

IFR

IN-FLIGHT REVIEW

SPRING 2016



ICE CAVES

Exploring the
Pemberton Ice Cap

FISHING FOR FOSSILS

Giant sturgeon abound
in the Fraser River

BIO-ECONOMY

The power and promise
of genomics research

COMPLIMENTARY COPY
ISSN 1916-5080 IN-FLIGHT REVIEW
SPRING 2016 VOL 9 ISSUE 1

Helijet

30
YEARS

LUXURY WILDERNESS EXPERIENCES

HEAD-LINE
MOUNTAIN HOLIDAYS

SNOWMOBILE TOURS

HELI SNOWMOBILE TOURS

HELI SNOWBIKE TOURS

WILDERNESS SPA

ICE CAVE TOURS

GUIDED ADVENTURES & DAILY TOURS



HEAD-LINE
MOUNTAIN HOLIDAYS

BOOK TODAY: **604.902.6415**
HEADLINEMOUNTAINHOLIDAYS.COM



Spring 2016 • Volume 9 • Number 1



IN-FLIGHT REVIEW MAGAZINE

Publisher/Editor Garth Eichel
Art Director Brent Foote
Account Manager Garth Eichel

CONTRIBUTORS

Leila Beaumont
 Sue Dunham
 Garth Eichel
 Sue Kernaghan
 Bob Loblaw
 Kris Manchip
 Danielle Pope
 The Hon. Amrik Virk

For information on display
 advertising opportunities,
 contact Garth Eichel at:
garth@archipelagomedia.com

Published by



1248 Woodway Road
 Victoria BC V9A 6Y6
 Tel 250.380.3961
 Fax 250.380.3962
www.archipelagomedia.com

Please send comments
 and suggestions to
 Garth Eichel, Publisher:
garth@archipelagomedia.com

In-Flight Review (IFR) is a quarterly
 magazine published by Archipelago
 Media Ltd. for Helijet International
 Inc. All published material is the
 copyright of Archipelago Media Ltd.
 No part of this publication, in whole
 or in part, may be reproduced
 without the written consent of the
 publisher. The written and photo-
 graphic material published in
In-Flight Review does not necessarily
 reflect the views of the air carrier or
 the publisher. Information and
 images produced in the magazine
 are believed to be accurate and
 truthful, but the publisher assumes
 no responsibility for errors.

Advertising in *In-Flight Review* magazine
 does not indicate an endorsement by
 Helijet International Inc. or Archipelago
 Media Ltd. ISSN 1916-5080

DEPARTMENTS

- 04 EDITORIAL**
 B.C.'s Bio-Economy
BY THE HON. AMRIK VIRK
- 06 NEW & NOTABLE**
 New Offerings
BY BOB LOBLAW
- 10 HELIJET CREW**
 Jay Minter, Director
 of Marketing
BY GARTH EICHEL

Page 24: Ice caves abound
 beneath the Pemberton Ice
 Cap. Chris Trantina/Head-Line
 Mountain Holidays photo

FEATURES

24 UNDER THE ICE CAP

The hidden world
 of ice caves

STORY BY SUE DUNHAM

30 NATURAL RESOURCE

Genomics research
 propels B.C.'s
 bio-economy

STORY BY GARTH EICHEL



Page 30: Genomics research
 underpins B.C.'s bio-economy.
 Bigstock photo

- 14 INVIGORATE**
 Good Will Riding
BY GARTH EICHEL
- 18 DWELL**
 Living Space
BY DANIELLE POPE
- 38 MONEY MATTERS**
 Recognize & Reward
BY LEILA BEAUMONT
- 42 EXCURSIONS**
 Fishing for Fossils
BY GARTH EICHEL
- 46 EPICURIOUS**
 Backcountry Cuisine
BY SUE DUNHAM

Cover: Guests on a Head-Line
 Mountain Holidays tour of the
 Pemberton Ice Cap encounter a
 30-foot-high column of frozen
 water. Garth Eichel photo

British Columbia's Bio-Economy

B.C.'S LIFE SCIENCES SECTOR MAKES A MEANINGFUL CONTRIBUTION



Hon. Amrik Virk, Minister of Technology, Innovation and Citizens' Services

THIS ISSUE OF Helijet's on-board magazine includes a feature article, "Natural Resource" (page 30), which examines British Columbia's rapidly growing bio-economy, with a particular focus on how genomics research is influencing the provincial economy, healthcare delivery, and the wider world of scientific research.

To be sure, B.C. is home to one of the most vibrant life sciences industries in the world, contributing — according to the latest life sciences report from PricewaterhouseCoopers — an estimated \$14.4 billion to B.C.'s GDP and employing almost 180,000 people who are changing the lives of British Columbians.

Life sciences is a sector that involves ingenuity, research and innovation; and has evolved to encompass a wide range of disciplines — from the study of health care to plants, genetics, bio-engineering and many others.

Life sciences is one of five key subsectors in our recently released #BCTECH Strategy. There is no doubt that the strength and impact of this sector is growing. Since 2001, the B.C. Government has provided close to \$671 million to Genome BC and the Michael Smith Foundation for Health Research — important research that is changing lives in every corner of the province.

That research is paying dividends. Life changing innovations have included an improved system for brain cancer detection in children, next generation sequencing for breast cancer genes, and a smart-phone device that enables people to measure blood oxygen levels. And these are just a few examples.

Part of a recent B.C. Government investment of \$34 million to Genome BC is supporting a project that uses genome sequencing to identify genetic disorders in newborns at B.C. Women's Hospital. This brings the total B.C. Government investment to a record \$221.5 million to Genome BC. It is breakthrough research like this that is helping B.C. to attract and retain talented researchers who are developing some of the most advanced research in the world.

B.C.'s life sciences industry is particularly strong in the early research and development stages. More than 600 companies are engaged in drug and pharmaceutical development, research testing and medical labs, medical devices and equipment, and agricultural feedstock.

Through our #BCTECH Strategy we are creating avenues to cultivate skilled talent. Investments in our post-secondary institutions are generating top-quality researchers who are committed to innovation. UBC is ranked number one in Canada for producing high-quality patentable research.

Our life sciences sector is making tremendous strides — growing from an emerging sector to a reputable powerhouse. Our #BCTECH Strategy will empower the life sciences sector to lead with innovative technologies that are changing lives and maximizing our province's international reputation as a global leader in this field. **1**

EN ROUTE WITH HELIJET

Spend more time where you want to be

Helijet

30
YEARS





AERO MEDICAL PARTNERSHIP

This past November Helijet and Richmond-based Executive Air Ambulance (EAA) announced a strategic business alliance and a seven-year operating agreement whereby the two companies will jointly provide dedicated, medically-equipped jet aircraft — specifically a Hawker 800A and a Learjet 31A — on a 24-7 worldwide basis. This fixed-wing turbojet air medical transport service will cater to existing and future medical assist companies, insurance companies, and private sector clients throughout North America and abroad.

“The services provided by both Helijet and EAA are certainly complementary, and we’ll be able to work together on a synergistic basis to the benefit of both firms, and their customers,” said Daniel Sitnam, President and CEO, Helijet. “Our base and aircraft, combined with EAA’s considerable experience in air ambulance service, means each of us is able to concentrate on our individual areas of expertise, while also helping deliver superior air transport services for patients, no matter where they may be.”

Sitnam cited Executive Air Ambulance’s reputation as a full service bed-to-bed private air ambulance company that has managed thousands of safe and successful transports to every corner of the globe, supported by a team with more than 170 years of combined experience in providing aero-medical services.

For its part, Helijet will operate both jets exclusively for EAA’s medical transport undertakings. From its 24,000-square-foot facility at Vancouver International Airport (YVR), Helijet will provide a home base for the aircraft, its flight crews, and EAA management and medical personnel, including registered nurses, critical care flight paramedics, respiratory therapists, and physicians.



HOTEL EXPERTISE FOR HIRE

This past January Victoria hotelier Suzanne Gatrell founded Kingsbridge Management Ltd., a new full-service hospitality management firm specializing in operating in-

dependent, small boutique hotels in Canada, the U.S. and England.

Gatrell has over 28 years experience in the hotel industry, and specializes in managing high-end boutique properties.

Most recently, she was general manager of the Oswego Hotel in Victoria. She stepped into that role in 2008 and navigated the hotel through a challenging recession to make it one of the most successful strata hotels in B.C.

Not surprisingly, Kingsbridge Management’s first client hotel is the Oswego. As president, Gatrell takes over the full management contract of the hotel, where she will continue as general manager,

supported by a dedicated team cultivated from within the organization.

"The Oswego Hotel is our flagship hotel," says Gatrell. "Together, with my exceptionally diverse team, we are focusing on the day-to-day management of similar small boutique hotels." She adds, "I see lots of opportunities here on Vancouver Island, where for the Oswego we have built a strong repeat visitor base among the government, corporate and leisure markets who look for hi-touch, personalized service within the heart of a vibrant community."

oswegohotelvictoria.com



READYING FOR RIO

The City of Langford and Bear Mountain Resort are rolling out the red carpet, and hanging "Rio Ready" banners throughout the community, in recognition of the area's Olympic athletes as they prepare for the summer games in Rio this August. And to help the Canadian National Mountain Bike Team on their way Bear Mountain Resort is hosting a "Road to Rio" Cycling Canada Fundraising Gala on March 5 to raise funds and support for elite level athletes, as well as Junior and Under 23 prospects. A portion of the event proceeds will also be invested in local youth programming through Cycling BC.

The Road to Rio Fundraising Gala on March 5 also coincides with the 2016 Bear Mountain Canada Cup XC race, the first of 10 International Cycling Union sanctioned races in which Canadian athletes will be competing for a spot on the national team headed for the 2016 Summer Olympics in Rio.

For more information, and tickets to the gala, visit bearmountain.ca

PARTNERS IN DINE.



The O Bistro at the Oswego Hotel offers a unique and dynamic West Coast dining experience unlike any other. Enjoy exquisite local ingredients for intimate dining or chillout with friends and local jazz in the lounge on Wednesdays.



