
Incoming Member of the CSBMCB Executive Board 2005-2006

Dr. Eric Brown, Vice-President

I grew up in rural southern Ontario and attended high school in Dundas, a little town West of



Hamilton that lays claim to an international 'cactus festival.' Guelph became my second home after high school – I spent 10 years there completing my undergraduate and graduate degrees. The latter began with a Masters in the Food Science department with Dr. Rickey Yada where I discovered my passion for protein biochemistry studying the stability of fungal aspartic proteases on the pretext that they were key ingredients in cheese-making. It was, never-

theless, as a Ph.D. candidate in Biochemistry at Guelph that my future was cemented in molecular approaches to understanding the puzzles of bacterial physiology in the laboratory of Dr. Janet Wood. There I studied the PutA protein, a fascinating flavoprotein that binds to and represses its own operon in addition to interacting with the cell membrane where it catalyzes the oxidation of proline.

After receiving my Ph.D. in 1992, I accepted a postdoctoral fellowship to train with Dr. Christopher Walsh in the department of Biochemistry and Molecular Pharmacology at Harvard Medical School where I worked to describe the mechanisms of enzymes in bacterial cell wall biosynthesis. There I learned a great deal about pre-steady state kinetics, characterizing enzyme intermediates and enzyme inhibitor complexes. During the same period I embarked on studies of the dispensability of cell wall biosynthesis genes in *E. coli*, a collaboration that placed me in the laboratory of Dr. Roberto Kolter in the

Department of Microbiology and Molecular Genetics at Harvard Medical School. After post-doctoral studies, I decided to stay in the Boston area and work in the biotechnology sector where I spent more than three years, principally at Astra Research Center Boston, using enzymology and molecular genetic approaches to develop drugs against the gastric pathogen *Helicobacter pylori*. While in Boston I became a huge admirer of the city and was an enthusiastic sampler of New England attractions, especially its pro sports venues, golfing and Irish pubs.

After six years in Boston, I elected to return to Canada to develop an independent research program and took up a position in Department of Biochemistry at McMaster in July of 1998, first as a CIHR Scholar and now as a Canada Research Chair. Perhaps indelibly marked by my time in pharma, my group has adopted the motto 'the only good bacterium is a dead bacterium.' We have concentrated to date on addressing the inadequacies of conventional antibiotics with research into new approaches to the discovery of antibacterial drugs. Those directions have included careful analyses of the phenotype associated with loss of novel and essential functions to help us understand their importance to bacterial physiology. We have likewise occupied ourselves with rigorous biochemical studies of key proteins in an effort to learn more about their roles in physiology and to facilitate their exploitation in antibacterial drug discovery. Most recently, we have been developing chemical genomic approaches where, with the benefit of state of the art small molecule screening, we are working toward building a chemical-genetic interaction network for the essential physiology in bacteria. Since returning to the Hamilton area, it's been great to spend time again with family and old friends. I attribute any perspective I have to my wife Zuhail and seven year old Jacob, not to mention my very average skills in golf and ice hockey.