Incoming Members of CSBMCB Executive Board 2001-2002

President of CSBMCB: Leon W. Browder

Leon Browder was born in Pueblo, Colorado, where he received his early education. While studying for his Bachelor's degree at the University of Colorado at Boulder, he became fascinated with embryonic development. He continued his studies of embryology at Louisiana State University in Baton Rouge, where he obtained his Master's degree. When in Baton Rouge, Leon learned the power of combining genetics with experimental manipulation of embryos for understanding developmental mechanisms. He studied pigment pattern mutants of the leopard frog, *Rana pipiens*, as a means for understanding development of the neural crest, which produces the pigment cells. After obtaining his Master's degree, Leon obtained his Ph.D. from the University of Minnesota in Minneapolis. He was fortunate to study in Minnesota under Nelson Spratt, one of the pioneers in experimental embryology. Although Spratt worked on chick development, he gave Leon freedom to work on any problem that fascinated him. Interestingly, the mutants that he had studied in Louisiana occur naturally in the frog populations in Minnesota. David Merrill, a geneticist at the University of Minnesota, was interested in using these mutants to monitor gene polymorphisms in natural populations. So, fates converged, and Leon focused on the roles that the expression of these genes in the neural crest played in producing pigment patterns.

After completing his Ph.D. in Minnesota, Leon returned to Boulder as a Postdoctoral Fellow in the newly-formed Institute for Developmental Biology. Within a short time, the institute became a part of the new Molecular, Cellular and Developmental Biology Department (MCDB), chaired by Keith Porter. This was an exciting time as developmental biology began emerging as a discipline from the fusion of embryology, genetics and molecular biology, and the MCDB was one of the foci of that movement. The MCDB has since emerged as one of the premier life science departments in North America. While in Boulder, Leon continued to study the pigment pattern mutants that he and David Merrill had discovered in Minnesota.

When Leon was completing his graduate studies in Minnesota, he attended the Annual Meeting of a new scientific society (the American Society for Cell Biology) in Houston. At that meeting, he met Bob Church, a native of Calgary, who had just completed his post-doc in Seattle and was looking for an academic position. This was a fateful encounter, because Bob and Leon crossed paths a couple of years later in Boulder. Bob had accepted a position in the Department of Biology in Calgary. Soon after this, Calgary established a Faculty of Medicine, and Bob was named Head of Biochemistry in the new faculty. He painted a picture of Calgary of rapid growth and strong support for research that lured Leon to Calgary as a replacement for Bob in the Department of Biology. So, Leon, his wife, Sandy, and two young daughters headed north.

After establishing his own laboratory in Calgary, Leon focussed his research on the interface between oogenesis and early embryonic development and switched to a different frog as a model system: *Xenopus laevis*. He was fascinated with the role that the maternal dowry of proteins and RNAs play in programming early development, and Xenopus was a more appropriate organism in which to study this phenomenon. Leon taught developmental biology at both the undergraduate and graduate levels and soon realized that there was no textbook that adequately covered the field. So, he decided to write one. As he says, it was naive to assume that he could do this. If he had thought about it rationally, he never would have undertaken such a massive task. The first edition of *Developmental Biology* was published in 1980. Three editions of the book have been published; the third edition was published with two co-authors in 1991. Leon insists that this will be the last edition. Between editions, Leon edited a seven-volume series of books entitled *Developmental Biology: A Comprehensive Synthesis.*

Leon was elected to the Board of Directors of the Canadian Society for Cell Biology in 1985 and later became President of the Society, which changed its name to the Canadian Society for Cellular and Molecular Biology. One of Leon's accom-

plishments while President was to establish the Winternational Symposium series, which will serve as this year's Annual Meeting of CSBMCB.

As President of the Canadian Society for Cellular and Molecular Biology, Leon was a member of the Board of the Canadian Federation of Biological Societies (CFBS). After serving this two-year term, he was elected to an additional three year term on the Board of CFBS. He was then elected President-elect of CFBS, serving one year in that post, followed by terms as President and Past-President. He also served a six-year term as a member of the Board of Directors of the International Society for Differentiation.

In an ironic twist of fate, Leon was named Head of the Department of Biochemistry & Molecular Biology in the Faculty of Medicine at the University of Calgary in January, 1999. This is the same department that Bob Church founded when he left the Department of Biology. Leon finds this new challenge to be invigorating, particularly at this particular time when governments are more cognizant of the value of investing in scientific research. There have been unprecedented opportunities to develop programs in genomics, proteomics and bioinformatics.

