



PEOPLE TECHNOLOGY INNOVATION

V10.1 2016

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# techlife

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## SOLAR IN ALBERTA

THE DAWN OF  
A NEW ERA

## FLOAT THERAPY

A NEW FRONTIER  
IN HEALTH CARE?

## 5 TIPS FOR NEWBIE RECORD COLLECTORS

EXPERIMENTAL  
ICE CREAM P. 14

# MARNI PANAS

AND HER FIGHT  
FOR TRANSGENDER  
RIGHTS





LINDA HAYMOUR  
(Court Reporting '76)

HUSSEIN ZEITOUN  
(Electrical Engineering  
Technology '16)

# GIVING THANKS

After he graduated, Hussein Zeitoun wanted to thank everyone who helped him on his journey. One of those people was Linda (Aboughoche) Haymour, the donor of the bursary he received.

Her motivation for helping students like Hussein, Linda says, is simple: "I named the bursary 'Grace' for reprieve, a grace period. To me, grace encompasses integrity, gratitude, compassion, empathy and perseverance."

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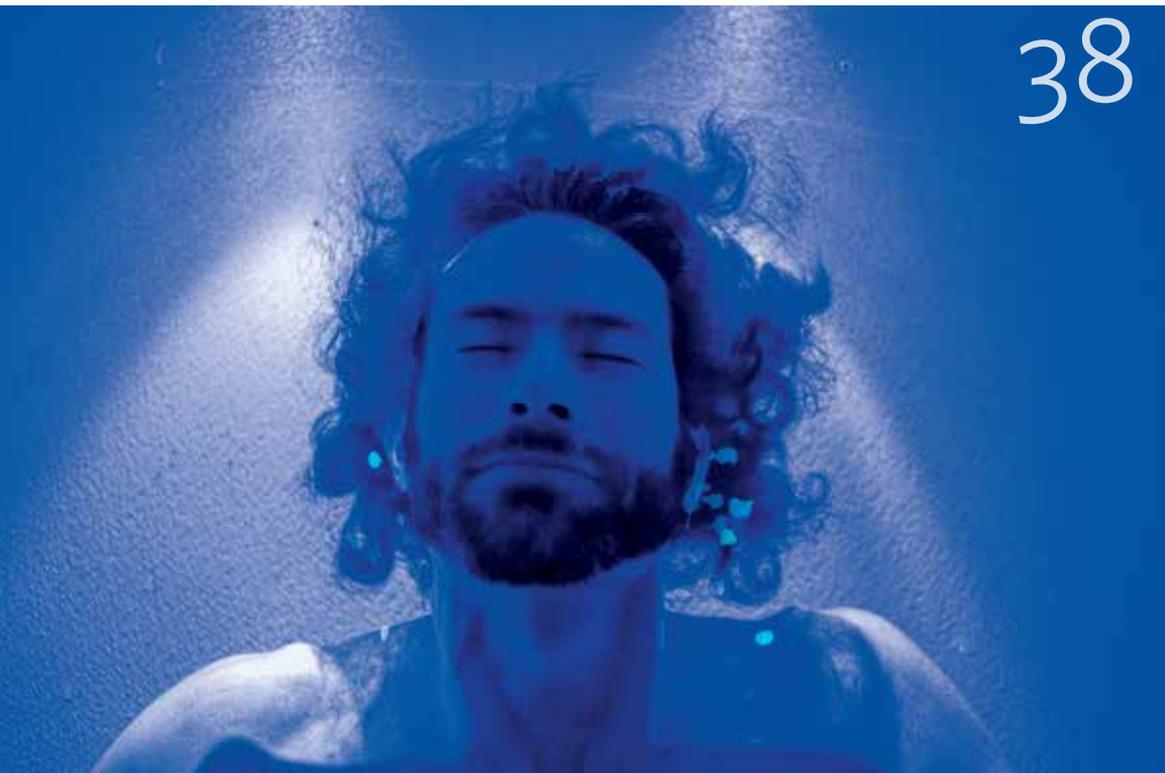


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**Cover photo**  
By Blaise van Malsen

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- Graham Werstiuk** - Respiratory Therapy '06 (p. 36)

# THE LATEST FROM techlifetoday.ca

Between print issues of *techlife*, we post new stories at [techlifetoday.ca](http://techlifetoday.ca). To stay in the know – and receive useful content and topical news featuring our alumni – sign up for our e-newsletter at [techlifetoday.ca](http://techlifetoday.ca). Here's a sample.



## MARATHON MASTER

The secrets of long-distance running, from 2016 Edmonton Marathon winner Brendan Lundy. [techlifetoday.ca/articles/2016/brendan-lundy-marathons](http://techlifetoday.ca/articles/2016/brendan-lundy-marathons)



## TOUR NAIT'S NEWEST BUILDING

Take a virtual trip through the Centre for Applied Technology. [techlifetoday.ca/articles/2016/tour-nait-centre-for-applied-technology](http://techlifetoday.ca/articles/2016/tour-nait-centre-for-applied-technology)



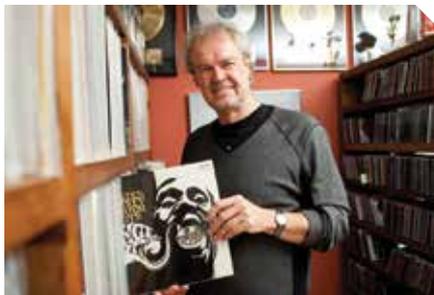
## CAREER PROSPECTS

Whether you're actively or casually looking, there are simple ways to improve your job search. [techlifetoday.ca/articles/2016/job-search-tips](http://techlifetoday.ca/articles/2016/job-search-tips)



## YOUR OWN POKÉMON GYM

How to turn the video game craze into a full body workout. [techlifetoday.ca/articles/2016/pokemon-go-workout](http://techlifetoday.ca/articles/2016/pokemon-go-workout)



## FORTY YEARS OF HITS

Roots and blues aficionado Holger Petersen reflects on four decades in the music industry. [techlifetoday.ca/articles/2016/holger-petersen-stony-plain-records-40-years](http://techlifetoday.ca/articles/2016/holger-petersen-stony-plain-records-40-years)



## DIY PUBLISHING

Award-winning author Rob Kaye offers tried-and-true tips on self-publishing. [techlifetoday.ca/articles/2016/how-to-self-publish-books](http://techlifetoday.ca/articles/2016/how-to-self-publish-books)



## BURGER BLISS

A better way to build the casual meal mainstay. [techlifetoday.ca/articles/2016/perfect-burger-tips](http://techlifetoday.ca/articles/2016/perfect-burger-tips)



## FIVE DAYS IN THE FIRES

Automotive instructor Justin Birch recounts his time fighting the Fort McMurray wildfires. [techlifetoday.ca/articles/2016/fort-mcmurray-fire-justin-birch](http://techlifetoday.ca/articles/2016/fort-mcmurray-fire-justin-birch)



## NET-ZERO ACHIEVEMENT

A look at a uniquely green office building, home to EcoAmmo and Stephani Carter. [techlifetoday.ca/articles/2016/ecoammo-mosaic-centre](http://techlifetoday.ca/articles/2016/ecoammo-mosaic-centre)



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# techlife

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NAIT staff photographer **Leigh Frey** is an honours graduate of NAIT's Photographic Technology ('01) and Multimedia ('02) programs. When not snapping pictures, she's spending time with her family, scouring thrift stores or making crafts of any kind.

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As NAIT's digital communications specialist **Liz Pittman** devotes much of her time to social media at the polytechnic. While contributing to this issue, she picked up some avocado advice and paintbrush pointers.

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**Emily Senger's** freelance writing has appeared in *Canadian Business*, *Today's Parent*, the *Toronto Star*, *Maclean's* (where she remains a contributing editor) and many other publications. In her free time, Senger enjoys running, often after her energetic two-year-old.

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## FEEDBACK

### SWEET TWEETS

**RE: LIVING WITH THE GOLDEN AGE OF TELEVISION** (v. 9.2, techlifetoday.ca/articles/2016/meg-morrison-television-career)

I'm extremely grateful that @NAIT wanted to do a story on the way I do television.

**@MegMorrisonCTV**

(Meg Morrison, Radio and Television '04)

Just got my @NAIT #Techlife Magazine in mail and look who's in it! @SuLingGoh you rockstar you.

**@OfficerJulieM**

(Julie Matthews, Radio and Television '95)

No rockstar, but proud to have made @NAIT Techlife this month! My alma mater.

**@SuLingGoh**

(Su-Ling Goh, Radio and Television '98)

### IMPECCABLE WORK

**JUST A QUICK NOTE** to let you know how excited I get to see the newest copy of *techlife* [v 9.2]. Relevant, interesting articles and the photos/artwork/layout are impeccable. You do NAIT proud!

Sincerely,

**Rhonda Franssen**

NAIT Service Relations Analyst - Information Technology Service and Compliance

### CONNECT WITH US

 **social.nait.ca**

You can also reach us by email at [techlife@nait.ca](mailto:techlife@nait.ca) and mail:

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Edmonton, AB T5G 0Y5



# WHAT'S YOUR AMBITION?

## REACH YOUR GOALS WITH CONTINUING EDUCATION

A degree holder in mathematics, Ivy Zhang is all about the numbers. With her sights set on a career in big data, she enrolled in part-time courses with NAIT's Computer Training Centre. Ivy now works as a Business Intelligence Analyst with the Alberta Motor Association, bringing business and IT together.

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**ANDREA SEDGWICK**  
Ledcor Applied Research Chair  
Centre for Oil Sands Sustainability

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"AS TOUGH AS  
CHANGE MIGHT BE  
IT CAN BE WELL  
WORTH THE EFFORT."



**SOMETIMES**, the changes we make in our own lives have far-reaching, profound effects on the world around us. We may not make those changes for that reason but the impact resonates just the same. It goes to show that, as tough as change might be, it can be well worth the effort.

Our cover story is a perfect example. When **Marni Panas** decided to live an authentic life as a transgender woman, she helped open the door for other people to do the same. Panas (Management '91, Computer Systems Technology '02), helped write the changes in Alberta's Human Rights Act to include gender identity and gender expression to the prohibited grounds of discrimination. Today, the employee relations advisor with Alberta Health Services is a champion for diversity and inclusion, has embraced her life and is the happiest she's ever been. (p. 44).

A change in leadership at NAIT's JR Shaw School of Business could help bring changes to workplace diversity and increase leadership opportunities for women and other under-represented groups. New dean **Tracey Scarlett** (Medical Laboratory Technology '87) plans to use her experience to motivate more women, among others, to reach for leadership roles in an effort to build more balanced and inclusive boardrooms (p. 24). There's still a long way to go, says the former CEO of Alberta Women Entrepreneurs, but she believes the effort to broaden backgrounds, experiences and perspectives in the C-suite will ultimately benefit business.

At Modern Gravity, change is in the water – warm, dense saltwater. **Matt Smith** (Personal Fitness Trainer '11) and **Jamie Phillips** (Millwright '11) were looking for a change in careers when they decided to build a business based on the practice of floating in a dark tank of saltwater – otherwise known as restrictive environmental stimulation therapy. Now they're working hard to change perceptions of floating from a new-age fringe activity to a legitimate therapy worthy of insurance coverage (p. 38). By doing so, they hope to grow their business and introduce its stress-relieving benefits to others.

Making big changes in our lives is almost never easy. It takes courage and willpower. But, as you'll see in each of these stories, the personal rewards – and often the impacts – can be significant.

Lastly, if these stories are meaningful or relevant to you, you'll find them online at our new content hub [techlifetoday.ca](http://techlifetoday.ca), where you can easily share them (p. 21). You'll also find more timely, relevant and topical news and stories that we hope you'll connect with. Let us know what you think.

Sherri Krastel  
Editor  
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# THE POWER OF INCLUSIVITY

**NAIT IS BUILDING** a rich and deep culture of diversity and inclusivity. We celebrate this culture, which is increasingly reflected in everything we do.

At NAIT, we embrace our differences and similarities, including gender, race, religion, sexuality and physical needs. We provide an environment where individuals can feel secure and are supported in their personal growth and development. I am moved by alumna **Marni Panas's** story and her personal journey in creating a life true to herself. You can read more about Marni on page 44.

As a leading post-secondary institution, it is important that we support our students and staff in all aspects of their lives. A number of events promote diversity and inclusivity to make our campuses accepting and welcoming. Participation in the 2016 campus Pride Walk increased over the inaugural 2015 event, and we have also taken part in Edmonton's Pride Festival parade. As part of Aboriginal Cultural Day, students and staff have the opportunity to learn more about aboriginal culture through events such as a tipi raising, pipe ceremonies and a round dance. Throughout the year, the Encana Aboriginal Student Centre supports aboriginal students at NAIT.

We are also making our spaces more welcoming with services for a variety of cultural needs. This summer, we began offering halal foods at all campuses. Within the new Centre for Applied Technology (CAT), we created a reflection room. This provides space for students and staff to reflect, pray, contemplate and meditate. It builds on our chaplaincy program that provides spiritual guidance and supports the multi-faith needs of our polytechnic. Even our inclusion of universal washrooms in CAT is designed to foster inclusivity.

NAIT is welcoming and accepting – and we are creating an even more inclusive learning and teaching environment for students and staff. I am so proud of what we have accomplished so far and I can't wait to see what the future holds.

Glenn Feltham, PhD  
President and CEO  
glennf@nait.ca

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THE SECRET  
TO HEALTHIER  
ICE CREAM →

➔ IN A NAIT BAKING CLASSROOM, Maynard Kolskog (Cooking '82) removes a small silver tub of ice cream from a freezer and wrestles off the plastic lid. The Culinary Arts instructor and food researcher improvised the treat using dairy solids left over from clarifying butter. He grabs a spoon and digs in, tasting thoughtfully.

"It's not bad," says Kolskog, pleased. "Especially with the butter. It gives it a nice caramel flavour. But that barley fits right in."

The grain is the tip-off that this is no ordinary ice cream. Kolskog's experimental dessert is a result of a partnership between the University of Alberta and NAIT. In summer 2015, the schools joined to find new uses for protein extracted from barley (pictured on the previous page), lentils and other Western Canadian crops with limited local markets. It's applied research that could boost Alberta's value-added agricultural industry and improve economic opportunities for local farmers, processors, manufacturers and retailers.

Researchers believe that the key to success is tasty, healthy alternatives for consumers. That's where Kolskog comes in, having been given complete creative freedom by Darren Walkey, business director for the university's crop protein and science program, which counts Kellogg's, General Mills, Johnson & Johnson and other multinationals among its clients. "Our expertise lies strongly in processing and ingredient development," says Walkey, Kolskog's protein supplier. "[Our food scientists] don't have ideas about presentation or flavour profiles or necessarily what the public wants."

For Kolskog, who introduced molecular gastronomy to NAIT students, the work has involved more than just sneaking wholesome ingredients into sweet treats. Combining components such as protein extracts to produce something palatable, let alone tasty, is as much science as it is art. "I like the challenge," says Kolskog. "I like the problem-solving end of it."

Walkey appreciates the diligence, which has already produced cake, doughnuts and muffins using barley and lentil protein. Among the pinnacles of achievement for their current work, however, may be a vegan version of that barley ice cream – no milk, no eggs – a possible entry point into a market worth \$1.75 billion in the U.S. alone. For this, Kolskog tried his impromptu recipe with soy instead of dairy and combined lentil protein with natural gums to simulate eggs. A prototype proved promising. "It's very good," says Walkey. "[It's] very close to the mouthfeel of a dairy-based ice cream."

The success of the partnership – which is positioned to place products made with barley and lentil protein in stores as early as next year – hinges entirely upon the quality of that sensory experience. Until then, Kolskog will keep tweaking until he's happy with his recipes, and Walkey will continue to trust the chef's recommendations.