500 Oswego Street | Victoria, BC | T:250.294.7500 | 1.877.767.9346
reservations@oswegovictoria.com | oswegovictoria.com

CHIC. URBAN. INDIVIDUAL.
IN THE HEART OF VICTORIA, BRITISH COLUMBIA



victoria's ENTERTAINMENT centre

social

scene

sound

GAMES ROOM

watch all the great games
win at pool
take aim with darts

STICKY WICKET

authentic pub food
with an inspired twist,
great social atmosphere

CLUBHOUSE

dance the night away
with Degree One, dance
favorites old and new

BIG BAD JOHNS

wildest hillbilly
bar in Canada

STRATH LIQUOR STORE

best selection of ales,
wines and spirits in Victoria

DISTRIKT

victoria's newest
nightclub and
live music venue

919 douglas street
strathconahotel.com



KISS2CURE

Helijet put its money where its mouth is on February 11 when it arranged for two of the company's helicopters to "kiss" in support of the Kiss2Cure campaign — a joint initiative by Prostate Cancer Canada (PCC) and the Canadian Breast Cancer Foundation (CBCF) BC/Yukon Region — towards raising awareness and funds for both organizations.

Launched just prior to Valentine's Day, Kiss2Cure harnessed the power of love by inviting Canadians to share photos of themselves kissing loved ones on Instagram or Twitter using the hashtag #Kiss2Cure. Entrants were then invited to make a donation towards research and care for those affected by breast and prostate cancer, and to sweeten the deal participants were eligible for a chance to win one of five romantic getaway flights on Air Canada.

"Cancer is so close to all of us: we all know a friend or family member who is battling the disease," said Daniel Sitnam, President and CEO, Helijet. "The fact is, one in every nine women will be diagnosed with breast cancer during their lifetime, while one in every eight men will be diagnosed with prostate cancer. When you know someone who is affected it makes you want to help. That's why we're a major supporter and sponsor of both cancer organizations."

In keeping with that, Helijet partnered with the CBCF – BC/Yukon Region and PCC in 2014, supporting both organizations towards raising funds and awareness about the two most common cancers in women and men. To that end, Helijet repainted two of its Sikorsky S76 helicopters in the distinctive pink and blue colours of both organizations, and directs a portion from every passenger ticket sold to CBCF – BC/Yukon.

HEALING DANCE

Canada's Royal Winnipeg Ballet comes to Victoria April 1 & 2 with a production of *Going Home Star – Truth and Reconciliation*. Based on a work by award-winning novelist Joseph Boyden, this heartfelt ballet honours the experiences of First Nations Residential School survivors, opens important dialogue about truth and reconciliation, and finds hope for healing through dance.

dancevictoria.com



LINKED TOGETHER

Victoria golfers have always enjoyed the luxury of hitting the links in January when most other Canadians are shoveling snow out of their driveways. Now they have something else to crow about since Golf Canada and Bear Mountain Resort announced a four-year partnership to make Bear Mountain the official Canadian training centre for Team Canada's National Squads.

Bear Mountain Resort, owned by Ecoasis Developments LLP, will provide athletes and coaches with year-round access to all onsite golf and resort facilities including the fitness facility and soon to be constructed premium golf training



amenities. Most importantly, Team Canada will have access to Bear Mountain's award-winning 36-hole Nicklaus Design golf course, located on 836 acres of scenic rolling hills.

"We are very excited to begin this partnership with Bear Mountain, and we look forward to having our Team Canada players training at one of the best facilities in Canada," said Golf Canada CEO Scott Simmons. "The facility is well-equipped to provide year-round support for our athletes, coaches and high performance training initiatives."

The Canadian training centre at Bear Mountain will serve as a home for Team Canada's training camps, primarily for Development Squad athletes during the shoulder season between October and March.

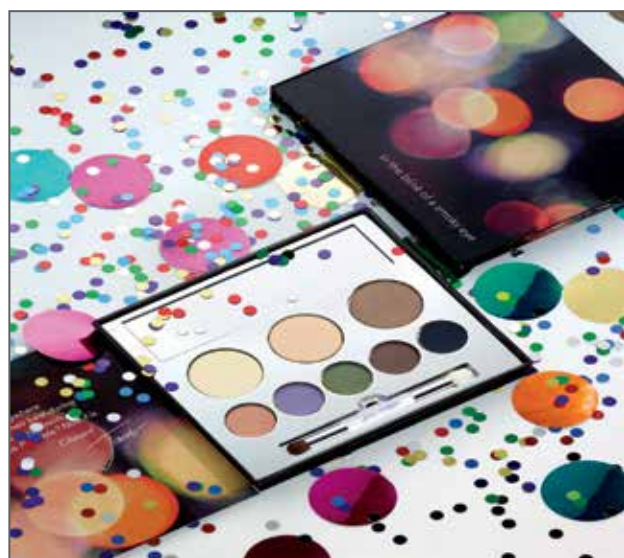
"We are very proud that our facilities and community have been recognized by Golf Canada, and we are pleased to move forward as their partner and their first Canadian training facility," said Dan Matthews, President and CEO of Ecoasis. "Supporting athlete development is one of our foundational aspirations at Bear Mountain. Golf Canada recognizes this commitment, and we welcome them and their young performance athletes and coaches to train with us."

bearmountain.ca

FORM & FUNCTION

Tired of tripping over broken toys and angular pieces of Lego? Well, take heart: Leka Design on Fort Street in Victoria is carrying a new line of aesthetic toys from Kido that promote creativity and discovery in wee ones. Each Kido toy is thoughtfully designed to engage and stimulate children with a variety of shapes, colours and sizes that power the imagination. They're attractive, too, and don't hurt nearly as much as Lego bricks when you step on them.

lekadesign.com



JANE IREDALE COSMETICS

Makeup that's good for your skin

Available exclusively at Willow Stream



WILLOW STREAM

A FAIRMONT SPA

fairmont.com/empres | 250 995 4650



FOOD DRINKS OCEAN

BREAKWATER
CAFE + BISTRO

Open 9AM-11PM, seven days a week
199 Dallas Road, Victoria
(Just 100 metres from the Victoria Heliport)

breakwaterbistro.ca 250.386.8080

Keeping it Fresh

JAY MINTER, DIRECTOR OF MARKETING, CONNECTS WITH PASSENGERS, PARTNERS AND EMPLOYEES



Above: Jay Minter, Helijet's Director of Marketing, learned firsthand the value of customer service and personal relationships as a passenger services agent, carrying the experience with him into senior management. Heath Moffatt photo

HOW HAS HELIJET managed to succeed in business for almost 30 years? The answer to that is broad and varied, but for Jay Minter, Helijet's Director of Marketing, it comes down to one thing — relationships. Specifically, relationships with customers, business partners, and co-workers.

Minter learned this maxim on day one when he applied to become a passenger services agent (PSA) with Helijet in May 1997. He remembers his job interview with Carla Kovacs, now Helijet's Director of Client Relations, being more of a casual conversation than a grilling.

"You couldn't really call it an 'interview,'" says Minter. "It was just a relaxed conversation where we got to know each other, like two friends meeting for the first time. I knew right away this was the kind of company where I could belong."

Nineteen years later Kovacs and Minter are still friends and colleagues.

Working as a PSA in Vancouver led to other friendships, too, both inside and outside the company.

"As a PSA you are on the front line of customer service, and that teaches you just how important personal relationships are to your business," says Minter. "Helijet is built on relationships, and maintaining those is important in a highly competitive marketplace where customers have choices."

Minter carried this experience and understanding with him when he transitioned into management, first as Acting Director of Passenger Services, then as Coordinator of Sales and Marketing, before eventually becoming Director of Marketing in 2006.

Tasked with the job of "putting bums in seats" means Minter wears many hats in his current role — responsible for everything from advertising, marketing and sponsorships to the company's reservation system, website, and various social media networks.

The latter is where Minter shines. He was early to recognize and embrace the potential Twitter, Facebook, Instagram and other channels had for maintaining relationships, be it with customers,

“The people I get to work with each day are what makes the job so worthwhile — they’re like family.”

— Jay Minter, Helijet’s Director of Marketing

business partners or fellow employees. Indeed, Minter’s weathered iPhone is never far at hand as he keeps his fingers on the pulse of what’s happening online at any given moment.

“Jay is extremely savvy about IT and social media,” says Daniel (Danny) Sitnam, President and CEO, Helijet. “He’s very attuned to the markets we serve, always staying connected to our front line needs, and the needs of our customers. At the same time, he is continually finding new partnerships and ways to advertise and heighten awareness of Helijet. That’s proving invaluable as we branch into new areas.”

Staying on top of the rapidly changing social media landscape is a near full-time job for many marketing directors. But what many consider work, Minter regards as a pleasurable pastime. In fact, when he is not tweeting or posting on behalf of Helijet he keeps busy updating his “On The List” blog, found online at jayminter.com, as well as writing for other online sites.

Minter is passionate about Vancouver and what the city has to offer, particularly its arts and entertainment scene. “On The List” is his way of sharing information about what’s going on locally in terms of music, performing arts, galleries, movies, culture, sport, fashion, shopping and travel. What is more, he regularly posts a “Picks of the Week” that highlights his favourite happenings for the week ahead.

“Jay is very passionate about the city,” notes Sitnam. “He goes to a lot of shows, events, openings, and functions, and is well respected in the restaurant and concierge scene. He’s really dialled into what’s happening in Vancouver, and he brings Helijet along with him on that.”

Minter’s online presence is certainly impressive, but he will be the first to acknowledge that social



HELIJET FLEET



SIKORSKY S76A



BELL 206L3 LONGRANGER



SIKORSKY S76C+
(BC AMBULANCE SERVICE)



EUROCOPTER AS350 B2



LEARJET 31A



HAWKER 800A

SUPERBATH

AUTO DETAILING WHILE YOU FLY

1.  Leave your keys
2.  Travel with HeliJet
3.  Return to a clean car

✦ Leave your keys ✦ Travel with HeliJet ✦ Return to a clean car ✦



MOBILE SUPERBATH CARWASH

Exclusive Offer for Helijet Customers Only

THE SUPERBATH LITE!

