason JC, Dong LF, **Ralph SJ**. (2011). Affinity of vitamin E analogues for the ubiquinone complex II site correlates with their toxicity to cancer cells. *Mol Nutr Food Res.* 55(10):1543-51. (IF 4.58).
19. Zabalova R, Prokopova K, Stantic M, Stapelberg M, Dong LF, **Ralph SJ**, Akporiaye E, Neuzil J. (2011). The Potential Role of CD133 in Immune Surveillance and Apoptosis: A Mitochondrial Connection? *Antioxid Redox Signal.* 15(12):2989-3002. (IF 8.46)
20. Dong LF, Jameson VJ, Tilly D, Prochazka L, Rohlena J, Valis K, Truksa J, Zabalova R, Mahdavian E, Kluckova K, Stantic M, Stursa J, Freeman R, Witting P, Norberg E, Goodwin J, Salvatore B, Novotna J, Turanek J, Ledvina M, Hozak P, Zhivotovsky B, Coster M, Ralph S, Smith R, Neuzil J. (2011). Mitochondrial targeting of alpha-tocopheryl succinate enhances its pro-apoptotic efficacy: A new paradigm of efficient cancer therapy. *Free Rad. Biol. Med.* 50(11):1546-55 (IF 5.77).

21. Ito K, Scott S, Dong LF, Neuzil J, Blanchard H, **Ralph SJ**. (2011). Thiodigalactoside inhibits murine cancers by concurrently blocking effects of galectin-1 on immune dysregulation, angiogenesis and protection against oxidative stress. *Angiogenesis*. 14(3):293-307. (IF 6.06).
22. Valis K, Prochazka L, Boura E, Chladova J, Obsil T, Rohlena J, Truksa J, Dong LF, **Ralph SJ**, Neuzil J. (2011). Hippo/Mst1 Stimulates Transcription of the Proapoptotic Mediator NOXA in a FoxO1-Dependent Manner. *Cancer Res*. 2011 Feb 1;71(3):946-54. (IF 8.16)
23. Dong LF, Jameson VJ, Tilly D, Cerny J, Mahdavian E, Marín-Hernández A, Hernández-Esquivel L, Rodríguez-Enríquez S, Stursa J, Witting PK, Stantic B, Rohlena J, Truksa J, Kluckova K, Dyason JC, Ledvina M, Salvatore BA, Moreno-Sánchez R, Coster MJ, **Ralph SJ**, Smith RA, Neuzil J. (2011). Mitochondrial targeting of vitamin E succinate enhances its pro-apoptotic and anti-cancer activity via mitochondrial complex II. *J Biol Chem*. Feb 4;286(5):3717-28. Epub 2010 Nov 8 (IF 5).
24. Stannard KA, Collins PM, Ito K, Sullivan EM, Scott SA, Gabutero E, Grice ID, Low P, Nilsson UJ, Leffler H, Blanchard H, **Ralph SJ**. (2010). Galectin Inhibitory Disaccharides Promote Tumour Immunity in a Breast Cancer Model. *Cancer Lett*. 2010 Dec 28;299(2):95-110. Epub 2010 Sep 9. (IF 4.24)
25. Prochazka L, Dong LF, Valis K, Freeman R, **Ralph SJ**, Turanek J, Neuzil J. (2010). alpha-Tocopheryl succinate causes mitochondrial permeabilization by preferential formation of Bak channels. *Apoptosis*. 2010 15(7):782-94. (IF 4.79).
26. **Ralph SJ**, Rodríguez-Enríquez S, Neuzil J, Saavedra E, Moreno-Sánchez R. (2010). The causes of cancer revisited: "mitochondrial malignancy" and ROS-induced oncogenic transformation - why mitochondria are targets for cancer therapy. *Mol Aspects Med*. 31(2):145-70 (IF 10).
27. **Ralph SJ**, Rodríguez-Enríquez S, Neuzil J, Moreno-Sánchez R. (2010). Bioenergetic pathways in tumor mitochondria as targets for cancer therapy and the importance of the ROS-induced apoptotic trigger. *Mol Aspects Med*. 31(1):29-59. ( IF 10).
