

# Dalhousie

M A G A Z I N E

119.26

A SUSTAINABLE  
**FUTURE**

THE RACE  
TO MARKET

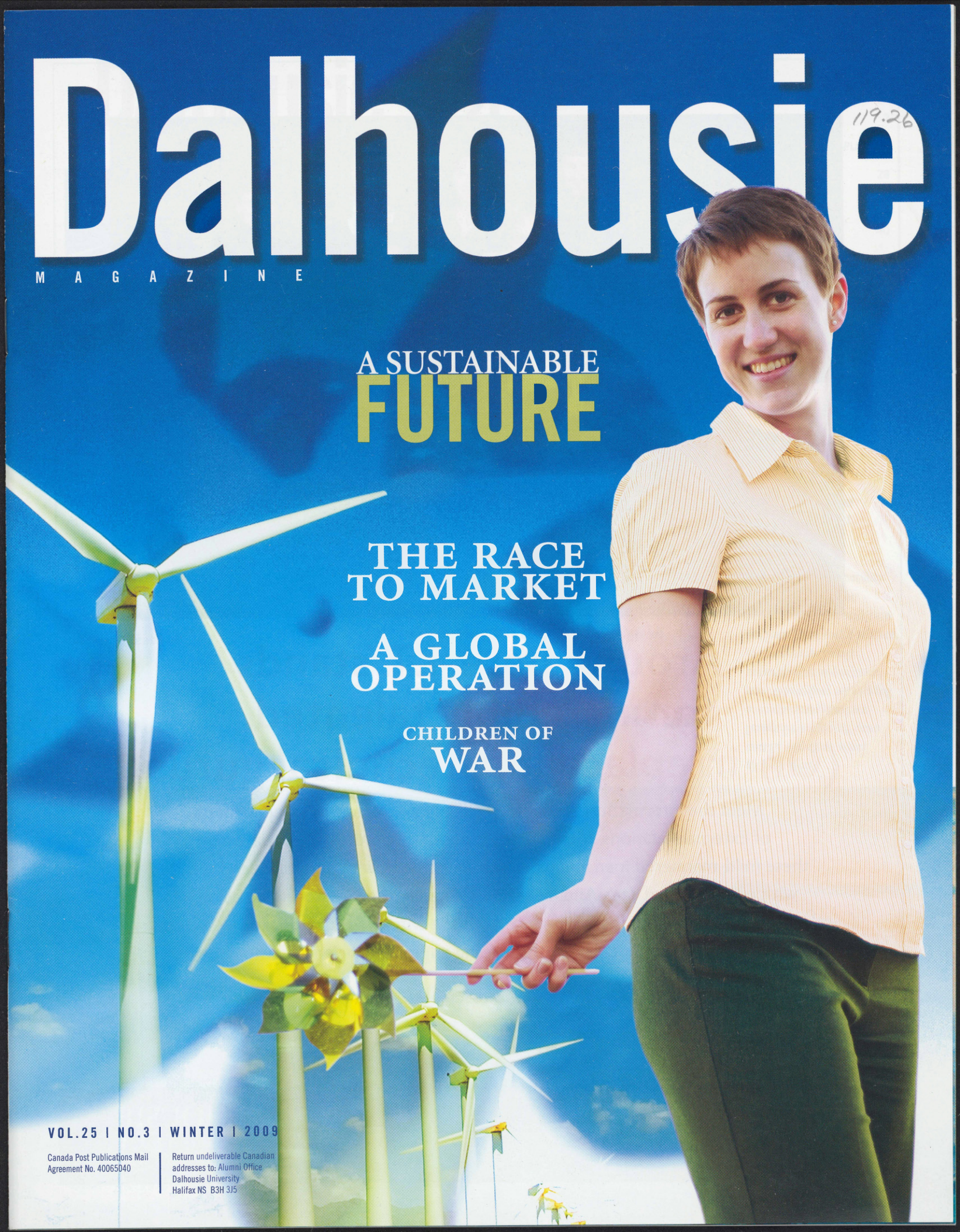
A GLOBAL  
OPERATION

CHILDREN OF  
WAR

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## Around here, I.T. stands for incredibly talented. (Or, irreplaceable technical gurus).

Meet the Information Technology gang from Dalhousie's Department of External Relations. Vital members of our gift-processing department, these mild-mannered men and women handle the flow of donations and receipts with efficiency and care. And if that isn't enough, they rise to the occasion just when you're about to toss your laptop out the window. Let's just say our systems and databases wouldn't be at the leading edge of proficiency without them.

**LEFT TO RIGHT, FRONT ROW:**

Tamara Ross, Data Specialist; Coleen Suter, Gift Accounting Specialist; Joe Rossong, Director, Advancement Services; Connie Hong, IT Development & Support Specialist; Diane Robinson, Supervisor, Gift Processing Unit

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## When war is child's play

It's hard enough to imagine a nine year old with an AK-47, but Shelly Whitman has come face to face with this reality. She shares her first-hand experience in the Democratic Republic of the Congo during her course in International Development Studies.

by Ryan McNutt



# 10

## No time to waste

There's a new kid in town. A new College of Sustainability has brought a fresh energy to campus along with an integrated approach to understanding the environment, sustainability and society.

by Marilyn Smulders

### On our cover

Caitlyn MacMaster dropped by briefly to share her Arctic adventures and found herself caught up in a whirlwind of activity for the new Environment, Sustainability and Society program. Nick Pearce made this cover photo session happen in record time and made it seem like a breeze.

# 20

## Relaying discoveries: Making strides on commercialization

Build a better mouse trap and the world will beat a path to your door ... if only it could be so easy. The journey from the lab bench to the marketplace involves many partners, so the university, industry and government are making it happen together.

by Marie Weeren

# 18

## Smiles far and wide

Canadian dental surgeons are working with partners in Vietnam, Tunisia, Brazil and India to transform the lives of children born with the common problem of cleft palate. In the process, they're providing cost-effective training for local specialists so that many others will benefit in the years to come.

by Marilyn Smulders

## DEPARTMENTS

FROM THE EDITOR	2
UPFRONT ON CAMPUS	4
DALUMNI	28
CLASS NOTES	30
THE BACK STORY	40



# 22

## Society's greatest challenge

Research on sustainability needs to focus on the present, the future and even the past. From social science, to community design, management and science, new approaches are seeking to understand complex problems, including clean energy and clean water.

by Julia Watt

### Razzle Dazzle: The Uses of Abstraction

at the Dalhousie Art Gallery until March 8, includes Arthur Lismer's *Halifax Harbour - Time of War*, c. 1917, a gift from the artist in 1956.



# From the President

## Fight for a habitable and humane world

An amazing and wonderful thing has just happened at Dalhousie. About a year ago, academic colleagues from dozens of departments came together to do what they do best: dream big dreams about how to make things better. These are men and women of considerable talent, training and motivation. But even at that, their collective achievement is striking. To conceive, design, navigate layers of approvals, and now prepare to deliver a radically different academic program in little more than 12 months speaks to the urgency of their mission, the passion of their calling and, humility aside, to the vitality of their university.

“The worth of education must now be measured against the standards of decency and human survival . . . It is not education that will save us, but education of a certain kind,” said environmental educator David Orr in a commencement address to a graduating class at Arkansas College.

In September, Dalhousie will be the first university in Canada to offer “education of a certain kind.”

On the pages that follow, the genesis, impetus and purpose of Dalhousie’s newborn College of Sustainability and its pioneering Environment, Sustainability and Society program will become clear. My contribution here is to tell you how important this is.

Dr. Orr’s Arkansas oration occurred almost two decades ago. Then his words were prescient. Today they are urgent. The modern curriculum, he said, fragmented as it is into bits and pieces called disciplines and subdisciplines, produces graduates without a sufficiently integrated sense of the unity of things. The consequences for the planet are not promising.

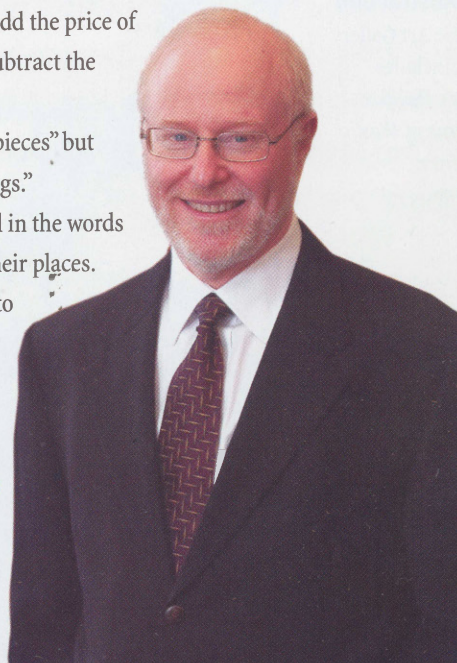
For example: we routinely produce economists who lack the most rudimentary knowledge of ecology. This explains why our national accounting systems do not subtract the costs of biotic impoverishment, soil erosion, poisons in the air or water, and resource depletion from gross national product. We add the price of the sale of a bushel of wheat to GNP while forgetting to subtract the three bushels of topsoil lost in its production.

Our new College does not throw away the “bits and pieces” but blends them into an “integrated sense of the unity of things.”

What does it all mean? It means Dal recognizes, still in the words of Dr. Orr, that the world “needs people who live well in their places. It needs people of moral courage willing to join the fight to make the world habitable and humane.”

Have you ever known education to be more relevant?

Tom Traves



# Dalhousie

MAGAZINE

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**Marilyn Smulders**, who wrote about Dalhousie’s new College of Sustainability for this issue, is trying to incorporate green thinking into her daily life by sipping her morning Tim’s from a mug instead of a disposable cup and switching off the power bar at the end of the work day.

**Ryan McNutt** followed every minute detail of the American presidential election and is holding out hope that an Obama administration can reshape international relations. In this issue, he explores the troubling global issue of child soldiers.



From Alpha to Omega-3, **Marie Weeren** explores research and commercialization in the life sciences at Dalhousie. Marie owns 10th Floor Solutions, a Halifax business specializing in public relations writing and writing workshops.

**Julia Watt** is now the Director of Advancement Marketing and Communications, External Relations; and she’s the editor for *OutFront* magazine, produced for the Office of Research Services.

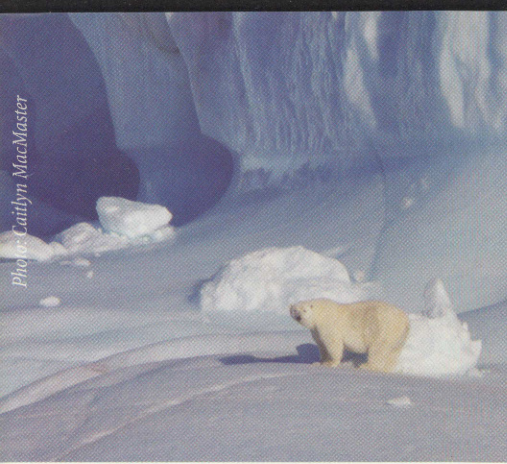
**Stacey Pineau**, of Latitude Communications, and **Morrison Powell**, of Picturesque Photography, became our Cape Breton correspondents. They caught up with triathlete, writer and psychiatrist Julie Curwin.

**Brian Harrison**, of Trivium Design, continued his steady hand with cover and page design; partnering with **Jane Lombard**, of Dalhousie Creative Services, who added design and layout for the back section of the magazine. **Debra Jewitt** coordinated sessions with our talented photographers, **Nick Pearce** and **Danny Abriel**. Many thanks to all our copy editors and proofreaders, on this issue particularly **Mary Somers** and **June Davidson**.

### DALHOUSIE MAGAZINE

appears three times a year.

Editorial deadline for the next issue is  
April 3, 2009.



**A polar bear** wakes from his slumber on a colossal iceberg.

## Uncharted waters ahead

**A** lumna Caitlyn MacMaster voyaged to the Canadian Arctic with the International Polar Year's education initiative Students on Ice in 2008. Together with scientists, environmental visionaries, artists, respected Inuit figures and enthusiastic students, she gained a first-hand perspective of the complexity of Baffin Island.

I am a person of extremely varied interests and an insatiable appetite for learning. As a student, I felt plagued by an inability to stick with one major; perpetually changing my course of study, before finally choosing environmental science – something sufficiently broad that I could continue to pursue all my varied interests.

I've discovered this indecision was not a downfall, but a boon! The breadth of my uniquely tailored education at Dalhousie provided a perfect framework to understand my Arctic expedition – from Inuit culture and history to the geologic formation of the glacier-carved landscape.

The climatologist/oceanographer in me was thrilled to expand my knowledge of the role of ocean currents, such as the Global Conveyor Belt, on the climate. This

mechanism of heat transport both warms the poles and cools the equator. By this method, the effects of global climate change are expected to manifest more drastically at the poles than almost

**My uniquely tailored education provided a perfect framework to understand my Arctic expedition...**

anywhere else. The effects of this warming are already evident in the loss of sea ice, or the "polar ice cap." In 2007, the minimum sea ice extent was the lowest on record since satellite monitoring began.

My inner biologist is concerned that sea ice, a critical habitat for a variety of Arctic species, is rapidly diminishing. Polar bears are known to be powerful swimmers, something I can now vouch for based on first-hand experience. But, they cannot swim indefinitely and with rest stops fewer and farther between, polar bears become fatigued and drown.

The loss of sea ice brings social costs, too. Inuit hunters are stressed by perilous conditions as they range onto thinner ice in search of adequate food. Traditional ways of reading the weather are no longer as reliable due to climate change.

For me, being a generalist provides me with a plethora of tools to interpret my experiences, from daily occurrences to trips of a lifetime. I'd advise anyone to pursue your passions and make your education fit your life, not the other way around.

# Upfront on campus



## Empowering students for success

A big welcome to Oluronke Taiwo, the new black student adviser at Dalhousie's Black Student Advising Centre (BSAC).

Originally from Nigeria, Ms. Taiwo brings extensive knowledge, as well as deep personal commitment.

"I am doing something to empower these students who have been put down. I went through something similar myself," she says. "I tell those I counsel that they too can be successful."

BSAC offers many programs for black students from Nova Scotia and elsewhere and indeed students of any ethnicity. The centre provides a resource room for peer support, a space for meeting and academic encouragement.

"The vision I have for BSAC is that all blacks in the Diaspora are brought together," says Ms. Taiwo, whose job is to counsel and advocate for black students. "My second goal is to be inclusive with all the other departments and groups at the university, whereby we all work together for the benefit of the students." Stephanie Smith

## The art of healing

The Aboriginal Healing Foundation is recognizing the Dalhousie Law School for its commitment to promoting the understanding of Aboriginal society and the law. The award is in the form of a print by Aboriginal artist and residential school survivor George Littlechild. A vital component of Dalhousie's legal education is combining practical effectiveness with a strong understanding of aboriginal issues.

## Accessibility front and centre

Attaining a post-secondary education isn't easy.

For students with mobility issues, chronic illness and dyslexia, it's an even greater challenge. A new centre, the Mark A. Hill Accessibility Centre, and a new scholarship will help ensure that students with disabilities have every opportunity to succeed.