*Includes Exterior Steam Clean/Hand Wash, Clean Windows, Interior Vacuum, Steam Clean Floor Mats, Wipe Down of Dash.

CARS \$65 • TRUCKS or VANS \$85
(really dirty cars not eligible for SB Lite)

Full Service Detailing Also! Call 778-432-4444 • SUPERBATH.CA



Jay Minter attends a media event at Helijet's Downtown Vancouver Harbour Heliport. Garth Eichel photo

media is not an end in itself. Rather, he sees it as a collection of valuable communication channels that dovetail with his network of personal and professional relationships, which often results in valuable inspiration and ideas.

"It's important to keep things fresh," notes Minter. "We need to be continually improving our service, and reaching our customers in new ways. Networking and staying connected helps me observe what others are doing, and bounce ideas off people." He adds, "It also helps to see your business through the eyes of other professionals."

Relationships within Helijet are important, too.

"The people I get to work with everyday are what makes the job so worthwhile — they're like family," says Minter. "That's why most of us stay at Helijet. Some people leave for greener pastures, but many come back after working elsewhere. That's because there are few other companies in the aviation industry that afford the same degree of respect, lifestyle and reputation."

Credit for this, he says, is owed largely to the leadership and personality of Sitnam.

"Danny makes it like family," says Minter, echoing a theme widely shared among Helijet's 145 employees. "He's a very hands on president who knows all the people working for him. He's created a family dynamic that works; how we care for and respect each other at work carries over into the service we provide our customers everyday." With a knowing smile, he adds, "and that's what keeps them coming back." 

New Versatility and Capacity for Canada's West Coast

Nanaimo Port Authority's Liebherr 500 Mobile Harbour Crane offers new solutions to global shipping connections for:

Containers, Bulk, Break Bulk and Project Cargo




NANAIMO
PORT AUTHORITY
The Solutions Port

For more information
deepsea.npa.ca
250-753-4146 Ext. 229

What can IB at GNS?

Spend the day as a Gryphon! See what makes our school unique. Speak to students and teachers, learn about the International Baccalaureate (IB) curriculum, attend classes and enjoy your own, personalized Open House. At GNS, you'll learn what it takes to be your very best. But don't take our word for it. Come and experience it for yourself!

Do. Find. Be. Your Best.

GNS



Glenlyon
Norfolk
School

mygns.ca



Good Will Riding

BEAR MOUNTAIN RESORT SETS ITS SIGHTS ON BECOMING THE MOUNTAIN BIKE CAPITAL OF CANADA



WHEN I WAS A KID I lived for bike jumps. My pack of buddies and I even went so far as to build a dirt trail in the forest behind our elementary school, complete with plywood ramps and water-filled trenches. Getting air on my lime-green, banana-seat CCM made for some spectacular thrills, chills and spills.

Three decades and change have elapsed, but I still crave the exhilaration of biking fast through a forest trail, winding past trees and through mud-pits. I'm not as keen on hitting jumps as my 12-year-old son, Rowan, but it's still fantastic watching him channel my inner Knievel. Fortunately, that is an option now since Bear Mountain Resort in Victoria opened its Dirt Jump Park and network of mountain bike trails to the public last year.

Rob Fawcett, Bear Mountain's cycling manager, invited Rowan and I to join him for an afternoon ride this spring and experience the variety of mountain bike trails recently developed on the property. It was my first time out this year so we elected to take it easy, opting for the five-kilometre Family Flow Trail that leads from the golf course, down through thick forest, to the Dirt Jump Park.

While technically for "beginners", this trail offers plenty of speed and challenge for riders of all abilities. That's because it was designed with input from the Canadian National Mountain Bike Team, which has its official training centre located at Bear Mountain Resort.

"We built the Family Flow Trail to simulate features of the same trail the athletes will be riding in Rio at the 2016 Summer Olympics," says Fawcett. "Similar in design, it uses the natural geography to make the trail flow, which keeps it interesting and enjoyable for everyone, from beginner to elite athlete."

Rowan and I are at the low end of that scale, but the opportunity to ride an Olympic-style trail certainly appeals. We follow Fawcett's lead and hit the

Jordie Lunn, Bear Mountain's bike park manager, flows through a corner on a single track trail designed to simulate the course Canada's athletes will be competing on at the 2016 Summer Olympics in Rio.

trail with gusto, picking up speed at the top, and keep it rolling through the corners. Mud starts flying from my tires, freckling my face with beads of orange dirt. After two kilometres I'm splattered from head to toe, and loving it.

The terrain alters as we get into the trees. Here the trail narrows and a series of roots and rocks presents greater challenge, forcing us to focus as we navigate each new obstacle. My legs and lungs start pumping harder; the pace of my breathing rising and falling with each thumb-click of the gears. Rowan soon starts to pull away and I wonder what burns more — the lactic acid accumulating in my thighs or the harsh reality of middle age.

The notion that I'm probably past my prime is driven home when we get to the bottom of the trail and enter the Dirt Jump Park. Here we find a dozen young guys free riding and performing incredible aerial feats off enormous jumps. Rowan and I decide we are content to be spectators.

After watching the airshow for half-an-hour, Fawcett leads us to another nearby trail that is scheduled to be completed in time for the Canada Cup race on March 5. Interestingly, this intermediate level 10-kilometre single track trail is being developed with the help of the Southern Vancouver Island Nature Trails Society, which Bear Mountain has partnered with as it seeks to connect its own network of mountain bike trails to others in the area.

After a quick tour we make our way back up to the resort where we join Fawcett for libations in the lounge. It's a great way to cap a fantastic afternoon of riding, but I'm puzzled by one thing: why would a golf resort invest so much money, energy and manpower developing a network of mountain bike trails, and then make them free to the public?

"We needed to look beyond golf, and mountain biking was a natural area for us to expand," explains Dan Matthews, President and CEO, of Ecoasis Developments, which acquired Bear Mountain Resort in October 2013. "We watched how mountain biking developed at Whistler and saw firsthand how it can be taken out of the



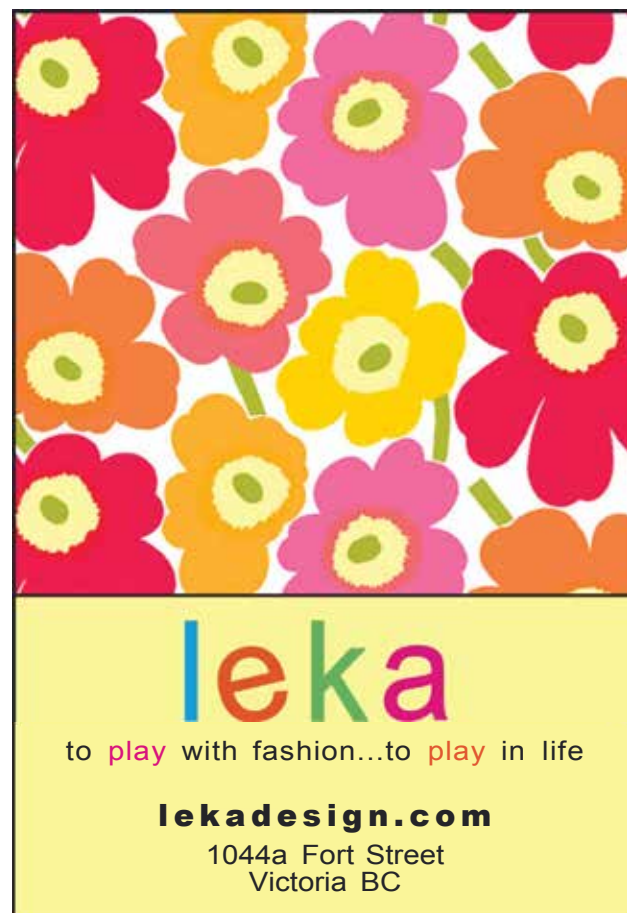
DANCE VICTORIA

The World's Best Dance
at Victoria's Royal Theatre
Fly with us.

DanceVictoria.com

SEASON SPONSOR
DERMA SPA

Ballet BC's Rachel Meyer. Photo: © Michael Szobosan



leka

to **play** with fashion...to **play** in life

lekadesign.com

1044a Fort Street
Victoria BC



National team athletes Raphaël Auclair (centre) and Rachel Pageau (right) coach kids at one of several free training clinics offered at Bear Mountain.

shoulder seasons to become a year-round activity that resort guests and local residents could enjoy.” Moreover, he adds, “Victoria has a strong mountain biking community, and we are one of the largest landowners in the region. They just needed an area to embrace them.”

Bear Mountain’s significant investment in trail development, and making it accessible to the public, was a good first step towards mending fences with local mountain bikers. Indeed, when Ecoasis acquired Bear Mountain in 2013 the resort’s reputation was at a low ebb with the mountain bike community, largely as a result of unfortunate decisions made by the previous owners to develop the property with little regard for the area’s existing network of trails.

“I had to reach out to them,” says Matthews. “Prior to development there was a rich mountain bike scene here. We wanted to bring that back, and make Bear Mountain the mountain biking capital of Canada.”

To that end, Matthews initiated a series of steps, backed by meaningful investment and commitment.

First, he reached out to share his vision with Hugh Macdonald, Executive Director at Sporthost Victoria, a well-connected not-for-profit society dedicated to developing sport tourism in Victoria. Through discussions with Macdonald, Matthews recruited two of the most respected names in Victoria’s cycling community — Rob Fawcett as Bear Mountain’s cycling manager, and Jordie Lunn as Dirt Jump Park manager. Fawcett has been a

prominent figure in Victoria’s mountain bike community for years, while Lunn is a renowned professional free rider and former national team athlete. Fawcett and Lunn lent their respective expertise to the design, development and construction of the trail system and park, and helped make inroads with the local cycling community.

