CURRICULUM VITAE

Veronica Kane Dickson

Education

2002-2005 **PhD Biochemistry**
Sidney Sussex College, University of Cambridge
MRC Dunn Human Nutrition Unit
(degree conferred May 2006)

1997-2001 **BSc. (Hons) Biochemistry**
University of Ottawa
Graduated *Magna cum Laude*

Research Experience

2008-2013 **MSKCC Post-doctoral Fellow**
Sloan-Kettering Institute, Structural Biology Department
Supervised by Dr. S. B. Long
Structure and function studies of the eukaryotic Ca^{2+}-activated Cl^- channel bestrophin

2005-2008 **MRC Career Development Fellowship (Post-doctoral position)**
MRC Dunn Human Nutrition Unit, Cambridge
(Recently renamed MRC Mitochondrial Biology Unit)
Supervised by Prof. Sir. John Walker
Structure-function studies of the small membrane subunits in the stator domain of the mitochondrial ATP synthase

2002-2005 **PhD student, MRC Studentship**
MRC Dunn Human Nutrition Unit, Cambridge
Supervised by Prof. Sir John E. Walker
Structural studies of the stator of the mitochondrial ATP synthase

2001 **Research assistant**
University of Ottawa, Ottawa, Canada and
NRC Bioinformatics Research Institute, Montreal, Canada
Supervised by Prof. I. Altosaar and Dr. F. Ni

2000-2001 **Honours research student**
University of Ottawa, Ottawa, Canada
Supervised by Prof. John E. Baenziger
Polarized Fourier Transfer Infrared (FTIR) difference spectroscopy of the nicotinic Acetylcholine receptor

Supervisory Experience

Summer 2007 **Supervision of an undergraduate summer student within the laboratory**
Involved project design, teaching laboratory techniques for cloning, over-expression and purification of recombinant protein, evaluations, and administration of the project.

2000-2001 **Chemistry laboratory teaching assistant**
Involved overseeing 18 first year science students in weekly inorganic chemistry practicals (3 hours), marking weekly reports and short quizzes, and tutoring on the topics covered.

Awards and honours

2008	University of Alberta travel award (CDN$ 1800)
2007	Membrane Proteins Masterclass presentation awards (€200)
2006	GRC selected poster (select posters chosen to give seminar on presented work)
2005	GRC selected poster
2003	PhD 2nd year poster presentation awards, first prize
2001	Honours poster presentation awards, first prize (CDN$ 50)
1997	Entrance scholarship, University of Ottawa (CDN$ 2500)

Boards and committees

2009-2012	MSKCC Research Fellow Advisory Council, RFAC (invited)
2009-2011	MSKCC Post-doctoral Symposium - Peer reviewer
2010	MSK-PDA Executive Committee Member (appointed)
2009	MSKCC Post-doctoral Symposium Committee
2009	MSK-PDA Communications Co-chair (elected)
2005-2006	MRC-Dunn PDA Executive Committee Member (appointed)

Select Presentations

Jan. 2015	CCP4 Study Weekend, Nottingham, UK Phasing and structure of a pentameric anion channel-Fab complex using tantalum bromide clusters
Dec 2008-2013	Regular group meetings including weekly summaries and bi-monthly formal presentations
June 2006	Gordon Research Conference in Molecular and Cellular Bioenergetics, Andover, NH, USA. Structure of the peripheral stalk of mitochondrial F_1F_o ATP synthase as determined by X-ray crystallography
Oct. 2005	MRC Dunn Human Nutrition Unit Annual Symposium. The structure of the peripheral stalk of mitochondrial ATP synthase
June 2005	Gordon Research Conference in Molecular and Cellular Bioenergetics, Biddeford, ME, USA. Structural model of the peripheral stalk of mitochondrial F_1F_o ATP synthase
May 2005	MRC Dunn Human Nutrition Unit PhD Summary Unit Talk The peripheral stalk of the ATP synthase - tying it all together

Research Interests

- Structural studies of membrane proteins; three-dimensional protein crystallography, electron microscopy, spectroscopic methods.
- Ion channels, neurotransmission; allosteric activation and gating, regulation of receptor presentation by protein trafficking, role in anxiety disorders and addictions.
- Lipid-protein interactions, protein stability and folding, molecular dynamics.

Publications

Kane Dickson, V., Pedi, L., and Long, S.B. (2014) X-ray structure of the eukaryotic Ca^{2+}-activated Cl^- channel bestrophin. *Nature*. **516**, 213-218

- see also related News and Views article (Whorton, M.) *Nature*. **516**, 176-178.

Kane Dickson, V., Silvester, J.A., Fearnley, I.M., Leslie, A.G.W., and Walker, J.E. (2006) On the structure of the stator of the mitochondrial ATP synthase. *EMBO J.*, **25**, 2911-2918.

Silvester, J.A., **Kane Dickson, V.**, Runswick, M.J., Leslie, A.G.W., and Walker, J.E. (2006) The expression, purification, crystallization and preliminary X-ray analysis of a subcomplex of the peripheral stalk of ATP synthase from bovine mitochondria. *Acta Crystallogr* **F62**, 530-533.

Walker, J.E. and **Kane Dickson, V**. (2006) The peripheral stalk of the mitochondrial ATP synthase. *Biochem. Biophys. Acta.* **1757,** 286-296.

Rubinstein, J.L., **Kane Dickson, V.**, Runswick, M.J., and Walker, J.E. (2005) ATP synthase from *Saccharomyces cerevisiae*: Location of Subunit h in the Peripheral Stalk Region. *J. Mol. Biol.* **345**, 513-520.

Baenziger, J.E., daCosta, C.J.B., and **Kane Dickson, V**. (2006) Membrane Receptor-Ligand Interactions Probed by Attenuated Total Reflectance Infrared Diffference Spectroscopy. In *Vibrational Spectroscopy of Biological and Polymeric Materials* (Gregoriou, V. and Braiman, M.), pp. 325-352. Taylor and Francis Group. Boca Raton, FL.