John M. D’Auria, 1939-2017

John D’Auria was appointed at SFU in 1967 following his Ph.D. at Yale and a one-year post-doctoral fellowship at Columbia. The Chemistry Department had an emerging program in nuclear science, John’s specialty. This was in anticipation of the arrival of TRIUMF (the Tri-University Meson Facility) a 500 MeV cyclotron to be built on the UBC campus by the three BC universities, quickly joined by the University of Alberta. TRIUMF opened in 1974 and today is operated by a consortium of eighteen universities as Canada’s National Laboratory for Nuclear and Particle Physics.

In 1967 SFU was still a frenzy of activity, having only opened of course in 1965, an instant university built from scratch. And the faculty were remarkably young, many under the age of 30. The campus was bubbling with energy and enthusiasm and John was a perfect fit. His wonderful New York accent, his fascinating vocabulary—a classic phrase was “Get outa here!”—and his booming, welcoming laugh set him apart. His energy and drive and his positive and enthusiastic attitude were always at the fore. Because of his outgoing Italian warmth and collegiality he built close, personal friendships with many of his colleagues in Chemistry that were to last for 50 years. He also built a strong network of colleagues and friends internationally and was an exceptional team-builder within TRIUMF.

John was a natural teacher with an excellent rapport with undergraduate and graduate students alike. His energy and enthusiasm for teaching never waned over 37 years and indeed beyond. He graduated 14 Masters and Doctoral students and, in addition, he was a mentor to many dozens of undergraduate students, who actively sought him out to work on summer research projects at TRIUMF. In summary, John was very popular and successful teacher, respected by all his students. At the same time his sound advice, council, collegiality and energy were actively sought on committees across SFU and TRIUMF, and throughout the international scientific community in nuclear science.

In 1975, John took off with his wife Jacquie and his family to CERN near Geneva on sabbatical. John became intrigued by a new facility at CERN, to make, isolate and study rare, short-lived radioactive isotopes with half-lives of only seconds or less. Many of these rare isotopes, which had not been available for detailed study in the past, are thought to play key roles in the nuclear reactions in stars and supernova that produce the stable elements of our real world. As is often said, we are all indeed made of stardust.

This was something of an epiphany for John. Now began a long, continued on page 4
President’s Report
Frances Atkinson

As we start the new year, I would like to mention key changes and activities that have occurred since my last report in the fall newsletter and give you some information about our upcoming activities this spring.

We were all very saddened by the passing of John D’Auria, former President of SFURA who served on the Board for five years. John was highly dedicated to volunteer leadership and was very hard working, enthusiastic and generous to work with. Among John’s many contributions on behalf of SFURA was his leadership in creating significant legacies for the benefit of the University, including the SFU Retirees Association 50th Anniversary Scholarship that is annually awarded to 2 students, and our book Remembering SFU On The Occasion Of Its 50th Birthday that includes stories written by those who were at SFU in the early years. We were honoured to be able to present a signed copy of the book to John’s family at his memorial service in Mount Seymour United Church in November, and to acknowledge John’s contributions in a brief speech. On behalf of all who worked with John, we will remember him with great affection.

Three seminars were successfully presented by Ted Cohn, Bruce Brandhorst, and Kate Bird over the fall on Burnaby Campus. We look forward to the next three seminars in the Spring series: Social media - where do we go from here?, Richard Smith, Jan 16th; Pain in the human animal: what is it?, Kenneth D. Craig, Feb 20th; and Internet Fraud and Scams: A Growing Form of Financial Exploitation Targeting Seniors, Gloria M. Gutman, Mar 20th. Further information on all three can be found at the www.sfu.ca/retirees website.

I regret to inform you that our Speakers Program Coordinator for the last three years, Yasmin Jamal, has decided to step down from the coordinator role due to pressures from her many other activities. In this role Yasmin has exemplified the saying “if you want something done ask a busy person to do it” with great skill, dedication, and good humour. Many members have remarked on how much they have enjoyed Yasmin’s emails about the upcoming talks.
Our deepest thanks are due to Yasmin for all her hard work in the coordinator position, and for leaving the upcoming Spring series fully organized. I am happy to announce that Apollonia Cifarelli has agreed to take on the role of Speakers Program Coordinator, and we welcome Apollonia to that role.

In November we had our annual fall dinner at the Italian Culture Centre, and according to feedback it was a big success, particularly in terms of the excellent food and Ron Baker’s humorous recitation of two songs about the early days of SFU. The Board agreed we should keep this venue on our list for future events.

Our next event will be the annual “Ides of March” lunch that we are planning for Thursday March 15 at one of the downtown campuses. This lunch doubles as the time for annual membership renewals. We intend to advertise the event to all SFU retirees as well as to current SFURA members, with the aim of encouraging a good number of new as well as returning people to join SFURA. At the event we also intend to honour all members who are at least 90 years of age as a mark of respect for resilience and inspiration for those of us who have not yet reached that venerable age.

Over the fall the Board has been busy with a number of outreach initiatives, including looking into forming a local area mini-community on the North Shore; participating in the next SFU pre-retirement workshop; forging stronger links with SFU’s Continuing Studies Liberal Arts and 55+ program; discussing with SFU Vice President External Relations Joanne Curry our participation in the Burnaby Festival of Learning that is jointly organized by The City of Burnaby and SFU and will take place in May 2018; and a proposed new mentorship program “SFURA Members Mentoring SFUFA Faculty” that will covered in a separate article in the next newsletter. We will be sending out more information about all these initiatives in due course.

Finally, I would once again to thank all volunteers, whether on the Board or not, who have helped out in any way with our various activities over the fall.

A very happy new year to all.

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Cathy Busby: WE CALL May 20, 2017 - April 28, 2018 Teck Gallery, Harbour Centre
WE CALL at the Teck Gallery parallels Busby's collaboration with the Gitksan Wet'suwe'ten Education Society in Hazelton, BC to produce an iteration of the wall text painting on their campus. [http://www.sfu.ca/galleries/teck-gallery/CathyBusby-WE-CALL.html](http://www.sfu.ca/galleries/teck-gallery/CathyBusby-WE-CALL.html)
hard slog to drum up support locally, nationally and internationally to build a similar facility at TRIUMF, but with a greater range of capabilities. John's enduring qualities of energy, commitment, collegiality and far-sightedness would eventually win out, assisted by his many national and international friends and colleagues. W.A. Fowler from the California Institute of Technology, the father of nuclear astrophysics and 1983 Nobel laureate in physics, was an enthusiastic supporter. At a key TRIUMF workshop organised by John on Radioactive Ion Beam facilities at Parksville on Vancouver Island in 1984, Fowler emphasised the importance to the future of the field of nuclear astrophysics of developing the ability to accelerate beams of short-lived radioisotopes to allow the study of nuclear reactions responsible for elemental synthesis in extreme stellar environments.

In 1985 TRIUMF approved modest funding for the first step along the path to establishing a leading research presence in the field of radioactive ion beams. A test isotope separator (TISOL) was to be built under John's leadership, a facility where specifically identified, short-lived radioisotopes would be produced by cyclotron bombardment, separated from the host of contaminating radioisotopes and experiments then conducted with them. Design and construction of TISOL required a large team of dedicated, highly-skilled scientists, engineers and technicians. John's ability to forge a strong working relationship within the team and to motivate and maintain their enthusiasm was exceptional. A landmark astrophysics experiment relating to nuclear reactions in Red Giant stars resulted in an internationally acclaimed publication in 1993. This experiment threw light on the observed ratio of elemental abundances of carbon and oxygen across our galaxy. There were sixteen authors on the paper, led by John. It had taken seventeen years since his sabbatical at CERN.