— Scott Messenger



**"I LIKE THE  
CHALLENGE."**

MAYNARD KOLSKOG  
CULINARY ARTS INSTRUCTOR



## STUDENTS ARRIVE AT SPRUCE GROVE CAMPUS

WITH SPACE TO TRAIN as many as 432 apprentices a year, NAIT's new Spruce Grove Campus welcomed its first Crane and Hoisting students in September. The 12,600-square-foot (1,170-square-metre) building, located on 134 acres of land and home to seven cranes, will allow the program to grow as required by up to 80 per cent. NAIT is already Canada's largest provider of crane training (240 seats were offered this year) and Spruce Grove's first post-secondary campus has enjoyed a warm welcome. "There are many elements that make up a great community," says Mayor Stuart Houston. "In our mind, NAIT is one of those."

— NAIT staff

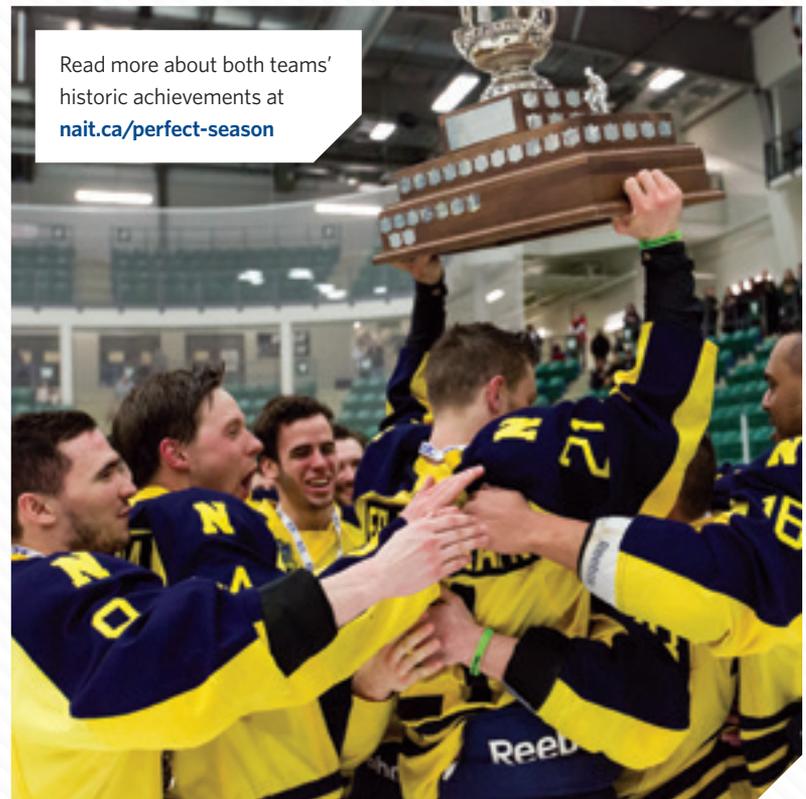
## 36 WINS, 0 LOSSES

WHEN THE OOKS MEN'S HOCKEY TEAM posted a perfect season of 36 wins and no losses on their way to becoming provincial champs last year, they beat odds calculated by Dr. Glenn Feltham, NAIT president and CEO, at less than one in 3,000.

Incredibly, this isn't a NAIT first. The 1984-85 squad won the provincial and national championships after going undefeated during the regular season. For being the first men's hockey team in the Alberta Colleges Athletic Conference to do so, the team was inducted into the Alberta Hockey Hall of Fame in 2012.

Could the 2015-16 team share that honour? With teams, the hall of fame focuses on those that achieved national or international success, generally further back in history, says Scott Robinson, doubly disadvantaging the recent winners given the current lack of a college-level national championship. Still, the Alberta Hockey Hall of Fame committee member doesn't rule out the team's ability to beat the odds again should they one day be nominated. "Would I say there's a chance?" says Robinson. "Absolutely."

— S.M.



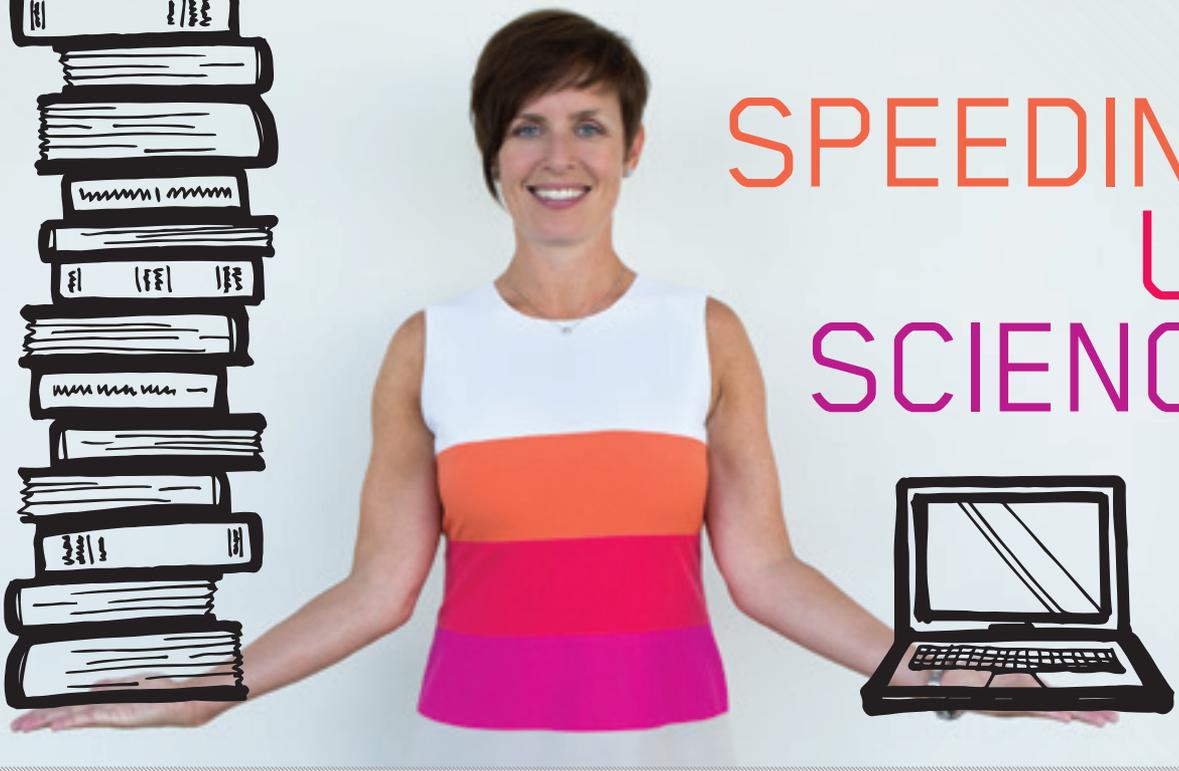
Read more about both teams' historic achievements at [nait.ca/perfect-season](http://nait.ca/perfect-season)



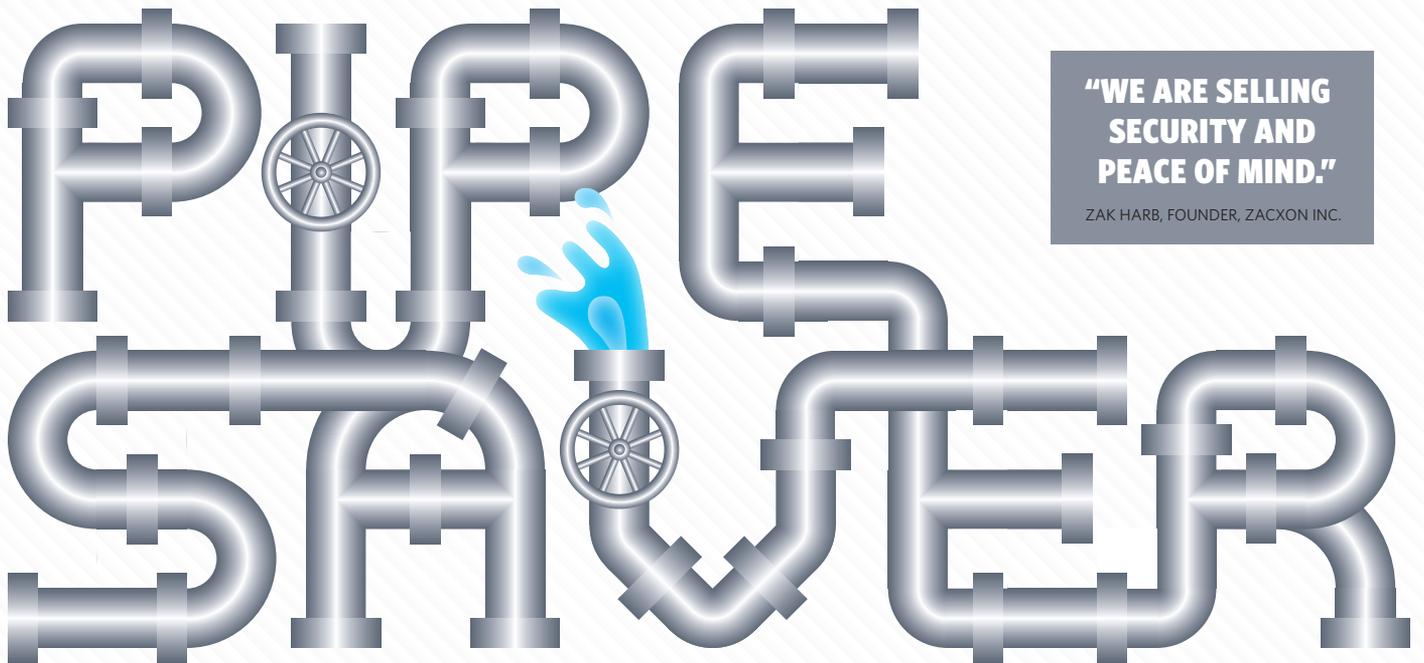
## HALAL HITS THE MENU

MORE PEOPLE CAN NOW EAT NAIT's highly popular butter chicken. It's one of several halal chicken options the polytechnic began serving at all campuses in the fall. Until recently, NAIT couldn't find a large enough supplier to support campus-wide offerings. Some Muslims only eat meat they know to be halal, which means *permissible* in Arabic. It's a welcome change for Alisha Shah, a campus administrative assistant who's been eating halal since she was young. "I was really thrilled," she says. "It's more inclusive and welcoming for staff and students. Anybody can eat hala!"

— Shelly Decker



# SPEEDING UP SCIENCE



**"WE ARE SELLING SECURITY AND PEACE OF MIND."**  
 ZAK HARB, FOUNDER, ZACXON INC.

**THE CEILINGS ARE DRIPPING**, the drywall is drenched and the carpets are soggy; damage caused by frozen and burst pipes can be an unfortunate reality for property owners in cold climates. And it's no minor issue, costing insurance companies an estimated \$1.4 billion annually in the U.S. alone.

Recognizing a market with homeowners who travel in the winter, Zack Harb founded Zacxon and created a prototype of a unique remote monitoring system to prevent pipes from freezing and bursting when indoor temperatures plummet.

Zacxon's system turns off the water and drains the pipes if the indoor temperature drops too low. Backed by a rechargeable battery, the unit will cost around \$2,000 - about 10 times less than the average

\$20,000 damage claim for frozen pipes.

"We are selling security and peace of mind," says Harb.

The final product, which Harb anticipates will be ready for market this winter, is about 60 centimetres (two feet) tall, wide and deep. The initial prototype was developed at NAIT, facilitated through a student applied research project. Harb then went on to win a top spot in both the 2015 and 2016 New Venture at NAIT Hatchery competitions, a program for entrepreneurs to assist new businesses. His winnings included office space on campus and funding to help him take his company to the next level.

— Amanda Stadel

PHOTOS BY NAIT STAFF PHOTOGRAPHERS

**THE TROUBLE WITH** our ever-increasing knowledge about almost everything is that it can hinder research rather than help. This irony – with its power to delay advancements in medicine, science, business and more – is something Dr. Krista Uggerslev (left) hopes to eliminate with metaBUS. It's an online database of more than a million scientific findings that can be searched easily and quickly.

"What we did with metaBUS, is say, 'The system is broken. How can we make this better?'" says NAIT's applied research chair in leadership and talent.

Working with colleagues Dr. Piers Steel (the S in BUS and distinguished chair professor at the University of Calgary's Haskayne School of Business) and Dr. Frank Bosco (the B and assistant professor at Virginia Commonwealth University's School of Business), Uggerslev helped develop this tool for boosting the speed of meta-analysis, a key scientific method. Meta-analysis gathers existing data to help answer new questions. Often, it's as laborious and time consuming as prospecting, requiring a researcher to spend months or years locating

and sifting through information to find valuable nuggets of data.

Launched in June for academic use and focused on the field of human resources, the beta version of metaBUS automates that process. Having developed a way to mine journals (often cloistered behind paywalls) for essential information, Uggerslev and the team have created a highly refined search engine for specific data. What once took months now takes minutes. "Instant meta-analysis," says Uggerslev.

Recently, the Government of Canada recognized the potential of metaBUS with a \$239,000 Community and College Social Innovation Fund grant to support further development. The team hopes such support will help open metaBUS to not just researchers, but practitioners, professionals and even the public. What's more, they hope it will allow them to expand into other fields and speed up health research, for example.

"Once we have all that information in one place we can answer so many questions we couldn't answer before," says Uggerslev.

— *Scott Messenger*



Read more at  
[nait.ca/aboutpic](http://nait.ca/aboutpic)

## PRODUCTIVITY AND INNOVATION CENTRE A GO

**CONSTRUCTION HAS BEGUN** on the Productivity and Innovation Centre, a facility designed to help industry grow and become more globally competitive. NAIT will invest more than \$45 million in this project in collaboration with the Government of Canada, which is committing \$34.98 million through the Post-Secondary Institutions Strategic Investment Fund. Expected to open in April 2018, the 15,000-square-metre (164,000-square-foot) building will focus on productivity

enhancement, prototype development and applied research. "The funding will be transformative for our institution, our province and our country," said Dr. Glenn Feltham, NAIT president and CEO. "It allows us to ... help industry go from small to big." The new centre has also been endorsed by the provincial government.

— *NAIT staff*

# WHAT'S IN A LOGO?

REDESIGNING TEAM LOGOS can be a risky play. Like any brand, it has to be modern but not at the expense of tradition and identity that means so much to fans and players alike. "People have a lot emotionally invested in it," says Rory Lee, the NAIT graphic designer who recently refreshed the Ooks logo.

In this case, that emotion is attached to more than 50 years' worth of tradition and identity. In 1964, the ookpik – the Inuktitut word for snowy owl – was adopted as the polytechnic's mascot by the NAIT Students' Association and applied to its intercollegiate sports teams. Lee approached his task as "evolution, not revolution" and in close collaboration with the polytechnic's Athletics department, which was eager to simplify the image for easier merchandise branding.

The result was a subtler change than previous revisions, which saw the Ook gradually transformed from a cartoon bird to a stylized symbol. Lee removed unnecessary details and lines, intensified the yellow to help the logo pop online, strengthened the team name with darker borders and developed secondary graphics, including an Ook head, talons and a bold N.

Most importantly, the Ook underwent an attitude adjustment that better reflects the determination and tenacity of NAIT's men's and women's sports teams. Lee recast the owl in "attack mode" – head down, eyes narrowed and talons brandished. "I like how they kept the tradition of the owl and made it more intimidating," says Corey Chorneyko, a second-year men's hockey defenceman who considers it a "big honour" to wear the logo.

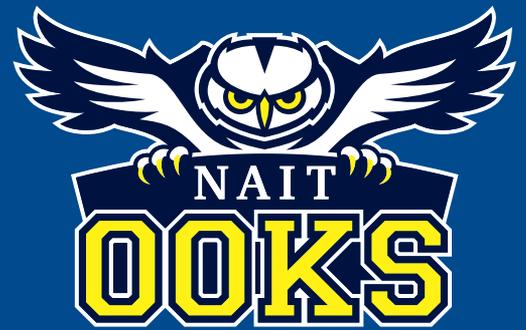
Now, maybe more than ever, "It makes it clear who we are," says Chorneyko.