The move to the Faculty of Medicine has allowed Leon to pursue new research opportunities. He has adopted technology for making transgenic *Xenopus*, which provides new opportunities to do functional studies on genes in *Xenopus*.

Leon is humbled by the opportunity to serve as President of CSBMCB in the wake of so many outstanding predecessors.

Dr. David W. Andrews, Vice-president

I decided to become a scientist at a very young age. My parents tell me that at age 4 or 5 I used the money given to me to buy a cowboy hat to buy rocks and a rock identification kit at the ROM. Since that time my interests have shifted away from geology and over many areas of science. In high school in Ottawa, I was fortunate to have the chance to do an independent study project looking at learning schedules and biofeedback training of brainwave patterns in my fellow students. The staff at the high school were remarkably supportive and I wonder if in the present environment of cutbacks and larger classes if a student like me would receive similar encouragement today. I also received tremendous help from scientists at NRC, a PhD student in the psychology department at University of Ottawa and from Tom Mousseau, an inventor. It was Tom that built for me (for free) the one piece of specialized equipment that I could not borrow from NRC. He also spent time with me discussing the creative process and instilling me with a healthy distrust of authority. At NRC, I spent one of my most memorable afternoons measuring the brainwaves of a cellulose sponge as part of a control experiment to debunk a bad diagnostic that was starting to be used clinically. That was my first introduction to the idea there is bad science and that it is important to properly address bad science. It was all of these interactions in Ottawa that led me to study Biochemistry at University of Ottawa. Working in factories on assembly lines during the summers and part-time during the winter to earn the money I needed to attend university provided additional motivation. Although I know longer remember the answer, I do remember calculating how many transformers I laminated to pay for one year's tuition.

The undergraduate program in Biochemistry at the University of Ottawa was fairly small at that time. There were only 10 of us in fourth year. The education that I received was excellent and has served me well over the years. A couple of the level 4 courses were also my first exposure to alternative teaching techniques. I am happy to say that I use some of those techniques in my own classes today. During that time I also had my first serious flirtation with the business world. Starting during my second year, with running the music for Pub nights at the university, I ended up running my own stereo store in Bells Corners by fourth year. Although I became fascinated with the course of growing a business, my first love remained science. As a result, I handed the business over to some of the guys that I had been working with, bought a very expensive stereo for myself (it was my last chance at dealer cost), and moved to Toronto to start grad school at the Ontario Cancer Institute.

Graduate training during the early 1980s at the OCI was a truly rewarding experience. Many of my compatriots now have academic or professional appointments, a testament to the training and the exciting environment that we found ourselves in. I will always be thankful to Rick Miller for seeing my potential and recruiting me to the OCI. Under the guidance of Peter Ottensmeyer and as part of a great group of students in his laboratory, I finally

became a scientist. And after much personal tutelage from Peter I even learned to write a semi-coherent paper. Those were exciting times in the Ottensmeyer laboratory and at the OCI. The electron filter devised by Peter was being incorporated into the Zeiss 902 electron microscope. Next door to us the T-cell receptor was being cloned by Tak Mak's group and just down the hall P-glycoprotein was being identified in Vic Ling's laboratory. Similar exciting results were going on throughout the old Sherbrooke street hospital. The 'work hard - play hard' family atmosphere of the OCI at that time influenced me profoundly. The family atmosphere at the OCI is definitely one of the reasons that I was eager to collaborate with Brian Leber, a hematologist at McMaster, after I set up my own laboratory. It was also during my graduate training that I first became interested in protein targeting. During the latter part of my graduate studies I worked on the structure of Signal Recognition Particle and used the new filter to map the RNA within it. During this collaboration with Peter Walter in Gunter Blobel's laboratory, I also decided that it was essential that I learn the new techniques of molecular biology and to purify my own proteins. What better place to learn both than at University of California San Francisco?

Everything about San Francisco was ideal for me at that time. Working with Vishu Lingappa was immensely rewarding. He is someone that cares passionately about science and society and he is without doubt the smartest person I have ever met. He is also the most competitive! In Vishu's laboratory I learned not only molecular biology and protein purification, but also the cell biology of membranes, a unique philosophy of science and the real meaning of dedication. Happily, I was also able to continue collaborating with Peter Walter. During this period the main steps in the targeting of proteins to membranes were worked out and I became interested in how proteins are shuttled into the bilayer rather than transported across the membrane.