28. Powell K, Low P, McDonnell A, Laakso L, **Ralph SJ**. (2010). The effect of laser irradiation on proliferation of human breast carcinoma, melanoma and immortalised mammary epithelial cells. *Photomed Laser Surg*. 28(1):115-23. (IF 1.63)
29. Marín-Hernández A, Gallardo-Pérez JC, **Ralph SJ**, Rodríguez-Enríquez S, Moreno-Sánchez R. (2009). HIF-1alpha modulates energy metabolism in cancer cells by inducing over-expression of specific glycolytic isoforms. *Mini Rev Med Chem*. 9:1084-1101. (IF 2.53).
30. Dong LF, Freeman R, Liu J, Zabalova R, Stantic M, Rohlena J, Valis K, Butcher B, Goodwin J, Rodriguez-Enriquez S, Marin-Hernandez A, Moreno-Sanchez R, Brunk UT, Witting PK, Scheffler IE, **Ralph SJ**, Neuzil J (2009). Suppression of tumour growth in vivo

- by the mitocan, alpha-TOS requires respiratory complex II. *Clin. Cancer Res.* 15:1593-600. (IF 7.5)
31. **Ralph SJ**, Neuzil, J. (2009). Mitochondria as targets for cancer therapy. *Mol Nutr Food Res.* 53:9-28. (IF 4.58).
  32. **Ralph SJ**, Neuzil J. (2009). Mitocans, a class of emerging anti-cancer drugs. *Mol Nutr Food Res.* 2009 Jan;53(1):7-8. (IF 4.58).
  33. Morrison BJ, Andera L, Reynolds BA, **Ralph SJ**, Neuzil J. (2009). Future use of mitocans against tumour-initiating cells? *Mol Nutr Food Res.* 53:147-53. (IF 4.58).
  34. Dong LF, Low P, Dyason JC, Wang XF, Prochazka L, Witting PK, Freeman R, Swettenham E, Valis K, Liu J, Zobalova R, Turanek J, Spitz DR, Domann FE, Scheffler IE, Neuzil J, **Ralph SJ**. (2008).  $\alpha$ -Tocopheryl succinate induces apoptosis by targeting ubiquinone-binding sites in mitochondrial respiratory complex II. *Oncogene* 27:4324-4335 (IF 6.58).
  35. **Ralph, SJ**. Arsenic based anti-neoplastic drugs and their mechanisms of action. *Metal-Based Drugs.* 2008;2008:260146.
  36. Dong LF, Swettenham E, Eliasson J, Wang XF, Gold M, Medunic Y, Stantic M, Low P, Prochazka L, Witting PK, Turanek J, Akporiaye ET, **Ralph SJ**, Neuzil J. (2007) Vitamin E analogues inhibit angiogenesis by selective induction of apoptosis in proliferating endothelial cells: the role of oxidative stress. *Cancer Res.* 67:11906-11913 (IF 7.62).
  37. Neuzil J, Dong LF, Ramanathapuram L, Hahn T, Chladova M, Wang XF, Zobalova R, Prochazka L, Gold M, Freeman RE, Turanek J, Akporiaye ET, Dyason J, **Ralph SJ** (2007) Vitamin E analogues: a novel group of mitocans, anti-cancer agents that act by targeting mitochondria. *Mol Aspects Med* 28(5-6):607-45. (IF 10)
  38. **Ralph, SJ**. An update on malignant melanoma vaccine research. Insights into mechanisms for improving the design and potency of melanoma therapeutic vaccines. *Am J Clin Dermatol* (2007) 8(3): 123-141 (IF 2.182).
  39. **Ralph SJ**, Dyason JC, Freeman R, Dong LF, Prochazka L, Wang XF, Scheffler IE, Neuzil J (2007) Mitocans as anti-cancer agents targeting mitochondria: Lessons from studies with vitamin E analogues, inhibitors of complex II. *J Bioenerg Biomembr.* 39(1) 65-72. (IF 2.634).