Made possible by Ian and Margaret Hill, the centre is dedicated to their son, Mark. After a car accident left Mark a quadriplegic at age 18, he overcame many barriers to pursue his dreams. The gift is in memory of his spirit, in hope that it will inspire future students.

Student Accessibility Services surveyed students to find out what they wanted in terms of specialized software, interpretation services, and exam and social space. The centre is located adjacent to the Killam Library.

The Johnson Scholarship Foundation has committed \$750,000 to support Dalhousie students with disabilities and has challenged the university to raise matching funds.

Such support will ensure students with disabilities have an even more rewarding experience, says commerce student Duncan MacLellan, who has attention deficit disorder and requires extra time to complete course work and exams.

"I have benefited from supports and accommodations at Dal, all of which have allowed me to take the time I needed to focus on my studies," he says. Now in his fourth year, he volunteers with Student Accessibility Services. Ryan Moody, Beth McAra and Dawn Morrison



Photo: Nick Pearce

## No trivial matter

Name the high school that's second to none.

The correct answer is Kennebecasis Valley High School (KVHS), from Quispamsis, New Brunswick. This year the school had its first win at Reach for Dalhousie, after finishing as runner up in 2005 and 2007.

More than \$30,000 in scholarships were on the line for Nick Manuel, Stephen Spence, Jesse Lenton and Alexander Maxan in seeking to dominate the fifth annual Maritime-wide trivia competition.

En route to the scholarships, KVHS successfully challenged teams from Halifax West High and Citadel High of Halifax. In the final, they went head-to-head against two-time title holder, Truro's Cobequid Educational Centre.

Jason Thorne, KVHS coach, said the team members were very excited when they won.

For the record, who are the title holders?

**Kennebecasis Valley High School**, Quispamsis, NB (2008), **Auburn Drive High School**, Cole Harbour, NS (2007), **Dr. J. H. Gillis Regional High School**, Antigonish, NS (2006), **Cobequid Educational Centre**, Truro, NS (2004 and 2005)

## Designs on a green world

Last year, *Entertainment Tonight Canada* rated Emmanuel Belliveau (BSc'97) as one of the country's top five "eco-hunks." And now the show is calling again: this time, he's made the cut as one of Canada's top 25 bachelors.

But the host of *My Parents' House* (on HGTV in Canada and the U.S.) and *World's Greenest Homes* (on Discovery in the U.S.) just laughs it off – "If it highlights other things I'm doing, then that works for me."

Those other things include designing and creating his own jewelry line for men, raising funds and awareness for Caleb's Hope, a non-profit organization dedicated to improving the quality of life for vulnerable women and children in northern Uganda, and advocating for sustainable home building practices.

Being a TV host is fun, he says, but since returning from a two-month stay in Africa with Caleb's Hope, he's looking to get involved "with issues that have a little more weight to them." And that's why the designer (who actually majored in kinesiology at Dalhousie) wants to promote green building design and construction.

"People think you need a lot of green to be green," says the 33-year-old, who, as the youngest of 12 children growing up in Salisbury, N.B., learned from his parents how to stretch a dollar. "My goal is to let people know that you can be economical and be easier on your environment, too."

*Marilyn Smulders*



## Global health care crisis

No matter where you live, it will become increasingly difficult to find the kind of professional caregivers who can respond to your health concerns, due to a predicted global shortage of health-care workers.

As a nurse working in intensive care with patients in crisis and their caregivers, Gail Tomblin Murphy gained a valuable perspective – one that continues to shape her vision as director of the newly designated World Health Organization (WHO) Collaborating Centre in Health Workforce Planning and Research at Dalhousie University.

"When people are in crisis, when they are really ill, they break into total honesty about what they truly need," says Dr. Tomblin Murphy, who is also a nursing professor.

As director of the international centre, she is eager to learn about the needs of the general population, patients, families and members of health-care teams. She believes the critical global shortage of health-care providers is a catalyst for understanding people's health-care needs, whether they live in the Amazon in Brazil, on the streets of Kingston, Jamaica, or in rural Nova Scotian communities.

Dr. Tomblin Murphy returns to the crucial question: What are the needs of the population?

"It is essential that we work to find the answer to this question so that policy makers can align their health-care planning with people's needs," she says. Partners in the centre include Dalhousie's Faculty of Health Professions, the Pan American Health Organization, Nova Scotia Department of Health, Nova Scotia Health Research Foundation and Health Canada; as well as McMaster University, University of Western Ontario and Memorial University. *Marilyn Smulders*

Beatlemania returned this fall. But instead of the Fab Four leading a horde of teenage admirers through the streets, it was a Dalhousie mathematician whose research was generating excitement across the universe.

Four years ago, Jason Brown used a mathematical calculation known as Fourier transform to solve one of rock and roll's enduring mysteries: what chord famously opens *A Hard Day's Night*? The process allowed him to deduce that producer George Martin added a piano chord that included an F note impossible to play with the other notes on the guitar.

His findings garnered some attention when they were published in *Guitar Player* magazine, but a feature segment this past October on the Discovery Channel's *Daily Planet* and a new *Dalnews* story brought renewed attention to his work. The story spread from there, to news outlets like the *Globe and Mail*, the *Wall Street Journal* and CNN.com to discussion boards and major blogs such as *Wired's* Listening Post and Stereogum. Dr. Brown's work is even featured on the song's Wikipedia page. The story also led to the most dramatic spike in online traffic to *Dalnews* in the website's history, and it remains one of the most commented-upon stories to date.

Dr. Brown is soaking up the attention. "I think it's fantastic, not only for myself but for the university and for math in general," he says. "There's wide, universal interest in the Beatles, but something that connects that with math is captivating to people. **It's the applicability of mathematics in everyday life that's the source of all the attention.**"

He's not done with musical math either – he's currently working on developing a new mathematical model for songwriting that will not only provide tools to help songwriters produce better songs, but determine likely authorship of a piece of music when it's in dispute. He hopes to publish his findings sometime in 2009. *Ryan McNutt*

## Spittlebug catapults to prominence

The spittlebug's main claim to fame has been its ability to blow bubbles out its backside, while the flea basked in admiration for its renowned jumping prowess.

Not anymore. Now the spittlebug has been crowned nature's top high-jump champion.

Researchers from Cambridge and Dalhousie discovered that the tiny insect leaps more than 70 centimetres in a single bound – or 100 body-lengths, outdistancing its closest rival, the flea.

For comparison, the ability to leap 100 body-lengths in height means an average human could leap over tall buildings, like Fenwick Tower.

But that's not all: the researchers have now figured out how it's done. Spittlebugs – also known as froghoppers – use a catapult-like mechanism to achieve their jumping power. Energy generated by the slow contraction of a huge bank of muscles is stored in an elastic internal structure, then released in less than a millisecond to power the explosive extension of the hind legs.

"**They jump like little bullets,**" says Steve Shaw, a professor with the Department of Psychology and Neuroscience. "It's a last ditch escape response, otherwise the bug becomes bird food."

Dr. Shaw collaborated with Malcolm Burrows, head of Cambridge's Zoology Department for the study published in the online journal *BMC Biology*. *Marilyn Smulders*

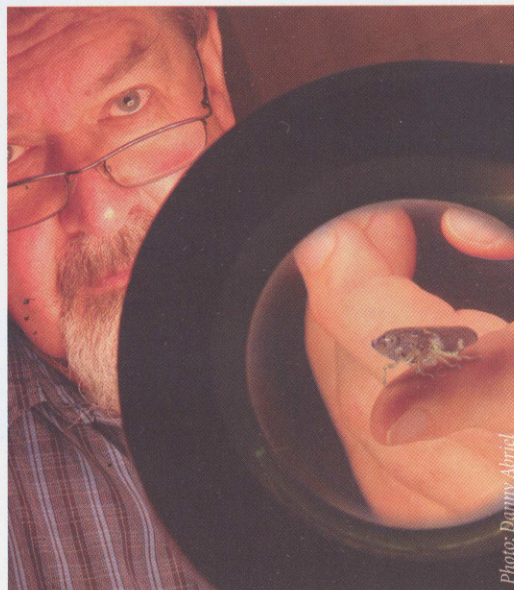


Photo: Danny Abriel

## Martha and the Muffins

More than a quarter of a century ago, a pair of homemakers from Kitchener, Ont. gathered the ingredients for 60 of their favorite muffin recipes and published *Muffin Mania*. It was a recipe for success, eventually selling half a million copies.

When Martha Prange, a direct descendant of the original authors, signed on for Prof. Ed Leach's entrepreneurial class New Venture Creation (COMM 3307) she cooked up a new approach to an old favorite. Ms. Prange created her own publishing company, Binding Brilliance, and added her own spin by including stories, low-fat tips and suggestions for alternate ingredients.

"Back then, muffins were kind of new," she says. "But now they have a retro appeal." She shares a family favorite and suggests adding a cup of chocolate chips to the batter. *Marilyn Smulders*

Photo: Danny Abriel

## Striking a chord

Photo: Danny Abriel







### Best Ever Banana Muffins

- 2 cups mashed banana (about 5)
- 3/4 cup granulated sugar
- 1 egg, lightly beaten
- 1/3 cup melted butter
- 1 tsp baking soda
- 1 tsp baking powder
- 1/4 tsp salt
- 1-1/2 cups all-purpose flour

In a large bowl, mash bananas. Stir in sugar and egg. Add melted butter. Stir in baking soda, baking powder, salt and flour to make a thick batter.

Fill each cup of a 12-cup muffin tin about three-quarters full. Bake in a 375F oven for 20 minutes until a skewer inserted in the middle of a muffin comes out clean.

## Snow shoveling scoop

Old man winter can put a pounding on your body.

Jill Robertson sees the results of that at the Young Kempt Physiotherapy clinic.

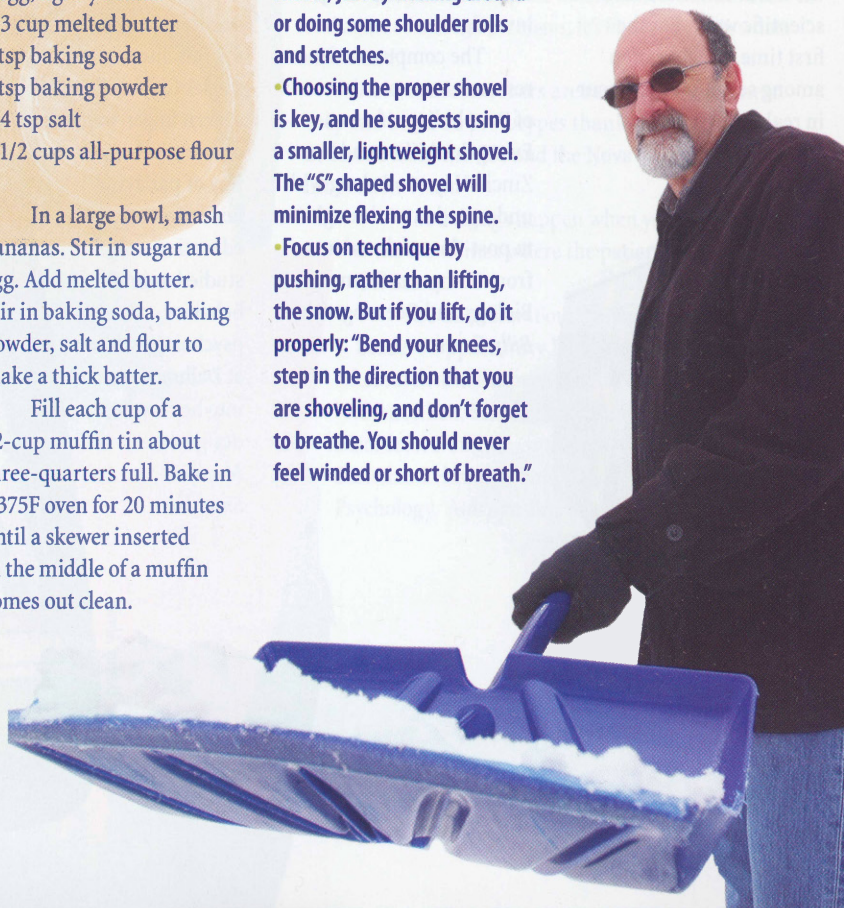
"We think of snow as light and fluffy. But we forget to consider the weight of the shovel and the number of times that we repeat a particular rotating motion. It's like lifting and throwing a five-to-10 pound bag of potatoes 100 times," says Ms. Robertson, who also teaches physiotherapy.

Kinesiology professor Phil Campagna offers his top five tips:

- **Warm up for at least five minutes before starting to shovel, just by walking around or doing some shoulder rolls and stretches.**
- **Choosing the proper shovel is key, and he suggests using a smaller, lightweight shovel. The "S" shaped shovel will minimize flexing the spine.**
- **Focus on technique by pushing, rather than lifting, the snow. But if you lift, do it properly: "Bend your knees, step in the direction that you are shoveling, and don't forget to breathe. You should never feel winded or short of breath."**

- **Wear layers of clothing and stay warm. "Often, people wear the appropriate jacket, hats and mittens but don't consider their footwear," he says. "The proper footwear is extremely important since many injuries are caused by slips and falls."**
- **Pace yourself. Shoveling can cause a person's heart rate to go up quickly, so work in short bursts and take breaks. "I start shoveling in the middle of a storm when the snow is less dense and not packed down. People think I'm crazy, but it breaks up the work."**

Brenda MacPhee



## A strong sense of direction

Ian Folkins will soon be navigating through thick forests, wet bogs, fast-flowing streams and backwoods trails, all with the aim of defending his orienteering title for the eight-hour event category at the upcoming Eco-Endurance Challenge (E2C).

Most of the time, the atmospheric scientist is focused on inclement weather and identifying better ways to forecast weather in tropical locations. His spare time revolves around a compass.

Prof. Folkins began orienteering with his parents more than 40 years ago, still competes in up to 15 events a year and has been named a Canadian Masters Champion.

"Orienteering is a niche sport," he says, "it's a bit of a geeky sport and appeals to people who like to visualize maps."

Orienteering originated in Sweden in the 19th century and involves accuracy, endurance and awareness of the physical surroundings.

"Orienteering provides a new way to appreciate beautiful landscapes and is a great way to improve your fitness," he says.

Watch for Prof. Folkins to defend his title at this year's E2C, April 25-26 and potentially take home the honors in the eight-hour category for the sixth time.

Visit: [www.hrsar.ca/e2c/index.htm](http://www.hrsar.ca/e2c/index.htm).

Keri Irwin

# Upfront on campus



Photo: Nick Pearce

## Managing oceans of data

A new network will enable scientists to piece together research from institutions across the globe to better understand issues from coastal flooding to marine animal behaviour.

The Platform for Ocean Knowledge Management is a partnership between the Faculty of Computer Science and the Ocean Tracking Network (OTN). It offers a web-based research platform where researchers from around the world can share their scientific work. For the first time, collaboration among scientists can occur in real time regardless of their location.

“We expect to discover relationships between marine life and their physical environments that no one has expected, let alone been able to test,” says Mike Stokesbury, research director for the Dalhousie-headquartered OTN.

Tracking leatherback turtles? Check. Want to know what they eat? Check. **“It’s similar to Lego. You may have all the same pieces, but you can arrange them in such a way that you have a different output each time,”** says Raza Abidi, principal investigator.

