

Andrew Graham Cox
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Education

Post-doctoral Fellow, Laboratory of Dr Wolfram Goessling, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, March 2010 - present

Ph.D., Pathology, Laboratory of Dr Mark Hampton and Dr Christine Winterbourn, University of Otago, Christchurch, New Zealand 2006-2009.

M.Sc. (1st class Hons.), Biochemistry, Laboratory of Dr Mark Hampton and Dr Christine Winterbourn, University of Canterbury, Christchurch, New Zealand 2004-2006.

B.Sc., Biochemistry, University of Canterbury, Christchurch, New Zealand 2001-2003.

Publications

J. Rosenbluh, D. Nijhawan, **A.G. Cox**, X. Li, J.T. Neal, E.J. Schafer, T.I. Zack, X. Wang, A. Tsherniak, A.C. Schinzel, D.D. Shao, S.E. Schumacher, B.A. Weir, F. Vazquez, G.S. Cowley, D.E. Root, J.E. Mesirov, R. Beroukhim, C.J. Kuo, W. Goessling, W.C. Hahn. (2012) β -catenin driven cancers require a YAPI transcriptional complex for survival and tumorigenesis. **Cell**. In press.

A.V. Peskin, **A.G. Cox**, P Nagy, P.E. Morgan, M.B. Hampton, M.J. Davies, C.C. Winterbourn. Removal of amino acid, peptide and protein hydroperoxides by reaction with peroxiredoxins 2 and 3. **Biochemical Journal**, 432: 313. (2010)

A.G. Cox, C.C. Winterbourn, M.B. Hampton. Measuring the redox state of cellular peroxiredoxins by immunoblotting. Invited chapter for **Methods in Enzymology**. 473: 51. (2010)

K.K. Brown*, **A.G. Cox***, M.B. Hampton. Mitochondrial respiratory chain involvement in peroxiredoxin 3 oxidation by phenethyl isothiocyanate and auranofin. **FEBS Letters**. 584: 1257 (2010) * Joint first authors

A.G. Cox, C.C. Winterbourn, M.B. Hampton. Peroxiredoxins and redox regulation in mitochondria. Invited review for **Biochemical Journal**. 425: 313 (2010)

A.G. Cox, A.V. Peskin, L.N. Paton C.C. Winterbourn, M.B. Hampton. Redox potential and peroxide reactivity of human peroxiredoxin 3. *Biochemistry*, 48: 6495 (2009)

A.G. Cox, A.G. Pearson, J.M. Pullar, T.J. Jönsson, W.T. Lowther, C.C. Winterbourn, M.B. Hampton. Mitochondrial peroxiredoxin 3 is more resilient to hyperoxidation than cytoplasmic peroxiredoxins. *Biochemical Journal*, 421: 51. (2009)

B.D. Hock, L.J. Fernyhough, S.M. Gough, A. Steinkasserer, **A.G. Cox**, J.L. McKenzie. Release and clinical significance of soluble CD83 in chronic lymphocytic leukemia.. *Leukemia Research*, 33: 1089. (2009).

A.G. Cox, K.K. Brown, E.S.J. Arnér and M.B. Hampton. The thioredoxin reductase inhibitor auranofin triggers apoptosis through a Bax/Bak-dependent process that involves peroxiredoxin 3 oxidation. *Biochemical Pharmacology*, 76: 1097. (2008)

A.G. Cox, J.M. Pullar, G. Hughes, E.C Ledgerwood, M.B. Hampton. Oxidation of mitochondrial peroxiredoxin 3 during the initiation of receptor-mediated apoptosis. *Free Radical Biology and Medicine*, 44: 1001. (2008)

S.J. Thomson*, **A.G. Cox***, S.L. Cuddihy, J.M. Pullar, M.B. Hampton. Inhibition of receptor-mediated apoptosis upon Bcl-2 overexpression is not associated with increased antioxidant status. *Biochemical and Biophysical Research Communications*, 375: 145 (2008) * Joint first authors

A.G. Cox, M.B. Hampton. Bcl-2 overexpression promotes genomic instability by inhibiting apoptosis of cells exposed to hydrogen peroxide. *Carcinogenesis*, 28: 2166 (2007).