When I moved to McMaster, and set up my own laboratory I began working on the regulation of translation because I could do experiments with one power supply, two gel boxes and a rabbit.

With the support of the MRC (a scholarship and a grant) I soon returned to the study of the translocation machinery in general, and the assembly of the SRP receptor in particular. The environment at McMaster was very attractive at that time, due primarily to the other faculty members in the department. Rick Rachubinski was studying import into peroxisomes, Karl Freeman was looking at import and assembly of uncoupling protein in mitochondria and Hara Ghosh was examining targeting of membrane proteins to the nuclear membrane. The department has also consistently attracted some of the best graduate students in the country. I was soon collaborating with Rick on the import of dimmers into peroxisomes, with David Johnson on antigen transport by T AP proteins and Jan Huizinga on the identification of c-kit in pacemaker cells. Internationally I have collaborated for years with Art Johnson on the mechanism of integration of transmembrane proteins into lipid bilayers.

During the late 1980s in San Francisco I began to be interested in the targeting and membrane assembly of cytochrome b5, a protein that did not use any of the conventional machinery to insert into the bilayer. I soon realized that cytochrome b5 was not unique but that a similar protein had been identified in almost every field. Almost uniformly these proteins were identified, characterized as being 'similar to cytochrome b5' and forgotten. The epiphany for me was that it was not possible to explain the targeting of any of these proteins with spontaneous insertion into any bilayer, the mechanism usually invoked for cytochrome b5. Slowly, we began to appreciate that proteins with 'tail-anchors' or 'insertion-sequences' constituted a an important class of proteins that are targeted by a variety of mechanisms. I have been fortunate in receiving MRC Scientist, MRC Senior Scientist awards and most recently the Canada Research Chair in Membrane Biogenesis. These have been critically important in providing me the time and extra resources needed to take on the risky challenges of a new field.

My interest in these proteins led me to collaborate with Bill Trimble on the targeting of Vesicle Associated Membrane Proteins (V AMPs) and with Brian Leber on the newly discovered anti-apoptosis protein Bcl-2. The collaboration with Brian has been tremendous fun because neither one of us knew much about Bcl-2 or apoptosis (a new field at the time) but we were both enthusiastic. I have also had a tremendous collaborator on this project in Linda Penn. Together, with Brian Leber we published the first demonstration that Bcl-2 can function at either the endoplasmic reticulum or mitochondria, a result that continues to confound almost every model put forth for the function of Bcl-2. Collaboration with Linda also means that I

have found my way back to the OCI. Moreover, the translocation machinery has since been shown to contain two tail-anchored proteins. As a result these proteins are gradually taking over larger and larger areas of my laboratory.

Somehow, during all of this very exciting science, I once again became interested in industry. On my first sabbatical, I helped set up a biotech company that operates in Canada and the USA. Separately, we have also had patents granted in translational regulation and for a method that permits cell-free two hybrid analysis and in vitro peptide display. I find it very gratifying that both of these patents are now licensed by companies and being commercialized. Unfortunately neither company is Canadian.

Throughout all of my time at McMaster I have had the unbelievable good fortune to work with a stellar group of technicians, students, post-docs, staff and faculty. As a result we have been continuously funded by MRC and now CIHR. We have also had some pretty exciting times scientifically as well as personally (the wholehearted support of my family has been fantastic) and I am sure that the most exciting science is yet to come! I am really glad that I decided to return to Canada as it has been a great place to work and live.

Dr. Claude Lazure, Councillor

When I climbed the steps leading to the University of Montreal as an eighteen-year-old, I had truly no inkling of what was to come nor did I know what to expect. Man had walked on the moon but this, without the power of the PC that I am using now. The atom had his nucleus, electron and neutron but none of those bosons, quarks or muons. Environmental concerns, ecology or wildlife conservation were very much in the air. Scientists were still pondering the essence of the genetic code while, at the same time, trying to define the logic of life. Acronyms and coined words such as RIA, PCR, gene arrays, genomics, now common language to even first year science student did not exist. Penicillin and sulphonamides were seen as the drugs of all foes and there was not a hint of gene therapy, cloning and pharmaco-genomics. However, there was very much a world, a society and science to discover.