In the early 90's a proposal to convert TRIUMF into a Kaon factory had been set aside because of lack of financial support from the federal government. The result of the Red Giant experiment at TISOL gave TRIUMF the confidence to move forward to the next step in 1994 to build ISAC (an Isotope Separator and Accelerator). This $28 million facility produces a wide range of separated short-lived radioisotopes using the TISOL technology and can then accelerate them to high energies, opening up whole new areas of astrophysics. John was chosen by TRIUMF to lead the team to build DRAGON (the Detection of Recoils and Gamma Rays of Nuclear Reactions), a leading experimental facility to take advantage of the accelerated ion beams at ISAC. DRAGON led to a landmark paper on White Dwarf stars published in 2003. This experiment provided critically important information on the formation of Na-22 thought to occur during thermonuclear runaway on the surface of a White Dwarf star within a binary star system. This radioisotope emits radiation that can be used to monitor processes within such a star system, using earth and satellite-based observatories. There were 28 authors on the resulting paper, with John as the DRAGON team leader. Yet again John had built and motivated a remarkably successful team.

John's research extended well beyond the two specific examples described here. He published prolifically with his name on no fewer than 177 papers as principal or co-author. Following the Red Giant paper, he was highly sought as a speaker at international conferences, and laboratories world-wide.

TRIUMF has since gone on to build ISAC II ($25M) to accelerate short-lived radioactive ion beams to even higher energies and is currently building ARIEL ($34M), a 70 MeV electron accelerator which will be used to generate intense beams of gamma rays which, in turn, will be used to produce photo-fission in uranium targets.
The resulting spectrum of rare radioisotopes will provide unique opportunities for astrophysics research and for potential applications in medicine. The production and study of rare, short-lived radioisotopes has now become the central theme of TRIUMF’s research agenda. ISAC I and II now have 12 or so forefront experimental facilities clustered around them, studying not only key areas of nuclear astrophysics but also tests of the standard model of particle physics and the application of Beta-NMR spectroscopy as a unique probe in condensed matter physics.

John was required under university policy to retire from SFU in 2004, although he fought to be allowed to stay on. He continued to teach for several years at SFU on a post retirement contract and collaborated on no fewer than 17 research publications between 2005 and 2012. He also pursued an R&D project using the TISOL isotope separation technology as a new method of production of key medical radioisotopes, first at TRIUMF and then at the University of Missouri Research Reactor. As an extension of this, he also worked for 18 months for the US Department of Energy in Washington DC. And of course he served with distinction for two years with his characteristic energy and enthusiasm as President of the SFU Retirees Association.

John and his wife Jacquie were always full members of a very active group of retired SFU Chemistry faculty and spouses on the North Shore, with a constant, delightful round of dinners and celebrations, where too much wine was drunk, 50 years of SFU and family memories were relived and relived again, and world travels recounted and friendships celebrated.

John was made a Fellow of the American Physical Society in 2016 in recognition of his achievements in the field of nuclear astrophysics and his major role in the process of TRIUMF transitioning into what is now a world-class Radioactive Ion Beam Facility.

John has left a distinguished scientific legacy and will be long remembered by innumerable colleagues and friends at SFU, at TRIUMF, and internationally. Most importantly, he will be deeply missed by his wife Jacqui, their daughter Ellen and son Geoff.

John was diagnosed only in May of 2017 with ALS, which progressed very rapidly. John died October 22nd 2017.

This article is based on lengthy conversations with John in the summer and early fall of 2017 and valuable input from his colleagues and friends at SFU, TRIUMF, and Yale and his son Geoff. 🌞
Mrs. Lily Fu Checks Out My Tutoring

By Meguido Zola

Mrs. Lily Fu phones me about English tutoring for her daughter, Apple, in grade 5:

“She need reading, writing. She not so good. Like grade 2 only.”

Mrs. Fu wants to move her daughter from the neighborhood west side public school to a ‘private’ (independent) school—if she can pass the entrance exam: “Private school much better,” she explains. “Ooo . . . how so?” I ask chattily, in aid of sussing out what Mrs. Fu is looking for in tutoring.

“Private school just better. Crofton, York House, West Point Grey,” she reels them off sonorously, as if in irrefutable proof.

Apple will compete for a place next year, in grade 6, when independent schools hold their entry competitions.

Mrs. Fu is asking for a 2-hour tutoring block on Saturday mornings: not ideal, perhaps, but the only way she can also fit her twin six-year-old boys into soccer.

All other days and times are spoken for—Mandarin school, Goh Ballet, Mastermind Math, 4Cats art classes.

“Free time is only Sunday afternoon. We go to park.”

Toward the close of our exploratory conversation, Mrs. Fu tells me she’ll be “checking how you tutor”.

“Of course,” I say. “You have to be confident I make a good fit.”

I add that involved parents lead to students’ success. “It supports my tutoring when I work closely with parents.”

Just before ringing off, Mrs. Fu circles back to the subject of “checking how you tutor.”

She confirms: “You not mind?”

“Not at all, Mrs. Fu. I’m used to being observed. I give teaching demonstrations to my student-teachers at university, to teachers in schools, even to parents and the public.”

Saturday morning, a little before ten, I drive over to Earle Birney Tower, a few minutes’ ride away.

On my way, Mrs. Fu calls me—twice—to make sure I’m on time: “So, where you now?” she asks querulously the second time.

Finally, Apple and I sit side-by-side in the only other available space: on the double couch.

Apple and I instantly connect. She’s open, welcoming and friendly. We talk easily, freely, about what she hopes from the tutoring; what she likes, doesn’t like.

Mrs. Fu takes us into a small amenities room where we’ll tutor.

It’s choc-a-block full; a hive of activity.

At a large round table, a youth, rushing from one computer to the next, is tutoring half a dozen boys. Lots of chatter, someone yelling; one boy chasing another; another pair fussing on the carpet.

Around a second, smaller table, three girls are doing Math worksheets, tutored by a teenager not much older than her charges.

Mrs. Fu motions me imperiously to this smaller table with the girls.

I demur: it would be crowded; we wouldn’t be able to hear each other; and we’d intrude on the other girls’ tutoring.

Mrs. Fu tut-tuts, shaking her head side to side. She insists. We go back and forth.

Saturday morning, a little before ten, I drive over to Earle Birney Tower, a few minutes’ ride away.

On my way, Mrs. Fu calls me—twice—to make sure I’m on time: “So, where you now?” she asks querulously the second time.

I arrive at the front door of Birney Tower. Early.

Apple comes out, greeting me cheerily.

Mrs. Fu takes us into a small amenities room where we’ll tutor.

Finally, Apple and I sit side-by-side in the only other available space: on the double couch.

Mrs. Fu takes up an armchair facing us.

Apple and I instantly connect. She’s open, welcoming and friendly. We talk easily, freely, about what she hopes from the tutoring; what she likes, doesn’t like.

Apple is engaged in our
conversation. We have a bond.

I compliment Apple on her English name: “I like your English name, Apple.”

She beams. “How did you choose it?” I ask. “It’s natural . . . fresh . . . fragrant.”

She laughs: “Apple is for computer—not fruit.”

“Ah, yes, of course! I’m an Apple fan, too—the best. My favourite.”

“Before that, when I come to Canada,” Apple muses, “I choose another English name—I can’t remember what—but my mother doesn’t like it.”

We go on to talk about school, Apple’s friends, her teachers, her experiences in her new country.

Apple’s been in Canada not even a year and a half. I’m so impressed with her command of the language.

Mrs. Lily Fu gets up abruptly to pick up her twin boys from soccer practice.

In a few minutes, she returns, sitting the boys down, side by side, in upright chairs against the wall. They sit still, staring straight ahead. No movement, no word. Expressionless.

I ask Apple, as a way of reviewing for her and a way of making sense for her and her mother:

“So, tell me what you think we’ve been doing all this time? And why?”

“Oh . . . just nothing. Like talking, mostly. Like with counsellor.”

“Just talking?” I tease Apple. I explain that our conversation has allowed me to get to know her so I can best serve her needs. And I’ve had the opportunity to assess her language facility, her vocabulary, her use of verb tenses (a common source of difficulty). And her thinking—as in organizing, summarizing, abstracting, hypothesizing: the list goes on.

And conversation is important in its own right. It cannot be replaced with worksheets, pencil and paper drills, rote recitation.

I quote James Britton’s aphorism, summarizing the best research, that reading and writing “float on a sea of talk”.

Changing tack, I have Apple take me through her Sunday school reader. She reads aloud fluently: an abstract account of the Creation, from the book of Genesis. She reads easily and with expression. I marvel.