The computer science research team consists of Dr. Abidi, professors Evangelos Milios and Nur Zincir-Heywood along with undergraduates through to post-doctoral students from Computer Science, Biology and Oceanography. *Billy Comeau*

## Hop on the bus

The Dalhousie Tigers are even easier to spot on the road now that they’re travelling in a distinctly decaled bus. The bus will act as a rolling billboard – building awareness for the Department of Athletics and Recreational Services and the university as a whole.

## It’s raining cats and dogs

Michelle SaintOnge lives by the do-it-yourself mantra – she’s built up her own business from scratch, selling handmade, hand-printed handbags and custom portraits.

And now she’s been invited to meet the ultimate do-it-yourselfer, Martha Stewart.

On the *Martha Stewart Show*, she demonstrates how to make easy silk-screen prints using materials including an old picture frame, sheer curtain fabric and a squeegee. The design is modified from a print in her art exhibition, *The Private Lives of Cats and Dogs*.

A lot of her work features animals, including the mischievous panty-stealer Chichi who gets a stern finger-wagging on her tote bags. It’s her way of parlaying her university education – she studied animal behavior psychology while at Dalhousie – into her textile design career. *Marilyn Smulders*

Photo: Danny Abriel



Photo: Nick Pearce



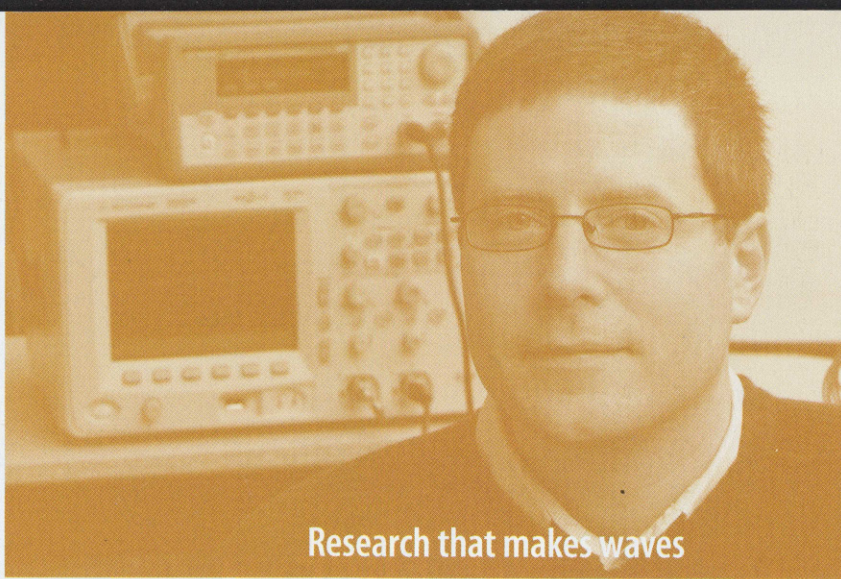


Photo: Nick Pearce

## Research that makes waves

Imagine an ultrasound device so small, it could travel through the eardrum, onwards through the middle ear and then rest against the inner ear to provide images of a vibrating basilar membrane, sending messages to the brain as it interprets sound.

It's not science fiction à la *Fantastic Voyage* – it's what Jeremy Brown is developing in collaboration with ear surgeon Manohar Bance. The miniature device, a medical imaging technique that uses high frequency sound waves and their echoes, measures a mere two millimetres in diameter.

"We've been taking what's called a 'bench top to bedside' approach," says Dr. Brown, assistant professor of biomedical engineering.

"To me, this is revolutionary," says Dr. Bance, professor of otology, neurotology and skull base surgery with Dalhousie's Faculty of Medicine. **"Right now, we don't have any way to see inside the inner ear, and this will allow us to diagnose inner-ear problems. It's like exploring a whole new world."**

Now, the researchers are ready to take the next step and build on prototypes thanks to more than \$300,000 from the CFI and the Nova Scotia Research and Innovation Trust.

"Good things happen when you bring scientists to the front lines where the patients are," says Dr. Bance.

The Canadian Foundation for Innovation's Leaders Opportunity Fund and the Nova Scotia Research and Innovation Trust also funded Steven Aiken, School of Human Communications Disorders; Dominic Groulx, Mechanical Engineering; Christian Lehmann, Anesthesia; and Leslie Phillmore, Psychology. *Marilyn Smulders*



## The earlier, the better

Despite the lack of credible scientific evidence establishing a connection between vaccines and autism, debate rages on. What should parents believe?

**"We don't want to close our minds to further research and inquiry, but we really need to treat the vaccine-autism connection as highly speculative,"** says Susan Bryson, Dalhousie's Joan and Jack Craig Chair in Autism Research, and one of the world's foremost autism experts.

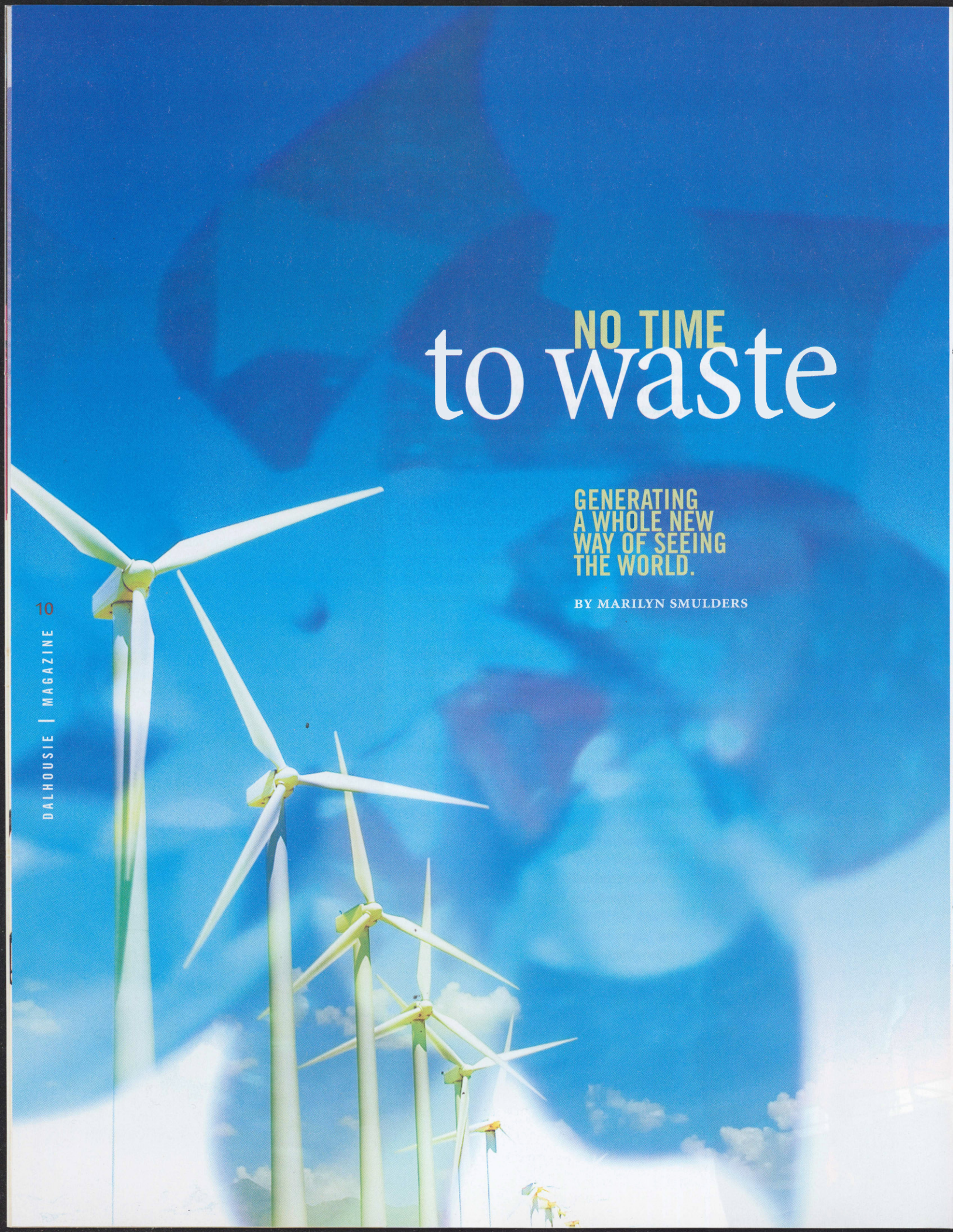
"We need to follow paths that are evidence-based and make sense theoretically," she says. "Especially when we are considering what the priorities are for focusing our attention and money."

Her research focuses on developing earlier autism detection and intervention for babies. Behavioral signs of autism in children between 12 and 18 months old include delayed or lost speech, lack of social smiling, fixating on certain objects, not answering when called, and unusual responses to sensations.

"We know that if we can get in earlier with a diagnosis, and focus on early intervention, we are better able to help the child," she says.

"There has been so much emphasis on the potential link between vaccines and autism, and not enough attention to the fact that diseases like measles can be fatal for children who are not immunized. That is a proven fact," she says.

"It's a lot sexier and more interesting to talk about what we think is fact, than to talk about the things we don't know. With autism, there is still so much we just don't know." *Dawn Morrison*



**NO TIME**  
to waste

**GENERATING  
A WHOLE NEW  
WAY OF SEEING  
THE WORLD.**

BY MARILYN SMULDERS



**W**hen hockey phenom Wayne Gretzky was a kid, his father Walter had perfected the art of creating the backyard rink. He used a lawn sprinkler to establish the base, and then flooded the surface with a hose until it was smooth as glass. The banks were frozen mounds of snow that served as boards.

If Wayne Gretzky was an up-and-comer now, it's doubtful he'd get the ice time he had in the 1970s just by walking out the patio doors of his home in Brantford, Ont. Winters in Canada aren't as cold as they were. That quintessentially Canadian experience – a break-away on a frozen stretch of backyard – may soon be relegated to memory.

Global warming is doing more than making soggy, slushy outdoor rinks in the dead of winter. Its effect is most profound in the Arctic where average temperatures are rising twice as fast as they are elsewhere on the planet. Arctic ice is thinning, melting and rupturing. Not that long ago scientists projected the North Pole and the entire Arctic Ocean could be ice-free during the summer months in our lifetimes; they've since revised their projections to 2015 – just six years away.

Recent Dalhousie graduate Caitlyn MacMaster is passionate when she talks about the Arctic, which she visited last summer as a chaperone for Students on Ice.

“You know what? We can't leave it to the scientists alone to come up with solutions regarding the Arctic,” says Ms. MacMaster, who graduated last May with a Bachelor of Science degree in Environmental Programs. She now works as a wind energy consultant with M.K. Ince and Associates Ltd. in Waterdown, Ont. “We need input from everyone... No one person has the answers,

so we need to listen to all perspectives and come to a collective agreement on where to step next.

“We need to do that quickly. There's no time to waste.”

There's urgency in Ms. MacMaster's voice as she talks about the landscape she loves. That same urgency is behind Dalhousie's new College of Sustainability and its Environment, Sustainability and Society (ESS) program. Universities like Dalhousie often progress at a glacial pace, but the college and the undergraduate academic program have gone from concept to reality in under a year. Born out of an idea thrashed around among Dalhousie academics at a two-day workshop last February, the College of Sustainability is now accepting students for September.

The establishment of the college complements a fresh energy on campus to start walking the walk on sustainability: a new master campus plan is being devised with sustainability top of mind; the university and the student union have opened sustainability offices; and Dalhousie has challenged Acadia and Trent Universities on CBC's One Million Acts of Green, a fun challenge to get people thinking about how their individual actions impact our shared environment. The enthusiasm was so great for the challenge against Acadia that Dalhousie surpassed its target – 16,000 acts of green – in just one day.

**T**he pace to design the program and the college surprises Steven Mannell, a professor of architecture at Dalhousie and the college's first director. He's excited about being part of something built from the ground up – and invites students to join in. “It's like taking tools out of a toolbox and passing them around. You grab one, you get the heft of it, learn to use it and take charge of it. I'm sure we'll see students do things with these tools that we never thought possible.”



Photo: Nick Pearce



Tarah Wright

With a focus on interdisciplinary studies and teamwork, the ESS program promises to be unique from any other academic programs at Dalhousie, or at any other university in Canada. For starters, students can only take ESS as half of a double major or combined honors – combining their ESS studies with a second academic discipline, say computer science, history or management. Depending on their specialty, students would work towards a Bachelor of Arts, Bachelor of Science, Bachelor

of Management, Bachelor of Community Design, Bachelor of Computer Science or Bachelor of Informatics. The idea is to bring students from different disciplines together – the English major with the future ecologist and the community planner – to solve common problems and to gain an appreciation of each other's viewpoints.

Likewise, the professors who'll lead the classes will come from all corners of campus and take a team approach to teaching. So, one class might have three professors – a lawyer, an engineer, an architect – leading the discussion and arguing with each other. The aim is to broaden an understanding of other perspectives, even when they clash.

Program graduates will be critical thinkers, communicators, researchers and effective team members. They'll be leaders who'll be able to approach environmental decisions from a myriad of

perspectives – social, political, economic, scientific, technological and ethical – and bring focus to sustainable practices no matter their career path.

**“We're talking about issues like deforestation, poverty, climate change,”** says Tarah Wright, associate director (undergraduate) with the College of Sustainability. “People feel helpless when they think about these kinds of global issues. We'll need to understand them, dissect them and find meaningful solutions.

“When you're looking at a math problem, there's usually a right answer and a wrong answer. Environmental problems are not like that. There may be a variety of solutions. I think the way to fully explore solutions is to bring in people from different perspectives and let them go at it.”

Dalhousie has the expertise at its disposal to pull it off. There are more than 140 academics from various faculties doing research and teaching about the environment and sustainability. The college brings those experts together under one virtual roof. They include, to name a few, Peter Duinker, a professor with the School of Resource and Environmental Studies, Faculty of Management; Claire Campbell, assistant professor of history, Faculty of Arts and Social Sciences; Larry Hughes, professor of electrical and computer engineering, Faculty of Engineering; Jill Grant, director of the School of Planning, Faculty of Architecture and Planning; and Meinhard Doelle, associate professor of law and a specialist in environmental law with Dalhousie Law School.

Everyone involved expects the classroom to be a raucous place.

“I think it will be rather noisy,” says Prof. Mannell with a smile. “But we'll establish a place that has respect for different opinions and find a way to talk among ourselves.”

The first year of the program will introduce students to diverse concepts underlying an understanding of environment and sustainability. Topics include energy, water, climate change, human population, economics, policy, food and urbanization.

From second year on, the emphasis will be on problem-based learning with a strong hands-on component. Students will be expected to work in teams on projects, which by third year, will be geared to actual sustainability initiatives on the Dalhousie campus. Third year also offers students hands-on experience as interns with community groups or nonprofits.