My start in research was quite esoteric, having been hired as a summer student at the Department of Chemistry to work on exotic praesodymium and europium containing chelates to be used as NMR displacement shift reagents. Not only was it quite special, it was also quite a resounding start as, after two days of synthesis and at the time to reintroduce air in the system, the main scientist urged me to turn around at the precise moment the whole apparatus went off in the air starting fire at five or six places including my open drawer. The lesson, which I learned immediately, is that if one is to survive in a research laboratory, one has to keep his eyes open and his mind well alert. In following years, I tried to do just that. Leaving aside these materials, I decided that at twenty-one years old, I was not ready to join the market place and hence entered in graduate research at University of Montreal. Interested more and more by molecules of life, I tackled for my master thesis the synthesis of an 18-residues peptide, namely beta-MSH, using the recently introduced solid-phase peptide synthesis technology of Dr. B. Merrifield. Amazingly, at that time, such a short peptide represented a formidable challenge not only due to its length but also due to the presence of numerous sensitive residues not appreciating the harshness of the chemical methods used at the time. This was indeed a very interesting endeavour as more often than not we had to prepare ourselves many protected amino acids using, for example, such gentle reagents as hydrazyne, HF and phosgene and/or develop new ones.

Dr. Claude Lazure, Councillor

Clearly, as one always tries to reach higher, going from peptides to proteins was both entirely logical and well in keeping with my training in synthesis except that this time, I got to dissect proteins to know what they were made of. Hence, I moved to the Department of Biochemistry at the University of Sherbrooke though my studies actually were much more focused on Immunology. Thus, not only was I to learn the intricacies of biochemistry (quite distinct in those days from chemistry), but also those of immunology. Doing so, I discovered also phylogeny, evolution and genetics, and this was truly a full serving as I had to pass the comprehensive pre-doctoral exam within a year of my arrival! I succeeded thanks to the very good jury I had (though 20 years later, I still remember

the questions!!!!) and hence I could concentrate on the job at hand, namely to characterise the proteins found in the plasma and urine of an extremely rare (that was the 11th case in the world) case of immunoglobulin μ-heavy-chain disease. In the years past in Sherbrooke, I learned a lot in many areas, but also that scientific research when confronted to the reality of sickness can be heart breaking. Indeed, the Biochemistry Department being part of the Hospital, I had the opportunity to meet the patient suffering from this disease who would unfortunately die during my studies. This was both a human and scientific experience, which would stay forever with me. Furthermore, I also learned that protein chemistry was hard work, especially when my mentor received boxes full of parts from the prototype sequenator from Illinois Electronics which he acquired through auctioning – and I had to put it together! Then, I learned that, in order to fully exploit a technique, one cannot simply use the instrument but best understand how it functions so as to be able to fully exploit it.

At the end of my Ph.D. molecular biology was slowly rising in the future but, having spent so much energy and efforts in protein chemistry, I decided to stay in that field and turn my attention to endocrinology. After meeting with an amazing group of scientists at the Institut de recherches cliniques de Montreal (IRCM), I came for what I thought a year or two with no idea that I would spend the next 20 years here. Those were exciting and stimulating times where I had access to excellent scientists, equipment and environment. It was the time where protein chemistry was leading the way bringing out novel sequences (such as ANF) and structures though the revolution brought about by molecular biology and cloning was closing in very fast indeed. Hence in 1990, I decided to at least get acquainted with this field by going on sabbatical leave at the University of Lund in Malmö (Sweden) with my little family. Much more so than with the techniques of molecular biology, I was impressed by the difference in scientific culture and the way research was conducted. Prior to my going to Sweden, I began my long-term association with granting agencies as a committee member; my first MRC chairman surely remembers the young guy coming in with his 17 grants to review in a box which collapsed right in front of him. I served on the MRC committee for four years and indeed I am happy to have done so, because I learned a lot in diverse areas, I met fantastic individuals and I got convinced of the reach and great qualities of Canadian science and scientists who must be aware that there was, is and will continue to be great science done in this country.