The next step was to attract the best mountain bikers in Canada. Accordingly, Matthews and Fawcett approached Dan Proulx, head coach of the Canadian National Mountain Bike Team, in 2014 with the generous offer of a six-year deal that would make Bear Mountain the team’s national training centre through to the 2020 Summer Olympics in Tokyo.

Coach Proulx could hardly believe his good fortune.

“Most corporate sponsors are not so visionary,” says Proulx. “Bear Mountain is an amazing place to train. We’ve had input on trail development, and the freedom to create a training environment that matches the demands of Olympic competition. The Family Flow Trail is the same width, style and frequency of features as the trail in Rio. That’s a huge advantage for our athletes to be able to train like that. As well, Bear Mountain has a full-time staff maintaining the trails, and accommodates national team athletes in the resort for a two-week training camp prior to the first Canada Cup race on March 5.” With an appreciative smile, he adds, “They’ve surpassed anything we could have envisioned.”

Altruism aside, Matthews sees real benefits to hosting the national team at Bear Mountain: “It’s incredibly exciting to see all the top athletes in Canada migrating here to live, train and compete in our area. That is going to make something really special happen in the region. Having elite mountain bike athletes train at our facility, and develop programs for our community and guests, is a massive endorsement.”

For their part, national team coaching staff and athletes put on a number of training clinics free to the public, and contribute their expertise developing Bear Mountain’s cycling program for people of all abilities, particularly beginners and families, which Fawcett and Matthews see as key to growing the sport.

In keeping with that, Bear Mountain has its own cycling facility, The Hub, which can provide maintenance and repairs, as well as bike rentals and

instruction, including a three-hour beginners Mountain Bike Experience that combines bike rental, guiding and instruction. And for those wanting something more ambitious there are lessons for intermediate and advanced cross-country, free riding and dirt jumping.

Access for all ages and abilities is also guiding the resort's cycling program to new heights with plans for a sightseeing gondola, equipped with bike racks, that will transport riders to the top of Bear Mountain. As well, a fleet of e-bikes is being introduced for those needing extra assist on uphill stretches.

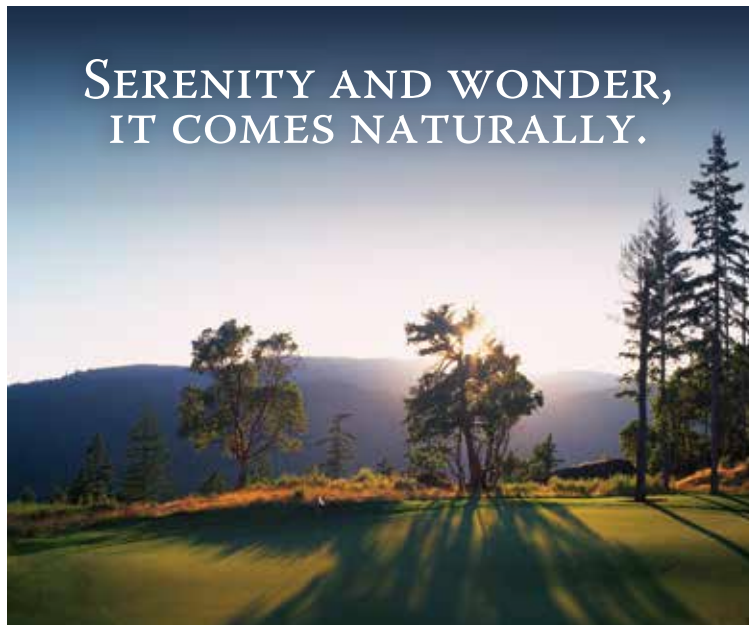
"Mountain biking is meant to be fun, but it's not a sport easy to get into as a beginner, or later in life, so we're catering to that," says Fawcett. "That's why we spent our initial capital on the beginner and intermediate trails, and developed training programs with national team athletes. We have to keep the kids and families safe, otherwise we'll lose their interest."

There's little chance of losing Rowan. While loading our bikes into our truck at the end of the day, I asked him what he thought of the whole experience. It was no surprise that he answered my question with a question: "When can we go again, Dad?" 🏠



Bryce Starling gives a nod to Helijet, spinning his bike 360 degrees through the air off a jump at the Bear Mountain bike park.

SERENITY AND WONDER, IT COMES NATURALLY.



OUR NEW NEIGHBOURHOODS ARE ON THE HORIZON.

Unparalleled for its design and vision, Bear Mountain is Canada's preferred urban resort and residential community rich in both culture and unique amenities. The resort weaves its way flawlessly between the rolling fairways of its Nicklaus Design Golf Courses and The Westin Bear Mountain Victoria Golf Resort & Spa. Both Cycling Canada and Golf Canada call Bear Mountain home, and now you can too.



GATED TOWNHOMES ♦ TOWNHOMES ♦ EXECUTIVE BUILDING LOTS ♦ CONDOMINIUMS

REAL ESTATE ENQUIRIES: 250.391.6100

BEARMOUNTAIN.CA/LIVEHERE



Outdoor Living Space

RECREATING EXTERIOR SPACES
BRINGS NEW LIFE TO THE HOME

HEATHER LAWSON spent years ignoring her backyard until, one day, she couldn't.

"It was so overgrown, and the lawn had become a constant source of mud," says Lawson. "The dogs ran around out there, making it worse and worse. We really didn't pay attention to our backyard, but it was slowly becoming an issue. We knew we had to do something."

For Lawson, the choice was simple — it was time for an outdoor renovation.

To be sure, transforming unused yard space into a livable area is one of the most effective ways to create an extension of your home. Even with a limited budget, or building restrictions, working with pre-existing land can make the most of underutilized yard space, no matter the size. What is more, outdoor renos achieve more than simply tidying up a forgotten mud heap. They can create an outdoor oasis, reduce yard maintenance, and add significant value to your home.

But before you gather shovels and start planning a day trip to your favourite home improvement



Above: A backyard renovation can turn unused space into a beautiful extension of the home. Acacia Landscape photo

store, consider the scale of your ambitions, from hardscaping and softscaping, to lighting and irrigation. Then ask yourself if the project is something you can manage on your own, or if it's something best handled by a professional.

Whatever the case may be, the following toolbox of tips may prove useful in making your space as successful as it is personal.

FIND YOUR VISION

The first step in launching an outdoor renovation is to invite your imagination to come out and play.

Paul Muenzer, principal at MnR Hardscaping, says the key to any successful renovation is to start with a vision. Often, the first job he and his team are tasked with is helping clients visualize their ideal area. The ultimate goal, he says, is to create a comfortable space.

"You have to think about the big picture," says Muenzer. "Ask yourself what is most important, and how are you going to tie it in with the rest of the home?" In keeping with that, he adds, "How much



Authentic Idar



creative + classic

INTERNATIONAL AWARD WINNING
JEWELLERY DESIGNERS • SINCE 1972

946 Fort St, Victoria • 250-383-3414 • www.idar.com

Jewellery Design © 2016 IDAR



*F*ine clothing, accessories, custom tailoring
and superior service have been
in our family since 1917.

*We welcome you to our store in Victoria
to discover the colors, texture and quality
of our unique merchandise.*

Kane Straith

Fine Clothing, Sportswear & Accessories

#110-735 YATES STREET ST. ANDREWS SQUARE
250.384.8087 kstraith@shaw.ca



“Aesthetics matter, but more importantly you should aim to please yourself and do what makes sense.”

— Ian Robertson, MnR Hardscaping

time do you want to commit to upkeep? And how will the area you have in mind interact with the sun, or the rain? It has to be livable for you to enjoy it.”

When Lawson began working with MnR, her vision was to eliminate grass and dirt from the backyard and replace it with slate. Muenzer helped her imagine what that could look like, but challenged her to take the space further by incorporating spot lighting and a water feature, along with underground irrigation for her plants.

“He showed us options we never would have considered before,” says Lawson. “It’s gorgeous now and we’re out there all the time, enjoying cocktails by our outdoor fireplace. It’s the space I’ve always dreamed about — and now it’s a reality.”

WORKING WITH REALITY

Ian Robertson, Muenzer’s partner at MnR Hardscaping, has been landscaping for over seven years and knows working with the existing environment is essential for success — both in hardscaping (stone-based) and softscaping (plant-based) opportunities. Before turning sod he advises clients to

investigate city planning restrictions and bylaws, while also ensuring there is no buried plumbing, gas lines, tanks or electrical systems.

That done, you can begin considering how your lifestyle might match your intended use of the space.

For example, if you love barbecuing, but hate the cold, consider building a shelter with ventilation, light and weather protection. If you’ve always wanted a garden plot, but don’t have the time or patience to water regularly, then plan to incorporate an irrigation system.

Materials make a difference, too. Gravel, rock or slate offers a clean look, and is easy to maintain, but it will also increase the cost.

“Aesthetics matter, but more importantly you should aim to please yourself and do what makes sense,” says Robertson. “This new space will become part of your home.”

There’s no minimum size to your outdoor canvas — even a square patio with a table and chair can be made into something special. If done right, a renovated outdoor space can become an extension of the home, offering a natural oasis to relax in, a space for entertaining, or even an outdoor play room for children.

What is more, outdoor renovations can significantly increase the value of a home.

Of course, any outdoor renovation is going to cost money, so it is important to determine a budget beforehand, and stay within it. And it’s



PRIDE IN PROPERTY



Based in Victoria's beautiful Oak Bay community, MnR Hardscaping is a full-service landscaping and hardscaping company that designs and builds unique custom features for residential and commercial clients. We specialize in a range of services that will add value and enjoyment to your property, including:

- Interlocking brick walkways, driveways & patios
- River rock gardens
- Irrigation of lawns and gardens
- Installation of water features
- Lighting installations

“Over the past two years I have hired MnR Hardscaping for several projects, ranging from landscaping and patio brickwork, to outdoor lighting and irrigation. The company's professionalism, experience, and attention to detail is what sets them apart from their competitors.”

— Jesse Gough
Oak Bay, Victoria

Contact us today for your free consultation:

mnrhardscaping.ca | phone: 250 920 9883 | email: info@mnrhardscaping.ca



better to scale back ambitions than cut corners.

