

	<h1>Newsletter</h1> <p>OCTOBER 2002 Volume 29.2 Tony Petric, EDITOR</p>	<p>in this issue:</p> <p><u>Pension Surplus</u> <u>MacCycle</u> <u>Committee Appointments</u> <u>Funeral Advisory Society</u> <u>General Medical Devices</u> <u>New Members</u> <u>W. Brian Clarke</u> <u>Money Matters</u> <u>General Meeting</u></p>
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Pension Surplus Distribution Timing Uncertain

A new development in the ongoing Pension Surplus saga threatens to delay further the distribution of payments to members and to the University. In a message to the University Community dated October 9th Leslie Robb (for Plan members) and Simon Ouellet (for the University) reported that a complaint had been received by FSCO that will need to be dealt with before the approval can be given. Apparently, even if the complaint has no merit, it could cause administrative delays because of the time it takes to establish a tribunal to hear the complaint. Robb reported that it is his understanding that it could take as much as a few extra months just to see the appeal dismissed as frivolous and perhaps as much as 6 months if an appeal hearing is actually held.

Robb explained that the parties to the surplus distribution (the Members Committee and the University) have not yet received the letter of complaint but have been informed that one has been filed. Once the request for appeal is received, the law firm for the members and the law firm for the University will need to request standing at the preliminary hearing and prepare to make representations there. The parties to any appeal would be the Superintendent of Pensions and the appellant.

Robb and Ouellet reported in their e-mail message to the University community that costs of any appeal could be substantial and the Member's Committee and the University would be requesting that the appellant bear the costs if the appeal is unsuccessful. Robb indicated that since the courts had already ruled that the distribution is lawful, unless some entirely new ground for an appeal was put forward, any appeal would simply be on grounds that have already been ruled out by the courts and hence frivolous.

When asked why a decision could not be made immediately on whether the appeal is frivolous, Robb reported that, within the Financial Services Commission of Ontario, there is an entirely separate administrative body that deals with appeals (since the appeals themselves are to decisions of the Superintendent of Pensions itself) and the appeals are heard by a tribunal drawn from a panel of professionals within the pension industry. The administrators themselves do not want to rule on whether the appeals have legitimacy so they automatically go through the process of striking a hearings tribunal to deal even with the issue of whether the appeal is frivolous. It is a cumbersome procedure, Robb

suggested, but one designed to protect the interests of pension plan members.

MACycle Co-op Has a Message to Peddle



Everyone in Hamilton bears the cost of our society's dependence on the automobile, be it in the form of atmospheric pollution, road congestion, urban sprawl or inner-city decay. Every morning and every evening the same automotive cholesterol clogs our University entrances. Finally, a group of students has formed to help alleviate this problem, and have a little fun besides.

McMaster University is now home to MACycle Co-op, a group hoping to promote cycling both as an alternative mode of transportation and as a form of recreation. The Co-op has established itself on campus with a not-for-profit workshop located beneath the Phoenix Lounge in Wentworth House B115B, complete with bicycle servicing facilities and a resource centre to provide information about all things cycling-related. Free classes and seminars on topics such as bike repair and safety will be offered, and the Co-op hopes to host on-campus events as well.

Currently, there is no discernable voice for cyclists at McMaster, and an additional goal of MACycle is to fill this void. Circumstances are presently ideal for MACycle to make a difference in how faculty, staff and students alike choose to commute to campus, and the Co-op will work with the University administration and Parking and Transit Services' new Alternative Commuting and Transportation Office to create a Cycling Plan for McMaster. To this end, the Co-op hopes that McMaster faculty and librarians will be willing to share their knowledge and experience with the group.

The students at MACycle Co-op are inviting McMaster faculty and librarians to join them as they promote cycling as an alternate mode of transportation. Faculty and librarians can join the Co-op for \$15.00 a year — roughly the same cost as getting a flat tire fixed at a local bike store. Memberships are available at the Compass Information Centre in the MUSC and at the Co-op office in Wentworth House. Also, faculty and librarians are invited to check out the website (www.msu.mcmaster.ca/clubs/macycle) or drop by the office at any time to ask questions.

Sarah Roger



More Committee Appointments

Many thanks to the following individuals who have volunteered to serve the Association. **David Hitchcock** has agreed to serve as Council Representative for the Department of Philosophy. **Imre Szeman** will represent MUFA on the Labour Practices Advisory Committee. **Andy Muller** and **Roman**

Viveros-Aguilera have joined the Association's Academic Affairs Committee.