— Scott Messenger

## BEFORE



## AFTER



- INTENSIFIED COLORS
- REFINED TYPOGRAPHY
- UNIFIED TEAM NAME
- SIMPLIFIED SILHOUETTE
- MORE ATTITUDE
- BETTER SCALABILITY

## SECONDARY GRAPHICS



## NAIT LAUNCHES NEW ONLINE NEWS HUB

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IF YOU'VE VISITED [techlifemag.ca](http://techlifemag.ca) recently, you may have noticed a big change. In July, the destination for NAIT news and information since 2007 was redesigned and relaunched as [techlifetoday.ca](http://techlifetoday.ca) (TLT). TLT is the new home for stories about the polytechnic, our alumni and how-to features

covering everything from cooking to car maintenance. It's mobile friendly, offers more new content than ever and includes social features to make it easy to share stories. Visit today to sign up for the monthly newsletter.

— NAIT staff

# THE CENTRE FOR APPLIED TECHNOLOGY OPENS

NAIT'S BIGGEST BUILDING EVER – and largest single capital project – is officially open, on time and on budget. The 51,600-square-metre (555,000-square-foot) Centre for Applied Technology accommodates up to 5,000 students a day from the JR Shaw School of Business, the School of Health and Life Sciences and the School of Applied Sciences and Technology. The building is designed to encourage cross-program collaboration and places a strong focus on hands-on learning. "Behind the walls are some of the most advanced labs and simulation facilities in the country," says Dr. Glenn Feltham, president and CEO. "I'm thrilled to welcome students to this building."

— NAIT staff



Take a virtual tour  
at [nait.ca/cat-tour](http://nait.ca/cat-tour)



## CLEARING THE AIR

**WALK INTO THE** Centre for Applied Technology, NAIT's newest building, and it's like taking a breath of fresh air. Here are some of the measures that designers, construction workers and current staff have taken to help keep people healthy, productive and breathing easier.

- NAIT campuses have been smoke free since 2009, ensuring that no smoke from tobacco or vaping devices enters the building.
- A scent-reduction program – focused on perfumes, air fresheners and other sprays – was introduced across the polytechnic in February 2016.
- CAT, which is pursuing gold certification under the Leadership in Energy and Environmental Design rating system, was built and finished with low-emitting paints, coatings, adhesives, sealants, carpets and composite wood products, eliminating the typical new-building smell.
- Mechanical systems and building materials were protected from dust and moisture during construction, preventing the introduction of potential respiratory hazards.
- A green housekeeping program reduces the use of harmful chemicals in the building.
- The ventilation system has CO2 sensors to help regulate the amount of fresh, outdoor air in the building and keep occupants alert and focused.

— NAIT staff

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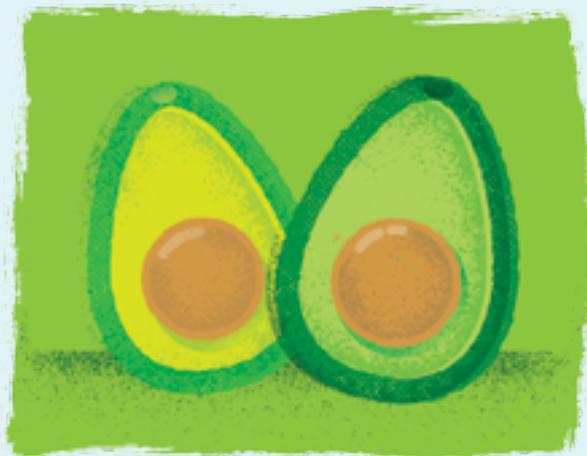
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# 4 HACKS FOR BETTER LIVING

**TEST AN AVOCADO'S RIPENESS** by removing the stem, says NAIT's registered dietitian, Nick Creelman. "If you see the green flesh of the avocado then it's ready. If it is light yellow or light brown then it's still underripe."

**DIRTY KEYBOARD?** Put a dollop of hand sanitizer on a paper towel and lightly go over the keys. "It's the best way to clean your keyboard," says help desk analyst Maxwell Keeling (Computer Network Administration Certificate '08).

**"THE BEST WAY TO ENSURE YOUR CUTTING BOARD** won't slide around while you are chopping is to place a damp cloth underneath," says Josh Ward, Culinary Arts education lab technician.

**NO TIME TO CLEAN YOUR PAINT BRUSHES?** Stick them in the freezer, says Painter and Decorator instructor Vern Ball (Computer Systems Technology '92). The cold breaks down the paint but it doesn't damage the brush. After you thaw it, "You can then clean the brush properly at your leisure."

— Liz Pittman



# GET INTO THE GROOVE

5 secrets for building a great record collection

A LIFELONG MUSIC FAN, DAVID HEWITT (Automotive Services Technician '80) sold his turntable and record collection in the late 1980s. It was taking up a lot of space and, besides, he had the latest in audio gear: a compact disc player, which promised perfect sound forever.

But over the years, the Automotive Service Technician instructor missed listening to his favourite albums on vinyl (even the pops and crackles).

"There's the nostalgic feeling for sure," he says, "but there's also something very tangible. You remove a record from its sleeve, look at the surface, make sure it's clean. You get this whole ritual which you don't get from a CD."

About four years ago, Hewitt bought a turntable and began buying records again. He's not alone. Last year vinyl sales soared 39 per cent in Canada. In the U.S., revenue from record sales reached \$416 million, its highest level since 1988. Today, walk into a record store and you'll see 20-somethings elbow-to-elbow with boomers, flipping through racks of wax.

To help the young and young-at-heart navigate the world of vinyl, Hewitt reveals his five secrets to record collecting.

— Frank Landry

## BUY A TURNTABLE

"This is where it all starts," says Hewitt. You can get an entry-level turntable (some with USB for connecting to a computer) for under \$200. Hewitt advises against all-in-one record players with built-in speakers that typically sell for around \$100. They don't sound very good, he says.

Vintage turntables are another option, which can sometimes be found in thrift stores for less than \$20. Factor in about \$40 more for a new stylus (needle) and cartridge (the piece the stylus connects to), which tend to be worn out. Turn on the record player in the store to make sure the platter (the round surface the record sits on) rotates. Make sure the tonearm lowers to the playing surface. Check the weight. A heavier turntable reduces vibration, which improves the sound.

## CHECK YOUR SOUND SYSTEM

Many modern audio receivers aren't compatible with turntables. Make sure yours has a phono (or phonograph) input.

The output signal of most record players is low compared to other audio devices, like CD players. The phono stage of a receiver contains a pre-amp, which boosts a signal. Hewitt's home theatre system didn't have a phono input, so he bought an external pre-amp for around \$150. These are available at most electronics shops, starting as low as \$40.

## BUY GOOD QUALITY RECORDS

Vinyl doesn't have to cost a fortune. Hewitt suggests visiting flea markets, thrift shops and used record shops.

Carefully examine your finds. Avoid records that are badly scratched or warped. A few surface scuffs are acceptable but scratches that penetrate the grooves will cause a "pop" when the stylus passes over them. A warped record could cause your tonearm to jump, damaging your stylus.

Dust or fingerprints can be cleaned.

For prices, Hewitt often checks past sales on eBay. Another source is discogs.com, an online music database and marketplace.

Of course, you can also buy records new – though they can be pricey. New editions of classic Pink Floyd and Led Zeppelin records, for example, can run \$40, and even more for deluxe editions, which feature studio outtakes, special packaging and more.



Automotive Services Technician instructor David Hewitt has returned to vinyl – his preferred music format.

## KEEP YOUR VINYL CLEAN

Dust is your record's enemy. Over time, the stylus can push the tiny particles into the grooves during playback, leading to unwanted noise. Hewitt suggests investing in a brush and cleaning solution, available as a kit at most music stores for as little as \$30.

Hewitt also throws out the white paper inner sleeves that come with some records. "The paper fibres can get on your records." He prefers using soft polyethylene-lined inner sleeves, which can be purchased at most record shops and help control static. Static can produce crackling during playback.

## TAKE TIME TO ENJOY THE MUSIC

This is what the hobby is all about.

"I listen to records every day," says Hewitt. "Sometimes I'll sit in the evening and listen to record after record."

For Hewitt, it's not only a way to unwind but also a chance to bond with two of his grown sons, **Jason Schneider** (Automotive Service Technician '13), a technician with NAIT's automotive program, and Keegan Hewitt, 18. They're getting into the hobby themselves.

"All three of us often spend an afternoon going to the flea market and used record stores to see what we can find."

# HOW DIVERSITY MAKES A DIFFERENCE

JR Shaw School of Business dean Tracey Scarlett on the persisting need for workplace inclusivity and equality.

ON A SUNNY DAY IN AUGUST ON AN EDMONTON GOLF COURSE, NAIT'S new dean of the JR Shaw School of Business received an introduction that would likely prompt a pause from most women. Days into her new role as the head of one of Western Canada's largest business schools, **Tracey Scarlett** (Medical Laboratory Technology '87), decided to let it pass.

"Someone made a remark that it was really nice that my boss had taken me golfing so soon in my new position," says Scarlett, who was golfing with a male colleague at a NAIT fundraising tournament. "It's not that gentleman's fault that he said that to me. It's actually because there isn't enough role models of women in leadership yet."

While gender diversity in the corporate world is better today than when Scarlett began her career, disparity persists. According to 2015 numbers from global executive search firm Rosenzweig & Company, women held just 8.5 per cent of the highest-paid positions among our nation's top 100 listed companies. Just 12 per cent of all board seats of TSX-listed firms were held by women and about 47 per cent of companies had no female directors.

Scarlett feels that changing those numbers is a shared responsibility. "It's not going to be solved by the '60s approach of women marching in the street," she says. "It's going to be shifted further by building inclusive teams and demonstrating how effective and impactful that is."

Gender balance is only a piece of the diversity issue, adds the former CEO of Alberta Women Entrepreneurs (AWE), a non-profit that assists businesswomen with planning and development.

Organizations need to ensure that pathways to leadership are accessible for everyone. "You have to be purposeful and you have to set goals if you really want full inclusion – whether it's [gender], people with disabilities, visible minorities, indigenous people." Companies still need to choose candidates based on their qualifications but they need to take steps to ensure there's equality in the recruitment process.

Bringing a more balanced approach to the boardroom and head office is in a company's best interests, Scarlett believes. For example, that perspective may reveal built-in corporate biases, such as scheduling training at times that don't work due to child-care needs or not including female role models in the curriculum. During her tenure at AWE, Scarlett saw that women who owned their businesses often dedicated resources to tackle social issues.

Though statistics show that women have a long way to go to achieve parity in boardrooms, Scarlett is optimistic about what's ahead. During her time at AWE, she was surprised by statistics that reveal just how strong the entrepreneurial spirit is among women in Alberta. In 2015, for the first time, the number of Alberta women early-stage entrepreneurs surpassed men, according to the Global Entrepreneurship Monitor (GEM) Alberta report. Overall, she saw more confidence among women as self-starters – a reflection, perhaps, of "the can-do attitude of Alberta. If we don't like something in a work environment why not go and create what you want yourself?"

Scarlett hopes her role as dean and ongoing connection to the business community will help raise awareness about the strengths women bring to the corporate world as well as motivate females to strive for the top. The result, she believes will be better outcomes.

She's a firm believer that change is coming.

"Twenty years from now the young women who will be in leadership positions, probably at a very equal rate to men are going to say, 'Wow, I can't believe it was ever like that.'"

— Shelly Decker

"You have to be purposeful and you have to set goals if you really want full inclusion."

- TRACEY SCARLETT, DEAN,  
JR SHAW SCHOOL OF BUSINESS



# SPIRIT AND DISTINCTION

FROM THE MANY NOMINATIONS for the 2016 Alumni Recognition Awards, the results are in. This year's overachievers include a manufacturer, a conservationist and an oil and gas consultant.

— Shawna Greer

## MARK MCNEILL

PRESIDENT AND CEO, STREAM-FLO GROUP OF COMPANIES

### *Alumni Award of Distinction*

After joining the company in 1979 as a machinist, Mark McNeill (Marketing '82, above) climbed the ranks of the business his father started, including being selected president of Master Flo (part of the Stream-Flo group) by his peers. Today, the Edmonton-based wellhead and valve manufacturer serves clients in 65 countries, setting an example of how Alberta companies compete globally.

### What made you decide to go to the sales side of the business?

I got bored. I have to be challenged all the time. That's when I went to NAIT. I did dayshift and night classes, then I did nightshift and went to school during the day for the second half. It was good though – I found it very practical. I enjoyed it very much.

### How do you think your work is making an impact in Alberta?

I think we represent a very strong image of Albertan companies in the overseas market. Our reputation shows that Albertans can truly compare themselves to any other market in the world.

### Who inspires you?

My father Duncan McNeill [Distinguished Friend of the Institute '03], because of his work ethic, his drive to do what's right, his drive to be successful. He's retired from the business but is still very active and concerned about the employees. He's out of Calgary and doesn't get up here as much. Now, he's always on the phone, asking for updates to make sure I'm doing the right thing.

Read more about Mark McNeill at [nait.ca/mcneill](http://nait.ca/mcneill)



**JESSICA REILLY**  
FISHERIES BIOLOGIST, ALBERTA ENVIRONMENT AND PARKS

***Spirit of NAIT Alumni Award***

Jessica Reilly (Biological Sciences Technology – Renewable Resources '05) is living her dream of working with the environment. The provincial lead for recovering the bull trout population is tackling the hard conversations that are part of the job.

**What do you do?**

I allocate fisheries resources to the people of Alberta. It's my job to determine if a fish stock is healthy or not. How big are the fish? How many are there? How fast do they grow? If they are healthy, I come up with management strategies and work with anglers.

**Why do you do this?**

I've always wanted to be a fisheries biologist. From six or eight years old, I was in the backcountry with my dad or my uncle, fishing. It was such a fantastic experience that now I love being next to a river. I can't imagine doing anything else. I'm really an angler at heart and want to conserve fish species.

**What is the most challenging part of your work?**

To consult and mediate difficult conversations and have an understanding of policy, law, politics and also how the industrial sectors work. We are facing really complicated economic, social and conservation problems in Alberta. What we need is clear and open dialogue about the consequences of our actions and we're really not having those right now. It is my career challenge to try to get into those conversations and provide science-based advice.

Read more about Jessica Reilly at [nait.ca/reilly](http://nait.ca/reilly)

**CHRIS GABRIELSON**  
PRESIDENT AND OWNER, KA-BLAM CONSULTING

***Spirit of NAIT Alumni Award***

As the owner of Calgary-based Ka-Blam Consulting, Chris Gabrielson (Petroleum Engineering Technology '92) manages projects for some of the biggest oil and gas companies in the province, piecing together the puzzle of preparing diverse well types for production and keeping Alberta industry competitive. To keep skills current, Ka-Blam also offers industry-specific training.

**Where did your experience come from?**

Most of my experience came from growing up in Drayton Valley, Alberta. I got into oil and gas there [as] a worker, hands-on in the field. I wasn't in any management role. When I went to NAIT, I had the skill set to transition to the corporate level. So that's what makes my business special. I don't just have the corporate experience right out of college; I've worked in the field, too.

**How did you get into consulting?**

I ended up being the go-to guy for bigger projects in the oil and gas industry. The companies trusted me to design, oversee and manage wells for them. I was capable of handling multiple projects at once, and it set me apart. Those clients often asked me why I wasn't out on my own. I took the leap of faith to start my own company.