“You need to start with the essentials — base work like plumbing, electrical, and fundamental ground work,” says Robertson. “The features can follow once you have laid all the groundwork. And if budget is an issue you don’t have to do everything all at once. You can add things down the road as finances permit. But whatever you do, be sure to do it right the first time, or don’t do it at all. The cost of redoing work or continually fixing and replacing materials over time just isn’t worth any short-term savings.”

INCLUDE THE ELEMENTS

Incorporating fire, earth and water to your space can make your outdoor design a work of art.

When Lawson began her renovation journey, she wasn’t convinced she needed extras like lighting, water features, or irrigation. She wanted something simple and accessible. Nothing fancy.

Muenzer suggested she think beyond bare necessities. He encouraged her to consider how an effective lighting system and an outdoor propane fireplace could prolong evenings outdoors with

family and friends. Moreover, he convinced her that an automated irrigation system would eliminate the hassle of having to regularly water plants and shrubs by hand.

Lawson confesses she and her husband are not much for D.I.Y. projects. Both would rather spend time enjoying their outdoor living space than maintaining it. Accordingly, Muenzer installed a variety of automated options such as lighting timers and pre-programmed irrigation systems. At the same time, he worked with Lawson to select low-maintenance plants, trees and shrubs that thrive on neglect.

“We spend so much more time outdoors now,” says Lawson. “What was once an eyesore is now a source of pride.” She adds, “We entertain a lot, and the combination of the fireplace and lighting allows us to stay out after the sun goes down. Our family and friends love it.”

Staying within the project’s budget also meant there was enough money left over to incorporate a water feature and a few garden ornaments.

Frivolous as it may seem, a water feature is key to any outdoor oasis. That’s because the therapeutic sound and presence of water helps individuals



wenner
Group of Companies

wenner.ca

Electrical | Audio/Video | Security | Shading

250.758.2231

Connecting communities since 1945

“Living inside your house is great, but if you can move outside and enjoy it, that’s even better”

— Rob Andrews, Wenner Group of Companies

relax, thus turning any outdoor living space into a miniature retreat from everyday stressors.

INDOORS MOVES OUTDOORS

The downside of many outdoor renovations is that they often end up looking pretty, but are not all that practical for everyday living. With the right accessories, however, you can connect the indoors to the outdoors and turn your exterior space into a seamless extension of the home.


“Living inside your house is great, but if you can move outside and enjoy it, despite the weather, that’s even better,” says Rob Andrews, Director of Business Development with the Nanaimo-based Wenner Group of Companies. “What we can do with outdoor space has changed dramatically.”


Andrews notes that everything from heating systems, outdoor kitchens and dining areas, to audio speakers and even outdoor television setups, are trending as people seek to keep comfort levels consistent inside and outside the home.

Furniture matters, too. Couches and chairs employing soft, durable fabric should be comfortably positioned to make gathering easier. And familiar household items, like coffee tables, throw pillows, or oversized wall clocks, can foster an indoor vibe outside the home.


“If you’re smart about how to enhance your home you’ll get a lot of pleasure out of it,” says Andrews. “And, if you decide to sell, it may let you command a higher price.”

Having made the leap to functional form, Lawson is already imagining new ways to enhance her outdoor living space this spring. Specifically, she is eyeballing the addition of French doors to better invite guests outside. And if that doesn’t break the bank, she envisions a pergola shrouded in grape vines to provide shade and keep the space framed.

“Our space is something we’re really proud of now, and I can’t wait to see what else we’ll do with it,” says Lawson. “Originally, I just wanted to get rid of mud. Now, instead of hiding our backyard, I want it to show it off.” 



ACACIA
LANDSCAPE ARCHITECTURE
PLANNING & SITE DESIGN



Landscape Architect:
Stephen McLeish
(BCSLA, CSLA, ASLA)


DESIGN

BUILD

MAINTAIN

250.595.0527
acaciavictoria.com

Landscaping Your Lifestyle







Alicia Todd-Wenner
Real Estate Advisor

Spring is here.

It's a beautiful time to make a move to Vancouver Island.

Alicia Todd-Wenner, Real Estate Advisor
Mobile: +1 250 816 3991
alicia.todd@evcanada.com | aliciatodd.evcanada.com



ENGEL & VÖLKERS

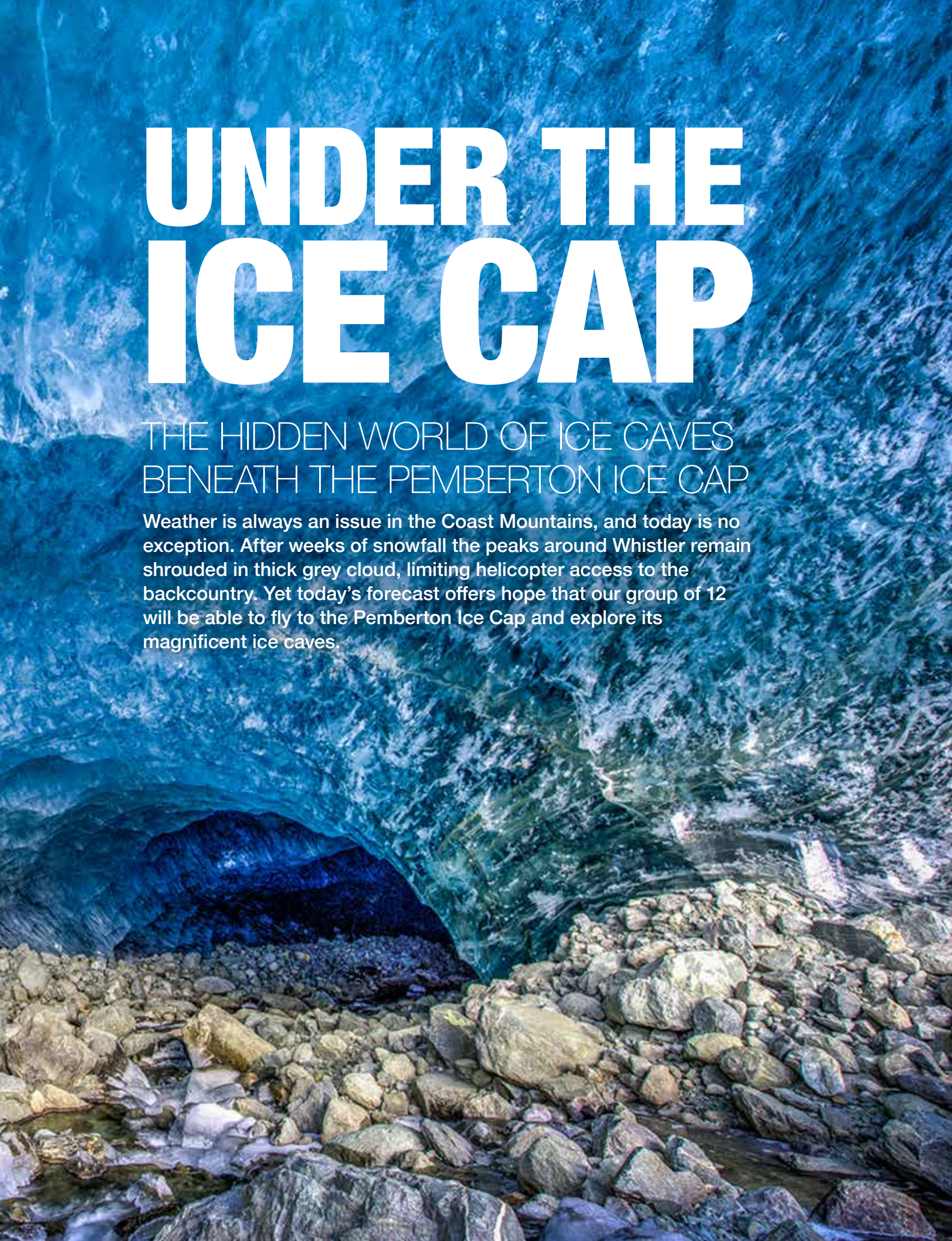
ENGEL & VÖLKERS Vancouver Island
97 Commercial St. Nanaimo, BC V9R 5G3



UNDER THE ICE CAP

THE HIDDEN WORLD OF ICE CAVES BENEATH THE PEMBERTON ICE CAP

Weather is always an issue in the Coast Mountains, and today is no exception. After weeks of snowfall the peaks around Whistler remain shrouded in thick grey cloud, limiting helicopter access to the backcountry. Yet today's forecast offers hope that our group of 12 will be able to fly to the Pemberton Ice Cap and explore its magnificent ice caves.





Milling about at the Whistler Heliport, I keep glancing at the sky, wishing for a break in the weather. My hopes are realized by the time I pour my second cup of coffee: the ragged overcast ceiling begins dispersing, casting brilliant sunlight onto the surrounding snow-capped mountain ridges. Warm sunlight soon begins creeping its way down the mountainside and by mid-morning the entire valley is awash in sunshine.

My companions start unzipping their parkas and donning sunglasses when Doug Washer, President and CEO of Head-Line Mountain Holidays, arrives beaming with good news.

"It's on!" exclaims, Washer. "We're skids up in 10 minutes."

Our group hoots in excitement as we gather our gear and proceed to two waiting helicopters. After a quick safety briefing, both machines howl to life and lift off, climbing westward out of the Whistler Valley above steep forested slopes covered in pillows of snow.

Fifteen minutes later the landscape changes as the Pemberton Ice Cap appears in the forward cockpit window, revealing a remote world of rock, ice and snow. Our pilot descends towards the ice field, wheeling in a downward arc that offers everyone on board a panoramic view of a landscape rippled by the powerful forces of nature.

Approaching the surface of the ice cap, the downwash of the rotor blades kicks up a whirlwind of snow as the helicopter touches down in a spot marked by Head-Line's guides. Washer is already there, waiting to help passengers disembark and



Little is known about how old the ice caves are. Estimates range anywhere from 12,000 years to 2.5 million years old. Chris Trantina/Head-Line Mountain Holidays photo.

make their way to a rallying point not far off.