Steven Mannell

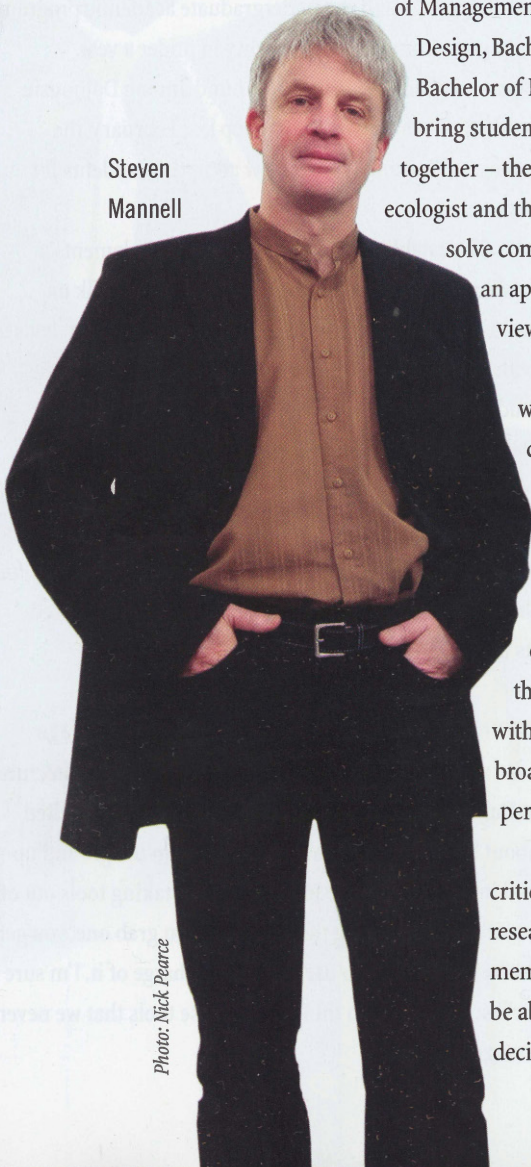


Photo: Nick Pearce



Zoë Caron

In the fourth year, ESS wraps with a “capstone” class. Students will work in multidisciplinary groups with a community partner to identify real problems and develop meaningful solutions – perhaps providing advice on setting up a coastal protection zone or on improving a waste management program. Students will also be required to complete an independent research project under the supervision of a research scientist.

## I think that’s key – for students to realize no matter what field they’re in, that sustainability applies to them.

**Zoë Caron, who graduated from Dalhousie in 2007** with a Bachelor of Science degree in Environmental Programs and International Development Studies, says the College of Sustainability’s multidisciplinary approach is exactly what’s needed.

“I think that’s key – for students to realize no matter what field they’re in, that sustainability applies to them,” says Ms. Caron, co-author with Elizabeth May of *Global Warming for Dummies*, and a project manager out of Halifax with the Toronto-based Zerofootprint. “It’s figuring out how our society can work in as healthy and as happy a way as possible.”

“I like what I’m hearing about it because people who have a passion about the environment don’t necessarily want to take environmental studies,” adds Ms. MacMaster. “They could be an entrepreneur, or a business manager; maybe they’re interested in International Development Studies. But there should be an environmental perspective brought to all those interests; you should be able to pursue the education you want, but get the environmental consciousness too.”

## Sustainability – how do you define it?

“Sustainable (*adj.*) 1. (esp. of development) that conserves an ecological balance by avoiding depletion of natural resources. 2. that may be maintained.”

*Oxford Canadian Dictionary*

“Sustainability is humanity living within the bio-capacity of the planet in a way that’s equitable to people now and in the future ... Right now, humans are out of control. We’re liquidating our planet’s resources. (Sustainability) is living in a way that doesn’t compromise people’s lives – now and in the future.”

Tarah Wright, *associate director (undergraduate) with the College of Sustainability*

“The ESS program is precisely in line with the United Nations’ objectives around sustainability and education. The College of Sustainability has been selected as the only North American exhibitor at the UNESCO World Conference on Education for Sustainable Development.”

David Walden, *secretary-general of the Canadian Commission for UNESCO*

“We need to make decisions based on being the right thing to do, now and in 100 years’ time.”

Jill Grant, *director of the School of Planning, Faculty of Architecture and Planning*

“Sustainability ... there are a lot of definitions. But the idea that we must use resources today to ensure that they’re there for future generations is broadly where we start.”

Deborah Buszard, *professor of environmental programs, Faculty of Science*

BY RYAN MCNUTT

WHEN

# WAR BECOMES CHILD'S PLAY

EXPERTS ESTIMATE THAT



The security detail stationed outside the hotel room carried AK-47s at their side. But the two guards protecting the peace negotiations in the Democratic Republic of the Congo (DRC) were hardly like any other soldiers.

They were no more than 14 years old.

"I remember that they asked me for cigarettes," recalls Shelly Whitman, now deputy director of the Centre for Foreign Policy Studies. "I immediately took this stance with them where I explained that they shouldn't be asking me that because I was a neutral facilitator. I went back to my room later and I realized that I wasn't just saying 'no' to two kids, but to soldiers carrying AK-47s. And when I realized that they were working 24 hours straight, I wondered who was feeding them. Who was looking out for them? Where did they come from?"

When it comes to child soldiers, those questions are never easy to answer. Although the very idea is appalling to most people, children as young as

five or six are being drafted into armed forces in as many as 30 countries. Experts estimate that there may be as many as 300,000 children around the world currently serving in government militaries and organized militias. Some "volunteer," driven into ranks by endemic poverty and insecurity. Many are orphans of war, or are abducted from their communities and forced to take up arms.

Dr. Whitman was in the Democratic Republic of the Congo from 2001 until 2003, serving as head of the research team for the Office of the Inter-Congolese Dialogue. At the peak of the country's civil war in the late 1990s, an estimated 40,000 children were used as soldiers. As many as 7,000 still remained as of 2007, used by various factions as combatants, porters, guards and sex slaves.

Today, Dr. Whitman teaches a course on children and war as part of the International Development Studies (IDS) program, exploring why modern warfare in many parts of the world





**THERE MAY BE AS MANY AS 300,000 CHILDREN AROUND THE WORLD CURRENTLY SERVING IN GOVERNMENT MILITARIES AND ORGANIZED MILITIAS.**

not only condones but encourages the use of child soldiers. No longer are they a resource of last resort, drawn upon when soldier ranks get low. Increasingly children are being used at the start of conflict because – disturbing as the idea may be – there are strategic advantages to doing so.

“General Roméo Dallaire (commander of the UN peacekeeping mission in Rwanda) has talked about children being used as a weapons system,” says Dr. Whitman. “In Sierra Leone, for example, the idea was to create suspicion that all children could potentially be soliders. You stay on edge because any child could be an enemy.”

“Traditional armed conflict between nation-states is increasingly being replaced by internal armed conflicts within countries,” adds Julie Breau, a political science master’s grad who now works with the Pearson Peacekeeping Centre. “Think about how using child soldiers tears apart a community. If your goal is to try and bring down

a society, what better way to do it?”

Ms. Breau’s thesis research explored young women recruited into soldier ranks. “Much of the literature that’s out there still focuses on girls as sex slaves or in traditional gender roles,” she says. “But we now know that they often hold weapons and take part in combat. They also take on a number of other roles: messengers, cooks, spies. On rare occasions they can even have leadership roles within units.”

She explains that one of the more difficult circumstances for girl soldiers is if they become pregnant through rape or intercourse. “It makes things incredibly more complicated. They become limited in terms of how easily they can reintegrate into their old society, or they may choose to stay in their situation because of the shame they might receive in their communities.”

One of the biggest challenges in confronting the issue of child soldiers is that initiatives like

# WAR

"IF EVERYBODY WHO IS

disarmament, demobilization and reintegration programs are often short-term and designed for large groups. The experiences of individual child soldiers, however, may be incredibly different depending on the circumstances, their gender, their roles and the child's ability to cope with traumatic experiences.

"I think you'll find tremendous variability in how individuals adjust to the circumstances," says Stan Kutcher, Sun Life Financial Chair in Adolescent Mental Health. "Some children will be able to adapt to their new status and take on the roles they need to survive within their new reality. Others will not be able to, and may attempt to flee, harm themselves or could become psychologically incapacitated and develop post-traumatic stress disorder. There's a huge range."

Helping confront these concerns are a growing number of international organizations and NGOs that work at establishing programs and

rehabilitating communities torn apart by war. The international community is also starting to take greater steps to address child soldiers. The United Nations, for example, has established the Office of the Special Representative for Children in Armed Combat, and the Convention on the Rights of the Child contains protocols to prohibit governments and rebel groups from deploying children under the age of 18. But with limited enforcement options and significant resource issues, the effectiveness of these measures is still falling behind the reality on the ground in many countries.

That's why Canadian activists are generating attention for the issue. Beth Jean Evans, a master's student in IDS, is president of the Dalhousie chapter of War Child Canada. "It's a sensitive subject, but we need to draw more attention to children that are being denied their rights," she says. "You have no empowerment when you're

**A PARENT THINKS ABOUT THEIR EIGHT OR NINE YEAR OLD  
IN THOSE CIRCUMSTANCES, IT WOULD BE UNTHINKABLE.”**

eight or nine – you depend on your society for your security. And if the state is working to strip you of your rights, you become powerless.”

War Child Canada has established a marketing campaign entitled “Help Child Soldiers.” With provocative imagery and a twist of dark satire, it conveys the message that by ignoring the problem of child soldiers, people around the world are in effect condoning their use. The Dalhousie chapter plans to spend much of the winter term promoting the campaign around campus.

It’s not just students leading the charge. In October 2008, Dalhousie and the Centre for Foreign Policy Studies hosted a two-day Toolkit Development Workshop as part of the Child Soldiers Initiative. The workshop was to develop a best practice manual to assist humanitarian and peacekeeping missions in extracting child soldiers from armed groups. With the help of local experts from a variety of backgrounds, the workshop’s

contributions will be used as part of an operational field guide produced by the Initiative in 2009.

“If everybody who is a parent thinks about their eight or nine year old in those circumstances, it would be unthinkable,” says Dr. Whitman. “Why is it unthinkable for us but okay in parts of the world that are more distant? We get resources from these parts of the world. What happens there affects us too. We can’t forget that.”



Shelly Whitman

# SMILES FAR AND WIDE

BY MARILYN SMULDERS

**D**on't get him wrong: David Precious loves what he does around the world, in developing countries like Vietnam, Tunisia, Brazil and India. It's just that he'd like to work himself out of a job so the local surgeons he trains can take over.

"These doctors – they'd never be able to afford to come here. So it's nice to have that influence, to teach and demonstrate technique so surgeons can deliver care to their own countrymen in their own surroundings."

Along with a team of surgeons – he's often joined by Dalhousie professors Reg Goodday, Archie Morrison, Chad Robertson and Ben David – he performs free corrective surgery on children with cleft lip and palate, and at the same time, trains and teaches local surgeons. The surgeries have dramatically transformed the lives of children born with the common facial deformity and even some adults who had lived with the condition untreated for years.

The surgeries have enriched his life as well. He enjoys the children and their families, the teaching and the friendship and fellowship with team members.

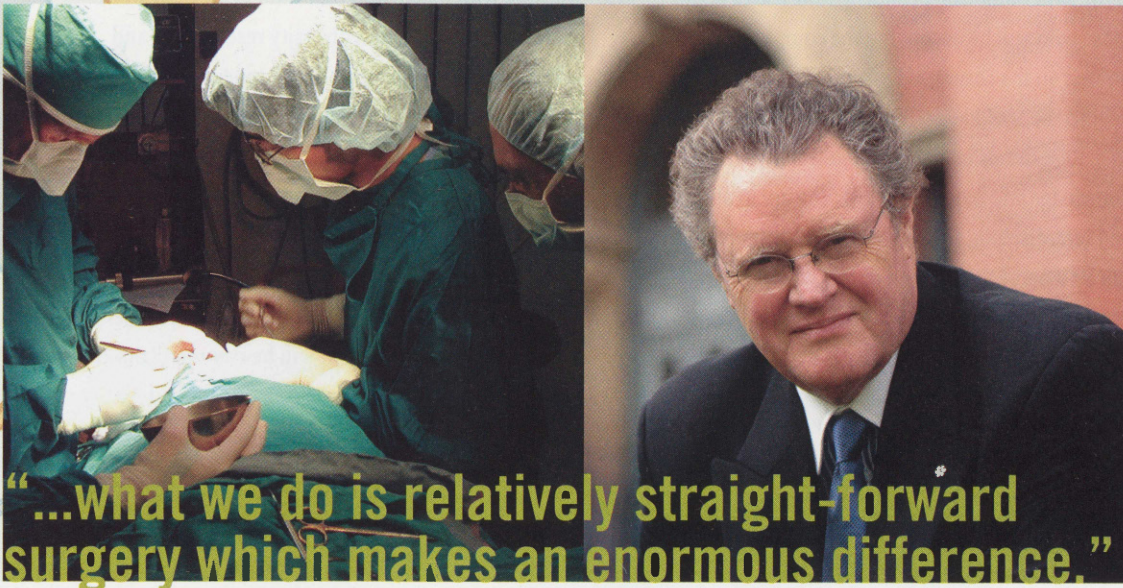
"Why do I do it? It's simple really – It's so rewarding, it feels almost selfish," says Dr. Precious. In May 2007, the internationally renowned teacher and oral surgeon was recognized for leading the international medical missions when he was named to the Order of Canada.

"It's a privilege to work on these children and what we do is relatively straightforward surgery which makes an enormous difference."

One in every 600 to 700 children is born with a cleft lip and/or palate. Once derogatorily referred to as a "hare lip," cleft lip and palate is a condition that occurs during development of the fetus, when the separate areas of the face don't properly fuse together. A cleft lip (cleft meaning "split" or "separation") is an opening in the upper lip between the mouth and

nose. Cleft palate occurs when the roof of the mouth has not joined





**“...what we do is relatively straight-forward surgery which makes an enormous difference.”**

completely. Left uncorrected, children born with cleft lip and/or palate experience breathing, eating and speaking problems.

Back in his office in the Dentistry Building after performing surgery on a baby from Halifax earlier that day, Dr. Precious explains that in developed countries like Canada, the initial lip surgery is done on babies around six months of age, for future growth reasons.

“The goal is to get the nose straight, achieve symmetry of the lip, nose and muscles and to create a nostril you can breathe through,” says Dr. Precious, 64, who recently handed over the dean’s position to Dr. Thomas Boran. A founding member of the International Cleft Lip and Palate Foundation, Dr. Precious has been a professor with the Department of Oral and Maxillofacial Surgery for 35 years. He is also on staff at the IWK Health Centre and Capital Health as a senior oral and maxillofacial surgeon.

Dr. Precious embarked on his first overseas medical mission to Vietnam in 1995 after encountering

Nagato Natsume, director of the Japanese Cleft Palate Association, at a meeting of specialists in New York. Since that time, his ground rules remain the same: he’ll only go on the invitation of the country’s Ministry of Health and only as long as local surgeons will welcome them. “And we still insist on a team of Canadians, Japanese and Vietnamese,” he adds.

Those first missions went to Bén Tre, in the Mekong Delta area of southern Vietnam. But the team has since moved on to other locations because Vietnamese doctors are well equipped to handle the surgeries themselves – “and very well too,” says Dr. Precious. More recently, the team has visited hospitals in Vinh Long province, also in the south of the Southeast Asian country. And, for the past 10 years, the team has made annual visits to Tunisia, in North Africa.