Honors and Prizes

2012	Centre for Human Genetics Poster Award	<i>Brigham and Women's Hospital.</i>
2011	Irwin M. Arias, MD Postdoctoral Fellowship Award	<i>American Liver Foundation.</i>
2010	Travel Award for an Oral presentation at the 15 th ISHSR conference in Pasadena, CA.	<i>University of Otago.</i>
2010	Research Excellence Awards Poster Prize.	<i>Brigham and Women's Hospital.</i>
2009	Health Sciences Divisional List of exceptional PhD Theses.	<i>University of Otago.</i>
2006-2009	Bright Futures: Top Achiever Doctoral Scholarship.	<i>Tertiary Education Commission.</i>

2006	New Zealand Postgraduate Study Abroad Award for travel to the Karolinska Institute.	<i>New Zealand Education Commission.</i>
2005	Masters Scholarship	<i>University of Canterbury.</i>
2004	Senior Scholarship	<i>University of Canterbury.</i>
2003	Edward Percival Prize in Biology	<i>University of Canterbury.</i>
2003	Summer Student Scholarship	<i>University of Canterbury.</i>
2002	Summer Student Scholarship	<i>University of Canterbury.</i>

Meeting Presentations

- 2011** Nitric oxide signaling regulates liver development and regeneration in zebrafish (Talk). *Zebrafish Disease Models 4 (Edinburgh, Scotland).*
- 2011** Nitric oxide signaling regulates liver development and regeneration via two independent mechanisms (Talk). *62nd Annual Meeting of the American Association for the Study of Liver Diseases (San Francisco, CA, USA).*
- 2010** Nitric oxide signaling regulates liver development and regeneration in zebrafish (Talk). *15th International Symposium on Cells of the Hepatic Sinusoid (Pasadena, CA, USA).*
- 2009** Prx 3 is a key regulator of mitochondrial hydrogen peroxide. Final PhD presentation. *University of Otago, Christchurch.*
- 2007** Oxidation of Prx 3 during the initiation of apoptosis (Talk). *Oxidative Stress in Health and Disease theme meeting (Dunedin, New Zealand).*
- 2007** Bcl-2 overexpression promotes genomic instability by inhibiting apoptosis of cells exposed to hydrogen peroxide (Talk). *Canterbury Health Research Conference (Christchurch, NZ).*
- 2006** Effect of Bcl-2 on the antioxidant status of cells (Talk). *Oxidative Stress in Health and Disease theme meeting (Dunedin, NZ.)*

Research Experience

- Mar 2010 –** Postdoctoral Fellow investigating the involvement of redox signaling in liver development and disease in zebrafish. *Harvard Medical School*
- Jun 2009 – Feb 2010** Assistant Research Fellow investigating the involvement of Prx 3 in antioxidant defence and redox signalling. *University of Otago*

Jun 2006 – Jun 2009	PhD Student at University of Otago, Christchurch resulting in the completion of a thesis entitled “Peroxiredoxin 3 is a key regulator of mitochondrial hydrogen peroxide”.	<i>University of Otago</i>
Feb 2005 – Mar 2006	MSc Student at University of Otago, Christchurch resulting in the completion of a thesis entitled “Effect of Bcl-2 on the cellular response to oxidative stress”.	<i>University of Otago</i>
Summer 2004/2005	Summer Research student with Dr Susan Thomson investigating antioxidant aspects of Bcl-2 function.	<i>University of Otago</i>
Summer 2003/2004	Summer Research student with Prof. Juliet Gerrard investigating amyloid fibril formation in insulin.	<i>University of Canterbury</i>
Summer 2002/2003	Summer Research student with Prof. Jack Heinemann investigating horizontal gene transfer in yeast.	<i>University of Canterbury</i>