  40. Neuzil J, Stantic, M, Zobalova, R, Chladova, J, Wang, X, Prochazka, L, Andera, L, **Ralph, SJ**. Tumour-initiating cells vs. cancer 'stem' cells and CD133: What's in the name? *Biochem Biophys Res Commun* (2007) 355:855-9. (IF 3.0)
  41. Wang, X-F, Birringer, M, Dong, L\_F, Veprek, P. Low, P, Swettenham, E, Stantic, M, Yuan, L-H, Zobalova, R, Wu, K, **Ralph, SJ**, Ledvina, M, Neuzil, J. A peptide conjugate of

- vitamin E succinate targets breast cancer cells with high erbB2 expression. *Cancer Res.* (2007) 67:3337-44. (IF 7.62)
42. Neuzil J, Tomasetti M, Zhao Y, Dong LF, Birringer M, Wang XF, Low P, Wu K, Salvatore BA, **Ralph SJ**. Vitamin E analogs, a novel group of 'mitocans,' as anti-cancer agents: The importance of being redox-silent. *Mol Pharmacol.* (2007) 71:1185-99. (IF 4.6)
43. Neuzil, J, Wang, X-F, Dong, L-F, Low, P, **Ralph, SJ**. Molecular mechanism of 'mitocan'-induced apoptosis in cancer cells epitomizes the multiple roles of reactive oxygen species and Bcl-2 family proteins. *FEBS Letts.* 580, 5125-5129 (2006) (IF 3.4)
44. **Ralph, SJ**, Low, P, Dong, L-F, Lawen, A, Neuzil, J. Mitocans: Mitochondrial Targeted Anti-Cancer Drugs as Improved Therapies and Related Patents. *Recent Patents on Anti-Cancer Drug Discovery*, 1: 327-346 (2006). (IF 2.72)
45. Ghazawi I, Cutler S, Low P, Mellick AS, **Ralph SJ**. Inhibitory Effects Associated with Use of Modified Photinus pyralis and Renilla reniformis Luciferase Vectors in Dual Reporter Assays and Implications for Analysis of ISGs. *J. Interferon Cytokine Res.* 25, 92-102 (2005). (3.06)
46. Shala Dezfouli, Irene Hatzinisiriou and Stephen John Ralph. Use of cytokines in cancer vaccines/immunotherapy: recent developments provide improved survival rates for patients with metastatic malignancy. *Curr. Pharm. Des.* 11, 3511-3530 (2005). (IF 3.87)
47. Shala Dezfouli, Irene Hatzinisiriou and Stephen John Ralph. Synergistic increases in CTL responses to high levels attained using IFN $\gamma$  primed and IFN $\gamma$ -treated B7-1<sup>+</sup> B16-F10 melanoma cells for vaccination. *Immunology and Cellular Biology.* 81, 459-471 (2003). (3.66).
48. Lee H Wong, Helena Sim, Moitreyee Chatterjee-Kishore, Irene Hatzinisiriou, George Stark and Stephen J Ralph. Isolation and characterisation of a human STAT1 gene regulatory element: Inducibility by IFN types I and II and role of IRF1. *J. Biol. Chem.* 277, 19408-19417 (2002). (IF 5)
49. Degli Esposti M., Hatzinisiriou I., McLennan H., **Ralph S**. Bcl-2 and mitochondrial production of hydrogen peroxide: new approaches with ROS-sensitive probes. *J. Biol. Chem.* 274, 29831-29837 (1999). (IF 5).
50. **Ralph, S.J.**, Wong, L.H., Hatzinisiriou, I., Estcourt, M., Hersey, P and Devenish, R.J. Revising interferons – prodigies among the cytokines. *Today's Life Sciences* 10, 37-43 (1998).