Once everyone and their gear are unloaded he signals to the pilots that it's okay to depart. Both helicopters lift off, showering us in snow, wind and noise. A minute later both aircraft are out of sight, and the thwap-thwap-thwap of rotor blades gives way to deafening silence.

The raucous excitement of getting here quickly gives way to quiet contemplation. Our group is suddenly all alone, a long way from civilization.

"It's almost eerie how quiet it is," says Shannon Pyra, a member of our group from Calgary. "It's like being on another planet."

Little does she realize there is an even more mysterious world some 50 metres beneath our feet.

Washer sets off through the powder, blazing a trail for our group to follow. After a short trek we arrive at the mouth of an enormous turquoise-blue ice cave that seems large enough to swallow a house.



The ambient light inside the ice caves varies, ranging from turquoise blue to azure, depending on location and conditions. Chris Trantina/Head-Line Mountain Holidays photo.

Washer gives us a moment to stand in awe, then advises us to turn on our headlamps and put our hiking poles to good use as we pick our way through ice-covered rocks and boulders.

Not far inside the entrance, the cave rapidly narrows and daylight dissipates, leaving us surrounded by an ominous funnel of azure light, sculpted by thousands of years of airflow and flowing water. It's like pressing pause inside a rolling wave. I feel compelled to touch the surface and am amazed at how the ice feels smooth and silky, like polished marble.

Pressing onwards, the passage constricts more and more until we are at times crawling on our hands and knees, bumping our helmets on the

overhead ceiling of ice. It's hard not to smack one's noggin against it because the ice is nearly invisible at times — in places it is perfectly clear for up to a metre or more, disrupted only by ancient bubbles of air trapped inside.

Exactly how old those tiny time capsules are is anyone's guess.

"It's hard to say how old this ice is," explains Washer. "The last glacial recession in North America occurred about 12,000 years ago, so it's been around at least that long, but that glacial period began during the Pleistocene epoch, some 2.5 million years ago. It could have formed at any time since then, but we just don't know for sure." He adds, "There's a story frozen in time there. It



Doug Washer digs a path to the entrance of a cave under the Pemberton Ice Cap. Unlike a glacier, which is shaped by physical topography, an Ice Cap lies over top and around geographical features. Chris Trantina/Head-Line Mountain Holidays photo.



Russell Walker crawls beneath a hanging ice formation for a better view. Garth Eichel photo

fascinates me to know what that is, and what we can learn from it.”

In an effort to find out, Head-Line Mountain Holidays is teaming up with Dr. Gwenn Flowers, an associate professor in the Department of Earth Sciences at Simon Fraser University (SFU), to develop an Ice Cap Research Initiative. With grant funding from the Natural Sciences and Engineering Research Council of Canada (NSERC), post-graduate glaciology students will soon begin conducting

research and taking core samples, supported by Head-Line guides familiar with the ice cap and its network of caves.

The sooner they get started the better. Washer explains the last two years have been the hottest summers on record, with the lowest levels of winter snowpack in decades:

“With snowpack almost completely gone the ice cap has no insulation and protection from the sun. We also had two monster forest fires in the area last year that dispersed ash all over, exponentially heating up the melting process. The result was that the ice cap melted and deflated more this year than I’ve ever seen in one season.” With concern, he adds, “When you see that much ice disappearing that fast, you have to wonder how long we have to explore these ice caves before they disappear.”

Changes within the caves are normal to a certain extent. Each year formations disappear and reappear as ice melts in summer and water begins flowing throughout, reshaping and polishing the ceilings and walls of the caves. Anabatic (upslope) and katabatic (downslope) winds do their part, too, swirling throughout the caves, scouring and sculpting as they go. And as the ice cap above shifts and



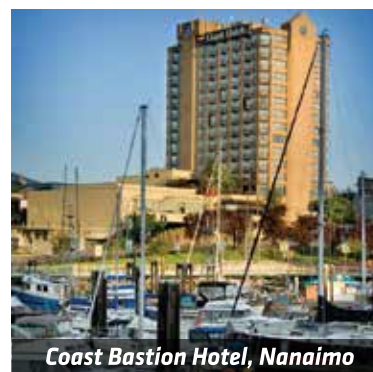
your home away!



Coast Victoria Harbourside Hotel & Marina



Coast Coal Harbour Hotel, Vancouver



Coast Bastion Hotel, Nanaimo

Enjoy our beautiful harbourside locations. As frequent travellers ourselves, we know how important your home base is. At Coast Hotels great service, comfortable rooms and friendly faces await.

- Free in-room high-speed WiFi • Helijet shuttle service to hotels
- Perks like priority check-in and points for every stay with Coast Rewards

Travelling frequently? Ask about corporate rates. **book direct at coasthotels.com or call 1.800.663.1144**

moves it creates small fissures through which water flows, dripping out in steady streams that freeze in winter to become enormous columns.

The results are spectacular. After crawling through a narrow passage we emerge into a large open space Head-Line guides have dubbed “The Cathedral”. I can see why: the cave is a grand hall arching high above our heads. In the centre is a giant column of frozen water about five feet in diameter. Even more awe inspiring is the surreal glow of aquamarine light filtering in from above. The humbling effect is enough to make even the most hardened atheist feel a spiritual twinge.

After two hours exploring the subterranean labyrinth our guides lead us out of the ice cave, back into the blinding sunshine of the surface world. I’m reluctant to leave just yet, but the helicopters are en route to fetch us. Before I don my sunglasses I turn and linger one moment longer, trying to absorb the natural wonder of what we’re leaving behind. I’m briefly filled with a sense of melancholy at how easily this natural wonder could disappear, but that emotion is soon replaced with a serene sense of gratitude for having experienced something miraculous that will remain with me the rest of my days. **H**



Head-line Mountain Holidays guide Marc Dionne (right) shows Erik Davis prehistoric ice formed some time during the Pleistocene epoch. Garth Eichel photo



Your Lakeside Resort in the City!

TOLL FREE 1.800.565.1144
PHONE 250.758.1144

4700 N. ISLAND HWY (19A)
NANAIMO B.C. V9T 1W6



WWW.INNONONGLAKE.COM

FOLLOW US ON **facebook** **twitter**



NATURAL RESOURCE

GENOMICS RESEARCH PROPELS B.C.'S BIO-ECONOMY TO THE FORE

ASK THE AVERAGE British Columbian what underpins the province's economy and many will likely think of natural resources, particularly mining, forestry and natural gas. Others might point to maritime trade with Asia, or the effect an influx of new residents is having on real estate, commercial development and construction. Tourism can't be forgotten in the mix either.

Truth is, B.C. is blessed with a diverse economy that has evolved to encompass a variety of industries and resource sectors in recent years, thus allowing the province to roll with the punches of the global economy.

Now a different sort of "natural" resource is making a difference in the province. Flying below the radar since the 1990s, genomics is propelling B.C.'s bio-economy to the fore as the province cements its status as a world leading centre for research. Indeed, genomics research being done in B.C.

promises to make a significant impact in a range of ways, affecting everything from human health and healthcare delivery, to natural resource management and drug research and development. What is more, a variety of resulting commercial applications are spawning all sorts of new companies that are employing ever more British Columbians in high paying jobs, delivering tax revenue to provincial coffers, and contributing to the province's GDP.

But for all the social and economic promise genomics offers, a number of challenges still need to be overcome before B.C. can fully unlock the incredible potential of this new natural resource.

MAPPING THE UNKNOWN

Genomics is a relatively new area of scientific research within genetics that is concerned with the sequencing and analysis of an organism's genome. A genome is the entire DNA content present within

one cell of an organism. As such, an organism's DNA acts like a set of instructions that develop and direct its growth and development. Understanding such information can reveal a wealth of information about all living things, be they humans, animals, plants, viruses, or microscopic organisms.

"Genomics is the blueprint for life, regardless of whether you're a human or a fruit fly," says Paul Drohan, President and CEO, Life Sciences BC. "Understanding the blueprint can provide understanding about root causes and the probability of diseases and ailments. It holds the key to medicines of the future — medicines that will be specific to a level we've never had before."

The ramifications of genomics research for human health first captured the popular imagination in April 2003 when the Human Genome Project was completed by the National Institutes of Health in the U.S. Designed as a resource for a broad range of biomedical studies, it held particular promise for understanding a variety of diseases such as diabetes, cardiovascular disease, and cancer, to name just a few.

PUTTING B.C. ON THE MAP

The importance of the Human Genome Project cannot be understated, but research into genetics dates back well into the last century. In fact, some of the most important and pioneering genomics research in the world was being done in British Columbia during the 1970s and '80s by Dr. Michael Smith and his colleagues at the University of British Columbia (UBC). (See sidebar, page 32.)

Dr. Smith's research into genetic engineering was of such importance that in 1993 he was awarded the Nobel Prize in Chemistry. Rather than retire to his lab, Dr. Smith put his newfound prestige to work, devoting himself to supporting genomics research in B.C. To that end, he

donated his Nobel prize of \$500,000 to research, and then challenged the federal and provincial governments to match it.

At the same time, Dr. Smith's celebrity in the scientific community helped him recruit some of the most talented scientists in the world to UBC's labs. By the time Smith died in 2000 the university was a world leading centre for genomic research.

To build on Dr. Smith's accomplishments, and keep his vision alive, the Michael Smith Foundation for Health Research (MSFHR) was founded in 2001 as part of an effort to recruit and retain top scientific minds that could attract government dollars towards health research, including genomics research projects. Fifteen years on, MSFHR has funded a wide range of projects into human health issues that will have social consequences well beyond the province's borders.

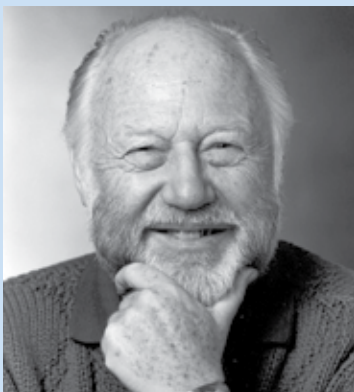
PERSONALIZED HEALTHCARE

Genomics research is set to fundamentally transform how patients are treated and how healthcare is delivered.