**Did you always want to work in this field?**

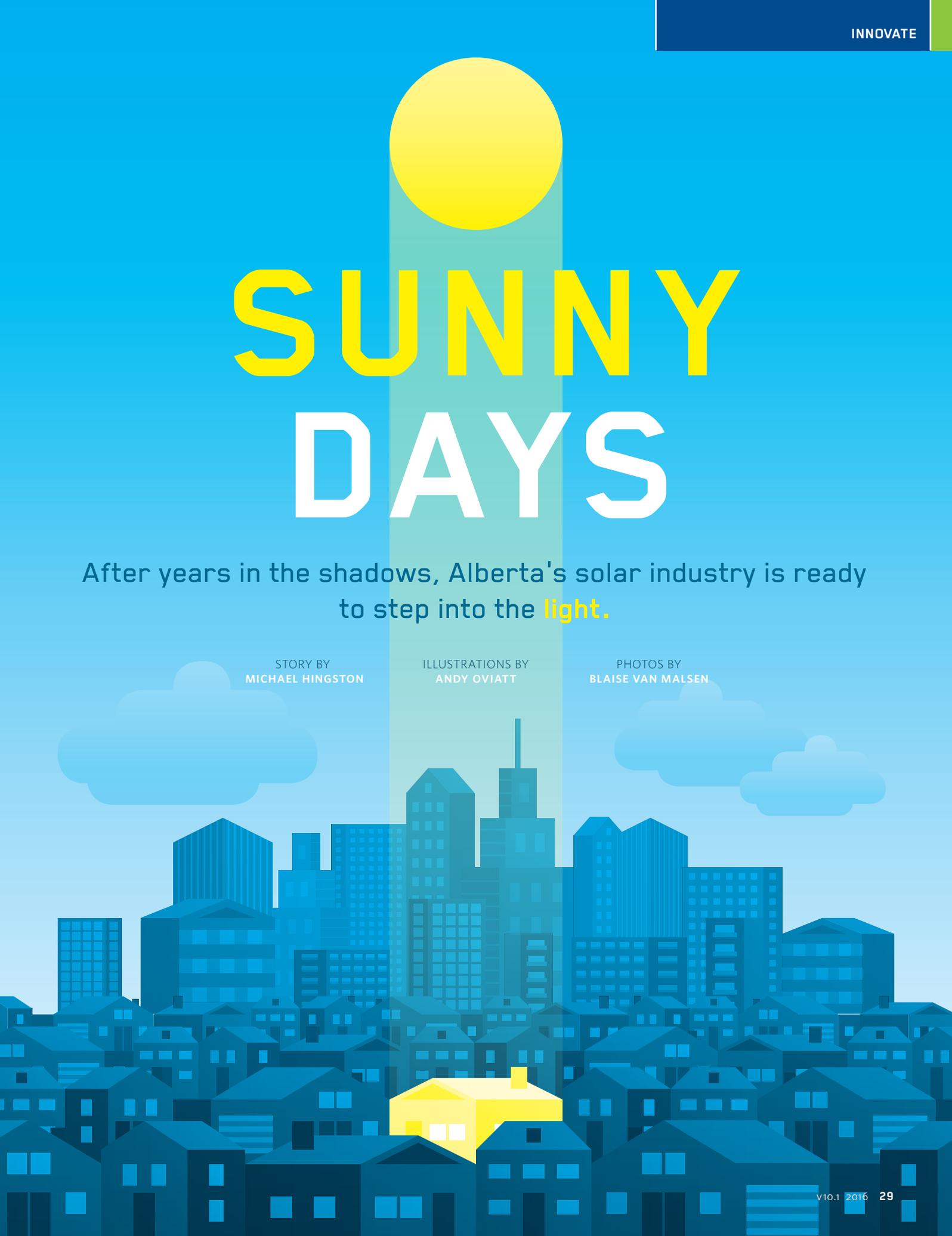
I wouldn't say that I always wanted to work in it. It's just what people do [where I came from]. I never knew it would become a career and now it's a passion. I love what I do.

Read more about Chris Gabrielson at [nait.ca/gabrielson](http://nait.ca/gabrielson)

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# SUNNY DAYS

After years in the shadows, Alberta's solar industry is ready to step into the **light**.

STORY BY  
MICHAEL HINGSTON

ILLUSTRATIONS BY  
ANDY OVIATT

PHOTOS BY  
BLAISE VAN MALSEN



Clifton Lofthaug is the founder of Great Canadian Solar, one of Alberta's oldest solar companies, despite being formed in 2009.

**I**N MARCH OF LAST YEAR, Clifton Lofthaug (Electrical Engineering Technology '04) headed to Toronto to receive an award from CanSIA, the country's solar-energy industry association. Lofthaug's company, Great Canadian Solar, was being recognized for its work installing a 213-kilowatt solar array on Edmonton's Mosaic Centre, Canada's first net-zero energy commercial building. At the awards gala, Lofthaug struck up a conversation with the indigenous man sitting next to him.

It turned out that the Ontario First Nation the man belonged to had just installed a solar array on their reserve. Lofthaug asked how big it was and when the man said *nine megawatts*, Lofthaug started to laugh. "What's so funny about that?" the man asked. Nothing, Lofthaug

replied. "You just have more solar than the entire province of Alberta."

That may be about to change. After decades of being treated like a pipe dream by the province and its primary economic driver, the oil and gas industry, Alberta's solar industry appears to be on the verge of becoming a viable option for homeowners and small businesses across the province. Companies like Lofthaug's are leading the charge.

Despite being founded in 2009, Edmonton-based Great Canadian Solar is already one of the longest-running solar companies in the province. In those early days, Lofthaug was driven in part by idealism. He knew that even if the public demand wasn't quite there yet – nor was the cost of the technology – renewable energies like solar were



"The phone just started ringing more. We started getting more emails. I knew people were looking for this product."

- CLIFTON LOFTHAUG, OWNER, GREAT CANADIAN SOLAR

worthy pursuits on the strength of their environmental friendliness alone. And sure enough, things got busier. "The phone just started ringing more. We started getting more emails. I knew people were looking for this product."

Lofthaug's first big fish was the solar contract for a family apartment building that, at 33 kW, was the largest grid-connected photovoltaic power system in northern Alberta at the time. That was in 2011. Today, Great Canadian Solar just wrapped up installing a two-part solar array on the roof of the Leduc Recreation Centre that is, again, the biggest project Lofthaug has ever worked on - this one at 1.14 MW. In just five years, the definition of "big" for solar projects in Alberta has grown by a factor of more than 30.



## Solar in Saddle Hills

FOR BRIAN KREST (Electronics Engineering Technology '85), it was as simple as running the numbers.

Krest, a manager and engineer at ATCO Group of Companies (focused on energy, logistics and more), was looking at a remote telecommunications site about 90 minutes northwest of Grande Prairie that needed more power. Originally, the Saddle Hills project was run off of a series of small thermal-electric generators, but those didn't have the capacity to match the new demand. So Krest looked at his options. The company could run a full-time gas generator or it could build a dedicated distribution line out to the site. But these were deemed too expensive.

In the end, the cheapest option was solar.

"We just happened to hit the right time, where the prices had dropped enough so that what was technically possible could now become economically possible," Krest says. Whether in terms of operations, or maintenance, or even upfront costs, solar won out on all counts - and his bosses were as excited as he was. "Once we showed [ATCO] the numbers, I was really quite surprised with the level of support we got," he says.

The Saddle Hills project, which was developed with input from students in NAIT's Alternative Energy Technology program, could prove to be a model for the province's solar industry as a whole. It's the first large-scale solar photovoltaic project ATCO has attempted. With a daily generation rate of 75 kilowatt hours (enough in a day to power an average Alberta home for three months), it's also the largest off-grid system in Western Canada.





## A brief history of solar power

**THE SOLAR INDUSTRY** began in the 1960s, when NASA designed some of the earliest solar panels as part of the U.S. space program. These panels were expensive, not to mention inefficient by today's standards. Early solar panels also contained toxic chemicals like arsenide, which made the idea of adapting them for terrestrial use unrealistic.

Nevertheless, groups of homesteaders in sunny Northern California saw the NASA panels and decided they wanted to use this technology to power their off-grid home electrical systems. That's when the first non-toxic solar panels were developed. But, for the next few decades, solar would remain a niche interest. It wasn't until 2001, when Germany introduced development incentives, that solar moved from being a hobby into a full-fledged industry.

Canada didn't enter the solar field until 2009, when Ontario started offering its own incentive program. Alberta is expected to officially join the fray when the provincial government's Energy Efficiency Agency gives its recommendations, which are expected to include solar energy, this spring.

"Alberta and Saskatchewan are the best possible producers because the solar levels are so high."

- DR. JIM SANDERCOCK, CHAIR  
ALTERNATIVE ENERGY TECHNOLOGY

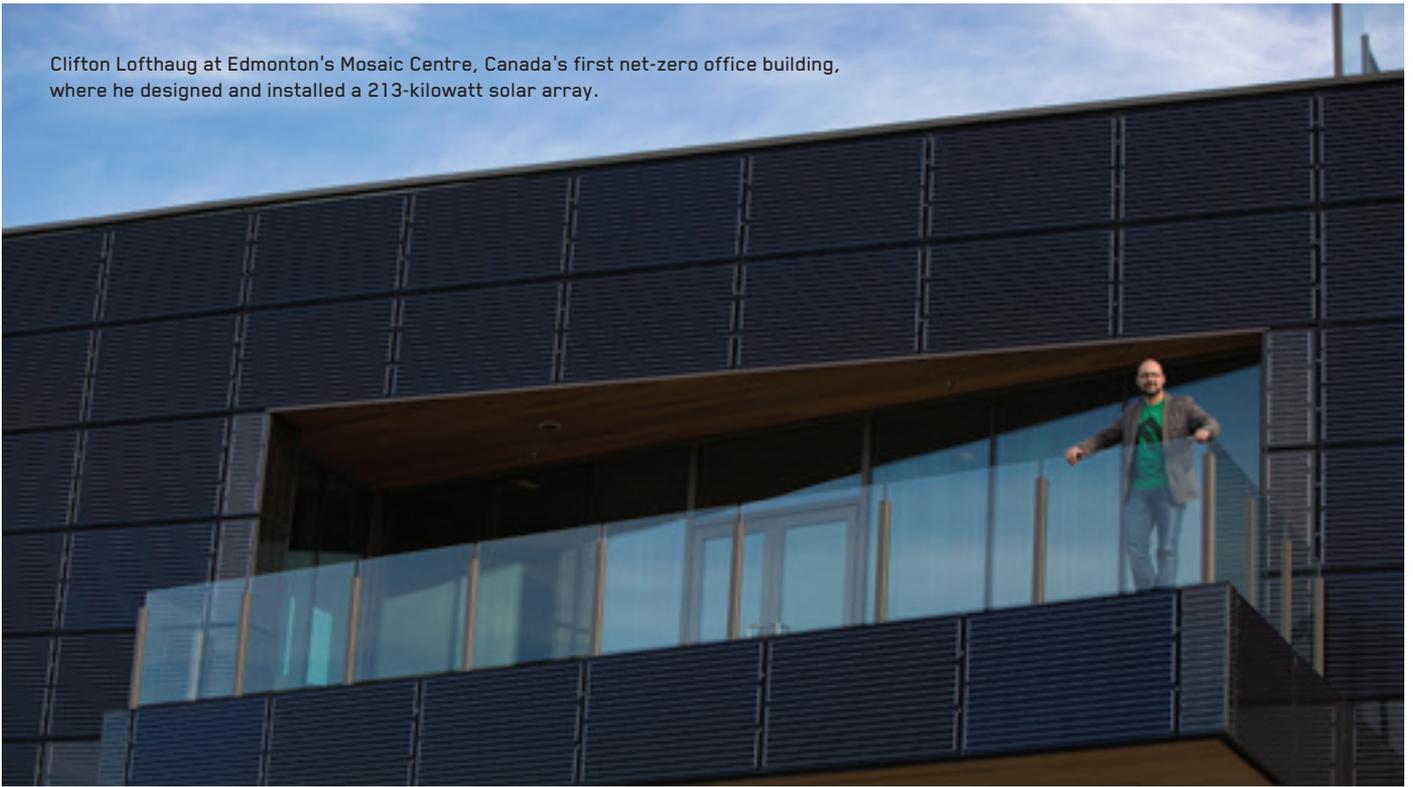
## A great place for solar

**ALBERTA IS ACTUALLY** a very good place to build solar arrays. According to Statistics Canada, the province, particularly the south, receives more than 2,300 hours of sunlight each year - more than every province but Saskatchewan.

"We've always been this major energy producer in the hydrocarbon sphere," says Dr. Jim Sandercock, chair of the Alternative Energy Technology program. "But, in fact, from the perspective of wind and solar, Alberta and Saskatchewan are the best possible producers because the solar levels are so high."

Sandercock points out that Edmonton and Hamburg, in Germany (the world's largest producer of solar power), both sit at 53 degrees latitude north. "But if you took a solar panel and you set it up identically in both cities, it would produce 60 per cent more electricity in Alberta, because we get more sunlight and we're slightly cooler." Even factoring in the loss in efficiency when panels are covered with snow during the winter, Alberta could easily draw far more energy from the sun, per panel, than the leading solar-producing jurisdiction.

Clifton Lofthaug at Edmonton's Mosaic Centre, Canada's first net-zero office building, where he designed and installed a 213-kilowatt solar array.



In general, though, Alberta's solar industry lags behind even the rest of Canada, which was itself a late adopter. Percentage-wise, Alberta's solar industry has been growing by double digits every year for the past five years, Sandercock says. "But it's starting from a very small base." To date, Alberta has installed approximately 10 MW of solar across the entire province. By contrast, Ontario, the leading Canadian province, will reach 2,500 MW by year's end.

But Alberta may benefit from the fact that many of the barriers that the solar industry faced in its early years have been greatly reduced. Take costs: since 2009, the price of installing a solar array has dropped by approximately 70 per cent. For one of the first systems Lofthaug installed, the panels cost \$1,000 each; today, he says, the same panels would run about \$250 each. Even when you factor in the current overproduction in Alberta's electricity industry, which has driven prices abnormally low, solar is still a competitive, if not cheaper, option for many projects.

That trend is expected to continue, especially as the province

phases out its coal-fired power plants over the next decade and envisions 30 per cent of the province's electricity coming from renewable sources by 2030. Meanwhile, a growing public awareness of the environmental impact of the oil sands means that consumers are more willing than ever to seek out renewable energy sources whenever they can.

The final major piece of the puzzle, however, is support from government. From Germany to Ontario, solar industries have been able to get the jump-start they needed only when their local governments introduced incentive programs. Here in Alberta, companies like Lofthaug's were heartened by the recent change in government, with the new NDP clearly amenable to renewables. As part of the Notley government's Climate Leadership Plan, the Energy Efficiency Agency is currently looking at ways the province can support community energy programs, including solar. The panel is expected to report its findings soon, with the resultant programs rolling out in early 2017.



"Alberta's just at the beginning, in many ways, of some very fast growth. And that in itself is very challenging."

- ROB HARLAN, EXECUTIVE DIRECTOR  
SOLAR ENERGY SOCIETY OF ALBERTA

## A leg up

**FOR AN INDUSTRY** as new as solar, runaway growth can also be cause for concern.

"Alberta's just at the beginning, in many ways, of some very fast growth," says Rob Harlan, executive director of the Solar Energy Society of Alberta and an occasional instructor at NAIT. "And that in itself is very challenging."

Harlan has been part of the industry since the 1970s. He hopes that whatever form the pending government support takes, it is intended to grow the province's solar industry in ways that are healthy and, more importantly, sustainable over the long term. An ambitious incentives program may bring a huge number of new companies to the fore but Harlan advises that those programs also be reviewed and updated over time to allow companies to properly compete in the market. The alternative could be susceptibility to collapse should those incentives suddenly disappear, as is starting to be seen in Ontario.

Here, too, Alberta may have a leg up on its competitors. "In many ways Alberta is in a good position because what we're trying to do has already been done around the world," Harlan says. "Mistakes have been made. Successes have happened. We just need to become more educated and proceed. And we have the resources here that are the envy of many other jurisdictions."

Companies like Lofthaug's are already reaping the benefits. Great Canadian Solar is up to 20 staff and, depending on how the government chooses to support the industry, he has no shortage of exciting projects on the horizon. Asked where the company is at today, six years into its lifespan, Lofthaug chuckles and says, "Oh man. Decades ahead of where I thought I'd be. [When I started] I didn't know whether I'd even be able to work in this industry full time. To have this amount of staff and office space and trucks - it's neat to see it all come together."

He's confident that, given the right approach by the provincial government, Alberta's solar industry could one day support thousands of employees, with huge rooftop arrays like the one in Leduc going up all around the province. Indeed, the government's recently announced target of producing 30 per cent of Alberta's electricity from renewable resources by 2030 could employ more than 7,200 people as projects are built.