I skip over to a section in the book unfamiliar to her: the story of the Serpent and Eve. Apple responds thoughtfully, insightfully, to my questions.

I turn to Mrs. Fu: “Apple reads easily and fluently. And with understanding and expression.”

Mrs. Fu scowls; shrugs my comments off. “Is no good. Like Grade 2.”

Apple scowls back at her mother. Frowns. Purses her lips in a sulk.

“Apple also understands everything. She has excellent comprehension.”

“Is no good. Very easy. Grade 2.” Mrs. Fu repeats.

Apple scowls at her mother again. Hangs her head.

“Mrs. Fu,” I look into her eyes levelly: “In Canada, we don’t speak to our children like this. And we never speak about them in this way.”

Mrs. Fu stares back implacably into my face.

“We encourage our children,” I explain evenly. “We appreciate their
effort . . . and achievement. Apple is a fast learner.”

Mrs. Fu grimaces. She sighs; shakes her head, side to side.

I may have won over Apple. We’ve had a richly-packed, fun couple of hours. But I know I’ve lost her mother.

I realize I have failed Mrs. Fu in not proactively introducing and methodically deconstructing, at each step of the tutoring, precisely what I was doing, the intent, and the rationale; and, afterwards, deductively unpacking it all.

With my student teachers and with serving classroom teachers, the process I use is active and inductive: I teach children and then it is the teachers who unpack and process—on their own and with one another—what they witnessed, coming to their own discoveries and conclusions, through guided discussion.

Indeed, Mrs. Fu’s verdict is not long in coming:

“No more tutoring,” she announces. “Finished. Apple tutor herself next time.”

* * *

A little later, I share my misadventure with Mary, a colleague whose business card reads ‘Pronunciation Coach’ and ‘Accent Reduction Specialist’. Mary’s experience includes teaching in Japan, Korea and Indonesia, and front-line settlement work with Immigration Canada. Nowadays, she’s kept busy coaching newly-immigrated, high-powered executives experiencing professional difficulties, distress, crisis, failure.

The issues in her clients’ failure to thrive, she says, are rarely character, education/training, or experience. Not even language. They’re cross-cultural: they come down to intercultural gaps, misunderstandings, miscommunications.

Our biggest failure, as a culture and as individuals, in hosting and orienting the newcomer, in having him and her ultimately belong, Mary reflects, is lack of openness, transparency, directness about who we are, what we believe, value, stand for; our norms about what is culturally acceptable, appropriate, required—at work and socially.

The issues are many, complex, and vexed. They range from differing notions of democracy, community, authority, punctuality, hygiene, voice level and tone, personal space, etc., to navigating the various distance-power relationships in the workplace—and anything and everything in between.

What’s certain, Mary says, is that when, as ‘nice’, polite Canadians, we avoid—or use mitigated speech and euphemism to get around—being open and direct in surfacing and exploring these questions, we betray those whose interests we serve.

My lack of proactive deconstruction and explanation of my tutoring was an example of this. As well as my not surfacing our cultural bias against what we view as force-feeding and cramming in order to compete for a place in an independent school.

* * *

Last, my words, “We don’t speak to our children like this, we don’t talk about our children in this way,” may have been strong... they may have lost me Mrs. Fu . . . but they ultimately needed to be articulated in some form or another.

In any case, I stand by my words as I spoke them: just as if I’d been a teacher in school; it was my duty of care to Apple to speak these words to her mother, in defense of her child. ✤
On Doing Projects

Marilyn Bowman

Before I retired, work always supplied a flow of new projects, whether academic or administrative, and when I retired I was mostly freed from that automatic push to be engaged. But I soon realized I needed projects in my life—both those with end-dates, and those that can last me indefinitely. Most of us find we now have time to expand naturally-occurring projects such as gardening, family demands, and household renovations or moves. Others seek out new projects making use of dormant interests in music, carpentry, leisure sports, and art, while those who are more socially oriented, work in advocacy or provide volunteer help for others. Travelling can become a series of projects, demanding time and intelligence in figuring out what to do to get to distant friends and interesting places, and this travel is fairly similar to projects we did at work because it has an end-date. For some years I worked on a book and this served as a wonderful project, but it is done now and a big time gap has appeared.

Waking up each morning to an empty day is a particular risk for those of us who live alone without family nearby, because we are mostly free of the family projects that we can see expanding in the lives of our old colleagues. I am in that situation, and realize that some projects have gradually been emerging in my life that can continue indefinitely in the way that family can. They also enrich my life by involving good people; painting with others is a wonderful example.

There is another class of projects that poses some risks. Our bodies start to become newly expanding projects as various bits and pieces become a little bit broken in ways that can be patched a bit but cannot be fixed. Across my life medical intrusions tended to be repaired by experts, so it is now a new thing to discover that bits of my body that are a little bit broken, actually cannot be repaired. It seems important to resist any temptation to turn these bodily nuisances into projects, as they are too boring and time-wasting. To avoid this trap, other projects have to stay in the foreground as much as possible. Developing more skills in foreign languages is a project, with the great benefit that we will never master these, and can spend years working on them as nice endless projects with interesting links to history and geography. I have saved my old Latin and French schoolbooks anticipating this, but think that Greek and Chinese will be more interesting and challenging for quite a while. I’ll revive those when travelling to ancient cultures becomes too difficult.

While thinking about those more domestic projects, I have suddenly been triggered into a tizzy of activity over a new project arising from an invitation to give a talk in Hong Kong in October. This has created a frenzy of excitement with my pulse racing as I delve into my research files, plot the paper, and sink once again into all the wonderful and quirky materials I have collected over the past 15 years. I have to complete this file research before I turn all my files over to a young researcher in 10 days. I am freshly discovering that a project that truly matches our personal style and interests gives extra zap to all of life, and I feel very lucky to be asked to sink my teeth into a project perfectly matched to me.

Projects help give meaning to our lives, and this can arise from purely solo intellectual projects as well as from those involving interpersonal connections with family and new friends. I suspect that if we lose connections with meaningful projects, we risk living only to wait for the end. So let’s get busy.
Did you know that if you plant an apple seed and nurture the resulting seedling until it becomes a tree and bears fruit, you will obtain an apple that no other human being has ever seen? This surprising fact is one of the many reasons that apples are the world’s most popular fruit; others include the nature and diverse range of apple appearance and flavours, keeping qualities, and health benefits.

Are those the features that endeared me with a lifelong passion for apples? Whatever the reasons, apples have been a part of my life since childhood, for which I am thankful. And fortuitous circumstances made it possible for me to indulge this passion through much of my professional career. My wife Mary Ann and I came to Canada from Indiana in 1969, when I joined the Department of Biological Sciences at Simon Fraser as a biochemically-oriented plant biologist. Our first home, where we lived until 1979, was on a 1/3 acre lot in Coquitlam. Somehow we accumulated some 35 varieties on that property before we left for our second (and last) residence, that being a 7 acre property in what was then a rural area between Langley and Aldergrove. In addition to raising a family, I quickly began adding to those 35 varieties, and by the mid/late 1980’s, I had some 250-300 varieties of apple trees in the ground. It wasn’t difficult to accumulate any number of varieties one was crazy enough to want to grow. Agriculture Canada maintained a repository of over 700 varieties at the Post Entry Quarantine Station at Saanich, and larger collections were maintained in government facilities in eastern Canada and the US, and in most cases one could obtain budwood from these and other sources at no or nominal cost.

There wasn’t much thought that went into this endeavor; it was just a hobby that got out of hand. Reality began to sink in when these trees began to bear fruit. You can only give away so many apples. One thing I did right, though – I made a sign to attract customers and called the endeavor “Annie’s Orchard”. Mary Ann’s dad was the only person who ever called his daughter “Annie”, but now she was hooked. Anyway, several realities soon emerged. One is that if you give a potential customer a lot of options, the customer often cannot make a decision, whereas with only one or two options, that same customer can. A second is that while some customers like sweet apples, others tart, all customers want an apple that is crisp and juicy. And another is that many people remember the apples they experienced in their childhood and yearn to relive that experience. A fourth reality is the limitation posed by canker diseases that are favoured by the mild, wet winter climate of coastal BC but occur to a very limited extent if at all in the dry Okanagan climate,
and are the main reason why commercial apple orchards
in the Fraser Valley.