“It’s not like M\*A\*S\*H, by any means. But while not the same as a North American hospitals, there are many things that are done so much more efficiently and at less cost... We definitely learn a lot too – this is not a one-way street.”

Ideas and innovations, research and commercialization will flow seamlessly throughout a new complex set to open on Dalhousie's Carleton Campus in 2011.

The complex will be home to the Life Sciences Research Institute – designated by the federal government as a centre of excellence for commercialization and research – InNOVAcorp's BioScience Enterprise Centre, Dalhousie's Industry Liaison and Innovation (ILI) office and others.

"It's a perfect combination from our point of view," says Dalhousie president Tom Traves about those who will be occupying the complex to be located on the corner of College and Summer Streets, behind the Sir Charles Tupper Medical Building.

Research is intrinsic to a university where expert knowledge and passion for learning are in abundance and interdisciplinarity is fostered. Commercialization can be a natural extension of this research.

Dr. Traves likens the process to a relay race. Dalhousie leads off the first leg – developing the science, identifying commercial potential, assisting

waterfront location is greater proximity to the university's talent, expertise and services.

He adds, "There wouldn't be too many life science companies that didn't have a connection with Dalhousie. Dalhousie would be, without a doubt, the largest producer of qualified people to work in life science companies in Atlantic Canada."

Dalhousie's ILI counts life sciences among the research areas it serves across the university. Executive director Ronald Layden describes ILI's mandates as commercializing research discoveries, attracting and working with businesses that want to do R&D work at Dalhousie or engage university researchers, and helping to create economic development opportunities.

"I think one of our biggest success stories is the development of a medical device company called Thorasys," Dr. Layden says. The company was founded jointly by the university, Geoffrey Maksym, associate professor in the School of Biomedical Engineering, and an industrial partner.

One of the devices that will be commercialized is an oscillation spirometer, which, according to a

# RELAYING DISCOVERIES

BY MARIE WEEREN

## MAKING STRIDES ON COMMERCIALIZATION

creators of the intellectual property to protect their interests and helping to explore the possibilities for development and potential partnerships.

"Then it's time to pass the baton to the next player and the next player here is InNOVAcorp," Dr. Traves says. "And InNOVAcorp's strategy is at some point to pass the baton ultimately to the private sector. If this company's up and running and if it's going to be a big success it will go out into the wider world and it's not going to need a provincial development agency to carry it further. So it's a multistage development process from idea creation through early stage development through mature commercial organization."

The decision by InNOVAcorp, whose clients include early stage companies working in drug development, nutraceuticals and biomedical engineering, to relocate its BioScience Enterprise Centre was carefully weighed. President and CEO Dan MacDonald says the key advantage of the move from its prime downtown

release, "will aid doctors both in diagnosing asthma and in monitoring how well a patient's asthma is controlled. It will be particularly helpful in diagnosing asthma in children – an important advance as asthma most frequently emerges in childhood."

Is having a positive impact on the health and wellness of society perhaps the true value of bringing research and commercialization together in the life sciences? When Barbara Campbell, associate director at ILI specializing in health sciences technology and licensing, is asked what Dalhousie is doing to make a difference for the end user or patient, she replies:

"Excellence in research and a cross-disciplinary, inter-institutional approach. Clinical scientists interacting with their pure research science counterparts, doctors interacting with engineers to build better devices, geneticists interacting with bioinformaticians to scan through masses of genetic data. That all happens here. All of those things eventually affect patient outcome."

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## ImmunoVaccine Technologies Inc.

Developing vaccines for infectious disease and cancer therapy is the focus of Halifax's ImmunoVaccine Technologies Inc. (IVT), named one of Canada's Top Ten™ life sciences companies for 2008/09.

"We have already started the development for the clinical trial which we are hoping is going to be in 2009 – a clinical trial for a cancer formulation that works for prostate, breast and ovarian cancers," says Marc Mansour, vice president R&D.

The formulations are delivered using the company's DepoVax™ platform, a vaccine delivery system which slowly, over time releases the vaccine at the injection site resulting in a long-term effect without requiring multiple immunizations – a feature of particular value in a developing country where compliance may be difficult, or in a case of pandemic flu.

DepoVax™ is the second generation of VacciMax™, which was developed by a Dalhousie team of researchers who went on to found IVT: the late Drs. Warwick Kimmins and

Michael Mezei, and Drs. Robert Brown and Bill Pohajdak. As Dr. Mansour explains, the platform originally delivered an immunocontraceptive vaccine to control the seal population.

"This depot formulation, when they tested it in seals, worked tremendously well," Dr. Mansour says. After 10 years, 90 per cent of the seals vaccinated still did not have pups.

Dr. Mansour says in 2008 IVT signed a licensing agreement with Pfizer Animal Health for commercialization of two animal vaccines and an option on a third. By licensing this veterinary application, IVT can dedicate its efforts to human health.

IVT, whose research connection with Dalhousie continues, doesn't forget its roots. "Dalhousie's been really instrumental in getting the technology off the ground," Dr. Mansour says. "They have been very supportive over the years of IVT, helping IVT get where it is today."

**Research is intrinsic to a university where expert knowledge and passion for learning are in abundance and interdisciplinarity is fostered. Commercialization can be a natural extension of this research.**

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## Ocean Nutrition Canada

Ocean Nutrition Canada Ltd. (ONC) is a Nova Scotia company with a global presence.

As president and CEO Robert Orr explains, ONC is the largest refiner and producer worldwide of Omega-3 from fish. The business began in 1997 with a handful of people. Today ONC, which has Clearwater Fine Foods Inc. as its primary shareholder, employs about 350 and has sales of over \$125 million.

Mr. Orr sees ONC foremost as a technology and marketing company in the life sciences field. Its patented microencapsulation technology turns fish oil into an odorless and tasteless powder with a consistency and appearance similar to flour. The powder is added to everything from orange juice to peanut butter. It's a significant innovation, especially since, as he says,

"Omega-3 fatty acids have been identified as the largest, most significant nutritional deficiency in the western diet."

Director of chemistry Jaroslav Kralovec, has been with ONC since its early days when it rented lab space from Dalhousie Medical School. (ONC also made use of a pilot plant within the Faculty of Engineering.)

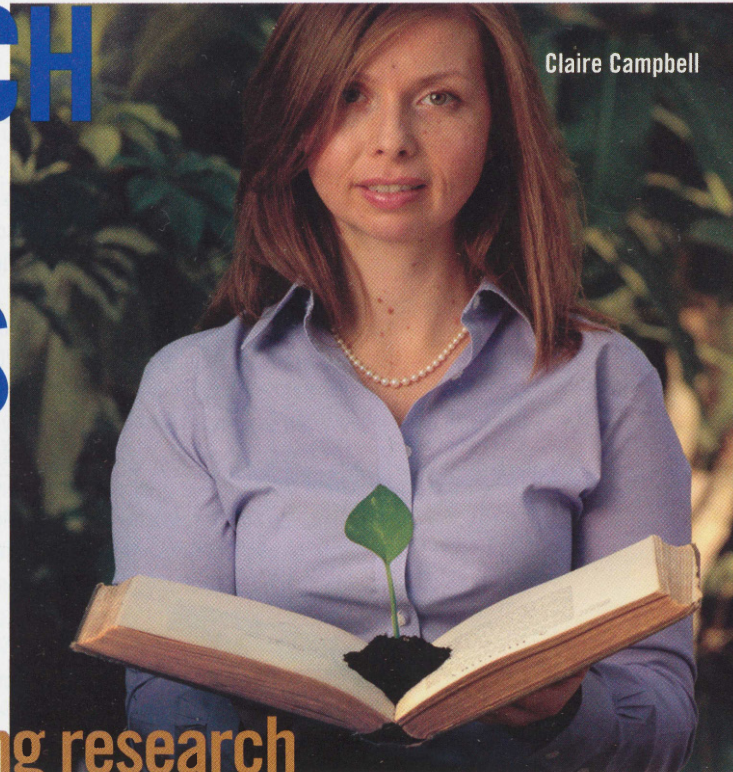
"I would say that Dalhousie played a major role, because at the beginning you need lots of help", says Dr. Kralovec, who was a post-doctoral fellow at Dalhousie and still actively collaborates with the university. "Without Dalhousie I think that the progress would have been much, much, much slower."

Mr. Orr agrees. "Having a university like Dalhousie with the infrastructure that it has in the community is essential to emerging life science companies and their ability to grow and develop."

# RESEARCH THAT MATTERS

BY JULIA WATT

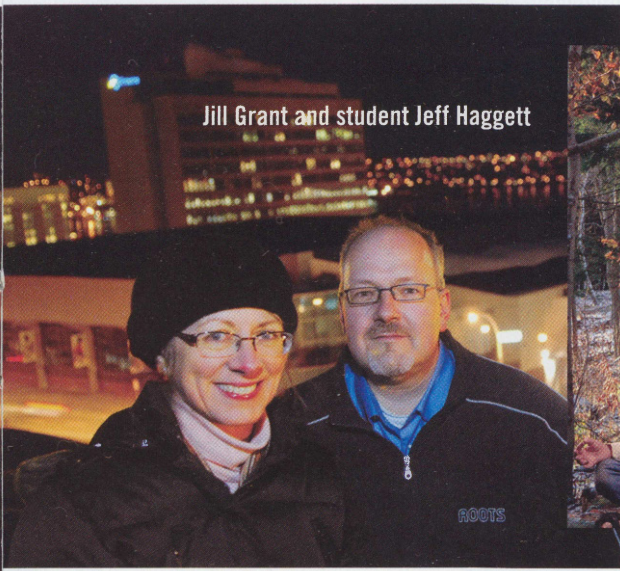
Claire Campbell



**A new way of doing research  
— across disciplines and in  
connection with society —  
is becoming common practice  
at Dal.**

**We are pleased to share these — and  
other research stories — from our most  
recent *OutFront* magazine.**





Jill Grant and student Jeff Haggett



Photos: Danny Abriel

### The human quotient of science

**C**laire Campbell provides a compelling argument for why historians and the humanities are absolutely essential for a sustainable environment. She feels firmly that no matter how great the scientific argument about an approach to preservation, if it's presented without any consideration for the society living within the natural setting, it won't be realistic.

"There is so much more to consider than the strict biology," says Dr. Campbell. "Discussions about sustainability need to focus on the present and the future, but we can't make an informed decision unless we look at the past and integrate a human context into the solution."

Although social scientists aren't the "movers and shakers in sustainability," they need to be much more involved, she says. Dr. Campbell was recently named to the interim executive of Dalhousie's new College of Sustainability, where she advises alongside chemists, biologists and physicists, providing historical insight to the issues.

"There are models and precedents in history that we can make use of when considering new approaches," she says. "We want to avoid changing whole ecosystems to get the desired result – instead it's better to study what has been successful in the past. Environmental historians provide that knowledge."

### Built to last

**C**ommunities today are markedly different from those of years gone by. Today, many of us endure long

commutes, depend on foods imported from other countries and perhaps don't even know our neighbours.

Dr. Jill Grant hopes to change this through a redesign of the "built environment," which refers to the design of constructed surroundings and their relationship to the human activities that take place within them.

"Just think about the exurbs (a suburb in the country) where there is a low density of people. This is possibly one of the most inefficient plans, yet more exurbs are in development," says Dr. Grant. "Big building lots fragment wildlife habitat, encourage isolation and result in much less walking and a lot more driving (and paved roads). This is not an efficient, sustainable model."

Dr. Grant is an advocate for building places that have healthy, long-term prospects. This means developing high-density communities that are creative and connected. Their "built environments" encourage an active lifestyle, inclusivity, diversity and tolerance, all of which are central to attracting people to the province and, perhaps more importantly at a time when many Nova Scotians are exiting in droves, keeping them here.

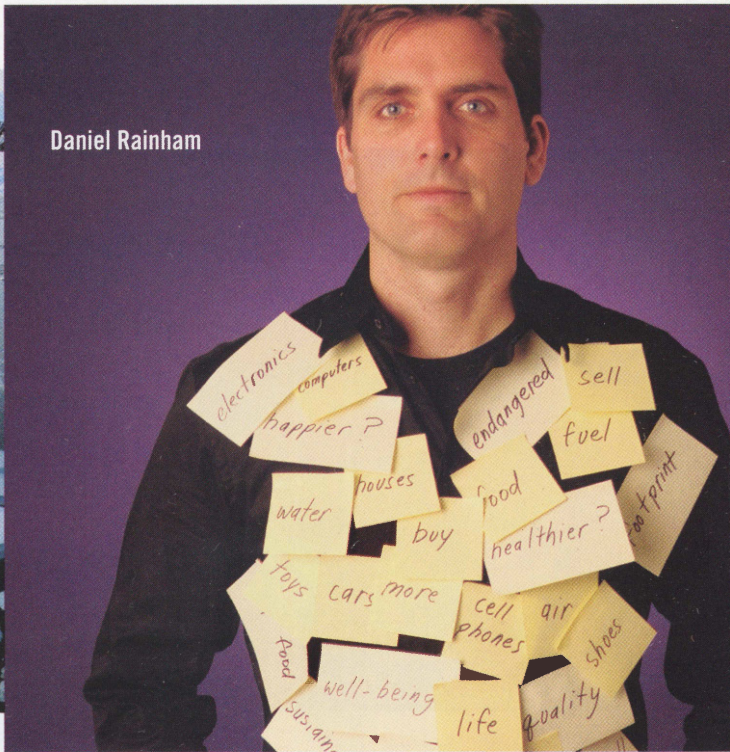
### Covering all the bases

**W**hen Dalhousie's Peter Duinker talks about developing "scenarios" contemplating full-out war or world peace for the year 2050, don't mistake him for a political scientist. It's actually an examination of forest sustainability, something with local relevance and global importance.

As part of the Forest Futures Project of the Sustainable



Lawrence Plug



Daniel Rainham

Forest Management Network, Dr. Duinker is going across the country meeting with diverse groups to see how these situations would affect their interactions with forests.

On the table for consideration are such factors as climate change, geopolitics, global energy, air pollution, invasive species, new technology, biodiversity, wood harvests and forest amenities. “This is a pragmatic approach to reality,” says Dr. Duinker. “The public consciousness has been raised about the ability to guide the future with present-day policy. Without a sound approach and common sense, our forests could be in jeopardy.”

**Passing dangerous gas**

“A big burp into the atmosphere.” That’s how Dalhousie’s Dr. Lawrence Plug describes the release of trapped methane from Alaskan and Siberian lakes.

Some permafrost contains up to 90 per cent dead plant material and, when it thaws around and beneath lakes, the rotting vegetation gives off methane. In terms of global warming, this gas is roughly 20 times more potent than carbon dioxide. Dr. Plug is trying to understand the magnitude of methane releases in the past, present and future, to make more reliable predictions about climate change.

“About 10,000 years ago, there was a warming period that caused hundreds of thousands of lakes to form by melting permafrost. This process seems accelerated today, as these northern regions warm up,” explains Dr. Plug. “The

bubbling methane gets trapped in the winter ice. When the ice is pierced, in places, there is enough methane that it can burn like a torch through the ice for 20 minutes. It’s spectacular to watch, yet disconcerting from a scientific perspective.”