On my coming back, I became director of a laboratory called Neuropeptides Structure and Metabolism where uncovering a new sequence, amino acid by amino acid still excites me as much as it did years ago. Being an adjunct professor at McGill University as well as a professor at University of Montreal in the Department of Medicine enables me to be in contact with a lively and stimulating scientific community. It is also upon my return that I got to be associated more closely with the Fonds de la Recherche en Santé du Québec after having been an FRSQ research-fellow from 1982 to 1995, as a committee member. Reviewing proposals and grants is a hard and time consuming job but, having been supported through fellowships and research grants, I feel very strongly about my commitment and duty to serve on these committees such as MRC (now CIHR with all its changes), FRSQ and HSFC. I also feel the same way about my election to CSBMCB and my nomination as a Scientific Advisor at the FRSQ. I will be pleased to contribute and ensure that science will continue if not strive in coming years.

Indeed, it has been a long journey from these tentative first steps climbing the hill to University of Montreal but, as hard as it may have been, it was stimulating and pleasant. Not only have we gained an unparalleled knowledge in terms of science but also we experienced through the years the merit of collaboration and gained from people in all areas. Science, I must say, has brought me pain and pleasures, failures and successes, but is not that what life is all about? Lastly, between you and me, science has also given me friends and collaborators, but importantly enough, a chemist wife and two marvellous guys for my life to enjoy.

David Litchfield, Councillor

David Litchfield began his research training as an undergraduate student in the laboratory of Dr. Karl Freeman at McMaster University. Following completion of a B.Sc. in Chemistry and Biochemistry at McMaster University, David moved to the University of Western Ontario to pursue graduate training under the supervision of Dr. Eric Ball. David obtained his Ph.D. in 1987 and then moved to the laboratory of Dr. Edwin Krebs in the Howard Hughes Medical Institute at the University of

Washington to pursue postdoctoral training. Studies in the Krebs' laboratory were focused on an investigation of the protein kinase CK2 family of enzymes and laid the groundwork for future studies as an independent investigator. In 1991, David returned to Canada and established an independent research program at the Manitoba Institute of Cell Biology with an academic appointment as an Assistant Professor in the Department of Biochemistry and Molecular Biology at the University of Manitoba. In 1996, David returned to the University of Western Ontario as an Associate Professor in the Department of Biochemistry. The Litchfield laboratory is currently among the leaders in elucidating the role of the protein kinase CK2 family of enzymes in various aspects of cellular regulation. Dr. Litchfield is a past recipient of a Research Scientist Award from the National Cancer Institute of Canada as well as the Premier's Research Excellence Award from the Province of Ontario. The Litchfield laboratory currently derives operating funds from the National Cancer Institute of Canada and the Canadian Institutes of Health Research as well as funding from the Natural Sciences and Engineering Research Council of Canada for a collaborative project with the laboratories of Drs. Chris Brandt and Brian Shilton. In recent years, David has been a very active participant in the peer review process and has served on panels for the Canadian Institutes of Health Research, the Medical Research Council, the Heart and Stroke Foundation of Canada, the National Cancer Institute of Canada and the Leukemia Research Fund of Canada. In the most recent competitions, David was a member of the Cell Physiology Panel of the Canadian Institutes of Health Research and the chair of the Biomedical Research Personnel Awards Panel of the National Cancer Institute of Canada. Since establishing an independent research program, David has been a very active participant in many aspects of the training of graduate students. David is married with two young children, a son born in 1995 and a daughter born in 2000, and enjoys the outdoors and a weekly game of pickup hockey.

Dr. Joe Casey, Councillor

I was born in 1963 in Lansing, Michigan, while my father completed his Ph.D. in Psychology at Michigan State University. Having been born into a university environment may explain why to this day I am still at university. I emmigrated to Canada with my family in the heady days of the summer of 1967. As an immigrant I think I have developed a very strong appreciation for Canada and what it stands for.

David Litchfield, Councillor.

I spent my primary school days in Kingston, Ontario and went to high school in downtown Toronto. I loved chemistry even then and believed it was in my blood, since my maternal grandfather was a paint chemist. Before starting university I read a Scientific American article on biotechnology that convinced me that biochemistry was the future.

From 1983-1987 I studied biochemistry at Queen's University, Kingston. During those years I had many influences as a nascent biochemist. I worked two summers in the plant physiology laboratory of Ken Budd, Department of Biology. Those summers were a dream for me, since Ken gave me a huge amount of latitude for a summer student. I learned about biochemistry as a lifestyle by coming into the lab at all hours to take readings of cyanobacterial growth. I also got my first exposure to protein chemistry, doing some crude purifications of pyruvate dehydrogenase from cyanobacteria and characterizing its kinetic properties on a massive Cary 210 spectrophotometer. My last summer as an undergraduate was spent with John Elce, Department of Biochemistry. There I further honed my protein purification skills on calpain and learned a lot about immunochemistry. My first exposure to molecular biology was in the laboratory of Peter Davies, where I completed my B.Sc. thesis on antifreeze gene chromatin. At the Queen's Outdoors Club I also met my wife, Rachel Wevrick.