Flu Vaccine Clinics in the Works

Employee Health Services plans to hold Flu Clinics again this year — probably during the first two weeks of November. Watch for flyers and e-mail up-dates.

The Funeral Advisory Society of Hamilton & District

Who belongs to Memorial Societies?

Our members — more than 3,000 individuals and families in Hamilton and District, come from every walk of life and many age groups. They prefer simple, dignified and moderately-priced funerals, and usually prefer to avoid embalming, cosmetology, and open casket viewing.

Many choose to remember the life of the deceased in a memorial service after the body has been cremated or buried.

Most members prefer to spare their survivors the stress of making difficult decisions at the time of bereavement. They give the information about their preferences in advance to their next of kin and the funeral director of their choice.

Members are free to choose the arrangements that are most appropriate for their own individual situations.

For more information, telephone 905-389-8240.

Need to Know: Your Benefits

General Medical

Devices

In a benefit year (July 1 to June 30) reimbursement of the cumulative costs for General Medical Devices shall be as follows:

- 0% for the first \$50 (the “deductible”)**
- 75% for the next \$400**
- 100% for the cost beyond the deductible+\$400**

Home Care Devices

These cover expenses required to care for the infirm outside hospital, excluding the cost of home or other renovation. Examples are hospital beds, bath lifts, commodes, eggcrate/gel mattresses, etc. If the equipment is only required for a limited period, only the cost of rental will be payable. The decision whether to rent or buy shall be left to the Plan Administrator. For any rental of home care devices, the deduction for the first \$50 applies only in the first year.

Mobility Devices

These cover expenses required to allow increased mobility in and outside the house if medically appropriate. Examples are wheelchairs (electric only if individual cannot power a manual chair), wheelchair lifts, scooters, rollabout chairs, walkers, canes, crutches, etc. Wheelchair inserts and pads required for use with a chair are also covered. If the equipment is only required for a limited period, only the cost of rental will be payable. The decision whether to rent or buy shall be left to the Plan Administrator. In the case of rental, the \$50 deduction applies only to the first year.

Braces, Trusses, Supports

These cover eligible devices required to minimize pain or support part of the body in an appropriate position. Devices required for only sports or recreation are not covered. Examples are leg, knee and neck braces.

Prosthetics

Expenses required to replace parts of the body lost due to

illness/injury or malformation. Devices required to support only sports or recreation are not covered. Examples are artificial eyes, legs, arms, etc. and breast prosthetics or chin reconstructions are covered following surgery. Wigs are covered, following radiotherapy or chemotherapy or if hair loss is due to disease, to a maximum of \$500 subject to the same co-insurance levels noted above.



New Members

Ilham Akhundov	Math & Statistics	Peijun Guo	Civil Engineering
Andre Bedard	Biology	Mohamed Hamed	Mechanical Eng
Guy Chamberland	Classics	Niamh Hennessy	Communications Stds
C. H. (James) Chen	Elec & Computer Eng	Paul Higgs	Physics & Astronomy
F. Victor Chu	Surgery	Lynne Lohfeld	CE&B
David Conochie	Materials Science	Brenda MacMurray	Science
Gregory Davies	School of the Arts	Terry Paynter	School of the Arts
Dimitrina Dimitrova	Sociology	Agness Tourin	Math & Statistics
Ian Fearon	Biology	Maria Wallis	Sociology
Leslie Gordon	Mills Library	Alan Wassying	Computing & Software
Eileen Grace	Nursing	Hui June Zhu	Math & Statistics



(The following is a eulogy delivered on October 8, 2002)

Brian Clarke obtained his PhD in physics at McMaster University in 1962 working with H.G. Thode on heavy noble gas isotopes in meteorites. After a brief post-doctoral stint at McMaster, he spent a couple of years at UCSD (Scripps) as a post-doctoral with the Nobel Laureate H. Urey. In 1965, he returned to a professorship at McMaster, where he remained until retiring.