The response to these realities was that 250+ varieties soon became 40-50 varieties, of which Gravenstein, Honeycrisp, Bramleys, Cox Orange, King, Belle de Boskoop, Fuji and Northern Spy have accounted for about 80% of total sales.

Looking back, this relatively successful business model of having fresh-picked apples available for about 90 days each year, from the end of July through to the end of October, and meeting the specialized demands of recent ‘immigrants’ to the GVRD for apple varieties that they remember from the areas where they previously lived evolved because I had a wonderful primary occupation at Simon Fraser that provided income, flexibility, and enabled me to keep up-to-date with the most current trends in pest management more easily than would have otherwise been possible.

Now, one third of a century since we first started selling apples, it’s probably time to quit. I owe apples a lot. They’ve been a source of joy, discovery, making friends, and always having something to go to, rather than away from. And I’ve crossed a few varieties, obtained the seeds, planted them and seen quite a few apples that no other human being has previously seen. And some of these new apples are pretty good!
A rocket rise in price of bitcoins over the past year—from US$1000 to $20,000 and then back down a bit—rivals the infamous Dutch tulip bulb boom and bust of the 1630s. The tulip bulb frenzy has become a textbook example of commodities that undergo bubble and bust based almost entirely on expectations of their future price (“speculation”), rather than any inherent value in use.

Bitcoins are not obviously very useful in and of themselves. They are NOT, as some would assert, the world currency of the future. Certainly they are acceptable as a means of payment world wide, but only narrowly, and for just a minuscule fraction of the world’s goods and services.

Aside from their very limited transaction usefulness, they satisfy none of the three criteria that define a serious currency. They are NOT widely acceptable as a medium of exchange for goods or services, they are NOT a good store of value, and by virtue of the latter, they are NOT a useful unit of account.

It is true that millions of “investors” in bitcoins have made millions of dollars over the past year. But anyone who entered a contract one year ago to pay for something one year hence—say a used car—promising to the amount of bitcoins it was priced at then, is now obligated to almost 20 times the price in dollars than she would have paid had she bought it a year ago.

So too, anyone who bought something with bitcoins a year ago has had severe “buyer's regret” since the bitcoin price of the “something” fell dramatically, because its value in dollars rose dramatically. Imagine if you had bought a used car for 20 bitcoins last year when the bitcoin price was $1000. The bitcoin price today would be just under 1 bitcoin. One can feel your pain.

These examples illustrate why bitcoins are a very poor store of value, a very poor unit of account, and a poor medium of exchange, simply because their value in dollars has proved to be extremely volatile.

**Bitcoins’ Value in Use**

However, bitcoins do embody a couple of qualities, which while not unique, nevertheless do make them useful. Unlike paper currencies, or even bank deposits, they are not easy to counterfeit. And they can be safely stored on digital devices. Moreover they can cross borders without revealing the identities of buyers and sellers; thus they appeal to tax dodgers, drug dealers and their like.

Attached to each bitcoin are two passwords: one is publicly accessible (“open access”); the other is private, and known only to the owner. The open access password allows anyone who is inclined to do so to trace the details of every transaction it was ever used for, beginning with its first issuance. The first person to crunch through this process is automatically rewarded with a newly issued bitcoin (or some fraction thereof). But the process of tracing the history of a bitcoin is very difficult and slow. This slows down growth in the world’s supply of bitcoins, which is presently about 17 million. Moreover the technology underlying bitcoins automatically limits
the total supply to 21 million, a ceiling that will likely be reached soon.

To be the first to crack the provenance--and thus the credibility--of a new bitcoin transaction requires about 10 minutes of very powerful--and expensive--computer time. People who make a living this way are called “miners”. Many are based in China and India, where millions of people are not only computer-savvy, but relatively poor.

The “mining” process is very energy-consuming – current global cost is estimated as that of 3 million US households. The process also pollutes—not least in China, which relies heavily on coal to generate electricity. One of the world’s major sources of computing servers for rent to miners is in Iceland, where electricity is very cheap.

Because of their verifiability and thus potential acceptability anywhere, bitcoins are useful where the availability of local currency to travellers and importers is restricted and therefore overpriced in terms of foreign currency. I first became aware of this while travelling in Argentina in 2013, when it was hugely advantageous to pay for hotels etc. in peso cash acquired with US dollars via the black market. The official exchange rate available via banks or credit cards was very expensive. And in the boondocks, outside Buenos Aries, the black market was very thin; but some hotels would accept bitcoins.

By the way, some of you will know that the Waves coffee shop on West Hastings across the street from the SFU “Sears” downtown campus, has a bitcoin ATM. But I know of no business downtown that accepts bitcoins: SFU’s bookstore started accepting them in 2015, but no longer does.

**Bitchains: the Technology Underlying Bitcoins**

The essence of the inherent value embodied in bitcoins is that, as presently constructed (in 2008 by a mysterious person who used the pseudonym Satochi Nakamoto), all transactions are linked to a digital technology known as Blockchains. Indeed, the Blockchain technology was created before, and independently of, bitcoins.

Blockchain technology enables the secrecy, and also the security, of bitcoins. But the same technology has enormous potential to facilitate complex transactions that can be consummated independently of the bitcoin or any other crypto-currency. For example the world’s biggest banks – including Canadian banks – are already experimenting with “closed”, that is “not open access,” blockchain technology to facilitate large wholesale payments, notably in the enormous “interbank” market that settles accounts between banks world-wide.

And because blockchain technology can produce a so called “distributed ledger” that verifies the legitimacy of all assets that have been bought and sold in the past within the self-defined provenance of a “closed” blockchain, it has enormously valuable potential beyond simply enabling bitcoins and similar crypto-currencies: for example, to facilitate supply chains and automated contracts, or, indeed, land transactions in countries where there are no reliable deeds to titles or records of sales.

In short, bitcoins--and lesser-known but similar crypto-currencies--are experiencing an exciting—and very risky——speculative boom, but their potential as widely useful currency is hard to imagine. What is much more likely is that the “blockchain” technology which underlies them can be become enormously useful to verify and document ‘chains’ of transactions, whether or not they use crypto-currencies as a medium of exchange.
Finding My Voice As a Retiree and a Migrant

By Frances Atkinson

Recently I read an essay called The Spokesman and the Tribe, in Ha Jin’s book The Writer as Migrant. In that essay Jin discusses the difficulties that exiled or immigrant writers have with "voice". Specifically, as whom, to whom, and about what do they speak? While I don’t presume to be a writer, I found these questions very helpful with something I have been struggling with as a retiree and a migrant. When I was immersed in work and family affairs, the practicalities of life took care of such issues. But what is my voice now? And where is my place?

When Jin talks about migrants he distinguishes between exiles, emigrants, immigrants, and refugees. What is the difference? Does it matter? Reading Jin's essay I realize I have often self-identified as an emigrant under somewhat difficult circumstances, rather than as a voluntary immigrant. This suggests I may have reflected more on the leaving than the arriving (which was an entirely practical matter of putting one foot in front of the other and getting on with things.) Now as a retiree I have time, and questions come up anew.

Jin notes that migrants often fall into the role of explaining their native country to their new one, or vice versa. The migrant may seek out the role of explainer or be called upon to do so, particularly if their native country becomes newsworthy. Jin finds the explainer voice unsatisfactory and time-limited. He sees several traps including the explainer getting stuck in nostalgia, becoming stale and irrelevant as things change, and/or being accused by his or her native people of misrepresentation or selling out. Yet Jin does not advocate remaining detached or refusing to adopt the role of cultural interpreter. Instead he suggests focusing on similarities in human nature across cultures rather than on differences. For example, rootlessness is a condition commonly faced by migrants across countries, even by migrants within a large country such as Canada.