51. de Veer, M.J., Sim, H., Whisstock, J.C., Devenish, R.J. and **Ralph, S.J.** IFI60/ISG60/IFIT4, a new member of the human IFI54/IFIT2 family of interferon-stimulated genes. *Genomics* 54, 267-277 (1998).



52. Wong, L.H., Hatzinisiriou, I., Devenish, R.J. and **Ralph, S.J.** Interferon-gamma-priming up-regulates ISGF3 components, augmenting responsiveness of IFN-resistant melanoma cells to type I interferons. *J. Immunol.* 160, 5475-5484 (1998).
53. Baker, E., de Veer, M.J., Devenish, R.J., Sutherland, G.R. and **Ralph, S.J.** Interferon- and virus inducible gene ISG-60 map position 10q23.3. *Chromosome Res.* 5, 572 (1997).
54. Wong, L.H., Krauer, K.G., Hatzinisiriou, I., Estcourt, M.J., Hersey, P., Tam, N.D., Edmondson, S., Devenish, R.J., and **Ralph, S.J.** Interferon-resistant human melanoma cells are deficient in ISGF3 components, STAT1, STAT2, and p48-ISGF3-gamma. *J. Biol. Chem.* 272, 28779-28785 (1997).
55. de Veer, M.J., Good, R.T., Sim, H., Smooker, P.M., Devenish, R.J. and **Ralph, S.J.** A strategy for rapid cloning of 5' cDNA ends and related genomic 5' regulatory DNA sequences using modified DLDA- and ALU-PCR techniques. *Methods Mol. Cell. Biol.* 6, 151-156 (1997).
56. Gupta, S., Yan, H., Wong, L.H., **Ralph, S.**, Krolewski, J. and Schindler, C. The SH2 domains of STAT1 and Stat2 mediate multiple interactions in the transduction of IFN-alpha signals. *EMBO J.* 15, 1075-1084 (1996).
57. **Ralph, S.J.**, Wines, B.D., Payne, M., Grubb, D., Hatzinisiriou, I. and Devenish, R.J. Resistance of melanoma cell lines to interferons correlates with reduced levels of interferon induced changes in tyrosine phosphorylated cellular proteins. *J. Immunol.* 154:2248-2256 (1995).
58. Wolvetang, E.J., Johnson, K.L., Krauer, K., **Ralph, S.J.** and Linnane, A.W. Mitochondrial respiratory chain inhibitors induce apoptosis. *FEBS Lett.* 339:40-44 (1994).
59. Payne, M.J., **Ralph, S.J.**, De Veer, M.J., Allen, K., Linnane, A.W. and Devenish, R.J. cDNA sequence identity for the Type I interferon receptor subunit from cell lines of widely differing responsiveness to interferon. *Biochem. Mol. Biol. Int.* 33:283-288 (1994).
60. Wines, B.D., Choe, C.C., Hatzinisiriou, I., Devenish, R.J., Linnane, A.W. and **Ralph, S.J.** A colourimetric dye assay to detect anti-viral activity of interferons: Sensitivity for measuring cellular responsiveness to interferons. *Biochem. Mol. Biol. Int.* 31:1111-1120 (1993).
61. Cheng, H., Nishio, H., Hatase, O., **Ralph, S.** and Wang, J. A synthetic peptide derived from p34cdc2 is a specific and efficient substrate of Src-family tyrosine kinases. *J. Biol. Chem.* 267:9248-9256 (1992).
62. Boulet, I., **Ralph, S.**, Stanley, E., Lock, P., Dunn, A., Green, S., and Phillips, W. LPS- and IFN-gamma induced expression of HCK and LYN tyrosine kinase in murine bone marrow derived macrophages. *Oncogene* 7:703-710 (1992).

63. Lock,P., **Ralph,S.**, Boulet,I., Ramsey,R., Stanley,E. and Dunn,A.R. Two isoforms of murine hck, generated by utilization of alternative translational initiation codons. *Mol.Cell.Biol.*11:4363-4370 (1991).