Ultimately, Lofthaug says, his dream is for solar to be the default - so common that you only notice it when it's *not* there. "If you ever travel through California," he says, "there's solar everywhere: on people's houses, on schools, on buildings. It's not a rarity.

"Instead of walking by and thinking, 'Wow, that's a solar array!' it'd be nice if it swung the other way, where you see a roof and think, 'I wonder why they don't have solar on it.'" ■

# ESSENTIAL

THE **NAIT** GOLF TOURNAMENT

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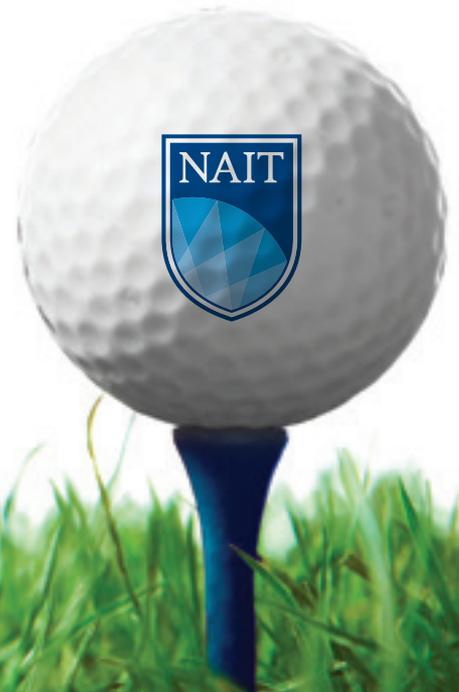
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How NAIT followed the blood to find new efficiencies for Alberta Health.

**SOMETIMES COSTS NEED** to be counted drop by drop and minute by minute – especially when it comes to the long-term sustainability of the health-care system.

That's why Alberta Health asked NAIT to help identify the costs associated with getting a unit of blood transfused to a patient from the time it was delivered to the hospital by Canadian Blood Services. It had never been done before and required specialized skills. "The diverse expertise that NAIT could offer was above and beyond what either Alberta Health or AHS had available," says Samantha Cassie, manager of the province's blood coordinating program.

The result, she adds, was a "robust, detailed and user-friendly costing tool" that will help them take advantage of efficiencies.

"This was a relatively large, complex thing to track," said Dr. Olle Lagerquist, associate dean of applied research in NAIT's School of Applied Sciences and Technology. Lagerquist, the project's principal investigator, assembled a team with skills in accounting, IT, business administration as well as several lab technologists.

Once Canadian Blood Services delivers a unit of blood to a hospital – in this case the Edmonton Royal Alexandra Hospital in 2014 – it travels a complex path where it may be tested and stored numerous times before it reaches a patient.

"You have nurses involved, you have porters, you have technicians, technologists and an awful lot of equipment," said Lagerquist.

The NAIT team tracked the process onsite, using stopwatches to record the time spent on each test and converting that to labour costs. They also recorded equipment used and discarded, such as the number of latex gloves. The number of times the blood was tested and stored was also tracked, as well as how often it was transferred, how long it took and even by whom working at what pay scale.

The rigour in the study was important, says respiratory therapy instructor and project researcher **Graham Werstiuk** (Respiratory Therapy '06). "In order to make decisions, you need to have some good, hard data of what it actually costs the system."

The final cost: \$7 million for 10,475 units of blood, 99 per cent of which were transfused into patients. That's \$666.10 for each unit, which includes the \$423 paid to Canadian Blood Services per unit and \$243.10 in costs to transfer, refrigerate, store, test and transfuse. More than 42,000 latex gloves were used in the process.

Cassie says Alberta's blood coordinating program now has the information it needs to make informed decisions to improve processes. "We were pleased with the costing tool and hope to use it in other scenarios, such as regional or rural sites," she says. They've even shared the results with health-care colleagues in Ontario.

In the coming months, the NAIT team hopes to start work on tracking the process in health-care facilities in smaller centres.

— Jeff Cummings



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**A New Energy**

# KEEP CALM AND FLOAT ON

STORY BY  
SCOTT MESSENGER  
PHOTOS BY  
BLAISE VAN MALSEN



Business owners Matt Smith and Jamie Phillips hope to transform the practice of floating in a dark tank of salt water from "hippie woo-woo science" to legitimate therapy.

**T**HE TRICK, I REALIZE a few minutes into my hour in the tank, is to surrender to the salt. It has your back – and your legs, arms and head. Trust it.

I'm lying naked in profound darkness and silence in one of the six float rooms at Modern Gravity, a business started in January by Matt Smith (Personal Fitness Trainer '11) and Jamie Phillips (Millwright '12) in a central Edmonton industrial park. Their service is known technically as restrictive environmental stimulation therapy, which they provide through soundproofed privacy and a 34 C bath containing 453 kilograms (1,000 pounds) of dissolved Epsom salts. The water is about twice as dense as the Dead Sea. If you relax every muscle, it will cradle you almost maternally.

Giving in, however, isn't easy, which might indicate the value of floating. The tank – about two-and-a-half metres long, a metre-and-a-half wide and two metres tall (and filled about 30 centimetres deep) – forces its occupants to consider whether they ever really disengage from the stress of life. When finally I loosen the last of my neck muscles and rest my head on a pillow of water, letting thoughts swim in and out of my mind like schools of fish, I realize that those evenings of Netflix aren't cutting it. Not like this meditation by deprivation.



Matt Smith (left) and Jamie Phillips hang around the lobby at Modern Gravity, the business they started to bring float therapy to more Edmontonians.

That, essentially, is the benefit upon which Smith and Phillips have based their business. Since starting Modern Gravity, the duo has spearheaded a movement to take floating from what they jokingly call “hippie woo-woo science” to a physiological therapy worthy of insurance coverage and therefore widespread public access. “I don’t think people realize the premium they’re paying for not taking the time to do nothing,” says Smith, a 29-year-old entrepreneur. “It’s crucial, just to stay sane.”

## A BUSINESS BORN IN A BASEMENT

**HOW HE AND PHILLIPS**, both laid-back but upbeat, stayed sane over the hectic, labour-intensive months leading to opening Modern Gravity is a mystery (floating played a role, they say).

The idea came to Smith in late 2013. He wanted to open a business related to his experience in the fitness industry but was unsure for two reasons. One was the saturation he saw in the local market for gyms and fitness studios. The other was whether opening a gym would give him the kind of outlet for community involvement he was interested in. A float, he believed, might give him clarity. It always had before. Since 2008, Smith had travelled regularly around Alberta, visiting several float enthusiasts and using coffin-like tanks they kept in their basements. There was nothing like them in Edmonton. But at the time he found himself at his crossroads, Smith’s life made a road trip an inconvenience, leaving him frustrated – and then, suddenly, with the clarity he’d been seeking anyway. What Edmonton lacked he could provide. He rejigged his business plan and, finding that the numbers fit, prepared to dive in.

Phillips, his roommate and best friend, was open to the idea of a basement startup in their house in the middle of the city. A millwright at the time, his budding interest in climate

change was fuelling disenchantment with his job at an Alberta coal plant. “The clash is real,” he remembers thinking. “I can’t do this anymore.” They invested in a tank, talked it up on Facebook and, between July 2014 and July 2015, learned the business by floating 1,200 people.

The plan was always to scale up, says Smith. After gathering feedback from their basement clients, they invested in spacious float tanks from England and, because they needed things done just so, built most of their shop themselves over roughly six months. All-night construction bees and regular 18-hour days produced 60-cm thick walls. They even built the 100-kilogram, light- and soundproof doors that open onto Modern Gravity’s calming, blue-lit bathing rooms.

“That is definitely the hardest work I have ever done in my life, mentally and physically,” says Phillips. “You’d wake up in the morning and your bones are sore.”

But Smith knows it was the only way for them to succeed. The facility had to be flawless so it could contribute to their strategy to deal with the bigger challenge: convincing the public of floating’s benefits.

## THE FAST TRACK TO MEDITATION

**TREEKA DRAKE**, OWNER of Calgary’s One Love Float, sees Smith and Phillips as industry leaders in countering the perception of floating as a quasi-spiritual experience for new-agers. (Its origins go back to a researcher in the ‘50s who was using the technology to study human consciousness.) “It’s still fringe,” admits Drake, the president of the Float Collective, co-founded with Smith, its vice-president. “People connect it back to the ‘70s and altered states.”

The group’s goal is to see floating covered by health-care insurers, which will improve access for users and help the

industry grow. For this, Drake sees work needing to be done on two fronts. One involves setting standards of practice and regulations for operators, essentially mentoring startups on matters including everything from being professional to keeping a bath clean. “We’re only as strong as our weakest person, so we’re trying to bring everybody up. They’re trying to raise the baseline,” Drake says about Modern Gravity.

On the other front is the battle for hearts and minds. In some ways, it’s already being won. Over the four years she has been attending Portland’s Float Conference, the largest event of its kind, Drake has watched attendance grow from 165 to more than 750. Making similar progress locally, however, requires efforts she is pleased to see Smith and Phillips making, including building relationships with Edmonton-based health-care officials and insurers, and collecting and sharing research about float therapy and its benefits. While Drake says much research remains to be done on the latter, early studies point to relief from anxiety, depression, sleeping problems and physical pain.

Ultimately, the experience might speak for itself, as it did for Personal Fitness Trainer instructor Kate Andrews. She tried Modern Gravity for the first time in February as a way to support Smith, her former student, and relieve the stress of a busy semester – something she usually attempted through self-directed meditation. Impressed, she went back the next month, and the month after.

“I prefer the tank as a modality of meditation rather than sitting in a building because it is complete solitude,” says Andrews. The lack of awareness of physical surroundings and even, in a way, the body itself, “makes that meditative state easier,” she adds.

She means there’s nothing else to do and no one to bug

you, which led to a level of relaxation she’d not experienced before. “I zonked out after about 15 minutes,” says Andrews. When she awoke in the water (still face up due to the buoyancy), “I loved how my body felt.”

Given the chance, she feels others might too. “There are a number of health and wellness avenues that aren’t covered enough,” says Andrews, referring to insurance. “For some people, it could be a gateway to better health but they just don’t quite have the financial means to go.”

## BETTER HEALTH FOR A BETTER WORLD

**SMITH HAS A BROAD** definition of “better health.” Partly, it would be a possible result of his and Phillips’s hopes to one day expand across Canada.

Talking about it, Smith reveals the idealist behind the practical, realistic entrepreneur who says their float centre has yet to lose money. He doesn’t lapse into the vagaries of pseudoscience but he does get excited about a less tangible benefit of floating – the efficiency with which he thinks it, as a fast track to meditation, has the power and potential to help unify the human race.

Being alone with one’s thoughts, totally relaxed and “living more presently, once a week, even for an hour, I think it’s just crucial,” he says, suggesting that stress is an obstacle to achieving enlightenment of a kind. Once a critical mass of people takes up the practice, he wonders, “What does that society look like?”

Who knows? But when I finally climb out of the bath I notice how incredibly heavy I feel, my muscles reluctant to awaken, like I’m being burdened once again with the weight of the world. For an hour, I’d forgotten all about it. ■

## THE SECRETS TO A GREAT FIRST FLOAT

Your first float is meant to be de-stressing, not distressing.

Here’s how to go with the flow.

- **Leave it all behind.**  
Meaning your stuff. A good float centre has almost everything you need: towel, robe, soap, shampoo.
- **Cut the caffeine.**  
Avoid coffee and tea a few hours before the float so you can fully relax. (No alcohol or other substances, either – you’ll get mellow enough in the tub.)
- **Wait to shave.**  
You’re going to be lying in a pool of salt water. Enough said.
- **Don’t worry about contracting anything icky.**  
Yes, you’re sharing a bath. But, at a good float centre, it was disinfected with hydrogen peroxide and tested weekly in co-operation with Alberta Health Services.
- **Don’t push yourself.**  
If you’re not ready for an hour of oblivion, keep the ambient light on while you float and let your eyelids do the work. This is meant to be a rest, not a test.



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# THE REAL MARNI PANAS

Marni Panas hasn't reinvented herself. Instead, as a transgender woman, she has embraced who she always was, with the benefits being felt by more than just her.

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STORY BY  
**SCOTT MESSENGER**

PHOTOS BY  
**BLAISE VAN MALSEN**

**T**HE MARNI PANAS OF A FEW YEARS AGO wouldn't have been happy with her performance in the 2015 Edmonton Marathon. A veteran long-distance runner, Panas (Management '91, Computer Systems Technology '02, pictured left) was used to finishing among the top 15 per cent. She'd train obsessively, meticulously logging distance and time. In 2005, she earned bronze at the International Masters Games 10K in Edmonton. Her best marathon time is 3:18 - well above 2014 medians for both men and women in the U.S.



But in Edmonton last year she clocked a lacklustre 4:10. It didn't matter. She'd brought a new perspective to running. "The weather was perfect, the sun was beautiful, the sky was blue," says Panas. "It was one of my favourite races ever – even though I was a half-hour slower."

The reason was that Panas's body had changed. It was the first time she had run the event as a transgender woman. She transitioned over the two previous years, a process involving numerous physical changes and psychological therapy. Any benefits of masculinity were lost, she says. "I'm slower, my muscle mass has changed, my endurance has changed."

She sees the other benefits, however, as unequivocally positive. The most significant is achieving a state of happiness that the 45-year-old woman hadn't previously known. The change means living "authentically," says Panas, and accepting who she is and expressing that freely. It has also made her one of Alberta's most visible and vocal advocates for transgender rights. While she doesn't claim to speak for the community, speaking up for herself – whether that means facing detractors at protests or tackling trolls online with a firm, sometimes fiery, brand of education – has put her in positions of influence. As a member of the employee relations and workforce strategy group at Alberta Health Services, she helps to promote inclusivity for

more than 108,000 employees. As part of a group involved in writing gender identity and expression into the province's Human Rights Act, she has contributed to creating a similar environment for more than 4 million people.

And yet, as any marathoner knows, there is still much work to be done and many miles to go. Arguably, she's never been in better condition to do what she feels is necessary for advancing transgender rights, because that sluggish marathon was a revelation. "What was interesting was that when I transitioned and found peace within myself, it didn't really matter," she says. "I knew that, from this point on, I'd just have a series of personal bests."

**IT'S EASY TO SEE PANAS'S LIFE** as preparation for her role as a champion of diversity and inclusion. Though a long-time Edmontonian, she grew up in Camrose, a small city 100 kilometres southeast. Panas came into the world, she explains, as the gender she is today. "I was never born a boy and changed into a girl. I was assigned male at birth because I happened to be born with a penis but I've always been a girl."

As a kid, she didn't talk about that identity. Gender roles were clear. "I knew if I deviated from what was expected of me as a boy or a man, it would be a problem," says Panas. "So you get really good at keeping a secret and you get really good at being by yourself because that's where your secret is safest."



She realized that her marriage, her job, even her life were at stake if she couldn't fully express who she was.

An accomplished long-distance runner, Marni Panas continues to place among the top 15 per cent of race finishers.

She doesn't blame the place so much as the times. There weren't words to explain the difference between herself and others. "We didn't have the language we have today," says Panas. "I didn't hear the word transgender until I was in my 30s."

By then, she'd been living as a man married to a woman since her mid-20s but harbouring an irreconcilable difference between who she was expected to be and who she truly was. "I used to be quite an angry man," says Panas. Her twin sons changed that. Born 16 weeks premature in 2006, Alex is now the 10-year-old who bikes alongside her during runs and still calls her "daddy." Andrew, however, didn't survive.

"When you're caring for your sick kids and your son is taking his last few breaths in your arms, clearly it changes you in many ways," says Panas. "For me it really brought out the importance of living life true, living life without regret, appreciating each special moment." She realized that her marriage, her job, even her life were at stake if she couldn't fully express who she was. "I started my transition [then] because you only get one chance at this. It changed everything for me."