**Figuring out the flaw**

Gasless cars – they’re the way of the future. High fuel prices and an increased interest in protecting the environment have meant the development of hybrid cars. Ten years from now, the car’s engine could look different still. And it’s quite possible that Heather Andreas and her research team will have played a part in this transformation.

The potential comes in supercapacitors. Like batteries, they store energy but unlike batteries, they won’t wear out after being recharged many times. In theory, they should last forever and the process of making the material is also more environmentally friendly.

However, capacitors have a flaw to be fixed before they’ll start showing up under vehicle hoods. “They don’t hold their charge for very long,” explains Dr. Andreas. “Even just sitting on the shelf fully charged, they go dead after about seven days.” This challenge forms the basis of her research. “Once we determine the ‘why,’ we can start to develop a solution.”

**Go ahead, spread the wealth**

Daniel Rainham, Dalhousie’s incoming Elizabeth May Chair in Sustainability and Environmental Health, captures common sense within a scientific framework.

Dr. Rainham is interested in using empirical evidence to research why some people are healthier than others. How does the consumption of resources relate to life expectancies, infant mortality or cardiac-related deaths? Is it better for human health to leave a larger consumption footprint or a smaller one?

With a rising global population, and finite resources, we're running into a problem. Simply put, we can't use more than we have and still exist over the long term. It isn't necessarily the people with the most who will survive.

"Those with less are living almost as long or as long as people in more well-off societies," says Dr. Rainham. "For example, people in Sweden, Denmark and Norway – countries using far less resources than Canada or the United States – are leading very healthy lives."

He doesn't have the answer to these questions yet. Still, his insights are humbling. Those with more can share the wealth and finite resources and still remain healthy, while helping to improve the health of those who are less fortunate.

### Avoiding tragedy

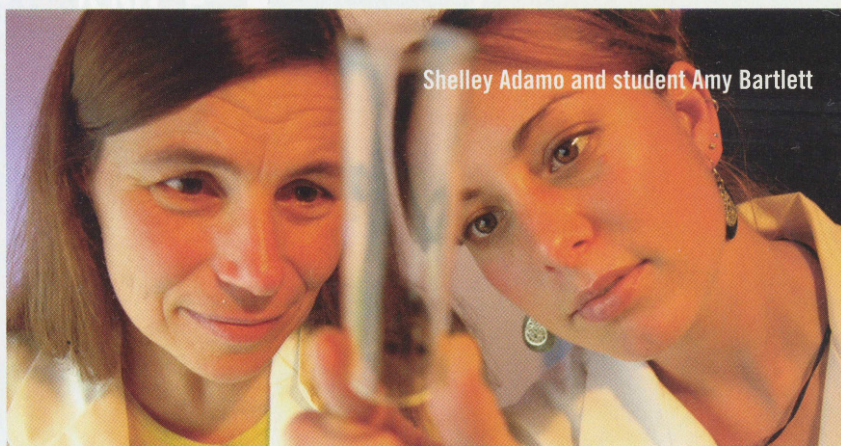
There is a growing challenge in the Annapolis Valley and other heavily farmed areas. It involves balancing a sustainable rural economy with a healthy environment.

"We need to promote and develop our local food economy, but we must also make sure that farming practices are not putting drinking water sources at risk, or damaging aquatic ecosystems," says Dr. Rob Jamieson.

Water contamination from agriculture can arise from several sources. The application of inorganic and organic fertilizers to grow crops can result in nutrients leaching into groundwater and stream systems. With livestock farming, manure can contaminate a water system either through surface water runoff, leaching into groundwater, or by animals wading in streams and rivers. The latter also weakens the riverbanks, causing erosion and sediment issues.

"We are working to understand the sources and behaviour of pathogens in rural environments, and preventing their entry into rivers and streams," says Dr. Jamieson. "This is an important public health issue, as these water bodies are used for drinking water, irrigation water and recreation."

Using science will strike a healthy balance between protecting the natural resources and supporting the increasingly important rural livelihood.



Shelley Adamo and student Amy Bartlett

Photos: Danny Abriel

### The wonders of weather

Ian Folkins has his head in the clouds ... thunder clouds, to be precise. He is researching ways to better forecast weather in the Tropics, an area covering more than half of the Earth.

"This area is tremendously vulnerable to extreme rainfall in heavy bursts from thunderstorms, causing flash floods and potential lightning strikes," explains Dr. Folkins. "It also suffers from extreme dry conditions that can be detrimental to agriculture and water supply. The weather there is fickle and can change quickly. It's very difficult to reliably predict."

Part of what makes the weather in the Tropics so difficult to predict is the size of the thunderstorm clouds, in comparison to what meteorologists typically study. In weather forecast models, the atmosphere is divided into grid boxes measuring about 100 kilometres. This works for, say, North America, where disturbances generally come from large storm systems. However, a thunderstorm may only span one kilometre, meaning it is incapable of being modelled within the traditional grid box.

His ultimate research goal is to improve rainfall prediction in the Tropics. He uses sophisticated computer modelling to try to improve how current climate models represent the effects of thunder clouds.

### Say it isn't so

If Shelley Adamo's prediction becomes reality, we're all in for some unpleasant repercussions. Adamo is looking into the effects of climate change on the immune and reproductive systems of insects. Her concern is that an increase in temperature will result in a weakened immune system and increased reproduction – factors that could significantly change our insect dynamic.



Moira McConnell



Christopher Taggart and Barry Ruddick

Photos: Danny Abriel

Right now Nova Scotia is the northernmost range for many bugs. Thankfully, one of the most common mosquito carriers of the West Nile Virus is rare in this province. A change in climate could lead to an increase in its numbers.

If the climate warms, signalling insects to put more energy into reproduction, it could lead to a decrease in disease resistance. We could end up with more mosquitoes, more susceptible to contracting the West Nile Virus. This is precisely the hypothesis that Dr. Adamo and student Amy Bartlett are working to prove.

“Next to the Arctic, the temperate zone (e.g., Nova Scotia) will be the most affected by increasing temperatures. The impact will be far-reaching. The more we understand it, the better we can prepare for it,” Adamo says.

#### International ambiguity

**I**f a ship is owned by a Canadian, registered in Panama, captained by a Norwegian, crewed by seafarers from many other countries and sailing from port to port, which nation’s laws and practices govern? It reads like a modern-day riddle but with an international industry like shipping, this is a common situation.

Moira McConnell is interested in developing effective international standards, particularly in the maritime sector. Her current research is in achieving “decent work” for seafarers, the more vulnerable of the world’s workers.

“When ships operate transnationally, there are many complex issues and it can be unclear which workplace standards apply, whether it’s pertaining to social security or the provision of drinking water,” says Dr. McConnell. “Without international standards that are enforced, there is risk of exploitation and poverty, which can snowball to the

seafarer’s family and their ability to sustain an acceptable living standard.”

Through research, Dr. McConnell is working to help countries achieve sustainable economic development by establishing clear legal approaches to protect humans and the environment.

#### Setting coral ‘eggs’ adrift

**T**he hope of replenishing dying coral reefs provided the research impetus for Christopher Taggart and Barry Ruddick. To find out whether coral can be “reestablished” requires an understanding of how far coral eggs and larvae disperse.

They developed a technique whereby tiny particles that mimic coral eggs and larvae were set free in the ocean. Magnetic collectors were placed within a 100-kilometre radius to attract the floating particles, composed of silica-glass and magnetite.

“It is a remarkably simple, inexpensive solution to a very important problem,” says Dr. Ruddick.

The scientists simply count the number of particles caught to determine dispersion patterns. Their findings showed that coral eggs and larvae can travel fair distances – at least 10 kilometres – which holds great promise for rebuilding the coral population.

“Coral is particularly interesting because it is both an animal and a plant. It’s made up of two different organisms that need each other to live,” explains Dr. Taggart. “When the ocean temperature rises, it can bleach the coral, meaning the plant part is expelled from the animal part. Now that we have shown that the coral eggs can disperse, it will be up to the coral reef ecologists to determine if the larvae can effectively recolonize a new population.”

# HOME and AUTO INSURANCE for Dalhousie Alumni

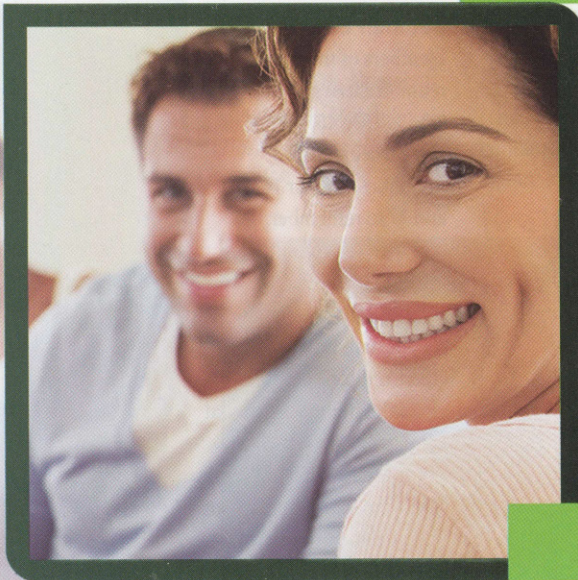
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## Reunion recap

More than 80 members of anniversary classes gathered in Halifax in October 2008 to remember and reconnect.

28

DALHOUSIE MAGAZINE

### Call for nominations 2009 Alumni Association Awards

Help us celebrate by nominating a fellow grad for one of our 2009 awards.

For further information, phone **Shawna Burgess** at **902.494.6051** or **1.800.565.9969** or email: **shawna.burgess@dal.ca**

Deadline for nominations is March 9.

### Reunion 2008

Members of the reunion classes of '68, '63, '58, '53, '48, '43 and earlier gathered in Halifax October 16 and 17 to remember, relive and rediscover their Dalhousie days. Activities included a special reunion brunch at Shirreff Hall, campus tours, the Dalhousie Annual Dinner, the MasterMinds lecture delivered by Alumni Achievement Award winner Budge Wilson, and an anniversary luncheon. **Save the date:** Reunion 2009 for classes of '69, '64, '59, '54, '49, '44 and earlier is October 8 and 9.

### Annual Dinner

Dr. Wanda Thomas Bernard, CM (MSW'77), Director of the School of Social Work, took close to 500 alumni and friends on a journey into the heart of our own community on October 16, 2008 with a moving and personal account of her life and career.

Guests were also introduced to a number of other outstanding Dalhousians at the 2008 Annual Dinner, including reunion class members celebrating more than 40 years since graduation and the 2008 Alumni Association Award Winners (pictured at right).



(Clockwise from left) **A. Gordon Archibald Award:** Dr. Denis Stairs, OC (BA'61); **Award for Excellence in Teaching:** Dr. Tom MacRae; **Outstanding Young Alumni Award:** Christopher Crowell (LLB/MBA'02); **Dalhousie Alumni Achievement Award:** Budge Wilson, CM (BA'49, DED'53)

## Farewell to a friend of Dalhousie

Friend. Confidant. Tireless volunteer. To those who knew **Christopher Coulter** (MBA'93) well, these are but a few of the words they use to describe him. Sadly, Chris, a member of the Dalhousie Alumni Association Board of Directors since 2006, passed away at the age of 40 in Toronto on November 9, 2008.

Chris came to Dalhousie from Ontario in the early 1990s to study for his MBA. Although he knew no one in Halifax and had only visited the city briefly as a child, he was looking for a unique university experience. Dalhousie fit the bill.

During his student days, Chris didn't hesitate to get involved. He was vice-president of the MBA Association and manager of Career Services within the School of Business Administration. Chris described his "great student experience" as his reason for volunteering for the university as an alumnus.

After graduation, Chris moved to Toronto, where he worked for Maple Leaf Foods and, most recently, as a talent manager with Cara Operations Limited.

Chris worked hard to make the most of life. In his spare time, he volunteered as a fundraiser for many charities, showed and judged dogs and traveled the world. And throughout all of his experiences, he made and nurtured friendships with ease.

Chris will be remembered fondly by his large family and many friends.

"Chris was one of the smartest, funniest and most intuitive people I have ever known," Sarah Shephard (MBA'93), one of Chris' close friends and former classmates stated as she honoured him at his funeral. "With a dash of small town humility, a hint of devilishness, a grand work ethic and more charm than he knew what to do with, Chris was someone you knew was special, the moment you met him. . .

"Showing up, contributing and demonstrating leadership were all very important to him. . . in the true sense of wealth: happiness, good friends, family, love, respect and honour, Chris would lead the Fortune 500."



## Join us in 2009!

**Nassau, Bahamas –**  
February 25  
Host: *Franklyn Wilson*  
(BCom'68)

**Miami, Fla. Alumni Reception –** March 3  
Host: *Suzanne Sheaves*  
(DDH'71, BA, MBA)

**Sarasota, Fla. Alumni Luncheon –** March 5  
Host: *Isaac Boniuk*  
(BSc'58, MD'62)

**Calgary Lobster Dinner –**  
May 1

Look for events this spring in California, Bermuda, Fredericton, Saint John, Moncton, Edmonton, Vancouver and Victoria.

**For event details and updates,** visit our events schedule online at [www.dal.ca/alumni/events](http://www.dal.ca/alumni/events) or e-mail [alumni.events@dal.ca](mailto:alumni.events@dal.ca).



## Fall 2008 events

An Alexander Keith's birthday pub night in **Ottawa**, a James Bond movie night in **Halifax**, visits to the historic Harvard Club in **Boston** with hosts Larry Brophy (BA'70) and Nan MacDougald Brophy (BA'69) and to **Montreal** with host Charles Porteous (MBA'91) were early fall highlights.

With December came our **Toronto** alumni dinner and the annual **Ottawa holiday alumni gathering**, hosted by Senator Sharon Carstairs (BA'62) and John Esdale Carstairs (LLB'57) at the National Arts Centre. In mid-December, alumni and friends in the **United Kingdom** were invited to a special reception to celebrate the signing of a friendship agreement between Dalhousie's Faculty of Management and Ashridge Business School.

Photos from top to bottom:

**Boston reception**

**Halifax alumni movie night**

**Ottawa holiday reception**

View more event pictures online at [www.dal.ca/alumni/events/photos](http://www.dal.ca/alumni/events/photos)

**Do we have your email address?** For many events, we send electronic invitations, and we don't want you to miss out! To update your information, visit [www.dal.ca/alumni/update](http://www.dal.ca/alumni/update) or email [alumni.records@dal.ca](mailto:alumni.records@dal.ca).

# Classnotes

## 1940s

1944

**Robert Silver Grant**, BSc, MD'48, celebrated his 60th reunion with classmates from the MD Class of 1948 on September 30, 2008. His daughter Abbie L. Gwynne-Timothy hosted a party for her father and members of his graduating class at Dr. Grant's home in Halifax.

## 1950s

1952

**Calvin Evans**, BA, has a new book out. *Silk Sails: Women of Newfoundland and Their Ships* is a non-fiction account of the involvement of Newfoundland women in the fishing trade. As the book entertainingly demonstrates, women of the Atlantic region were owners of boats, ships and waterfront properties from as early as 1650. The 500 women represented in the account reveal the historic character of Newfoundland women – hardy, durable and tenacious and more than equal to the challenges of their time. *Silk Sails* is published by Breakwater Books Ltd.