My voice developed, or did not, in two contrasting ways through career, subject domain, and practical family circumstances. In my professional life I delivered, interpreted, explained, and researched technology. My professional voice was adaptable internationally, independent of place. I presented at international conferences. As a family unit we had mobility for a time; we could have moved again and very probably would have. However, long-term family health issues across two continents kept me very place-based, both here and there. In important ways I remained active in both old and new places, at the family level. At the same time I did not develop a voice at the general social or cultural level in either place. (Arguably, a broadly applicable credible voice in either one’s old country or the new - say in political processes - may not even be realistic for a migrant, for some of the reasons Jin mentions. More importantly, I was too busy with basic issues to even try.)

Past determinants of place and voice are now over. Now as a retiree and a migrant I don’t have any clear answers to the questions, where is my place and what is my voice? However, Jin’s essay has clarified some key issues for me and I am grateful for that. It has helped me realize these are common dilemmas for many people, migrants or not. And that makes finding definitive answers less of an issue.

I would be interested in any comments you may have.
The Curve of Time

The Curve of Time, written by M. Wylie Blanchet, is an early classic in BC writing first published by William Blackwood in 1961 and recently republished in a 50th Anniversary edition by White Cap Books. Blanchet, better known as “Capi,” is Captain, mother and narrator, all rolled into one. In 1927 after her husband’s disappearance at sea and faced with the necessity of ‘making do,’ she rented their home on Vancouver Island each summer and took her brood of five young children to a small boat, the Caprice.

For much of the next two decades her family explored the British Columbia coastline, sometimes following the journeys of Captain Cook and Juan de Fuca. As a Newfoundlander I really enjoyed the book, partly because it describes situations and characters familiar from my own forty-odd summers on the Sunshine Coast, but also because her narrative brings us back to a world where the ability to function at sea with a cool head is essential. The book is also of interest to SFU retirees, who know Janet Blanchet, a founding member of the SFURA who retired from the Dean of Arts Office. Janet’s husband was John Blanchet, the youngest of Capi’s five children, and a child in arms during some of the adventurous early summers.

The first of these was a trip up Jervis Inlet, which cuts through the Coast Range of British Columbia and winds north for about 60 miles. As Capi tells us, once you get through Agamemnon Channel to the main Inlet, there is no shelter for a small boat to anchor. Nonetheless, on the first voyage described, they do stop at a small bay for lunch. The family is living on the land so she leaves the children near the logs on the beach and makes the difficult climb up a mountain to find lunch: “a perfect trout-stream, the water running along swiftly on a stony bottom: but with deep pools beside the overhanging banks, cool shade under the fallen tree trunks.” There, with an unripen huckleberry for bait, she catches several trout. Suddenly, she is seized with panic, knowing she must get back to the children. “Coming – coming” she shouts and scrambles back down through Devils Club to the beach, arriving with hands torn and bloody. The children can’t understand her distress but they do tell her about a man who has been watching them. In the far distance is a tall figure, dressed in black, standing there, hands hanging down. Suddenly the figure drops on all fours and rushes towards them. As the family races frantically for the dinghy, dropping the trout, Capi recognizes that her children have been standing between a mother bear and her cubs.

Her story is a mixture of personal experience, geography, natural history and nautical information. As the leader of these expeditions, Capi is a competent sailor and mechanic but she is also curious, intuitive and reflective. From one perspective the family’s summer-long travels have a certain logic – the attempt to follow some of the voyages of a number of early explorers, especially those of Captain George Vancouver who had explored, surveyed and charted the BC Coast in 1792. Later, the chance discovery of an artifact on their home property on Vancouver Island leads to visits to several First Nations...
settlements. Yet, as the book’s title and opening paragraphs tells us, her overall structure is more philosophic and reflects a certain concept of time and our place in it:

On board our boat one summer we had a book by Maurice Maeterlinck called The Fourth Dimension, the fourth dimension being Time – which, according to Dunne doesn’t exist in itself, but is always relative to the person who has the idea of Time. Maeterlinck used a curve to illustrate Dunne’s theory. Standing in the Present, on the highest point of the curve, you can look back and see the Past, or forward and see the Future, all in the same instant.

Standing at the trout pool, she has an intuitive perception of danger and instinctively acts to meet it. Later she links this same experience with J.W. Dunne’s precognitive dreams. We don’t have to subscribe to the same theories without recognizing that at times many of us have acted on seemingly irrational impulses that have proven, in hindsight, to be right.

Her experiences with the creatures of the wild like bears, cougars, vultures and natural phenomena like rapids, whirlpools, and slack tides are typical. So too are the characters she encounters, mostly single men who have settled in the wild and live on the land. There is the self-educated Mike from Melanie Cove who grows apples, keeps a classical library and corresponds with the psychic and outdoorsman, Stewart Edward White. His near opposite is old Phil Lavigne from Laura Cove, who speaks in patois, is said to have killed a man when young, and pragmatically collects the bounty on cougar skins. But both men and many others are kind and helpful to the sea-faring Blanchets, providing them with dinners, fresh vegetables and advice. More fearful are those settlers who have gone ‘bushed.’ In the section “Desolation” – which refers both to Desolation Sound and the family’s discovery of vultures on the beach with “something dead –” an empty cabin with the table recently set offers the reader a mini-mystery to decode.

Some of the family’s experiences at sea are hair-raising. A good sailor and mechanic, she regularly double checks her charts and consults with old settlers about the best waterways for small boats, but weather and wild water have a way of intervening. Not surprisingly she holds some of the attitudes and language common to her day, eighty-odd years ago, but not politically correct today. Nevertheless the book is well-worth reading as an introduction to the British Columbia coast as it once was.
The seminar on November the 7th began with a minute of silence to honour the life and contributions of John D’Auria who had recently passed away.

The four presenters were then introduced: Ahsen Ansari (investment advisor at RBC Dominion Securities), Christine Lowe (lawyer at Richards Buell Sutton LLP), Hussain Haji (senior manager at RISE CPA), and Adam Plank (tax partner at RISE CPA). These four presenters provided a broad spectrum of information in the fields of investment, taxation, and estate planning during retirement and avoiding taxation for one's beneficiaries after death. They explained how we can protect our retirement funds and minimize taxes, and illustrated their positions with examples. These and many other details can be viewed by visiting the SFURA website at http://www.sfu.ca/retirees/current-year/Tax_in_Life_and_Death.html

They described strategies to minimize taxes during retirement. These included, among others: using spousal RRSPs, pension income splitting, making use of TFSAs, and minimizing RRIF withdrawal planning. They noted that not all investments are taxed in the same manner and that it is important to create a cohesive strategy for wealth management.

They described the value of having a will as the legal declaration of one’s wishes regarding the disposition of assets after death. A will allows one to appoint a guardian for young children, choose beneficiaries, avoid taxes after death.

The presenters also made reference to Alter Ego Trusts and Joint Spousal Trusts. In such trusts anyone over the age of 65 can transfer assets on a tax deferred basis. Such trusts have some very distinct advantages that are well described online. Testamentary trusts are also available and have benefits such as: credit protection, flexibility and control, family income splitting opportunities.

The presenters also provided information concerning taxes after death. For example, when one spouse dies all assets are inherited by the surviving spouse. No taxes apply. When the surviving spouse passes away, there is a deemed disposition of all non-registered capital assets at fair market value. This results in capital being taxed and added to other income. For example, if children who already have a principal residence inherit a house and sell it after the death of their parents, 50% of the resulting capital gains would be taxed. One solution to this problem would be to add the name of a family member to the ownership of the house.

The presentation was well attended and well received.

The FIG group welcomes your suggestions for sessions of financial interest.
Doing Service for Others in Retirement

By Yolanda Broderick, B. Sc. (Chem Dept)

Even prior to my retirement in 2014 I was involved with various civic organizations in Port Moody where we lived for the last 18 years. In November 2014, I joined the Habitat for Humanity Women Build Program that requires raising a minimum of $1,000.00 in order to be part of the Program. The Women Build is a program that gives women the chance to empower themselves and others by fundraising and building homes for Habitat Families. It is an initiative to encourage women to give back to their communities while helping Habitat for Humanity Greater Vancouver build affordable homes. The Women Build program is not about excluding men, but about including women. Habitat Greater Vancouver was able to buy land from BC Housing on Ash Street, in Richmond. For my part, I raised $2,950 and became one of the top single fundraisers of Women Build. After almost 18 months, Habitat finally broke ground and by June 2017 I was part of a group of women who started building 6 homes on Ash Street in Richmond. Habitat builds homes through volunteers.