It was during his tenure at Scripps, and on his return to McMaster that his interests turned to the ocean. At the time there was considerable interest in determining the amount of heat-producing radioactive isotopes in the earth, and some workers had tried to measure the earth's emanation of the byproduct of their decay, helium-4, by measuring the concentration of helium gas in the deep ocean. Unfortunately various other processes conspired to mask this subtle signal, and the results were not very clear. Brian had the very clever idea of measuring the isotopic ratio of helium, since the resultant ratio change would be unambiguous. Making the measurement to an accuracy necessary to resolve the signal, however, was not so simple. In fact, most textbooks back then would say it was impossible.

**W. Brian
Clarke**
Professor
Emeritus
Physics &
Astronomy
1937-2002



This, however, didn't deter Brian, who was a very clever and inventive experimentalist — and a determined one at that. After a lot of ingenious effort and hard work, he made the measurements, and the rest is history. I use the term “history” advisedly, for what Brian discovered revolutionized both geochemistry and oceanography. What he found was that not only was there this excess helium-4 emanating from the decay of the heat-creating radioisotopes within the solid earth, but also an even greater (and far more surprising) excess of helium-3, a primordial isotope that was incorporated in the earth during its formation. The ultimate origin of this helium-3 was from the Big Bang — the creation of the universe. He had discovered direct evidence of primordial degassing. Brian immediately recognized the significance of this discovery, and published his seminal 1969 paper with his student (M. A. Beg) and Harmon Craig.

The paper marked a punctuation point in modern geochemistry. It spawned a fierce response in the literature, and a number of lines of significant scientific inquiry, many of which formed the basis of good scientific careers. There are at least four major ongoing research areas that find their roots in this work. First is the use of helium isotopes to study the structure and evolution of the earth. This forms a central pivot on which our ideas about how the earth and atmosphere were formed and have evolved over time. Second is the use of this isotope ratio to prospect for and study deep-ocean hot springs. These hot springs are perhaps the most visible and exciting ocean discovery in the popular press, but the finding of primordial helium-3 was an important foundation on which this discovery was based. Third is the tracing of helium-3 plumes in the deep ocean, learning about abyssal ocean circulation and mixing. These plumes are seen throughout the deep oceans of the world, extending for tens of thousands of kilometres around the globe. Fourth, this discovery led to a new ocean dating technique called tritium-helium dating.

The last is near to my own heart, and particularly indicative of Brian's experimental and scientific genius. Recognizing that there was an interference in the primordial helium-3 “signal” due to the decay of bomb-produced tritium (tritium decays to helium-3 with a 12.5 year half-life), he wanted to correct the observed helium-3 values in the shallow ocean for this interference. In order to do this, however, you had to know how old the water was (that is, how long it had been away from the ocean surface). When he found out that nobody really knew this time, he realized that this was a way of determining the age of the water. Thus tritium-helium dating was born. This technique has now been used extensively in the oceans, teaching us about ocean circulation, ventilation, and biological productivity.

Brian also recognized that the traditional ways of measuring tritium was cumbersome and inaccurate. He used his expertise to develop a new way of measuring tritium from the regrowth of helium-3 during storage (Clarke *et al*, 1976). This revolutionary approach ultimately bettered the old techniques by a hundredfold in sensitivity, and is now the only technique seriously used in oceanic tritium measurements. The 1976 paper not only revolutionized tritium measurement techniques, it contained two other valuable nuggets. The first is that he

determined the absolute atmospheric helium isotope ratio — a measurement that still stands a quarter of a century later as the definitive number. The second nugget is that he uncovered an inconsistency in his results with the then-reported half-life of tritium. Within a few years, the NBS/NIST and IAEA subsequently redetermined and corrected the half-life. His 1976 paper was a remarkable *tour-de-force*, since it required an incredible mixture of experimental ingenuity, extreme attention to detail, and remarkable insight. This typified Brian's genius.

And the work continued. Along the way, Brian pioneered two other dating techniques in lunar and terrestrial rocks (Al-Mg and Xe-Xe). He invented a new generation of branch-tube mass spectrometers that he unselfishly shared with others (and are now used throughout the world). He extended his helium isotope techniques into lake and groundwater research, and uranium prospecting. He pioneered the measurement of lithium and boron at ultra-trace levels in human blood protein. It was very clear that Brian's scientific horizons were very broad indeed.

Thus it is fair to say that Brian has left an indelible mark on earth and ocean science, and history must recognize his many contributions. Rest assured that his work is being carried on by his students, and his students' students...and their students too.