It also made her aware of the importance of speaking out for others trying to live true to themselves. Panas has helped a young transgender girl in a battle to use female washrooms in an Edmonton Catholic school. She has volunteered as

an informal mentor for Camp Firefly, a leadership retreat for LGBTQ youth. As a director at large for the Edmonton Pride Festival Society, she has helped organize events that give the local LGBTQ community an opportunity to celebrate diversity with the city. Throughout the year, she's a guest speaker at Edmonton post-secondary institutes and is a private consultant for organizations looking to create inclusive environments.

Panas brings the same skills, enthusiasm and insight to her work at AHS. "Marni really has an ability to make a connection with people," says her supervisor, Mona Sikal. "They get that she is about bringing your whole self to work. I think that really resonates with people." This isn't just about gender, Sikal adds. "All of us have the same want and need to be who we are in a safe, accepting place."

At the close of 2015, Panas saw some of the farthest-reaching results of her efforts yet. With her input and that of others in the LGBTQ community, the provincial government amended the Alberta Human Rights Act. That is, Panas helped turn the language that was lacking for most of her life into laws that protect her right to express it.

**IN NOVEMBER OF THE SAME YEAR**, Kathleen Ganley, minister of justice and solicitor general, introduced Bill 7 in Alberta's Legislative Assembly. It proposed adding gender identity and gender expression to

## USE IT IN A SENTENCE

Human rights advocate Marni Panas points out that *transgender* is an adjective, not a verb or noun. "I'm not transgendered," explains Panas. "This isn't something that happened to me. It's who I am. 'Marni is a transgender woman.' ... We would never say, 'Elton John is a gay-ed man.' *Transgender* is the same thing. It puts the person first."



## SHIFTING SOCIETY WITH SAFE SPACES

**SINCE 2014, NAIT'S SAFE SPACES PROGRAM HAS** helped create an inclusive environment for students and staff. At its heart is a one-day course that covers causes and history of discrimination and offers strategies for creating welcoming classrooms and workplaces, dealing with homo- and transphobia, and supporting those who are coming out. Roughly 300 people have taken the course.

"The LGBTQ community is sizeable and becoming more self-identified here [at NAIT]," says Tim Ira, the student programs coordinator who oversees Safe Spaces. The community has also become more visible with the polytechnic's annual Pride Week, which includes a pride walk and other social and educational events.

"I'm really proud of where NAIT has come from," says Marni Panas, whose time at the polytechnic preceded the inclusivity programs by more than a decade. She notes the positive impact Safe Spaces can have on student well-being and, therefore, success in studies and careers. She also points out the effect on our communities.

"It's really our colleges that often shape society and our future thinkers," says Panas. She believes students will expect the world outside a post-secondary institute to be equally inclusive. "If it's not, you start to demand that it is. And that's exactly how we shift society."

the list of prohibited grounds of discrimination in the Alberta Human Rights Act. "All Albertans should be able to have the same opportunities to be treated with equal dignity and respect," the minister said during the second reading, her conclusion based in part from hearing stories from Alberta's transgender community of lost jobs, personal safety concerns, difficulties finding medical treatment or even a suitable public washroom. Panas participated in drafting the bill and crafting its wording. Today, a copy of it bearing Ganley's signature hangs in a frame in her office at AHS.

"Marni's passionate fight for equal rights for transgender individuals made her a vital part of the consultation for Bill 7," says Ganley. "Her work in her professional career and also her personal experience were key to helping us understand how this amendment could positively impact transgender Albertans."

Less than a month later, the bill came into force.

"To see this kind of change happening in Alberta - which used to be known as Texas of the north, the most conservative province in the country - is a remarkable shift," says Dr. Kristopher Wells, faculty director for the University of Alberta's Institute for Sexual Minority Studies and Services, and another consultant for Bill 7. "And it takes that courage and that visibility of people like Marni to put a face to the importance of what those kinds of changes to legislation actually mean. These words can literally impact and save people's lives."

Wells, who counts Panas among his friends, sees her as a "trailblazer," he says. "They're the ones we look back on and say, 'that's when things began to change.' Because of the courage, the tenacity, the resiliency of the people who wouldn't back down."

He notes, however, that the role comes with risk. Like him, he points out that Panas has faced backlash and threats that will likely continue despite legislation. "The battle for social equality is much longer and much harder - to change people's hearts and minds."

**BEING VULNERABLE COULD BE SAID** to be a key part of Panas's advocacy. At her 25th high school reunion in Camrose, she shared her story with classmates and made new friends of some she'd never spoken with before. When she travelled to Ottawa for the introduction of Bill C16, which would write protection for transgender people into the Canadian Human Rights Act and the Criminal Code, she was interviewed on CNN where she came out to the world, something she struggled to do with her parents just a few years earlier. And she keeps an open letter to her family online describing her transition. "I save it there for my son to read one day," she says.

Being as open as Panas is about her story often means having to defend it. "When we're being silent," she says, "we're being complicit." One instance of not backing down occurred this summer at an anti-Bill 10 protest at the legislative grounds. Passed by the previous government, the bill seeks to give students the right to organize gay-straight alliances - a struggle still going on in some Alberta schools. As media hovered, Panas confronted a protestor who repeatedly called her "sir."

"So finally I said, 'I told you four times not to call me sir,'" recalls Panas. "And by this time I knew all the cameras were watching." She turned to the crowd and said, "Is that a sign of respect?" The result was news coverage discussing the importance of the bill - the kind of education Panas tries to provide opponents, in person or online, to "hopefully inspire some empathy, some compassion, some opportunities to learn, opportunities for people to be allies [and] step up and support."

This is one reason Tim Ira is excited about the prospect of bringing her to speak at NAIT's annual Pride Week. The student programs



Marni Panas with her framed copy of Bill 7 signed by Kathleen Ganley, minister of justice and solicitor general. Panas contributed to the bill's language, which writes gender identity and expression into the Alberta Human Rights Act.

coordinator says Panas can be tough, but “what she’s able to do is boil everything down to a place of people respecting people, which, at the end of the day, is something that we all expect and want.”

Just as importantly, however, Ira sees her as inspirational. Because of her success following her transition as well as her contributions to the community. “She really makes things feel like they’re possible,” he says.

An Instagram post from an Edmonton Pride Parade makes a similar suggestion. It’s a picture of someone in a park with Panas. She’s wearing a red dress and a tiara and has an arm around the person. The writer of the post talks about attending the event to find Panas – “the person who gave me the strength to come out to my family. ... This last year has been amazing for me in terms of being accepted for who I am and I couldn’t have done it without this woman.”

But the post is as cautious as it is celebratory. The writer’s name is blurred out, so is the face. There are still potential prices to be paid for admissions like this. Panas’s parents and siblings, for instance, are estranged as a result of her transition. Though her partner was supportive throughout the process, their marriage ended this year. And Panas knows, for her own safety, that there are times she needs to remain quiet about who she is.

“Are we still fearful today?” Panas asks. “Yes. Not a day goes by that I don’t come out of a public washroom and think, is this going to be the day that someone tells you that you don’t belong here and you get beat up for it?” Given that her voice sounds vaguely masculine, Panas doesn’t speak in washrooms.

She also knows, however, that the process of belonging is well underway, with perhaps the hardest part behind her. “It doesn’t take courage to finish a marathon,” says Panas, who will run in the 2017 World Masters Games in New Zealand – competing, for the first time, with women thanks to recent rule changes regarding transgender athletes. “Anyone can finish a marathon. Taking that first step, that’s what takes courage.”

Getting to the finish line, whatever form it takes, is nevertheless going to be a product of successes and struggles. In Panas’s case, it will be a sum total of life experiences. A difficult past has led her to a point of peace. Marcel is no longer her first name but it’s part of her second, as Marcelle. “I still honour who I was because all those things that happened for good or for bad are part of who I am today – and I like who I am today,” she says. “I wouldn’t change a thing.” ■

## WHAT’S IN A NAME

**EVEN BEFORE TRANSITIONING,** Panas knew her new name would be Marni. It comes from the eponymous popular girl from school who stopped one rainy day to offer Panas a ride. “She didn’t care that she was seen with the dorky kid that I was,” she recalls. “She was just being kind. Years later I’ve thought about that day many times.”

It stayed with her, explains Panas, because of the profound difference a simple act of kindness can make to a life, just as an unkind one – even if unintentional – can cause irreparable harm. “She chose kindness that day,” says Panas. “I don’t know if I’ve always lived up to that name, but I try.”

# CELEBRATE OUTSTANDING ALUMNI

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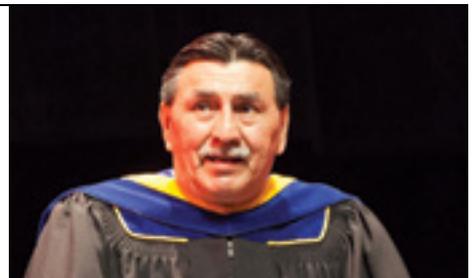
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# DINNER AND A SHOW

Chef Vikram Vij knows success as a restaurateur is about more than good food. It requires spicing up the modern dining experience.

STORY BY  
**MARTA GOLD**

PHOTOS BY  
**LEIGH KOVESY**

**V**IKRAM VIJ is not only comfortable in the spotlight, he thrives in it. Many will recognize the flamboyant chef and restaurateur, who once dreamed of becoming a Bollywood actor, as an investor on the television show *Dragons' Den* and a celebrity chef on several Food Network programs. And those who've had the chance to visit his namesake restaurant in Vancouver will know him as the gregarious host of a lively, nightly party.

"At 5:30, the stage is open, the curtain's drawn and I'm here performing," says Vij. "I wasn't good at music or singing but I knew I could be on stage and perform as a chef."

The aspiring actor's current role is more of a director, with diners at Vij's becoming favoured players in his performances. They're welcomed with snacks and drinks as they wait for a table and will likely be greeted like an old friend by Vij himself. "Once the door is open, you come, you hang out - it's like a big huge house party," he says. "That's what I love."

While the meal is an integral part of the experience, Vij sees himself not just as the creator of beautiful food but as the author and promoter of the story that surrounds it. He brought that vision to students in March as NAIT's Hokanson Chef in Residence. "You can be creative in your kitchen but you still need to sell the food. You cannot sell the food without being out in the front to explain your vision and your passion," he says.

For Vij, that means giving diners a new experience of the traditional flavours of India. "How do you make Indian food look pretty? It's brown and browner," he asks students at one of his engaging demonstrations during his week on Main Campus. "How do you do it? You bring it in a bowl and you serve it with love. When you put that on a plate, it will shine through. People will feel the love from you."

Being a good salesman doesn't diminish or undermine that creativity, he insists. "Every human being at heart is an entrepreneur because every human being wants to dance to their own music, and do things their own way."



Vikram Vij shares his passion in the kitchen during his week with NAIT students as the Hokanson Chef in Residence.

## A THREAD OF A DIFFERENT COLOUR

**BORN AND RAISED IN INDIA**, Vij studied hotel management in Austria before moving to Canada, learning the skills of both chef and front-of-house manager (he's also a certified sommelier). His diverse background is well-suited to a changing restaurant landscape in which increasingly sophisticated customers are looking to get more out of their dining experience.

"Producing good food is not quite as rare as it used to be," explains Leroy Russell, chair of Hospitality Management. "I often say you can get people to come out once to try the food. But to get them to keep coming back, you have to give them excellent service," he adds.

"Restaurants really have to engage the customer and make them feel that they're actively involved in the experience."

Vij puts this into practice at his flagship restaurant, Vij's, even before people sit down to their meal. The wait for a coveted table is eased by the house-party atmosphere and servers who offer chai and hors d'oeuvres.

The performance is enhanced by the host's colourful, embellished clothing, scarves and jewelry that reflect his bold personality, including a ring he wears made from a one-rupee coin his grandmother gave him for good luck.

"Even 10 years ago, wearing long Indian garb, with a scarf, people would look at me like, what's wrong with you?" Vij says with a laugh. "I'm a thread of a different colour in this beautiful tapestry and I'm my own self. I don't have to blend into anything."

For his first day at NAIT, he briefly does so out of politeness, putting on a white chef's jacket. But he soon reverts to his own embroidered one. Vij encourages students to follow their own personal passions. "Stay true to yourself," he tells them. "Do what you want to do."

That applies even when it might seem to run counter to conventional business practices. Vij's restaurants (Vij's and Rangoli, which he owns with his partner, Meeru Dhalwala, and My Shanti, his solo venture) consider all customers equal and don't hold tables - no matter who's asking. Once, he famously made former Prime Minister Pierre Trudeau wait his turn at Vij's.

## A SYSTEM THAT WORKS

**THIS APPROACH TO ENTREPRENEURSHIP** has worked for Vij over his 20-plus years in Vancouver. The tiny, 14-seat restaurant he opened in 1994 on West Broadway struggled at first, in part because Canadians weren't used to his new-world take on the traditional flavours of India. "I knew I had to hold peoples' hands," he says. "I wasn't going to do butter chicken and chicken tikka masala and tandoori chicken. I needed to be out in the front, explaining to people: eat this chutney with this, eat this raita with that."

Over the years, Vij's business grew, bolstered as much by the strength of his personality as by his incredible food. Vij's became a Vancouver hotspot, vaunted by *New York Times* food critic Mark Bittman in 2003 as "easily among the finest Indian restaurants in the world."

Vij expanded his business to include Rangoli, for casual Indian food, My Shanti, a “home-cooking” style restaurant showcasing food from his travels through India, and Vij’s Railway Express, a food truck featuring street foods from various regions of India. He has a supermarket retail line called Vij’s Inspired Indian Cuisine, his own brand of masala-spiced kettle chips (Vij’s Delhi-licious) and plans to sell basmati rice and olive oil. He also has a new restaurant in the works at the original site of Vij’s, which recently moved.

After a year-long stint on *Dragons’ Den* and roles as a judge on *Chopped Canada*, *Recipe to Riches* and *Top Chef Canada*, he has another television show in development, he says. This year, he’s taking time to give back to aspiring chefs through programs like the Hokanson Chef in Residence.

Ganesh Subramanya, a culinary instructor who worked with him at NAIT, says Vij was an enthusiastic and attentive teacher. “He was greatly involved with the students in every possible way. I was particularly impressed with him because he always asked for feedback, from the staff and the students.”

The students say they found Vij kind and approachable. “He’s very open and you feel like you can speak your mind and ask him questions,” says Zach Rossall (Cooking ‘15), 25. “I’d love to work for a guy like him.”

Rossall was also impressed with the absence of hierarchy in Vij’s kitchen. The cooks at Vij’s and Rangoli’s – all of them women, many from the Punjab and none of them trained chefs – work as a team. Many are connected through family and friendship. Vij didn’t plan it this way – an aunt who worked in his first kitchen found many of the current cooks. But it’s a community and a system that works, so he sticks with it.

“That really spoke to me,” says Michelle McDonald (Cooking ‘15), a 43-year-old mother of four looking for a new culinary career. “That’s the kind of environment I want to work in, where we’re a team and it’s all about doing it together.”

The one-on-one time with Vij was among the highlights of her program at NAIT, McDonald adds. “To us, he’s like a Hollywood celebrity – you get a little tongue-tied around him. But he’s so approachable and open. He just really, really knows his stuff and he’s excited to share it with us.”

## A HOST WITH THE MOST

JEFF GORDON (Cooking ‘89), who oversees NAIT’s culinary programs, says Vij – in addition to his impressive skills as a chef – had an irresistible magnetism. “It doesn’t surprise me at all that he once dreamed of being an actor,” he says with a laugh.

While Gordon usually hosts the popular chef-in-residence luncheon each year, Vij told him he’d prefer to be the host, introducing and explaining each dish himself. “He was the first chef we’ve ever had to stand at the door and greet everybody as they came in. But he didn’t neglect the students – he flowed very easily between the front of the house and the back of the house.”

Vij was also the first chef-in-residence to send him a personal note after his week at NAIT, thanking him for his hospitality and help, a gesture that spoke volumes to Gordon.

“For sure he’s all about the show. But he’s also a very warm and down-to-earth guy.” ■



## THE IMPORTANCE OF FAMILY

Vikram Vij speaks frequently and fondly about his parents, key characters in the story of his success. His father helped finance that first restaurant in Vancouver, arriving on a plane from India with \$24,000 in a brown paper bag.