1955

**Jans (Wilson) Henderson**, BA, was inducted into the Colchester County Sport Hall of Fame on November 7, 2008. She excelled at a number of sports including track and field, badminton, swimming, tennis and basketball. While at Dalhousie, she was captain of the basketball team which won the Maritime Intercollegiate Championship in 1955. Jans also played for the Dalhousie ice hockey, tennis and field hockey teams.

1958

**Carroll O. ("Chuck") Brawner**, MEng (NSTC), MEng (NSTC), has been inducted into the Canadian Mining Hall of Fame. A native of Saskatoon, Sask., he graduated in civil engineering from the University of Manitoba in 1953 and went on to complete a Master of Engineering degree with a specialty in soil mechanics at Dal. Today, he is known and respected worldwide for his contributions to open-pit mining and geotechnical engineering. Chuck chronicled his experiences in geotechnical engineering in his autobiographical book, *Engineer ... Around the World in Fifty Years*, published in 2006.

## 1960s

1961

**Bonita (Regan) Kirby**, BA, BEd'62, was recently awarded the Alpha Gamma Delta Fraternity Distinguished Citizen Award in the field of International Relations in San Antonio, TX. She was presented with the award at an International Convention in recognition of her lifetime commitment. While at Dalhousie, Bonnie initiated an Alpha Gamma Delta Fraternity chapter and as a result, the Bonita Regan Outstanding Alumnae Award is given annually to a fraternity member who has contributed significantly to the chapter over the years.

1962

**Peter Corkum**, DEng, achieved another sporting milestone when he was inducted into the Nova Scotia Sport Hall of Fame on October 24, 2008. A legendary Dal athlete, Peter was a multi-decorated football and hockey player while at Dalhousie from 1957 to 1962.

## 1970s

1973

**Eric Horton**, BEng, MEng'88, has been inducted into Water Ski / Wakeboard Canada's Hall of Fame as its first pioneer inductee. Eric introduced the world to the PerfectPass speed control system, which is now used worldwide and is required by the International Water Ski Federation for world records. Eric just recently retired as full-time president of PerfectPass Control Systems Inc., located in Dartmouth, N.S.

1975

**D. Alan Jones**, MBA, was recently elected president of the Mississippi Valley Textile Museum in Almonte, Ont. The textile museum commemorates the textile mills which once operated along Canada's Mississippi River.

1978

**Robert Craig**, BA (K), is now working for the Learning and Access Services unit of the Library of Parliament in Ottawa. Among other things, this unit is responsible for public tours of the Parliament Buildings. Friends can contact him by email at [arejaysee@sympatico.ca](mailto:arejaysee@sympatico.ca) or through his new work number: (613) 947-8346.

## 1980s

1988

**Colin Dickson**, BEng, graduated from the Executive MBA program at Saint Mary's University in May 2008 and was the recipient of the Gold Medal for Academic Excellence. In July, Colin was promoted to the position of vice president, Atlantic region for the Cement Association of Canada and, in September, he was honoured by receiving the JD Fraser Award from Engineers Nova Scotia for service to the engineering profession.

## REUNION 2009 OCTOBER 8 & 9

Meet old friends and see what's new at Dalhousie. A special invitation for the Classes of 1969, 1964, 1959, 1954, 1949, 1944 and earlier. Join us in Halifax on October 8 & 9!

For information on reunion events, email [alumni@dal.ca](mailto:alumni@dal.ca) or call 902.494.6051, toll free 1.800.565.9969





# 1990s

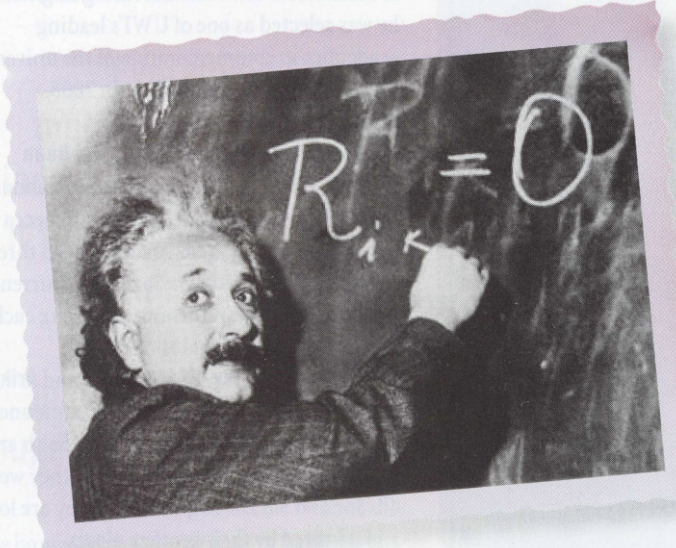
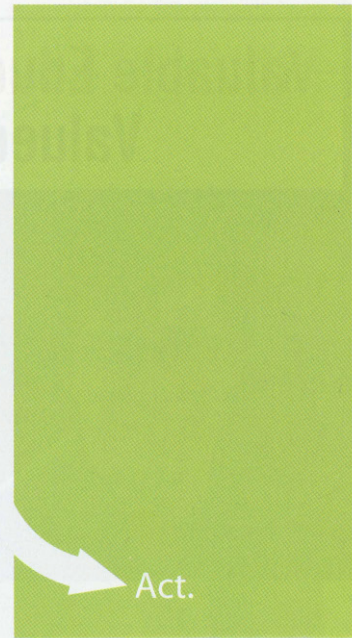
1992

**Patty (Frenette) Welsh**, BScPT, has just graduated from a coursework Master of Physiotherapy in the field of pediatrics from the University of Queensland. She is currently living in Newcastle NSW, Australia and would love to reconnect with classmates, [patty\\_steele@hotmail.com](mailto:patty_steele@hotmail.com)

1994

**Julie (Romkey) McNeil**, BSc (Pharm), and **Mike McNeil**, BScN'00, are pleased to announce the birth of their second child, Abby Rebecca, on May 16, 2008 at 11:21 a.m. at the IWK. She is sister to Peter.


**John Haffner**, BA, MA'95, was selected by Yale University as a 2008 Yale World Fellow. As senior advisor for strategic planning at Ontario Power Generation (OPG), John helps shape OPG's role in the province's \$60 billion, 20-year energy plan. The Yale World Fellows Program – the only program of its kind – aims to build a global network of emerging leaders and to broaden international understanding. The program conducts a worldwide competition each year to select 18 highly accomplished men and women from diverse fields and countries for a four-month leadership program at Yale.




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### Graduate Studies

1995

**Abby Langer**, BA, and Ryan Swain, welcomed their beautiful daughter, Jordan Avery, on December 5, 2007. They live in Toronto, where Abby works as a dietitian in the Family Health Team at St. Joseph's Hospital. Jordan already has a Dalhousie bib and hat and can't wait to join the Dal family in 2025! Friends can look them up on Facebook.

1996

**Mary Ann (Kent) Haines**, BSc, MD'00, and **Craig Haines**, BCom'97, are pleased to announce the arrival of Katelyn Cedel, born April 29, 2008 in New York. Her big sister, Shannon, is thrilled.

**Winston G. Lewis**, PhD, was honoured by the World Congress of Arts, Sciences and Communications in 2008 with the prestigious Lifetime Achievement Award for Excellence in Leadership, Service to the Engineering Profession and Country, and Outstanding Academic Achievements in Teaching and Research. As senior lecturer and head of the University of the West Indies (UWI) Department of Mechanical and Manufacturing Engineering, he was selected as one of UWI's leading academics in commemoration of the university's 60th anniversary celebrations in 2008.

1997

**Julie (Matthews) Naugler**, BSc, and **Dean Naugler**, BA'97, BA'99, are pleased to announce the birth of their second daughter, Rebecca Jane, born on October 7, 2008. Isabella (aged three) is thrilled to be a big sister. The family currently resides in Calgary, returning to Halifax each summer to visit friends and family.

**Katrina Hurley**, BSc, MHI'07, and **Arik Drucker**, PGM'06, proudly wish to announce the births of their twin daughters, Ayla Faith and Marin Leah. Born on May 30, 2008, they weighed 4lb 3oz and 5lb 2oz respectively. They are loved and admired by their brother, Noah.

1999

**Renee de Gannes-Marshall**, MA, MLIS'02, and **Jay Marshall**, BEng'93 (TUNS), are happy to announce the arrival of their first child, Ella Maeve, born on June 30, 2008 at the Ottawa General Hospital.

## 2000s

2002

**Leigh Lampert**, LLB, MBA, joined Sears Canada Inc. in Toronto as legal counsel in September, 2008. Leigh, his wife **Darcie Richler**, BA'02, and their son Max live in Toronto and can be reached at [leigh@leighlampert.com](mailto:leigh@leighlampert.com)

# Spotlight

## THE INDEPENDENCE FACTOR

“**E**verything I do is motivated by the word independence,” says Brian Wade (BSc’98), who works with The War Amps in Ottawa. “Whether it’s my independence or whether it’s assisting someone else to be independent – that’s a huge motivation for me as well.”

It’s a trait his parents encouraged from an early age. From making his own lean-to in scouting, to playing the bass drum in band, or helping to build sets for his high school musical, Mr. Wade – who was born with multiple amputations – didn’t let opportunities pass him by.

**“Everything I do is motivated by the word ‘independence.’ Whether it’s my independence or whether it’s assisting someone else to be independent – that’s a huge motivation for me.”**

He brought that same attitude to Dalhousie where he lived in Howe Hall’s Smith House for four years – serving as a residence assistant for two of them. A major in marine biology, he helped to start a student association for the program as well as volunteering with the student union.

“It was a very exciting time of my life where I got to learn more about myself and my extended Dal family,” says Mr. Wade, an active volunteer with the university. “I grew and I hope that I was able to help the Dal community grow as well.” Mr. Wade, who benefited from The War Amps programming growing up, has worked with the organization since 1998. He shares his experience and offers support to young people

with amputations as the manager of a technology program called JUMPSTART, and also co-ordinates a family mentorship program.

“I love to learn and I think that’s why I love working with people,” he says. “Everybody that I meet, I’ve always learned something new from

them, or they’ve helped me to learn something more about myself,” Mr. Wade says. “Dal’s current slogan Inspiring Minds is a great description. I support it wholeheartedly because I think I developed this love for learning at Dal.”

– Marie Weeren



Photo: Remi Theriault



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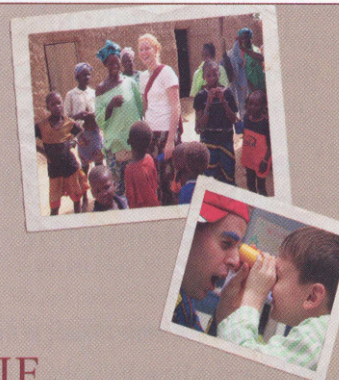
2008

**Li Zhai**, PhD, received the 2007 Chinese Government Award for outstanding self-funded students abroad. The award, which recognized nine doctoral students in Eastern Canada, was presented by Ambassador Lan Lijun on July 28, 2008 at the Chinese embassy in Ottawa. Dr. Li was recognized for her outstanding thesis work in the field of oceanography. She is employed at the Bedford Institute of Oceanography.

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# bringing IT HOME



## THE 2008 DALHOUSIE ANNUAL DINNER

Thanks to our sponsors and the 500 alumni, friends, faculty and staff who joined us on October 16, 2008, to celebrate another successful year.

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# Spotlight

## CATALYST FOR CHANGE

**T**eacher. Journalist. Author. Politician. Executive. Fundraiser. For Dr. Isabel Bassett (LLD'95), these seemingly diverse roles have all been connected through an underlying concern for education. Education paired with action is a powerful combination. Dr. Bassett, who received the Founder's Award of Distinction at the African Canadian Achievement Awards celebration in May 2008, was a guiding force in the establishment of the James Robinson Johnston Chair in Black Canadian Studies at Dalhousie.

**“When I grew up there were no women announcers on the news. So I grew up at the beginning thinking only men did that.”**

She gained a greater understanding of the black community in Nova Scotia through her friend, the late Dr. Beverly Mascoll, who actively fundraised for the Chair.

“It seemed to me a very important thing to educate the rest of the community about the wonderful contributions and role that the black Canadians were playing in our society,” says Dr. Bassett, who co-chaired the national chair's fundraising committee. Her sister, Dr. Margaret Casey (MD'68, LLD'04), president of the Dalhousie Medical Alumni Association, has served on the chair's advisory committee.

It isn't the first time Dr. Bassett has taken steps to increase mutual understanding. As chair and CEO of TVOntario she ensured there was diversity in the children's hosts and in guests invited to

participate in public affairs programming.

“When I grew up there were no women announcers on the news,” she says. “So I grew up at the beginning thinking only men did that. And if you want to change people so they think anybody can do it, they've got to see themselves reflected.”

She agreed to serve as president of the Canadian Club of Toronto on one condition: a third of the board would be from different backgrounds. “If you're on the board you can rise up to be president. After me, the person who took over was a black person.”

With education and understanding, change can follow. “The world expands if you know more about your communities, different communities,” Dr. Bassett says.

– Marie Weeren





## Downsize your footprint.

When it comes to our planet, the best footprint is a small one. I'm part of the Environment, Sustainability and Society program that's developing new thinkers and leaders who will create global solutions that benefit us today and ensure a sustainable tomorrow.