I was part of the first Women Build in June 2017. The next Women Build event is scheduled for January 23, 2018 (https://www.habitatgv.ca/womenbuild/). In 2016, I became Area Co-ordinator for the Tri-Cities Chapter of Soup Sisters (http://www.soupsisters.org/tricities.php). The goal of Soup Sisters is to gather different community members on a monthly basis to enjoy a social evening, while making soups for a local women’s shelter called Joy’s Place. The Culinary partner is Gallery Bistro, 2411 Clarke Street, Port Moody. Soup-making events are on the 4th Sunday of the month from 5:30 to 8:30 pm. Starting in 2018, we are holding the events every other month and special events on the non-alternating months. Currently we are booked up to February 2018.

In 2016, I became Area Co-ordinator for the Tri-Cities Chapter of Soup Sisters (http://www.soupsisters.org/tricities.php). Seven years ago while still working with the Chemistry Department of SFU, I initiated a thanksgiving outreach to the less fortunate, and with the help of SHARE Services Society, we hosted a free hot turkey dinner at Como Lake United Church on the Saturday of the thanksgiving weekend for 100 people. Since then we have served over 650 meals and this outreach continues today. We have 60 volunteers and all food is donated including the services of a BC Ferries chef.

I am also involved with the Soroptimist International of the Tricities (http://soroptimisttricities.org/). Soroptimist mean “Best for Women,” and we support women and teenage girls in need. Soroptimist is a global women’s organization whose members work to improve the lives of women and girls through programs leading to social and economic empowerment. There are 75,000 Soroptimists
across 120 countries around the world. Some of our projects are:

- **Bea’s Kloset**, named after a charter member of our club, Bea’s Kloset is a free “store” to help at-risk women start a new chapter of life. Women leaving transition homes or recovery, or aging out of foster care are referred to the Kloset, where they shop for free items needed for their new home (linens, appliances, cleaning supplies, dishes and more.) The Kloset is stocked with gently used household items from generous community donors.

- **Warm Place for Women.** This monthly social evening for vulnerable women and their children offers more than just a hot meal – it’s a place to share dreams! Each month, Warm Place for Women welcomes 70 to 100 women and their children to share a meal, socialize, shop for “free” clothing, play games, interact with guest speakers, do crafts, and even get a hug when they need one! This program – with 1,000 guests per year – started 9 years ago. Guests attend Warm Place for Women free of charge.

Currently I am Western Canada Chair for Celebrating Success Awards and Chair for Community Sponsorship.

I am very involved with my church as I am currently President of All Saints Catholic Women’s League in Coquitlam with 178 members. The Catholic Women’s League of Canada is a national organization of Catholic women forming loving women disciples to spread the good news of Jesus. In this capacity I have attended a diocesan convention in BC and a national convention attended by 973 women at Charlottetown, Prince Edward Island, last August. As this is also Canada’s 150th year, for 5 weeks between July and August, we flew to Ontario, packed a tent, a camping stove, an inflatable bed and a pump in our luggage, rented a car in Toronto and drove around from Toronto to rural Quebec, Montreal, New Brunswick, Prince Edward Island, Cape Breton (Cabot Trail), Nova Scotia and back. We stayed in hotels and camped at some beautiful places such as Fundy National Park. During this trip, I realized that Canadians are very friendly, polite and helpful, and that we do live in a great country.

Professionally, I also run a small consulting company named YJB Business Services. It has been around for over 10 years but as we got busy with our careers we lost our focus on the business, so I am now running it with a focus on career transitioning, seeking employment, using human resources and applying small business strategies. Health wise, I discovered boxing through one of the lecturers at the Chemistry department so now I go boxing at Beyond Boxing on Hastings Street (not kick boxing) three times a week. Occasionally I still go up at the SFU gym as it is free. Sometimes it seems like there aren’t enough hours in the day.

“I do 5 sit-ups every morning. May not sound like much, but there’s only so many times you can hit the snooze button...”

- Unknown
As I prepared to write this issue’s column, the TV news anchor in the background bleated about Trump’s travel restrictions and his idiotic Middle East policy and then moved on to the controversy about Justin Trudeau’s holiday with the Aga Khan. The mention of the Aga Khan brought back fond memories of my time last summer at the Aga Khan-funded Ismaili Centre in Burnaby as part of Vancouver’s Indian Summer Festival.

The festival began in 2011 as a celebration of the official year of India in Canada and of Vancouver’s 125th anniversary, with all events at SFU Woodward’s. Since then it has expanded to 12 venues across greater Vancouver. The 2017 Festival’s theme was “Tales of War and Peace” and featured a talk by Booker Prize-winning author Arundhati Roy, introduced by Naomi Klein. Other speakers included Vancouver author and playwright Anosh Irani whose plays have been produced by the Arts Club Theatre over the years. Other events included an opening gala with Vikram Vij and guest chefs (a festival staple) and walking tours of Vancouver’s Chinatown and Punjabi Market.

The 2018 festival will run from July 5th to the 14th (see www.indiansummerfest.ca).

This year I attended two festival events at the Ismaili Centre. The first was an evening with the Giller Prize-winning (twice) author MG Vassanji. I had read three of his books, including his most recent Nostalgia featured on CBC’s “Canada Reads” and looked forward to the discussion. It was lovely summer evening, and I biked there from Yaletown and back mainly along the Central Valley Greenway next to the Expo Skytrain line. Vassanji was fine but the wonderful surprise was the Ismaili Centre itself. Welcoming, spacious, elegant. I wanted more.

Fortunately, I had signed up for another event later that week: a morning raga recital, featuring sitar and tabla, outside in the Centre’s garden courtyard. Leora and I attended on a beautiful summer morning, took advantage of the free Indian-Canadian breakfast (parathas and blueberries), and were delighted to find that the Centre was offering guided tours of the building. Not only that, but the original architect, Bruno Freschi (from Trail and Vancouver), now 80 years old, led the tour.

In previous years, we also attended a reading by Coleman Barks of Sufi poetry accompanied by music at the 2014 Festival and, in 2016, a lecture on the sustainable food movement by the physicist and social activist Dr. Vandana Shiva. Both at St. Andrew’s Wesley Church at Nelson and Burrard.

This festival provides a welcome reminder that our society, at least in Vancouver, embraces diversity and celebrates the rich cultural life of our members.

The rest of the world could learn from our experience.

Donald. You listening?
Hi Retirees and friends of SFU

2017 was a very good year for us. Congratulations to all for keeping your loans rolling over, making new loans, and recruiting new members.

During 2017 19 new members joined us so we are now a team of 140.

We made loans of $36,325 raising our cumulative loans to $113,925.

This boosted us to rank 32rd among the 1836 university teams worldwide, up from ranking 43rd last year. Along the way we out-loaned Brigham Young, Oxford, Ohio State, U Missouri, U Texas Austin, U Chicago, and U Maryland.

Microlending helps folks in the developing world. It helps us as well.

"Results showed that, regardless of education levels or perceptions of their own health, adults at all ages—the elderly included—showed higher cognitive abilities if they had a greater sense of purpose. This means that purpose in life could protect us against cognitive decline as we age—a finding that complements prior research suggesting that purpose may reduce the risk of Alzheimer's and its cognitive effects."

https://greatergood.berkeley.edu/article/item/the_top_10_insights_from_the_science_of_a_meaningful_life_in_2017

Conclusion. Think of Kiva as one of your purposes in life.

Think also that we have taken the name of SFU to all 83 countries in which Kiva operates and reached 4,383 individuals or groups. We are connecting SFU with the world.

If you are not on the team, join us at https://www.kiva.org/team/sfu

Cheers, Dan McDonald

The Burnaby Festival of Learning is back! Opportunities for Retirees to get involved. For more information, please contact Alison Chan: alison_chan@sfu.ca 778-782-8817 or Deb Thomas: deb.thomas@bpl.bc.ca 604-436-5432 www.festivaloflearning.ca
Advance notice: The Ides of March Reception will be held on Thursday March 15 in Vancouver.