“How did you get all that cash past customs, papa?” a shocked Vij had asked his father. Vij shrugs and mimics the older man’s thick, Indian accent. “They didn’t ask, I didn’t tell!”

Another of Vij’s favourite tales involves his mother riding the bus from her home in Richmond, B.C. with a pot of chicken curry on her lap for his fledgling restaurant. His landlord didn’t like the smell of curry and forbade him from cooking it on site. That simple family recipe is still in his repertoire today. It was part of the showpiece lunch he hosted during his week at NAIT and is featured in his 2006 cookbook, *Vij’s: Elegant & Inspired Indian Cuisine*.

## HOKANSON CHEF IN RESIDENCE

This unique program provides students a rare opportunity to learn from the best chefs in the world. The program – the result of a generous donation from John and Susan Hokanson – began with Canadian celebrity chef Rob Feenie (2009), followed by David Adjey (2010), Susur Lee (2011), Massimo Capra (2012), Chris Cosentino (2013), Lynn Crawford (2014) and Michael Stadtländer (2015).

# COCONUT CURRIED VEGETABLES

## [ RECIPE ]

from *Vij's: Elegant & Inspired Indian Cuisine*

Serves 6-8

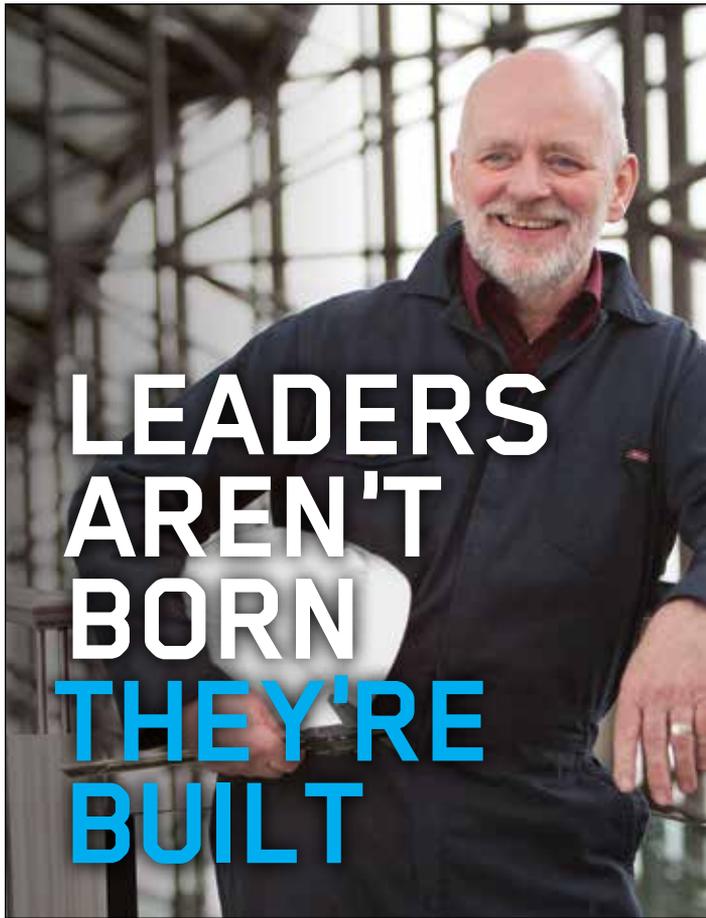
### INGREDIENTS

125 ml (1/2 cup) canola oil  
 25 to 30 fresh curry leaves (available at Indian and South Asian grocers)  
 15 ml (1 tbsp) black mustard seeds  
 225 g (1-1/2 cups) finely chopped onion (2 medium)  
 15 ml (1 tbsp) + 5 ml (1 tsp) chopped garlic  
 400 g (2 cups) chopped tomatoes (2 large)  
 15 ml (1 tbsp) ground cumin  
 5 ml (1 tsp) turmeric  
 2.5 ml (1/2 tsp) ground cayenne pepper  
 15 ml (1 tbsp) salt  
 2/5 ml (1/2 tsp) ground black pepper  
 355 ml (12 oz) can coconut milk, stirred  
 454 g (1 lb) eggplant, cubed  
 454 g (1 lb) cauliflower, cut in florets  
 340 g (3/4 lb) red, green and/or yellow peppers, cubed  
 20 g (3/4 cup) chopped cilantro  
 750-1000 g (3-4 cups) cooked basmati rice

### METHOD

In a large pot, heat oil on medium heat for 1 minute. Add curry leaves and mustard seeds and let them sizzle for about 1 minute, or until just a few mustard seeds start to pop. Add onions and sauté until golden brown, about 8 minutes. Add garlic and sauté for 2 minutes. Add tomatoes, cumin, turmeric, cayenne, salt and black pepper. Sauté the resulting masala mixture for 5 to 8 minutes or until the oil glistens on top. Stir in coconut milk. Bring to a boil and reduce heat to medium-low. Add eggplant, cover and simmer for 5 minutes. Add cauliflower and bell peppers, cover and cook for 5 minutes more. Stir in cilantro. To serve: ladle curry over the rice.





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# GIVING BACK

How Ken Jurina gets involved with NAIT.



AS PRESIDENT, CEO AND FOUNDER of Top Draw Inc., Ken Jurina (Marketing '95) remembers the challenges of launching his own business, which started as a solo home-based shop in his parents' den. But he quickly found his niche. Top Draw established itself as a one-stop digital marketing agency, including the research, strategy and branding that are essential to an online presence. The company took its offerings a step further, becoming pioneers in search engine optimization to ensure their clients get noticed.

Today, Top Draw has 27 employees housed in a building the company owns near the heart of the city. Nearly half its employees are fellow NAIT graduates (including business partner **Adriel Michaud**, Computer Engineering Technology '02). When he's not tending the business, Jurina enjoys regular opportunities to return to NAIT to share his expertise with budding entrepreneurs and marketing students.

His reason for getting involved? It's simple, explains Jurina. "NAIT is where I got my entrepreneurial start." Here's some of what he does.

## SHARING KNOWLEDGE

As an invited speaker for a course in the JR Shaw School of Business, Jurina shares insight gleaned from more than 23 years in the business and provides a hands-on workshop on digital marketing. A member of the school's marketing advisory committee, he even helps shape curriculum to meet current industry demands.

## VOLUNTEERING

As a student, Jurina was given an award for the best use of graphic design for a promotional campaign at the JR Shaw School of Business Annual Advertising Awards Banquet. It was the encouragement he needed as he embarked on his career. That's why, for the last seven years, he's volunteered as a judge at the event, which recognizes the best student marketing projects.

## SPONSORING

Top Draw also sponsors an award at the banquet for the team with the best use of digital marketing in a promotional campaign. Jurina is proud to be the one to hand it out. "It's an interesting full circle," he says. "'Ook for life' really is an appropriate description for me."

There are many ways  
alumni can get involved.  
Visit [nait.ca/alumni](http://nait.ca/alumni)

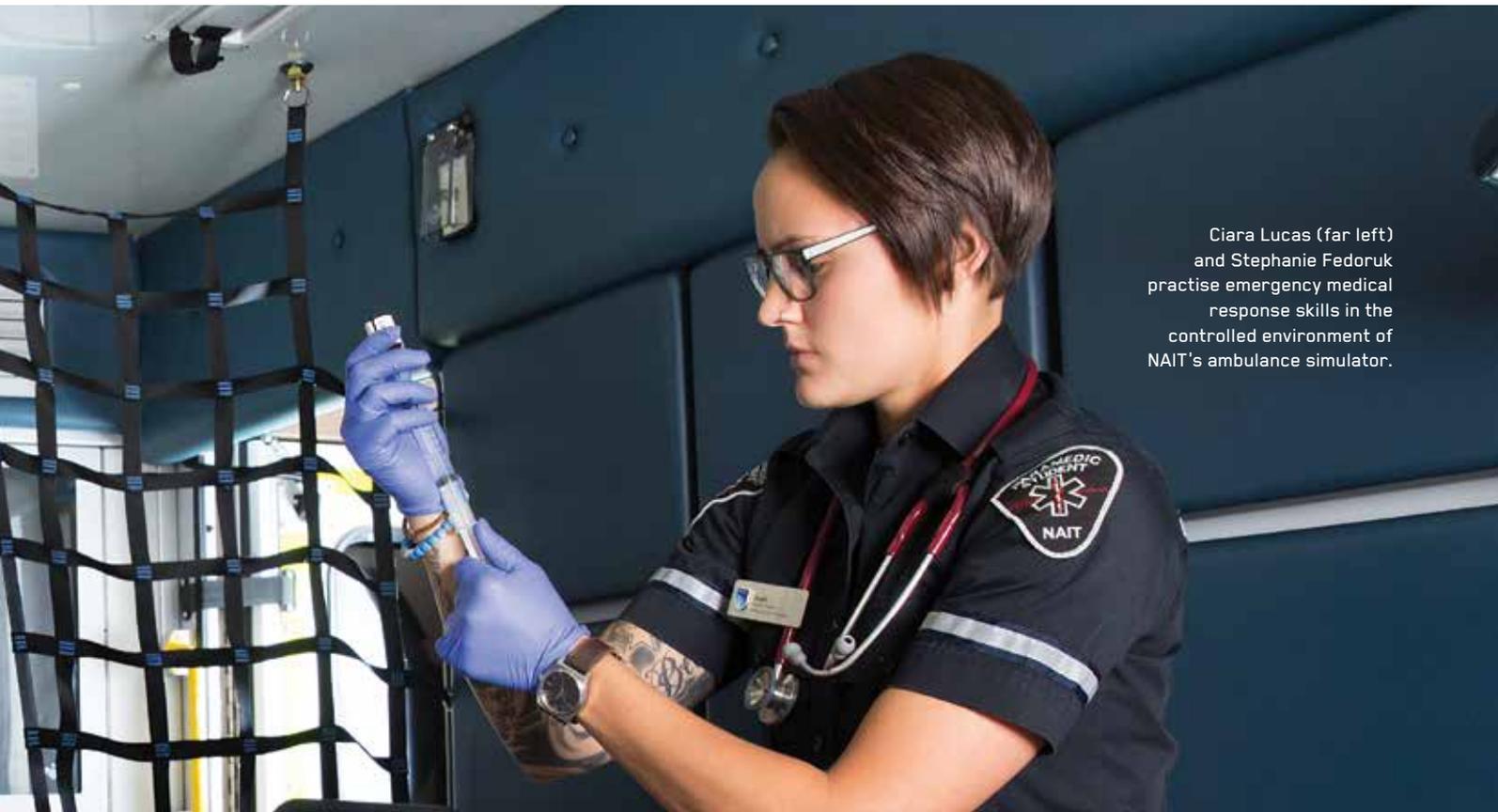
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LIFETIME



# THE SIREN'S CALL

A one-of-a-kind ambulance simulator recreates the drama and demands of a mobile emergency.

PHOTOS BY LEIGH KOVESY



Ciara Lucas (far left) and Stephanie Fedoruk practise emergency medical response skills in the controlled environment of NAIT's ambulance simulator.



**THE SIREN WAILS** as the ambulance snakes through traffic. In the back, Paramedic and Emergency Medical Technician (EMT) students are dealing with a cardiac arrest. They perform CPR then intubate the patient as the ambulance bumps through Edmonton neighbourhoods on the way to the University of Alberta Hospital.

Except for the real thing, it doesn't get any more real than this.

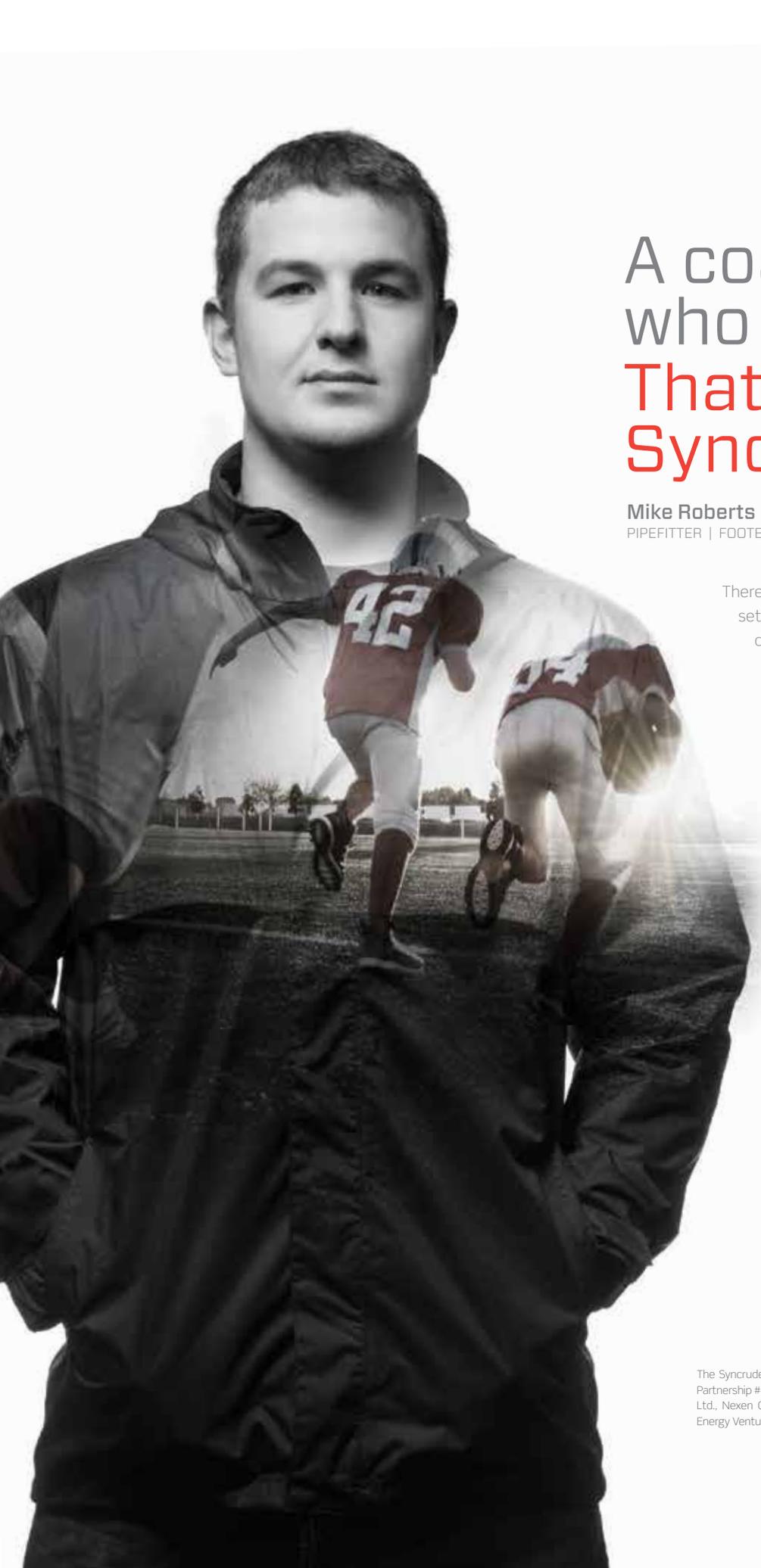
It's all happening within the walls of the School of Health and Life Sciences in the Centre for Applied Technology. The students are learning in a one-of-a-kind ambulance box simulator installed this fall, giving them the chance to respond to virtual, life-like situations. Built on a motion platform, the box moves like seats in a 4-D movie theatre in sync with the terrain seen through the windows - monitors playing

recorded urban and rural footage. The box creates the sensation of slowing down and speeding up to mimic road conditions.

The unit was custom built for NAIT by Sim Leader, a Canadian company that specializes in training simulators. According to EMT chair Keith Weller, there's nothing like it in the world. "Many of our EMT students have never been in an ambulance before. This gives them the real-world scenario before they go on their clinical rotations," he says.

Second-year paramedic student Stephanie Fedoruk says she will be more confident entering the field because of the simulator. Difficult skills, such as intubation, can be even harder in an ambulance, she points out. "NAIT is good at pushing you to learn how to respond in any possible scenario," she says.