Dr. Joe Casey, Councillor

In 1987 with a fresh B.Sc., I knew I wanted to study protein chemistry. It was the advice of Allan Mak and Peter Davies that lead me to the Department of Biochemistry, University of Toronto, to work with Reinhart Reithmeier, and fateful advice

that was! Little did I know it was membrane proteins that were to be my focus, which it has stayed to this day. I spent five fantastic years working with Reinhart, a superbly generous and insightful supervisor. After trying my hand at just abut every protein chemical and biophysical technique that could be thrown at the erythrocyte membrane anion exchanger, Band 3, I decided that for postdoctoral work I would like to combine molecular biological approaches with protein chemical techniques.

So off I went to work with Ron Kopito at Stanford University. Ron had cloned the genes for all the family members of the anion exchanger family. I dove back into molecular biology for the first time since working with Peter Davies. Things had changed. There were a lot more kits and everything had become easier to do. I continued to study anion exchangers, developing a yeast expression system to facilitate expression and developing the tools to use introduced cysteine mutants and cysteine-specific protein chemistry to study anion exchangers. My three years at Stanford taught me how to tackle big research problems and added to my tool kit a new set of cell biological and molecular biological approaches. I also discovered that I love mountains, which contributed to my decision to move to University of Alberta, to join Jim Young's Membrane Transport Group in the Department of Physiology.

Dr. E. Bruce Waygood, Councillor

Since 1996 I have been an Assistant Professor, Department of Physiology and have been an MRC and Alberta Heritage Foundation for Medical Research Scholar and Senior Scholar. With funding from CIHR and Heart and Stroke Foundation, my lab has focussed on the study of structure, function and regulation of plasma membrane anion exchange proteins. Recently we have begun to study a second class of bicarbonate transporters, the sodium/ bicarbonate co-transporters. Since 1997 I have been a member of the CIHR group in Molecular Biology of Membrane Proteins, headed by Marek Michalak. The group has provided an exciting research environment for me and the people in my laboratory. Marek and Jim have been a huge help in guiding my early independent career.

Outside the lab I keep busy with my family and outdoor activities. We now have two children, Sierra (6) and Adam (3). Whenever possible we visit the Rockies for hiking, mountaineering and skiing.

Dr. E. Bruce Waygood, Councillor

Professor Bruce Waygood is the University Coordinator of Health Research, a newly created position with responsibility for health research at the Universities of Saskatchewan and Regina. He is a Professor of Biochemistry at the College of Medicine, where he has maintained an active Medical Research Council (now Canadian Institutes of Health Research)-funded laboratory since his first appointment in 1977. He is currently Chair of the Interim Board of the Saskatchewan Structural Sciences Centre, a major Canadian Foundation of Innovation funded facility.

He has authored over 60 papers primarily concerned with molecular mechanisms of the transport of sugars into bacteria and antibody-protein interactions. He is an active collaborator with researchers who determine protein structures using either synchrotron or Nuclear Magnetic Resonance approaches. Prof. Waygood has had major international collaborations with researchers at the NIH (USA) and the Universities of Cambridge; California, at both San Diego and Los Angeles; Washington (Seattle); Ruhr (Bochum); and Princeton.

He has served on the MRC Biochemistry operating grants committee, Alberta Heritage Foundation for Medical Research Equipment committee, and was recently a member of the executive of the Canadian Society of Biochemistry, Cell and Molecular Biology recently. At the University of Saskatchewan, Prof. Waygood has served on most, and chaired some, of the major committees, and was on the Executive of the Faculty Association in the 1980s. He had a major role in the Biotechnology initiative, and was responsible for reform of the Biochemistry curriculum.

Prof. Waygood holds a B.Sc.(Hons) and M.Sc. in Microbiology from the University of Manitoba, a Ph.D. in Medical Biophysics from the University of Toronto. His postdoctoral work was at Johns Hopkins University, and he has been a visiting professor in Biochemistry at University of Washington (Seattle) and in Microbiology at the University of Ruhr (Bochum).