This year we are going to honour all those who are 90+ and all who will turn 90 years old in 2018 at the reception. They will receive free admission to the reception and free membership for the 2018-2019 year. We know who some of you are, but if you are one of our treasured elders, please email me, evelyn@sfu.ca so we will be sure to include you on the guest list. This was suggested by Andrew Kurn and enthusiastically endorsed by the Board. Details of the reception will be sent to all members in January, but you can mark your calendars now.

Jim Boyd welcomed into the world his first two grandchildren, Audrey and Walter, who were born in Bermuda on September 29, 2017 to his son Joel and wife Amanda. The new parents are ecstatic because these fraternal twins resulted from an IVF procedure and they were not really expecting twins. Jim was very fortunate to be able to travel to Bermuda in mid-November to visit his grandchildren firsthand and he is planning to return again at the end of March 2018. The babies were virtually full term with birth weights of 7’10” and 6’13” and have remained very healthy to date. Jim calls them his GrandTwins because there may not be any future additions! Here is a recent picture.

Jorge and Renate Garcia celebrated their Golden Wedding Anniversary in 2017. Jorge came to SFU in July 1965 as a founding faculty member to the Department of Modern Languages. Jorge and Renate married in Germany in 1967. They have two daughters: Susana and Tania; and two granddaughters: Claire and Elizabeth. Jorge, together with various specialists from the Faculty of Arts, was one of the founding members of the Cross-disciplinary Latin American Studies Program. The program was housed in the newly created Faculty of Inter-disciplinary Studies. After his retirement, Jorge pursued his interest in International Education holding leadership positions at various U.S. private Universities. Jorge and Renate are now back in Vancouver, and enjoy traveling around the world.
In Fall 2017 we lost four more of our members, two of whom were Founding Department Heads at SFU.

**Parzival Copes** was the Founding Head of Economics and Commerce. He built the department partly through aggressive recruiting among Canadians abroad, and as James Dean put it, his recruitment letters were accompanied by glossy photos of Arthur Erickson’s masterpiece. He was an expert in Fisheries Economics and was later involved in the foundation of the Centre for Canadian Studies and the Institute of Fisheries Analysis. He died in Victoria on September 8, 2017 at the age of 93.

His obituary is at: [http://www.sfu.ca/content/dam/sfu/retirees/memoriam/ParzivalCopesOBIT.pdf](http://www.sfu.ca/content/dam/sfu/retirees/memoriam/ParzivalCopesOBIT.pdf)

**John D’Auria** came to the SFU Chemistry Department in 1967 and was a popular teacher of Nuclear Science and many courses in General Chemistry. He was pivotal in the construction of the ISAC Radioactive Beams Facility at TRIUMF and led the development of lab-based measurements of reactions involving unstable nuclei, such as occur in exploding stars. He continued research at TRIUMF after retirement and served on the SFURA Executive Board as President and Vice President. He passed away on October 22, 2017.

His obituary is at: [http://www.sfu.ca/content/dam/sfu/retirees/memoriam/JohnD'AURIA_Obit.pdf](http://www.sfu.ca/content/dam/sfu/retirees/memoriam/JohnD'AURIA_Obit.pdf)


His SFURA obituary is at: [http://www.sfu.ca/content/dam/sfu/retirees/memoriam/DonaldGraystonObit.pdf](http://www.sfu.ca/content/dam/sfu/retirees/memoriam/DonaldGraystonObit.pdf)

**Ronald Harrop** was the Charter Head of the Department of Mathematics and built the Department. Statistics, Probability and Computing Science were all part of the undergraduate curriculum when the doors opened in 1965. Computing Science was split off a few years later and Ron held a joint appointment between Mathematics and Statistics and Computing Science. He was a strong supporter of SFU and a generous donor for 25 years to various SFU endowment funds. His death was October 15, 2017.

His obituary is at: [http://www.sfu.ca/content/dam/sfu/retirees/memoriam/Ronald%20_HARROP_Obit.pdf](http://www.sfu.ca/content/dam/sfu/retirees/memoriam/Ronald%20_HARROP_Obit.pdf)

The In Memoriam page of our website is at: [http://www.sfu.ca/retirees/sfu-community/in-memoriam/](http://www.sfu.ca/retirees/sfu-community/in-memoriam/)
Looking After Yourself

**SLEEP**

Parveen Bawa

Humans have always wondered about the mysteries of sleep and dreams. In the 4th century BC, Aristotle proposed “sleep happened when digestion of food created warm vapours that rise from the stomach and collect in the head, where they cool and condense, flowing down to the heart which then caused sleep”. Moving ahead to Shakespeare, sleep was described as the “chief nourisher of life’s feast” in Macbeth. On the other hand, for some, sleep was a waste of time--“There will be sleeping enough in the grave” said Benjamin Franklin. John Steinbeck had the right idea about sleep: “It is a common experience that a problem difficult at night is resolved in the morning after the committee of sleep has worked on it.” Now we know that sleep is a physiological phenomenon; the physiology and its importance in mental and physical health were not known almost until the end of the 20th century.

**What is Sleep:**

Sleep has been defined as a naturally occurring state of temporary “low reactivity to sensory inputs, low motor output, lower consciousness and a rapid reversal to wakefulness”. Sleep is different from coma where unresponsiveness is complete and arousal may never occur; and the state induced during general anaesthesia, in which a person cannot be awakened and fails to respond to even painful stimuli.

There are two physiological processes, which produce wakeful-sleep cycle. The first, the circadian process is regulated by a tiny internal biological clock located in the hypothalamus called the suprachiasmatic nucleus (SCN). Light affects the SCN via a pathway originating from the retina. This light resets the clock to correspond to the day-night cycle. Signals from the SCN travel to the pineal gland, which switches off the production of melatonin during day, and increases it during night. The build up of melatonin in our bodies makes us feel sleepy. The circadian rhythm has several processes associated with it: a rise in the stress hormone cortisol just before production of melatonin is shut down in the morning, changes in body temperature and blood pressure, bowel movement, alertness of mind, optimal muscle coordination, etc. The second sleep controlling process, called homeostatic drive, involves the molecule adenosine. The more you do and the longer you're awake, the more adenosine you accumulate, making you feel tired. It's your body's way of saying you’ve done enough, and it's time to quit. While you sleep, this chemical is broken down and adenosine levels decrease. If you don't get enough sleep, the adenosine in your body still remains when you wake up, making you feel groggy. The next night you may sleep longer to rid your body of the extra accumulation of adenosine. As the day goes on, adenosine makes you more and more sleepy; later it interacts with the melatonin. Synergistically, these two chemicals produce the ultimate state of bliss - sleep.
**Phases of Sleep:**

Our consciousness consists of wakefulness and sleep. Sleep is divided into periods of rapid eye movement (REM) sleep and non-REM sleep (slow wave or deep sleep). We will ignore further subdivisions of non-REM sleep. When we sleep, we start with light non-REM sleep, which gets deeper with time. The body relaxes, blood pressure falls, and the brain becomes less responsive to external stimuli; the brain is relatively quiet. This phase is critical for renewal and repair of the body. During this phase, the pituitary gland releases growth hormone, which stimulates growth and repair. The immune system is also repaired during this phase. During REM sleep, all our muscles are paralysed except muscles for breathing, eye movement and a few small muscles at the top and bottom of the gastrointestinal tract. While our bodies are resting during REM sleep, the brain is working hard; the brain is cleared of irrelevant information, memories are consolidated, and learning and growth are facilitated. Also during this time, body temperature rises, heart rate increases, and blood pressure goes up. Time spent in REM sleep is about 20% of total sleep. Deep, slow-wave sleep predominates non-REM sleep in the first half of the night. REM sleep epochs increase progressively throughout the night. At the end of the night, a REM sleep epoch may last almost 30 minutes. It seems that 80% of the dreaming occurs during REM sleep --these dreams are longer, more frequent and more emotional than those during non-REM sleep.

