CURRICULUM VITAE
MELANIE SUE ALANDA COKER

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EDUCATION

2005-Present	University of Otago, Christchurch, New Zealand Completing Doctorate of Philosophy in Biochemistry
2003-2005	New Zealand Institute of Business Studies Completed Diploma - Professional Writer of Children's Stories
1997-2000	University of Canterbury, Christchurch, New Zealand Bachelor of Science with First Class Honours Major subject: Cellular and Molecular Biology
1992-1996	Christchurch Girls' High School Awarded 'A' Bursary. Subject scholarship in Biology. Subjects: Biology, Chemistry, English, Mathematics with Calculus, and Physics.

TUITION EXPERIENCE

Dec 07- Present	AHeadStart Tuition Tutor in following subjects:	
	Biology	Years 11-13
	Chemistry	Years 11-13
	Mathematics	Years 7-12
	Mathematics with Calculus	Year 13
	Physics	Years 11-13
	Science	Years 9-13
	Statistics	Year 13
May 04-Dec 05	BrainMasters Limited Tutor in Mathematics, Chemistry & Physics	

PROFESSIONAL WRITING & EDITING EXPERIENCE

Oct 08-Present — Growing Minds Ltd

Writer:

Study*Pass* Examination Revision Guide:Chemistry Level 3
2008 Exam Answers

Study*Pass* Examination Revision Guide:Chemistry Level 2
2008 Exam Answers

Editor:

Study*Pass* Examination Revision Guide:Chemistry Level 3
2008 Edition

RESEARCH EXPERIENCE

Mar 02-Present — Free Radical Research Group, Department of Pathology, University of Otago, Christchurch, New Zealand
Assistant Research Fellow

Project: Neutrophil Oxidation
To measure oxidant production by neutrophils and determine proteins in neutrophils oxidized by HOCl.

Jan 01-Jan 02 — Cancer Genetics Laboratory, Department of Biochemistry, University of Otago, Dunedin, New Zealand.
Junior Research Fellow (Grade 1)

Project: Familial Thrombocytopenia
To identify the mutation which causes a dominantly inherited familial thrombocytopenia. This may help to understand some important genes involved in platelet production.

PUBLICATIONS

Dec 2008 — Coker MS, Hu WP, Senthilmohan ST, Kettle AJ. (Dec 2008)
Chemical Research in Toxicology 21(12):2334-43.
Epub 2008 Nov 4.
"Pathways for the decay of organic dichloramines and liberation of antimicrobial chloramine gases."

Apr 2008 — IM Morison et al. (Apr 2008)
Nature Genetics 40(4):387-9. Epub 2008 Mar 16.
"A mutation of human cytochrome *c* enhances the intrinsic apoptotic pathway but only causes thrombocytopenia."

LEADERSHIP

University of Otago

Aug 07-Sep 08	Research Representative, Association of Postgraduate Students of the University of Otago, Christchurch (PSOC).
May 06-Sep 08	PhD Student Representative on the University of Otago, Christchurch Research Committee.

AWARDS & HONOURS

University of Otago

2005	Poster Prize - Third Joint Meeting of the Society for Free Radical Research Australasia and Japan, 2005

University of Canterbury

2002	Offered University of Canterbury Doctoral Research Award at PhD level
2000	Invited to join Golden Key National Honour Society
1999	Summer Studentship (University of Canterbury) in Molecular Ecology

Christchurch Girls' High School

1996	Bickerton-Widdowson Trust Memorial Scholarship (University of Canterbury) Merit in Form 7 7th Form Academic Excellence William and Ina Cartwright Prize 7th Form Chirnside Shakespeare Prize Full Colours - Music New Zealand Senior Mathematics Competition - Top 100 Australian Science Competition – Credit
1995	Recognition of Excellence in Sixth Form Merit in Form 6 Florence Sheard Memorial Prize for Chemistry Sixth Form External Examinations: Mathematics - 95th Percentile (81%) Physics - 79th Percentile (76%) Bronze Crest Award for Science and Technology Westland Regional Science Fair Gold Colours – Music
1994-96	Australian Mathematics Competition – Credit
1994	Merit in Form 5 J.W. Vincent Cup for Science National Bank Senior Science Competition - Top 25% Certificate of Merit in Music
1993-94	Australian Science Competition - Credit

1993	1st in Class Form 4 German Prize 1st in Cantamaths Class Project 2nd in New Zealand for Caxton Mathematical Investigation Australian English Competition – Credit
1992	Trixie Cox Scholarship (Christchurch Girls' High School Entrance Scholarship) 1st in Class May Campbell Anderson Prize for English Emily S. Foster Prize for Science
1992-93	Australian Mathematics Competition – Distinction