"In the not-too-distant future the average citizen is going to be treated in a way that is appropriate for that individual based on their genomic information," says Dr. Diane Finegood, President and CEO, MSFHR. "Your genome is a recipe for making you. If you understand the recipe you can start to understand how to prevent disease from happening, promote wellness, and how to fix things that might go wrong.

"We're at a point in history now where technology can describe these things in intimate detail and provide a greater understanding of what drugs work for whom, and under what circumstances."

Dr. Finegood speaks not only as a scientist, but also from personal experience. Her mother died of breast cancer at a time when radical mastectomy



GENOMICS PIONEER

In 1993 Dr. Michael Smith became B.C.'s first Nobel laureate, earning science's highest honour for his role in creating one of the foundational tools of genetic engineering.

Dr. Smith came to the University of British Columbia (UBC) from England in 1956 as a post-doctoral fellow. Here the young organic chemist developed a passion for molecular biology, and in 1966 he was appointed professor in the Department of Biochemistry.

In the mid 1970s, Dr. Smith began work on the procedure that would be his greatest achievement — site-directed mutagenesis. This genetic engineering technique has become one of the foundations of biotechnology, and has given rise to new diagnostic tests and treatments for genetic diseases. The magnitude of this work was recognized on the global stage in 1993 with the awarding of the Nobel Prize in Chemistry. Afterwards, Smith devoted himself to supporting research in British Columbia. He generously pledged his \$500,000 award to support science education and successfully challenged the provincial and federal governments to match his donation.

In the late 1990s, Smith helped realize the dream of creating Canada's first genomic research centre devoted to the study of cancer. His steadfast support for enhancing B.C.'s research potential led to the creation of new facilities and resources that have since resulted in breakthroughs and enabled the training of talented young scientists.

Following his death in 2000, the Michael Smith Foundation for Health Research was established to honour his memory by carrying on his commitment to building B.C.'s health research capacity, supporting up-and-coming researchers, and sustaining his vision of a strong, vibrant research community in British Columbia.

was pretty much the only option for women. But genomics research now offers a range of treatment solutions that offer a better quality of life, and odds for survival.

"We're coming out of the one-size-fits-all treatment of cancer, moving towards personalized healthcare that is more effective and efficient, and less experimental," says Dr. Finegood. "Genomics is driving that."

There is more to precision healthcare than just treatment, though. Genetic sequencing of patients can indicate if an individual is predisposed to a particular disease, such as diabetes, so preventative treatment can be introduced before the disease presents.

What is more, a patient's particular DNA can be employed to help prevent adverse drug reactions. Considering that some 30,000 Canadians experience "noxious or unintended" drug reactions each year, with nearly 10,000 of those being fatal, there is much to be said for genetic sequencing.

The cost of doing so is not cheap, however, and there are those in the healthcare system who question the considerable costs involved. Even so, Dr. Finegood says there is no denying the potential cost savings and public health benefits derived over the long term. Either way, she says, precision healthcare is inevitable; it's just a matter of when, and how much it will cost.

Dr. Finegood is not alone in this opinion.

"Precision medicine is a much more effective and efficient way of dealing with health," says Dr. Alan Winter, President and CEO of Genome BC. "It will eventually transform how we look on health, how we deal with medicine, and how each person is different." Illustrating his point, he adds, "Every year thousands of British Columbians develop some sort of rare disease — a genomic mutation. Those people often go through years of diagnostic testing and not knowing what is happening. Now we're able to sequence a genome and look for a mutation, see what's gone wrong, and provide a diagnosis."

ALL CREATURES, GREAT AND SMALL

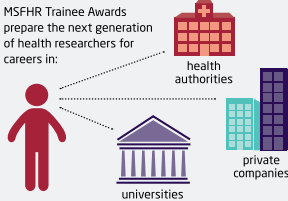
Human health is certainly at the core of genomics research, but significant strides are being made in other areas that will have wide-ranging economic impact in B.C.

"Genomics research is fundamental to understanding life on the planet," says Dr. Winter. "But

Celebrating 15 years of impact in BC's life sciences community

**Over the past 15 years,
we have supported nearly
1,600 individual researchers
and 80 research teams**

MSFHR Trainee Awards
prepare the next generation
of health researchers for
careers in:



MSFHR Scholars

94%
remain in BC as
health research
leaders

\$1.1 billion
additional funding attracted

\$117M
investment

MSFHR Scholar Awards led to:

>140
patents
filed

4,700
apprentices trained

Since 2001, the Michael Smith Foundation for Health Research has empowered world-class health innovation with global impact.

By investing in excellence, we support a vibrant health research community in BC that:

Attracts and retains top international experts.

Leverages funding to develop innovative ideas into new products, new treatments and new companies.

Finds solutions to our most pressing health challenges — for example, BC has internationally recognized expertise in cancer, genomics and HIV/AIDS.

200 - 1285 West Broadway, Vancouver | 604 730 8322 | info@msfhr.org | www.msfhr.org | Twitter: @msfhr | YouTube: themsfhr

18TH ANNUAL LIFESCIENCES BC AWARDS

PRESENTED BY

FARRIS

FARRIS, VAUGHAN, WILLS & MURPHY LLP

THURSDAY, APRIL 21, 2016

HYATT REGENCY VANCOUVER
RECEPTION, DINNER, AFTER PARTY
5 - 9:30 PM

www.lifesciencesbc.ca



**LOCAL CATALYST
GLOBAL CONNECTIVITY**

20TH ANNUAL
LIFESCIENCES BC SALMON BBQ

THURSDAY, JUNE 16, 2016
CECIL GREEN PARK HOUSE, UBC 6 - 9 PM

'life' is not just human life — it's also plants, animals, microbes and viruses. Genomics is a way to enhance our knowledge of what's going on in the biological world."

Like MSFHR, Genome BC helps fund important genomics research in human health, but the organization is also supporting large-scale projects that are providing tremendous understanding in areas such as forestry, fisheries, agriculture, aquaculture, energy and mining.

The many projects undertaken by the organization range across all sectors, from studying the health of Pacific salmon and honey bees, to grappling with beetle infestations and improving safety around mine drainage and wastewater. As well, Genome BC is supporting important research into a range of viruses that can seriously affect human

and animal populations. (See sidebar below.)

"Genomics is such a powerful tool that we can use to improve British Columbia," says Dr. Winter. "The more we understand at the molecular level the more we can understand, predict and simulate what's going to happen in biology."

NEW MEDICINES

Genomics is also changing the nature of drug research and development, particularly for diseases such as cancer.

Until recently, cancer was classified by location in the body, rather than what was driving the cancer. With the advent of genomics, scientists now have a mechanism for understanding the disease and developing therapies to treat a particular pathway that has gone wrong.

ON GUARD AGAINST VIRUSES

The knowledge and innovations emerging from genomics are finding solutions to complex biological challenges including applications in health, forestry, fisheries and aquaculture, mining and energy and agri-food.



In the spectrum of emerging issues – think global pandemics – genomics is playing a role of growing significance. Genomics technologies have played a major role in attacking some of the most pressing health crises of the last decade: SARS, H1N1, HIV/AIDS, tuberculosis and now the Zika virus. Since 2001 Genome BC has made foundational investment in large-scale applied research projects to provide the capabilities to be responsive to emerging issues. Part of Genome BC's mandate is to fund essential research quickly, and be poised to respond rapidly when the need appears.

This was the case with a rapid response to the outbreak of a highly-pathogenic Avian Influenza (AI) strain in the Fraser Valley in December 2014 and January 2015. The outbreak virus was identified as the highly-pathogenic avian influenza H5N2 — a strain that is a contagious viral infection that can affect all species of birds.

As part of an emerging issues priority fund, Genome BC, Genome Canada and other partners funded research to shed light on

where the source of the H5N2 strain came from, and to develop better tools to predict future outbreaks. The project is determining whether wild waterfowl were the source of the virus, and whether analysis of wetland sediments using advanced

molecular techniques can be applied as an early warning system for arrival of dangerous influenza viruses. Preliminary results have shown a detection rate of up to 37 times more sensitive when compared to the current BC surveillance program. A follow-on study to validate and implement the results from this project is under development.

"Ultimately, our goal is to develop an annual wetland sediment surveillance program so that we can be ready for the fall influx of migratory waterfowl and the influenza viruses they may bring with them" says Dr. Chelsea Himsworth, a co-leader of the research project and Leader of Veterinary Science and Diagnostics at the BC Ministry of Agriculture's Animal Health Centre. "Not only has this project shed light on the origin of the most recent AI outbreak, it is allowing us to develop an effective and efficient way to monitor AI viruses in waterfowl, and to predict and prevent future AI outbreaks."

For more information on this AI outbreak, and other virus research being funded by Genome BC, visit www.genomebc.ca



“We’ll do our best” just got better.



**IMAGINE IF RARE
DISEASES COULD
BE DIAGNOSED
AT BIRTH**

Genomics has changed our perspective on what is possible in medical science. Today there is hope where once there was none. Genomics has the potential to dramatically change the way we diagnose and treat people with chronic, infectious and rare diseases. Imagine if autism could be detected years earlier or cancer could be predicted in the ones we love before the disease takes hold. Imagine the number of lives that could be saved. It isn't hard to do.

Visit genomebc.ca and follow us on:

f genomebc **in** Genome British Columbia **🐦** @genomebc

 **Genome
British Columbia**
Leading > Investing > Connecting

The result is that pharmaceutical companies can now develop new drugs to target specific tumours, without having to default to chemotherapy.

Creating new medicines is an expensive endeavour, though, and attracting the scientific talent, capital and infrastructure necessary to realize commercial applications requires partnerships between industry and government.

To that end, the federal and provincial governments and industry have made significant investments in The Centre for Drug Research and Development (CDRD) in Vancouver.