“**During wakefulness, the brain accumulates toxins which are cleared during sleep.”**

**Health Risks From Lack Of Sleep:**

Temporary disruption of sleep has no long-term effects. However, being awake for 24 hours can impair abilities to mimic a blood alcohol level of 0.1% (the limit is 0.05 % in BC). Sleep deprivation reduces learning, impairs performance in cognitive tests, prolongs reaction times and is a common cause of seizures. Chronic disruption of sleep has serious implications for health – it disrupts metabolic processes, adversely affects cardiovascular functions, increases blood pressure, may cause irregular heart beat and increases the likelihood of diabetes and stroke. It can also negatively influence stress hormones, immune function, weight maintenance and mental health. Sleep loss is known as a robust modulator of emotional reactivity, leading to increased anxiety and stress elicited by seemingly minor triggers. During wakefulness, the brain accumulates toxins which are cleared during sleep. There is a strong suggestion at this time that lack of sleep is an important factor in causing neurodegenerative diseases.

**INSOMNIA**- refers to trouble falling sleep, staying sleep, waking up too early or waking up tired. This can lead to lack of energy, irritability, carelessness, grogginess, and falling asleep at the wrong time or the wrong place. Insomnia is more common amongst women than in men. It is a common belief that the elderly are known to suffer from poor sleep. Actually, healthy older adults have normal sleep patterns and need 6-9 hours of
sleep. Poor sleep is not age related. People in nursing homes are seen to nod off often possibly due to lack of stimulation and not getting enough natural light. Poor sleep may occur due to daytime naps after retirement, medical conditions (high BP, heart disease, diabetes), and side effects of drugs. Insomnia can result from pathological conditions when one has to seek help from one’s physician. However, most people suffer from insomnia, which can be cured by changing habits.

**Insomnia associated with pathological conditions- doctor intervention needed:** *Changes in sex hormones:* Hormone levels affect women’s sleep throughout their lives. Premenopausal, menopausal and postmenopausal hormonal changes can cause problems with temperature regulation, mood problems and weight gain. About 20% of women are on some kind of medication for these conditions such as hormonal replacement therapy (HRT), herbal medicines, acupuncture, low doses of anti depressants. Some men also experience decrease in androgens - they may develop anemia, muscle weakness and insomnia. Men who receive hormone-decreasing therapy for cancer may also experience similar symptoms.

**Restless leg syndrome** affects about 30-40% of older adults. One might feel burning, buzzing, itching or a sensation of crawling insects under their skin. It could be due to iron and vitamin B12 deficiency, it needs to be diagnosed and treated.

**Sleep apnea** is a serious sleep-breathing disorder; its symptoms include snoring, pause in breathing, waking up gasping and severe daytime sleepiness. It is not just a disease of over weight men; sleep apnea is quite common among older women and it needs medical intervention.

**Other medical conditions** which affect sleep are: diabetes, kidney failure, arthritis & fibromyalgia, heart disease, cancer, disorders of pulmonary system such as asthma, problems with urinary system, problems with the gastro-intestinal system, acid reflex, peptic ulcer disease, problems with the thyroid & pituitary glands, psychiatric disorders, depression, bipolar disorder, headaches, Parkinson’s Disease, Alzheimer’s Disease and pain. Some people are scared to sleep because of nightmares and terrifying visions. Narcolepsy (rare in North America) is a neurological disorder and it results in abnormal REM sleep.

**Insomnia associated with no pathological conditions:** Insomnia that results from poor sleep hygiene, anxiety and environment can be cured without medication. If you cannot sleep, have anxiety, are worried about catching a flight, keep tossing and turning, have hallucinations, suffer from sleep walking and sleep talking, and have a noisy room mate, you may benefit from lifestyle focused sleep interventions. Keep a diary to document your sleep habits and patterns, eating and exercising routines and take them to your doctor. Outline of the diary can be downloaded from [http://yoursleep.aasmnet.org/pdf/sleepdiary.pdf].
Beating insomnia without medication

A sleeping pill is a quick fix, but it has side effects and is not a long-term solution. Exercise, eating right, meditation, hypnosis and self hypnosis, good sleep hygiene and Cognitive Behavioural Therapy (CBT) are recommended for insomnia. Try the following before trying expensive self hypnosis or CBT.

Sleeping hygiene: Establish a regular bedtime and have a regular wake up time. You need to have a rhythm. Insomniacs should have no pets in the bedroom and no late evening exercise- it might make you tired but it is followed by a burst of energy which interferes with sleep. Caffeine, alcohol and nicotine also interfere with sleep. Do not watch television, use a computer or do any reading in your bed. Your bed is for sleeping only. If you cannot sleep, do not struggle for more than 15-20 minutes, get up and go out of the bedroom. Do some non-challenging work or read something boring and non-emotional (history books, make shopping lists, etc). When you feel drowsy, go back to bed. To really wake up in the morning, drink a glass of water, your body is dehydrated. Get sunlight, real or artificial.

Sleep Restriction and tiring your self: One way to beat insomnia is to restrict sleep. Stay up late, go to bed around 3-4 hours after your normal bedtime (say 2:00 am) and wake up at a convenient time (say 7:00 am). Absolutely no naps. Then start pushing your bedtime a bit earlier each day until the amount of sleep you are getting is satisfactory.

Deep muscle relaxation: Tense up the following muscles (not very hard) for 5-6 seconds, and relax slowly for 10 seconds. Repeat each contraction twice. (i) Clench your right fist. (ii) Clench your left fist. (iii) Tighten biceps of your right arm. (iv) Tighten biceps of your left arm. (v) Bring right shoulder up to your right ear. (vi) Bring left shoulder to your left ear. (vii) Tighten muscles of your forehead. (viii) Tighten jaw and grit your teeth. (ix) Tighten muscles of your stomach. (x) Straighten your legs, tighten all muscles of one leg at a time.

Paced breathing: Slow, deep and paced breathing achieves a deep state of relaxation and reduces stress.

Cognitive Behavioural Therapy treats insomnia, depression and anxiety, it is provided by trained health care professionals and psychologists. The success rates vary between 50 % and 90 %, depends on where you get your numbers from. There are online courses available, but according to physicians, it is best done under the supervision of a trained person. The same thing is true of learning meditation and self-hypnosis. You can get help from Canadian Mental Health Association at https://cmha.bc.ca/

Whether your insomnia results from a pathological condition or from lack of education about sleep habits, it can be a challenging condition. Don’t give up if one method of insomnia treatment doesn’t work. Sometimes it takes trying a few different approaches (e.g. sleep routine changes and cutting out caffeine, or sleep restriction and deep muscle relaxation) to figure out which solutions work best for you personally. Consider taking a look at what medications you’re on and examining whether any of your chronic health conditions may be contributing to your difficulty getting a good night’s rest. And finally, remember, that despite popular belief, older adults do need 6-9 hours of sleep for good physical and emotional health, so talk with a health professional if you are not getting enough. Sweet dreams! 

"We are such stuff / As dreams are made on, / and our little life / Is rounded with a sleep.",
- William Shakespeare, The Tempest
When I was fifteen and getting into a load of trouble, my older brother gave me a book called *The Prophet*, suggested that I read it, and offered to talk about it later if I cared to. I remember this vividly even though the family have all gone now, and I remember particularly a line in the book that said, 

"You give but little when you give of your possessions. It is when you give of yourself that you truly give."

And then that brother was off to war to give the ultimate gift that made this line so very potent for me.

I was thinking of it when I was considering SFURA’s next step of growth as a service to its members, and I wondered what kind of service is the basic gift that an association like ours can give. I believe that it is opportunities for us to give of ourselves in service to other members.

"When we care about others we are less absorbed with ourselves."

When I shared this idea with Jim Boyd and Jay Burr, who also live in West Vancouver, we started to imagine groups being formed in the areas where they concentrate, such as West and North Vancouver where all three of us live. Then we imagined them being divided into two groups, one likely younger who can help; and another who are more likely to need help. We saw this naturally developing into opportunities to help each other in simple ways, like getting to SFURA events, getting to appointments, needing assistance for small tasks, and perhaps simply visiting someone lonely. Groups could even have their own get-togethers and events.

With Ralph Kortling’s help, we contacted a sample group but the results were ambiguous; so we are asking you if you think we should form groups wherever there is a concentration of members in order to help each other and “to give of ourselves?” Just drop me an email (maugibbons@telus.net) and we will use your response to further our discussion about this proposal.