Associated Board of the Royal Schools of Music Examinations

2006	Grade 7 Piano
1993	Grade 5 Theory with distinction

CONFERENCE PROCEEDINGS

15&16 Oct 07	The Oxidative Stress in Health and Disease Research Theme Meeting Rolleston Lecture Theatre, University of Otago, Christchurch Title: *'Does bleach kill bacteria indirectly inside the neutrophil phagosome?'* (Presentation)
19-23 Feb 07	The 5th International Human Peroxidase Meeting Gaiety Hall, Akaroa Title: *'Antimicrobial activity of chlorinated amino acids and peptides'* (Poster)
22-25 Jan 07	Australian and New Zealand Society for mass Spectrometry 21st Conference University of Canterbury Title: *'Antimicrobial activity of chlorinated amino acids and peptides'* (Poster)
27&28 Nov 06	Running Hot Conference Great Hall, Arts Centre, Christchurch Title: *'Staphyloxanthin: A Biomarker of Bacterial Killing by Neutrophils'* (Poster)
13 Nov 06	Invitrogen PhD Student Lunchtime Seminar Bevan Lecture Theatre Christchurch School of Medicine and Health Sciences Title: *'Staphyloxanthin - A Potential Marker of Oxidation in the Neutrophil Phagosome'* (Presentation)
16&17 Oct 06	The Oxidative Stress in Health and Disease Research Theme

	Meeting St David St Lecture Theatre, University of Otago, Dunedin Title: *'The Role of Reactive Chlorine Species in Bacterial Killing by Neutrophils'* (Presentation)
3-5 Dec 05	Third Joint Meeting of the Society for Free Radical Research Australasia and Japan, Griffith University Gold Coast Campus, Queensland, Australia. Title: '*Antimicrobial action of chlorinated amino acids*' (Poster)
29 Aug 05	BioRad Research Seminar Series: PhD Introductory Presentation, Christchurch School of Medicine and Health Sciences, Christchurch, New Zealand. (Presentation)
3-5 Dec 04	The 13th Annual Conference of the Society for Free Radical Research Australasia, Christchurch School of Medicine and Health Sciences, Christchurch, New Zealand. Title: '*Antimicrobial action of chlorinated neutrophil proteins*' (Poster)
10-11 Jun 04	Oxidative Stress in Health and Disease Theme Meeting, Christchurch School of Medicine and Health Sciences, Christchurch, New Zealand. Title: *'Chlorination of Neutrophil Proteins during the Oxidative Burst: A Specific Process?'* (Presentation)

ACADEMIC RECORD

University of Canterbury: Bachelor of Science (First Class Honours)

2000	Human Molecular Genetics (ZOOL 467)	A
	Plant Biotechnology (PAMS 488)	A-
	Eukaryotic Genetics (ZOOL 466)	A-
	Genetics (PAMS 458)	B+
	Honours Project (ZOOL 471)	A-
1999	Biochemistry 2 (BCHM 301)	A
	Biological Chemistry (BCHM 302)	A
	Biological Data Analysis (BIOL 301)	A-
	Molecular Genetics (PAMS 309)	A-
	Plant and Microbial Biotechnology (PAMS 310)	A-
1998	Biochemistry 1 (BCHM 201)	A-
	Organic Chemistry (CHEM 254)	A
	Mathematical Modelling (MATH 216)	A-
	Calculus 2 (MATH 218)	B+
	Genetics (PAMS 203)	A+
	Microbiology 1 (PAMS 206)	B+

1997	Cell Biology (BIOL 101)	A+
	Biology of Plants (BIOL 103)	A
	General Chemistry A (CHEM 111)	A
	General Chemistry B (CHEM 112)	A+
	Mathematics 1A (MATH 104)	A
	Physics in out Environment (PHYS 106)	A+

Christchurch Girls' High School

1996 University Bursary

Subject Scholarship in Biology		
Biology	A	93%
Chemistry	A	72%
English	A	81%
Mathematics with Calculus	A	78%
Physics	A	73%

1995 Sixth Form Certificate

Recognition of Excellence Award	
Chemistry	1
English	1
German	2
History	1
Mathematics	1
Physics	1

1994 School Certificate

English	A	93%
German	B	78%
History	A	91%
Latin	B	78%
Mathematics	A	99%
Science	A	94%