— *Shawna Greer*



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# AN EYE FOR TALENT

Rob Ralph's never-ending quest to build a great football team.

## CFL SCOUT

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### HOURS

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### LOCATION

Based in Edmonton with travel across Canada and the U.S.

### TRAINING

There are online courses but most scouts work their way up through various roles with a team.

**ROB RALPH** (Radio and Television '00) planned to tell stories as a sports journalist. Instead, he's part of those stories, working behind the scenes as director of Canadian scouting for the Edmonton Eskimos. After starting with the football team as assistant video coordinator in 1999, the lifelong sports fan now scrutinizes Canadian and U.S. university and college teams to identify about three dozen prospective Canadian players for the Eskimos' annual training camp. For them, it's their big break. For him, it's part of a job that helped earn the team its 14th Grey Cup in 2015, setting high expectations for this fall.

**MY JOB IS TO IDENTIFY** where the talent is. What schools are they going to? Where will I be making stops? In August, I'll go to Ontario for two weeks. In September or October, I'll go to Quebec. Usually, in October/November, I've whittled it down to the top talent. It takes a lot of time.

**MY TRAVEL SCHEDULE** is eight to 10 weeks. Obviously, I can't be in 30 different cities throughout Canada on a Saturday. I can only be in one city at one time and I'll watch the film of the other games.

**I GOT INTO THIS** as a video coordinator and, basically, just learned how to be a scout through the scouts who have come through here, and the coaching staff. I've learned by experience. Watching all the video, filming all those practices and games, I was digesting so much. I didn't know it when I was starting out, but I was learning so much about what to look for when finding a professional athlete.

**I ENJOY GIVING AMATEUR ATHLETES** the opportunity to become professional athletes. People don't realize how hard it is to become a professional. It's really quite tremendous to see the evolution. That's what I love about my job.

**LAST YEAR WAS A GREAT YEAR** for all of the staff. That's the satisfaction in this job, it's working with the team to achieve the greatest goal, and that's winning a championship.

*As told to Emily Senger*



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# AND THE WINNER IS...

Recent awards and accolades for NAIT staff, students and alumni.



## DISTINGUISHED FRIENDS

This year, **Len Treeter** (Carpentry '74) and **Laurie Anfindsen** (left) were recognized for their ongoing support of NAIT with the Distinguished Friend of the Institute Award. Treeter served on the carpentry program advisory committee for many years and he and Anfindsen have supported Culinary Team NAIT, recently helping send it to the 2016 Culinary Olympics in Germany. They've also helped establish a Cabinetmaker bursary. Behind the generosity is Treeter's success in industry, where he founded Dartree Group Inc., a medium-density fibreboard plant that served global markets.

## PRIZE-WINNING PUBLISHER

Soon after **Robert Kaye** (Biological Sciences Technology - Environmental Sciences '76) started work on his memoir, *Born to the Wild*, he decided self-publishing was the best way to maintain creative control. As it turns out, it was also the way to produce an award-winning book. The bestseller earned a bronze medal for best regional non-fiction, Canada-west, at the 2016 Independent Publisher Regional and Ebook Awards. More than 6,000 books are entered into the awards program, managed by *Independent Publisher* magazine, each year.

Read more at [nait.ca/robkaye](http://nait.ca/robkaye)

## PARALYMPIC SILVER

After recovering from two serious accidents, it's amazing **Ross Wilson** (right) made it to the 2016 Paralympics at all, let alone earned two silver medals. After a race crash and a collision with a car in 2015, the NAIT internal auditor overcame broken bones and hundreds of stitches (not to mention the fact that Wilson has Charcot Marie Tooth disease, which affects his nerve tissue and therefore mobility) to place second in 3,000-metre and 20-kilometre events in Rio de Janeiro this summer.

Read more at [nait.ca/rosswilson](http://nait.ca/rosswilson)

## MARATHON MASTER

The 2001 Edmonton marathon was the first 42-kilometre race **Brendan Lundy** (Combined Lab and X-ray Technology '04) ever ran. His time: 5:14:48. He made a marked improvement in 2016, finishing in 2:35:18 as first overall (he won it 2010, too) on his 38th birthday. Lundy has run more than 90 marathons since that difficult debut, winning roughly 30.

Read more at [nait.ca/brendanlundy](http://nait.ca/brendanlundy)

## SWEET SUCCESS

Violet Chocolate Co. owner and chocolatier **Rebecca Grant** (Culinary Arts '07, Management '13) earned five medals, including two gold, for her handmade chocolate bars at the 2016 International Chocolate Awards in London, England, adding to awards from previous years at the event.



## WAIT, THERE'S MORE!

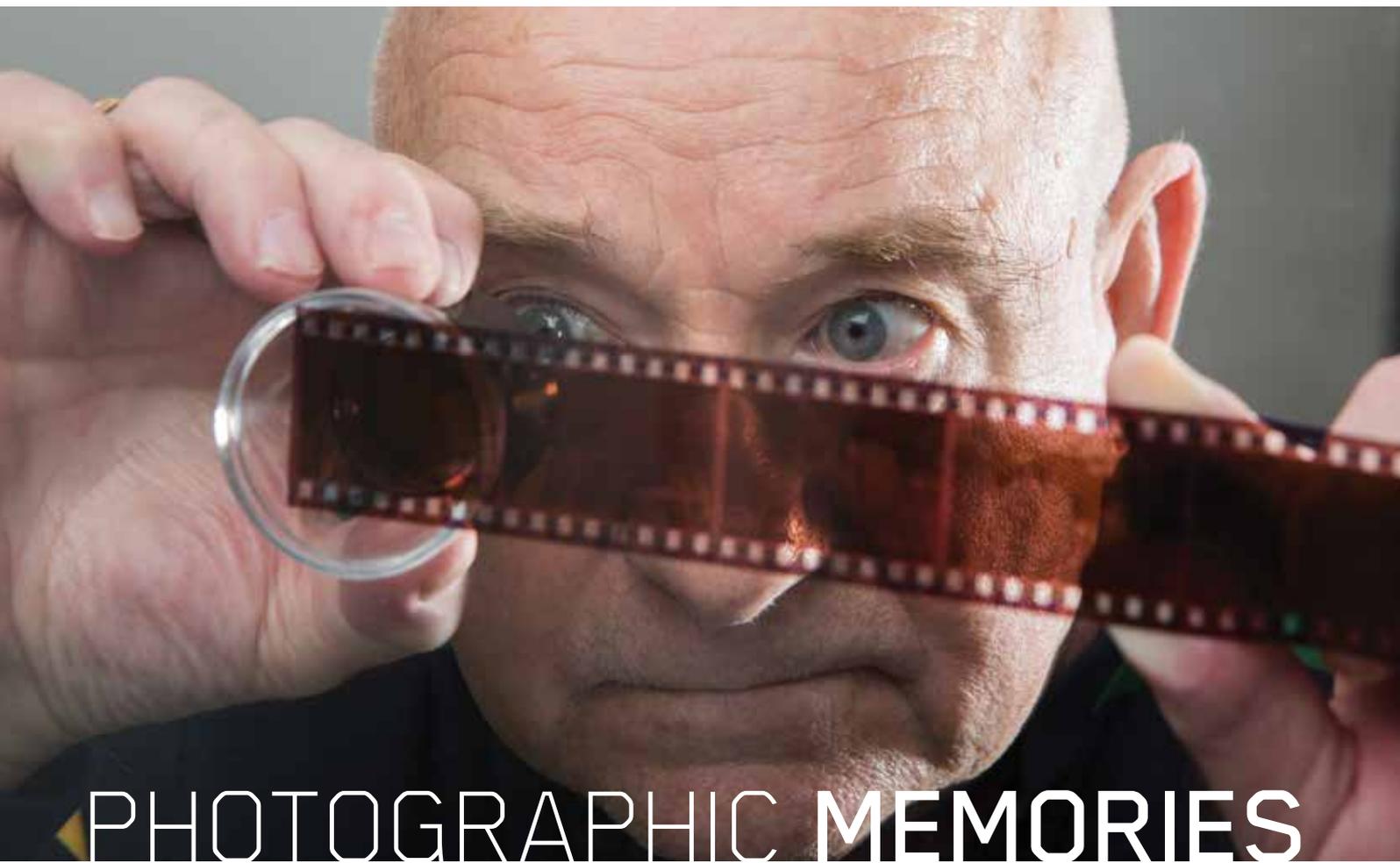
In September, **Ernest's**, NAIT's on-campus fine-dining restaurant, was named one of the 100 Best Restaurants for Foodies in Canada by users of online reservation tool OpenTable.

**Culinary Arts students** earned 14 medals, including two gold, at the 2016 Emirates Salon Culinaire - Dubai. Roughly 1,300 young chefs compete in the annual event.

*Long Road Home*, a documentary made by **Digital Media and IT students** about Edmonton musician Alfie Zappacosta, was named Best Alberta Documentary Over 30 Minutes this spring at Northwestfest, Edmonton's annual film, music and digital arts festival. It also won Best Student Production at the 2016 Alberta Film and Television Awards.

**Jeffrey Weigl** (Legal and Realtime Reporting '05) is the 2016 National Court Reporters Association Shorthand Speed Contest champion. Weigl scored more than 97, 98 and 99 per cent in his three events.

As part of Edmonton racer Tim Boychuk's nitro funny car crew, Automotive Services Technician instructors **Dan Brochu** (Class of '81) and Doug Bell earned three wins on the 2016 International Hot Rod Association circuit. The fastest was in Spokane, Washington: a quarter-mile in 5.62 seconds at 244.83 miles per hour (394 km/h).



# PHOTOGRAPHIC MEMORIES

Bob Peterson reflects on life as a photojournalism pioneer.

**BOB PETERSON** (Photographic Technology '65) remembers the day he captured one of sport's most iconic images. A staff photographer for the Edmonton Oilers during the 1979 WHA All-Star series, Peterson spotted 51-year-old hockey legend Gordie Howe sitting on the bench, leaning over to advise a teenage rookie named Wayne Gretzky. "I laid on the boards and I got away eight shots of Gretzky and Howe," Peterson says. "I have pictures of the best two players ever to play hockey, and the only time they played together."

The images from that game are part of the impressive collection of hockey photos, negatives and memorabilia such as signed photos that Peterson, now 72 and retired, is hoping to sell. The photos are just a small part of Peterson's life work, which involved travelling the world and shooting the likes of Pierre Trudeau, Princess Diana, Muhammad Ali and more.

Bob Peterson with one of his most famous shots: Gretzky and Howe together.



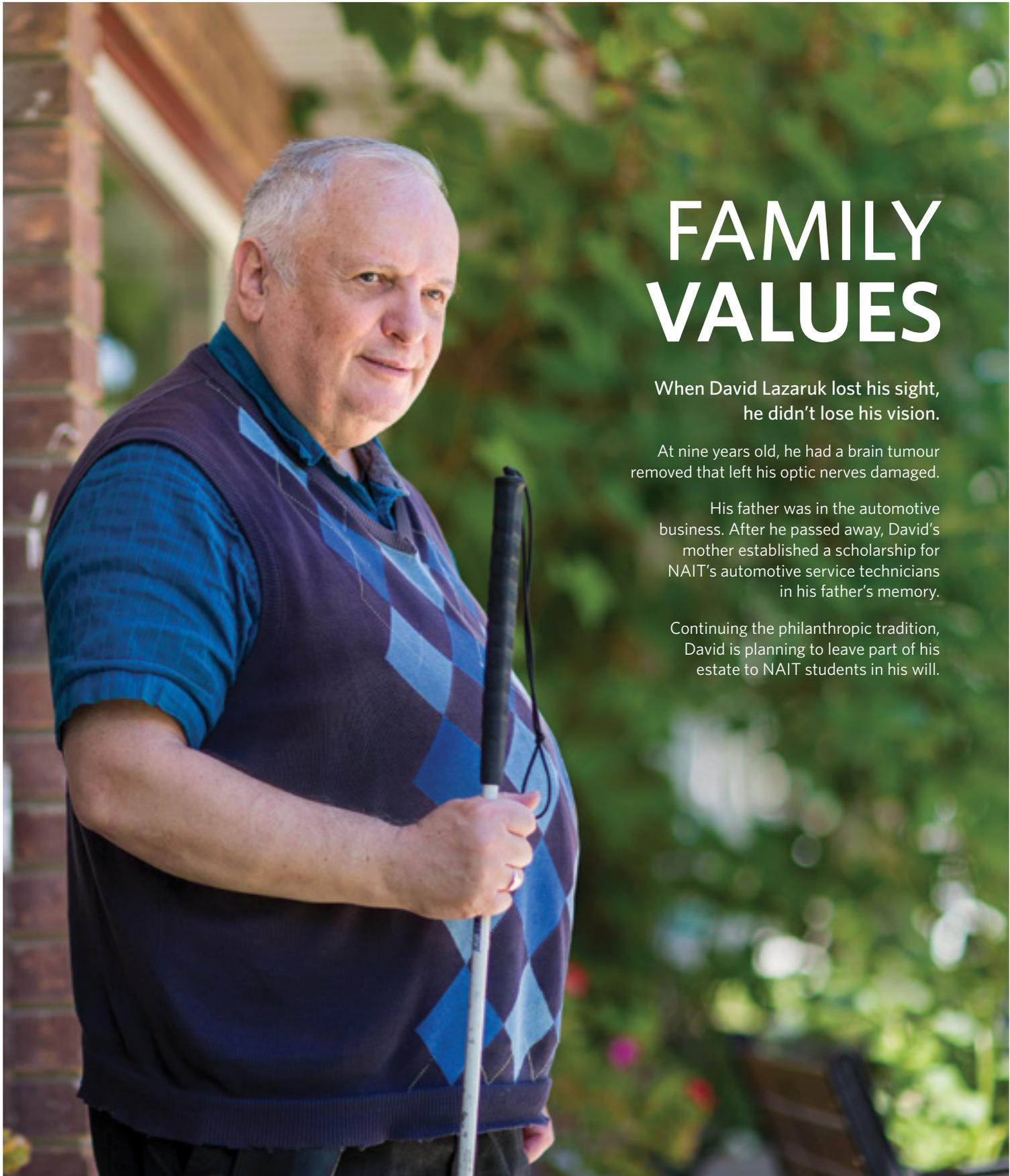
You won't find any of it in his Edmonton home. The collection up for sale, which also includes shots of Gretzky's inaugural skate in Edmonton and his first goal, is in a secret, secure, climate-controlled location. He estimates it's worth \$1 million - the 3,133 negatives alone priced at "six-figures," Peterson says. If he doesn't find a buyer his daughter Sarah (and her children Lucca and Cole), will inherit everything.

Peterson's work is the result of a career that goes back to a different era of photojournalism. His first job was at the *Edmonton Journal*. "I sat on the Journal's front steps until they hired me," he says. "I was 21." He also worked for CFRN TV as a photographer, shot for the Edmonton Eskimos, the Drillers soccer team, the '83 Edmonton Universiade, the Paralympics in the '80s and '90s, and more, often as a freelance photographer.

Over his more than 40 years in the industry, Peterson saw a huge technology shift. At the *Journal*, he worked in a darkroom. One picture took five minutes to develop and had to be engraved before it could be printed. The fastest film speed was 400 (today's digital cameras easily shoot to 6400 ISO and beyond). Lenses were smaller with slower shutter speeds. "You had to pick your pictures," he says. "I lost a lot of pictures to shutter speed."

Looking back, Peterson says he is incredibly grateful that he got to see the world while living in Edmonton. "I got to go places and see places that the average person would not be able to be part of in 10 lifetimes. I got to record history."

— Emily Senger



# FAMILY VALUES

When David Lazaruk lost his sight, he didn't lose his vision.

At nine years old, he had a brain tumour removed that left his optic nerves damaged.

His father was in the automotive business. After he passed away, David's mother established a scholarship for NAIT's automotive service technicians in his father's memory.

Continuing the philanthropic tradition, David is planning to leave part of his estate to NAIT students in his will.

To read more about David's inspirational story and how you can leave a legacy gift, go to [nait.ca/legacygifts](https://nait.ca/legacygifts)

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