*Jared*

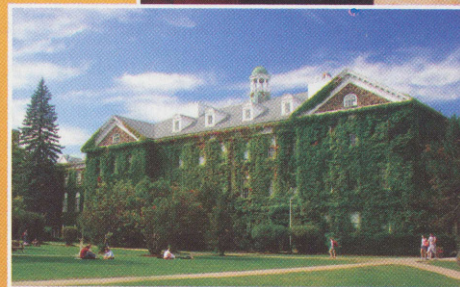
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# InMemoriam

**Helen Gertrude Robertson**, BA'28, Chester, N.S., on September 5, 2008

**Lois Jean (Crowdis) Murray**, BA'34, DED'35, Stewiacke, N.S., on September 20, 2008

**William Ralph Lewis**, DEng'41, BSc'41, Vancouver, B.C., on September 24, 2008

**John Sidney Wright**, BSc'40, MD'43, Riverview, N.B., on August 22, 2008

**Anne Elizabeth (Walker) Murphy**, BA'44, Marblehead, Mass., U.S.A., on November 24, 2008

**George Kevin Penny**, BEng'47 (NSTC), on August 18, 2008

**Gerald Hurlbutt Edsall**, DEng'46, BEng'48 (NSTC), Halifax, N.S., on September 6, 2008

**William Lawrence Marven Creaghan**, LLB'48, Fredericton, N.B., on October 1, 2008

**George Perry Bauchman**, LLB'49, Victoria, B.C., on November 26, 2008

**Arthur William Cox**, LLB'49, LLD'82, Halifax, N.S., on October 8, 2008

**Kenneth McNeill Matthews**, LLB'49, Truro, N.S., on September 25, 2008

**Brian John Keene**, BEng'49 (NSTC), Nepean, Ont., on November 2, 2008

**Vincent Peter Allen**, LLB'50, Halifax, N.S., on October 5, 2008

**Erik Hersholt Nielsen**, LLB'50, Whitehorse, Yukon, on September 4, 2008

**James Alfred Brothers**, MSc'50, Dartmouth, N.S., on October 29, 2008

**Herbert Dawson MacWilliam**, MD'50, Victoria, B.C., on August 31, 2008

**Daniel Francis Kirk**, BEng'50 (NSTC), Dartmouth, N.S., on October 26, 2008

**Howard E MacIntyre**, BEng'51 (NSTC), Sydney, N.S., on November 8, 2008

**John Ralph Dorsey**, BEng'51 (NSTC), Lakefield, Ont., on September 9, 2008

**Marshall James Nickerson**, BEng'51 (NSTC), Riverview, N.B., on October 13, 2008

**William Alexander Gardiner**, MD'52, Scarborough, Ont., on November 19, 2008

**Raymond Aubrey Isaac Epstein**, DDS'52, Halifax, N.S., on August 19, 2008

**Peter Archibald MacKeigan**, BCom'53, Sydney, N.S., on September 8, 2008

**Daniel William Almon**, BEng'53 (NSTC), Halifax, N.S., on November 24, 2008

**Athol Leith Roberts**, MD'54, Charlottetown, P.E.I., on October 27, 2008

**John Douglas McLaughlin**, BCom'55, Bailieboro, Ont., on February 26, 2007

**Helen Margaret Wilks**, MD'55, Evanston, Ill., U.S.A., on September 18, 2008

**James John Mallett**, DPhrm'49, BSc'52, MD'56, Minden, Ont., on December 11, 2008

**Florence Edith Mary (Faulkner) Rowlings**, LCMUS'38, BM'57, Dartmouth, N.S., on August 17, 2008

**Raymond Alvin Bartlett**, LLB'57, Truro, N.S., on October 29, 2008

**Robert Chisholm Douglas**, BEd'58, Halifax, N.S., on November 19, 2008

**James Alden Young McCully**, BSc'53, MD'60, Amherst, N.S., on September 18, 2008

**Barbara J. (Gurney) Newman**, BEd'61, LLD 2006, Halifax, N.S., on November 23, 2008

**Frederick Arthur Murdoch**, DDS'61, Fredericton, N.B., on October 24, 2008

**Franklyn Warren Cordon**, BCom'56, LLB'62, Halifax, N.S., on November 21, 2008

**Linda Hartley (Gerrard) Chapman**, BSc'62, Ottawa, Ont., on September 14, 2008

**Gwendolyn Lillian (Crowdis) Guillena**, DPT'66, Sydney, N.S., on September 13, 2008

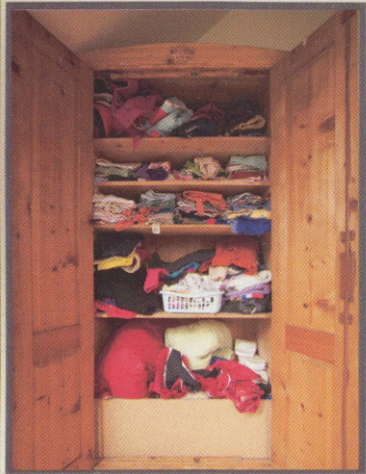
**Lillian May (MacDonald) Bowser**, DNSA'67, Halifax, N.S., on September 7, 2008

**Mahendra Kumar Bhatnagar**, BEd'67, Halifax, N.S., on September 29, 2008

**Sidney Culverwell Oland**, BA'60, MA'67, Toronto, Ont., on December 10, 2008

**Elizabeth Gertrude Campbell**, BA'68, BEd'69, Halifax, N.S., on November 23, 2008

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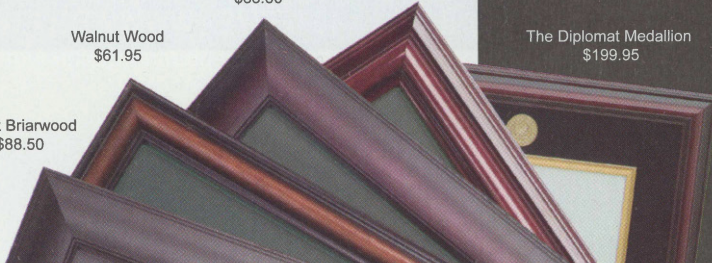
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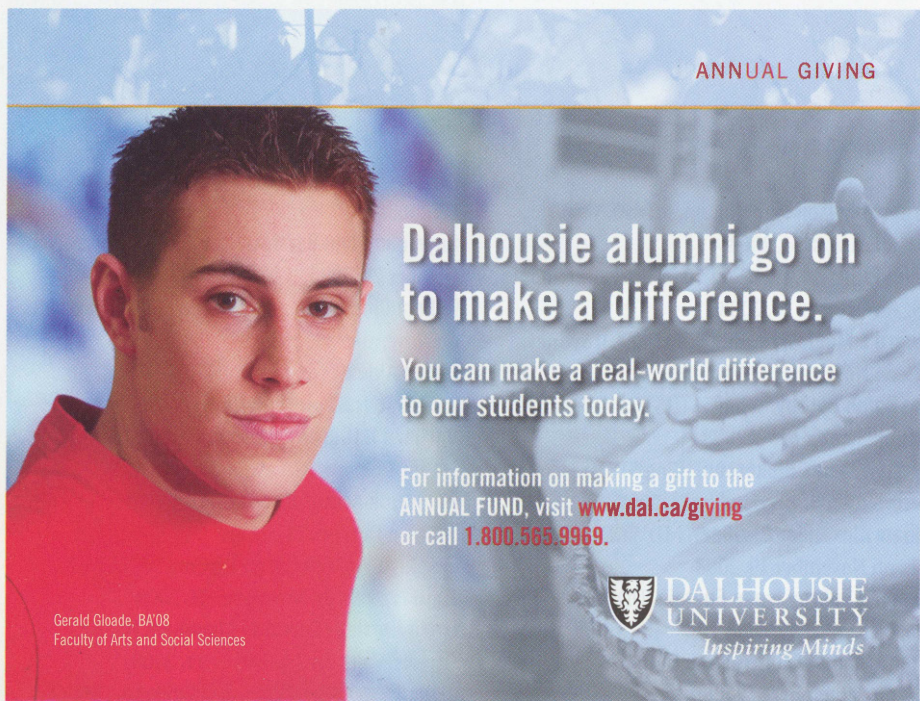
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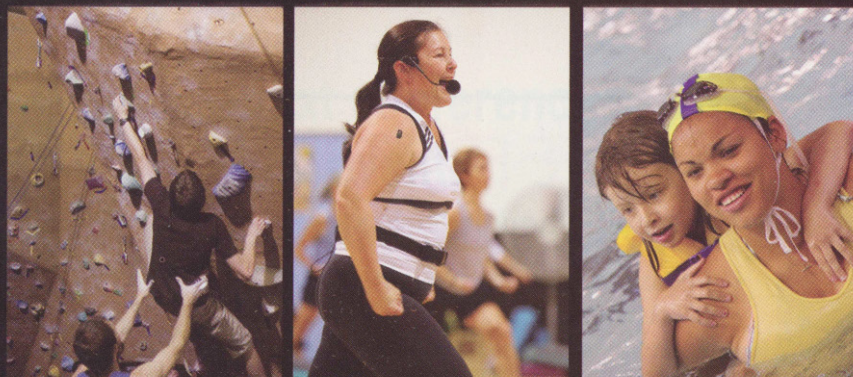


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- Sydney Brunswick Horton**, LLB'71, Whitehorse, Yukon, on August 15, 2008
- Gregorio Lacopia Sayat**, PGM'71, Yarmouth, N.S., on November 27, 2008
- Bertha Beatrice (Wilson) Currie**, BA'65, BEd'66, MLS'72, Bedford, N.S., on December 10, 2008
- Peter Graeme Somerville**, BSc'74, Fredericton, N.B., on September 11, 2008
- Patricia Marie Goddard**, MLS'75, Dunedin, New Zealand, on November 17, 2008
- Kim-Tai Tee**, MSc'71, PhD'75, Halifax, N.S., on November 29, 2008
- Ritta Louise (Grantmyre) Sparrow**, BA'78, Okotoks, Alta., on September 15, 2008
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- Siobhan Lane**, BA'85, MLIS'89, Dartmouth, N.S., on October 8, 2008
- Shirley Ann Gilroy**, CCS'89, Valley, N.S., on November 30, 2008
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- Marial Laura Morse (Morse) Mosher**, PhD'93, Halifax, N.S., on October 4, 2008
- Adrian Beringer Campbell**, LLB'95, Kentville, N.S., on October 3, 2008
- Vincent Chew**, BCom'97, LLB'01, Berlin, Germany, on September 25, 2008
- Linda Cherylle Elaine Palmer**, BSc'03, Dartmouth, N.S., on November 1, 2008
- Anil Andrew Krishan**, BSc'03, Halifax, N.S., on October 13, 2008

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# Change

What we're thinking now could change the way everyone thinks about the future.

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For program information visit [sustainability.dal.ca](http://sustainability.dal.ca)

# Backstory

A WAY WITH WORDS

**NAME** Julie Curwin

**HOMETOWN** A native of Moncton, N.B., her home is now Sydney, N.S.

**JOB** Psychiatrist with the Cape Breton District Health Authority.

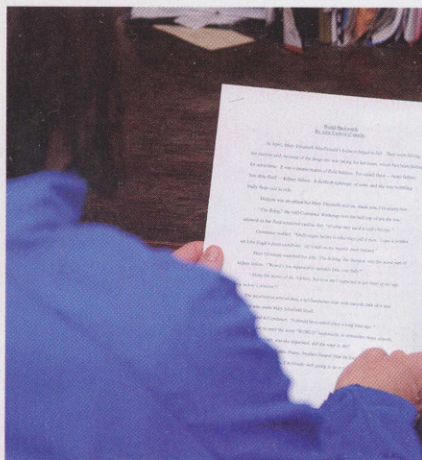
**EDUCATION** BA from Mount Allison, a BSc and MD from Dalhousie, and a diploma in post-graduate medicine (psychiatry) from Queen's.

**PASSION** It might be hard to pin down just one passion for this multi-talented individual. On top of her career, she's emerging as a creative writer of note and she's also an athlete. A 'recreational athlete' these days, she spent 10 years as a professional long-distance triathlete and was a member of Canada's elite national team.

**NOTABLE ACHIEVEMENT** Dr. Curwin recently won the 2008 Commonwealth Short Story Competition for her composition *World Backwards*. The story was selected as the winner from more than 1,700 entries. Dr. Curwin says she stumbled upon a mention of the contest in a newsletter for writers and noticed there was no entry fee for email submission. "I had nothing to lose, so I sent it off and almost forgot about it, really," she says.

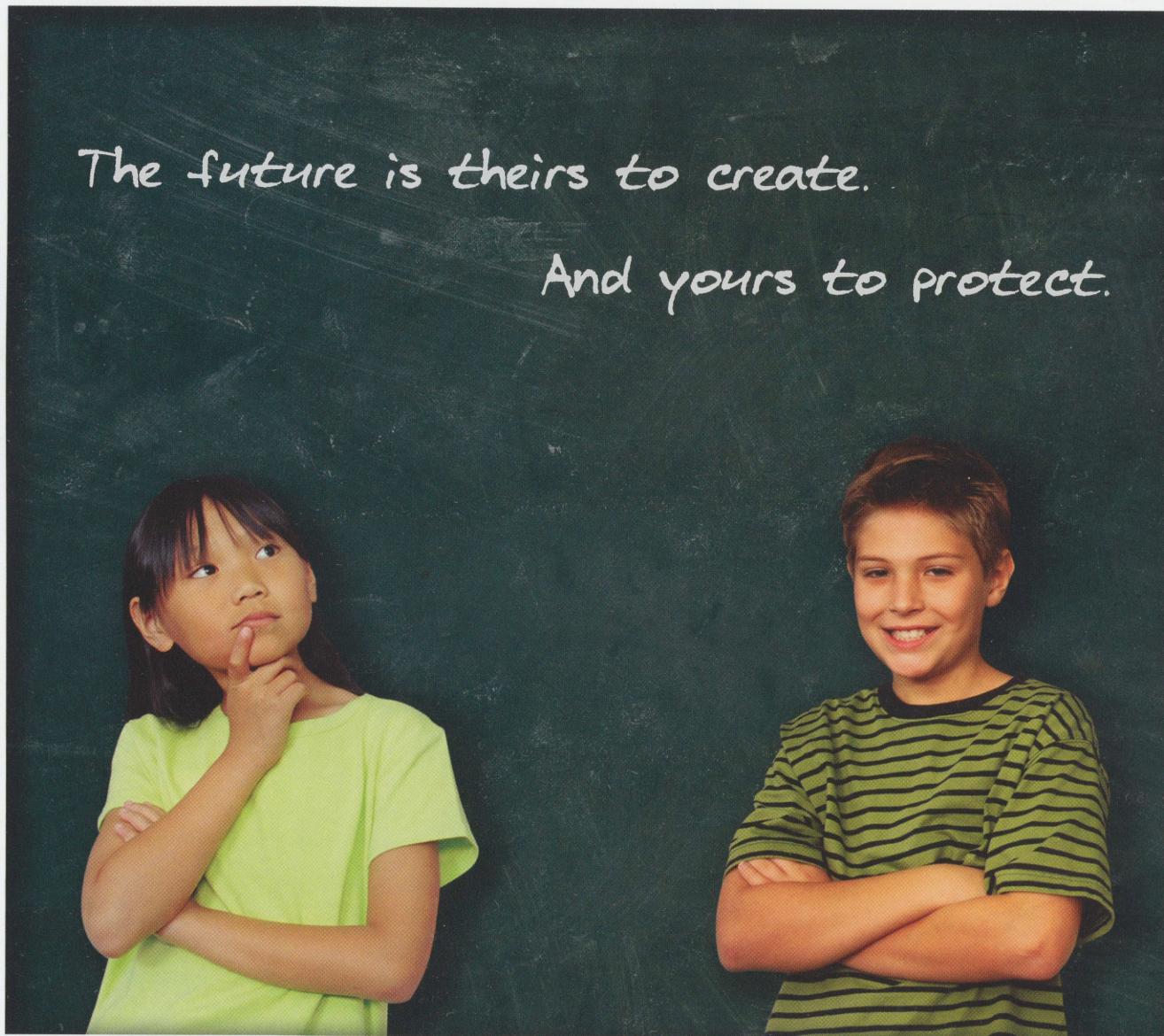
40 **"Exercise is one thing that keeps me calm and more focused. I find if I've missed a couple of days of my exercise, I'm not as focused. And often that's when the ideas will come to me – when you're out riding your bike or running or walking or doing something that's totally unrelated."**

**LAST WORD** When it comes to what advice she'd offer to aspiring writers, Ms. Curwin says, "One thing I would tell people is don't be afraid to write the really bad stuff first. Just write it down. Even if you just have the joy of writing it down, it's not a waste of time. The other bit of advice is sort of a cliché, because every writer says it – 'read a lot'."



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
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