64. Stanley,E., **Ralph,S.**, McEwan,S., Boulet,I., Holtzman,D.A., Lock,P., and Dunn,A.R. Alternatively spliced murine lyn mRNA's encode distinct proteins. *Mol.Cell.Biol.* 11:3399-3406 (1991).
65. Brunati,A.M., DonellaDeana,A., **Ralph,S.**, Marchiori,F., Borin,G., Fischer,S. and Pinna,P.A. Stimulation by NaCl, polylysine and heparin of two forms of spleen tyrosine protein kinase immunologically related with the protein expressed by lyn oncogene. *Biochim. Biophys. Acta.* 1091:123-126 (1991).
66. Wilks,A.F., Harpur,A.G., Kurban,R.R., **Ralph,S.J.**, Zurcher,G. and Ziemiecki,A. Two novel protein-tyrosine kinases, each with a second phosphotransferase-related catalytic domain, define a new class of protein kinase. *Mol.Cell.Biol.* 11:2057-2065 (1991).
67. Wilks,A.F., Kurban,R.R., Hovens,C.M. and **Ralph,S.J.** The application of the polymerase chain reaction to cloning of members of the protein tyrosine kinase family. *Gene* 85:67-74 (1989).
68. Thomas,M., Shackleford,D., **Ralph,S.** and Trowbridge,I. Structural studies of T200 glycoprotein and the IL-2 receptor. *J. Recept. Res.*7:133-155 (1987).
69. **Ralph,S.J.**,Thomas,M., Morton,C.C. and Trowbridge,I. Structural variants of human T200 glycoprotein (leukocyte-common antigen). *EMBO J.* 6:1251-1257 (1987).
70. Taetle,R., **Ralph,S.**, Smedsgrud,S. and Trowbridge,I. Regulation of transferrin receptor expression in myeloid leukemia cells. *Blood* 70:852-859 (1987).
71. Berridge,M.V., **Ralph,S.J.** and Tan,A.S. Cell-lineage antigens of the stem cell-megakaryocyte-platelet lineage are associated with the platelet IIB/IIIA glycoprotein complex. *Blood* 66:76-85 (1985).
72. **Ralph,S.J.** and Berridge,M.V. Expression of antigens of the 'T200' family of glycoproteins on hematopoietic stem cells: Evidence that thymocyte cell lineage antigens are represented on 'T200'. *J Immunol.*131:2510-2514 (1984).
73. **Ralph,S.J.**,McCaffery,P.,Tan,A.S. and Jeffery,K. Binding of monoclonal antibodies that inhibit spleen colony formation to leukemic cell lines. *Cancer Res.*44:3825-3830 (1984).
74. Berridge,M.V., **Ralph,S.J.**,Tan,A.S. and Jeffery,K. Changes in cell surface antigens during stem cell ontogeny. *Expt..Hematol.*12:121-129 (1984).
75. **Ralph,S.J.**,Tan,S.A. and Berridge,M.V. Monoclonal antibodies detect subpopulations of bone marrow stem cells. *Stem Cells* 2:88-107 (1982).

76. **Ralph,S.J.**, Harvey,J.D. and Bellamy,A.R. Subunit structure of the reovirus spike. J. Virol. 36:894-896 (1980).

### Book chapters

1. Stephen J. Ralph and Jiri Neuzil, Mitochondria as targets for cancer therapy, Chapt. 11. p 211-249 in "**Mitochondria and Cancer**" Singh, Keshav; Costello, Leslie (Eds.) 2009 ISBN 978-0-387-84834-1. Biomedicine, Springer, 233 Spring Street New York, NY 10013. 2009.
2. Ralph,S. and Wilks,A. Cloning of PCR products. Chapter 2.5, pp65-67 in "PCR, a process of replication in vitro." Lavoisier Press (Paris) Ed. by D.Larzul. 1993.
3. Ralph,S. and Wilks,A. Degenerate Oligonucleotide Primers. Chapter 6, pp133-139 in "PCR, a process of replication in vitro." Lavoisier Press (Paris) Ed. by D.Larzul. 1993.