I must end, however, with a personal observation of Brian that I treasure the most. As one of his PhD students, I had the pleasure and benefit of his personal tutelage. I learned perhaps only a portion of the many skills that he had in the laboratory, and I continue to try to emulate some of his intellectual acuity and observational prowess. I have to think that the few things I've accomplished in my work are but a cloudy reflection of his brilliance. But the most powerful tool Brian gave to me was his sense of humour, and his enjoyment in doing science. He had a twinkle in his eye, and an infectious laugh that was impossible to resist. He not only worked in the lab — he played. You could tell he was having fun. He was intensely involved in his science, and enjoyed challenges. He had a remarkable ability to think laterally around problems. Brian really liked people, and people genuinely took to him on first contact.

I always carry a little of Brian with me, wherever I go, whatever I do. Whenever I encounter a challenging problem, the thing that comes to my mind is "what would Brian do here?" I shall miss him very much.

W. J. Jenkins



Money Matter\$



In response to requests from our members for financial information, we are pleased to provide the following column on what we hope will be a regular basis. The information below has been supplied by Joe Gadoury of Berkshire Securities. Please contact Mr. Gadoury directly at 905-529-5505 if you have any questions or require clarification.

Taking Control of YOUR Financial Future

In our last issue, we introduced the first of the 5 Laws of Wealth Creation — Set the Goal and the Time Frame to Achieve It. Keeping all your goals within short, medium and long term perspectives can help assure better success in perpetuating your financial well being. But many can't do this alone. Many wouldn't even know where to start. That's where the next law comes in.

Wealth Law #2: Use Other People's Knowledge

“Jack of all trades and Master of none” is an oft heard phrase. However, in the capacity of Taking Control of your life, there is a need for guidance from those who are disciplined in a different vocation from yours. Everyone goes to work managing their certain lot in life and there are professions that are better handled by other people who are qualified to do so. So we at Berkshire have come up with this concept of your own personal board of directors.

As every business is run by managers and those managers are run by a Board of Directors, so too should you seek out a similar structure within your life. Among your counselors could be the following: Doctor; Dentist; Lawyer; Clergy; Accountant; Mechanic; General Insurance Broker; Financial Advisor. While you can handle some of the disciplines performed by these individuals yourself, the odds are that the complexities of each profession may or may not be known by you and it's definitely to your benefit to utilize their skills.

When it comes to investing, there are a lot of do-it-yourselfers out there. There are those who like to trade on the internet themselves, or use a discount broker who doesn't do any research so it's the individual who is doing the investing. They may be well-versed in some specific areas of investment management, but a good financial advisor should have a broader scope of knowledge. The various concepts such as cash flow and debt management, tax efficient portfolios or taxation should be recognized. They should be well-versed in all these different areas because each of them has their own sets of rules.

The business of investing is so dynamic, since the rules, tax legislation and investment offerings are forever changing. So keeping abreast of all these changes can be challenging for even the most seasoned investor.

Further to these generic tenets there is also the need to understand the psychology of the individual as well. How do they interpret risk? What is their informational 'need to feed' requirements? What is the depth of their understanding of the myriad of investment vehicles available?

I, for one, admit that with so many offerings out there, even I have become confused as to what best suits each individual client at times. Especially when markets spiral out of control. So to help with my selection process on behalf of those clients, I have chosen another set of individuals to be included in my personal “Board of Directors”. They include some of the greatest names in the business of wealth creation — Warren Buffett, Sir John Templeton and Peter Lynch, just to name a few.

Each of these individuals has practiced “buying companies of the highest quality and holding onto them so long as they remain qualitative companies” with extraordinary results over time. I truly believe that by following in the footsteps of the most successful investors in the world and allowing time and patience to

do its job, you will certainly be rewarded over the course of your lifetime. And remember — even a new retiree has the ability to live another 25 - 30 years — and that, to me, is still a “long term.” So, who’s on your Board of Directors?

Author’s Note - if you wish copies of our normal quarterly newsletter, please send either your e-mail address or postal address to: jgadoury@berkshire.ca. Back issues are available upon request.

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This publication is not meant to provide legal or account advice. As each situation is different you should consult your own professional advisers for advice based on your specific circumstances.



MUFA General Meeting

Note this date and time

Monday, December 9, 2002

2:00 p.m.

Council Chambers (Gilmour Hall Room 111)

October 23, 2002

pdk