“We are collaborating with partners to find the most promising discoveries from academia, validate them, and advance them to the point where they are commercially viable,” says Karimah Es Sabar, President and CEO, CDRD. “In the past, governments only invested in basic research. But the next step is to add value and advance that research, attracting commercial investors and nurturing companies so they have a chance to succeed.”

With the global pharmaceutical market predicted to double to \$1.8 trillion by 2020, there is considerable opportunity for Canadian companies with a stake in this sector.

IT TAKES AN ECOSYSTEM

Thanks to the early work of Dr. Michael Smith, and the vision of federal and provincial leaders, British Columbia stands among the top centres in the world for genomic research. But maintaining that reputation, and the social and economic benefits derived from it, depends on a number of factors, many of which require cooperation at all levels.

“It’s important to build an ecosystem, partnering together with academia, government and the private sector to recruit talent, incubate and accelerate research that will attract investment, and spin off companies and create high-paying jobs,” says Es Sabar.

The first part of that equation means B.C. has to continue attracting the best scientific minds. Vancouver’s climate and natural beauty help, but what matters most to the best and brightest is being on a winning team with other leading minds. In other words, top talent begets more top talent.

Access to capital is important, too. Like most research, genomics requires intensive funding to see basic research translate into commercial

applications. As such, continued government support is crucial, but so too is investment from the private sector.

Networking around the world with other research centres and health care systems is also essential as advances in research are impossible without collaboration and the sharing of information and findings.

MONSTERS BE HERE?

There is also fear of the unknown to contend with.

Genomics research is accelerating fast in many areas, perhaps too fast for some to embrace.

“It’s scary for some people because they feel we’re learning more about ourselves and the natural world than we want to,” says Dr. Winter. “People are not easily accepting genetically modified organisms, even though there is no reason to be afraid of them from a technical or scientific view. Still, we are sensitive that we need a social licence to operate, so we need to engage the public in discussions around GMO.” Knowingly, he adds, “Let’s have a debate around how we plan to feed nine billion people.”

Then there is the matter of privacy and security.

“It won’t be long before we’re all sequenced and have our DNA on a chip,” says Paul Drohan at Life Sciences BC. “That might sound frightening for some, but anything in the wrong hands can be scary, whether it’s a car, a gun, or scientific information.

“What we need to do is put people in control of their own genetic information, and put meaningful and transparent controls in place.” He adds, “In time, personal health information will no longer be the domain of a doctor or hospital; it will be in the hands of the patient.”

To be sure, there is no denying the incredible promise of genomics, but only a mere 13 years has elapsed since the Human Genome Project first got people thinking about the power of DNA. As Dr. Winter notes, there is remarkable complexity in genomics that will take time and technological advances to fully exploit:

“We’re just starting to scratch the surface of genomics. This is a long-term quest that is going to take time, requiring perhaps 50 years before we fully understand it.” But even so, he says, “There are ways genomics is already dramatically changing the world.” **H**



BREAKTHROUGH FOLLOW THROUGH

Bringing New Discoveries to Market

“New scientific breakthrough brings hope to patients.” How many times have you seen such stories in the news? But what becomes of these breakthroughs? Are they ever actually developed into life-saving therapies?

Most often, the answer is ‘no’. Last year, 1.2 million medical research articles were published in scientific journals, but fewer than 400 potential new drugs were submitted to U.S. regulators for human trials. The main reason for this is that the academic labs or small companies that have made these discoveries do not have the specialized expertise, infrastructure or finances to take these discoveries and develop them into innovative new medicines. In other words, only a very small number of medical breakthroughs ever have the chance to fully deliver on the hope they generate.

The Centre for Drug Research and Development (CDRD) in Vancouver is helping to bridge the gap. CDRD is Canada’s only national drug development and commercialization organization providing the expertise and infrastructure to transform basic health research from publicly funded universities, as well as early-stage therapeutic technologies in Canadian small- and medium-sized enterprises (SMEs), into commercialized products improving human health.

The organization works in partnership with aca-

demia, industry, government and foundations to provide the specialized expertise and infrastructure to proactively identify and evaluate promising discoveries generated by health-related research, and then conduct the critical early validation and development to transform them into commercially viable investment opportunities for the private sector—and ultimately into innovative new therapies for patients.

In less than 10 years, CDRD has conducted thorough commercial evaluations on over 1,000 discoveries, and undertook the essential drug development work on the most promising early stage technologies to advance them toward clinical testing. In doing so, CDRD is also actively enabling the growth of British Columbia and Canada’s health sciences industry by creating specialized training opportunities through its Drug Development Training Program (162 trainees so far), and by building strong new BC-based spin-off companies (seven companies to date) based on these validated technologies.

The value-added technologies resulting from this work are helping to form the foundation of a critical mass of new health sciences companies, creating long-lasting, high-paying jobs, and supporting continued “brain gain” by providing biomedical researchers with attractive opportunities in British Columbia.

Recognize & Reward

EIGHT AFFORDABLE WAYS TO MOTIVATE EMPLOYEES WITHOUT SPENDING MONEY



PEOPLE GO TO WORK for all sorts of reasons. First and foremost, it's to earn a paycheck, but drawing a salary, and receiving financial bonuses, is not the be all and end all. For many, work also represents friendships, purpose and a sense of identity. It becomes integral to who we are and how we see ourselves and others.

Retaining a happy, dedicated and productive workforce means regularly rewarding and recognizing individuals for their contribution. Otherwise, underappreciated employees can become demotivated, which leads to problems with morale, turnover and productivity.

Problem is, how do you reward and recognize your team on a tight budget?

The following are eight easy and affordable suggestions for recognizing and rewarding employees that don't involve spending money:

FLEXTIME

Work-life balance is an increasingly important and challenging concept. The nine-to-five schedule no longer satisfies a significant proportion of the workforce, and employees who achieve a good work-life balance are often happier and more engaged.

For example, employees who can start work anytime between 8 a.m. and 10 a.m. can more easily do the school run, arrive invigorated after morning fitness sessions, fit in medical appointments, and work to better suit their body clocks. Flexible lunches can also help manage the day more effectively; a half-hour break is great for someone who wants to leave earlier, and a two-hour lunch could be ideal for those who want to do errands, catch up with friends, or go to the gym during the day. Allowing employees to work longer hours four days a week in order to have a three-day weekend can also accommodate those who wish to spend an extra day with their families, or on personal activities.

Retaining a happy, dedicated and productive workforce means regularly rewarding and recognizing individuals for their contribution

MONTHLY RECOGNITION

Recognizing an individual within your organization every month is a great way to engage employees. Inviting nominations from the whole company, office, or department allows managers to hear about a variety of achievements, such as good team working, motivation, tenacity, and growth, in addition to the more quantifiable productivity and quality achievements.

Announce all nominations and reward the person who best meets your organization's values, or who makes the most outstanding contribution. A certificate to put on their desk, a poster on the noticeboard, a letter from a senior manager, or a half-day holiday would go a long ways towards showing employees that their colleagues and managers value their efforts.

OPEN-DOOR SESSIONS

Employees who have opportunities to raise suggestions, problems, or questions feel more valued and respected. Department managers can put aside an hour a week, or even an hour a month, and let everyone know that this is "open-door" time for them to discuss anything that's on their mind. Open-door sessions are also an opportunity to learn what people are currently working on, any problems they may be facing, and what ideas they have to improve their work and productivity.

INFORMAL CHATS

Never underestimate the effect a few pleasant words from a senior manager can have on an

My job is to help you retire comfortably.

► For generations, Odlum Brown Limited has helped local families build and manage their wealth. As a service for Odlum Brown clients, our team of experts from Odlum Brown Financial Services Limited* can help guide you through the complexities of retirement, financial and estate planning, and provide unbiased information on tax and insurance products.

It all begins with a straightforward conversation focused on your priorities. For all your investment needs, call me today at 250-952-7765 or visit odlumbrown.com for more information.



Spencer Pocock

B.Comm, RRC, CIM®

Portfolio Manager

T 250 952 7765

spocock@odlumbrown.com
odlumbrown.com/spocock



ODLUM BROWN
Investing for Generations®

Member-Canadian Investor Protection Fund.

*Odlum Brown Financial Services Limited is a wholly-owned subsidiary of Odlum Brown Limited.





Employers Who **Care** About Their Team

TRG turns your vision of social responsibility into dignified group benefits for your employees.

TRG
GROUP BENEFITS

ROBERT J. TAYLOR Principal, TRG Group Benefits
Direct: 604.714.4410 email: rtaylor@trggroup.com
www.trggroup.com

 **Budget®**



Everyday Low Prices
With The Largest Fleet in BC
Call for Reservation at Helijet's Terminal

Vancouver Airport
604-668-7000 • 1-800-299-3199

Victoria
250-953-5300 • 1-800-668-9833

Nanaimo
250-760-7368 • 1-800-368-7368

50 YEARS
of pride
Budget



www.budgetbc.com



Above: Exercising with your fellow employees is a great way to connect. iStock photo

employee. A chat in the kitchen about their week-end plans, or a simple smile and cheery hello in the corridor, can make them feel noticed and valued.

Unfortunately, stress and time constraints can all too often lead to management taking separate lunches, having no time for conversation, and rushing around, barely noticing employees. But remembering the impact a brief conversation can have should encourage managers to linger a minute longer over making tea or coffee, make time to have lunch in the staff eating area, and stop by someone's desk to exchange some words of encouragement, or find out more about that individual.

CHARITY FUNDRAISING AND VOLUNTEERING

Coming together for a shared, charitable cause can help employees bond, and rewards them by offering the opportunity to make a difference through their work. Whether it's a cake sale, an afternoon volunteering, a charity event, or an organized sponsored walk, try making charitable events a feature of your organization's corporate social responsibility policy. Employees who like recognition often get satisfaction from organizational responsibilities, so someone could be appointed charity organizer, or the responsibility could be shared.

PLAY TOGETHER

Exercising with employees is a great way to get back to grass roots level. Managers who participate in an organization's sporting events, or workout with others in the company, can connect in a way that shows they are prepared to roll up their sleeves and engage with employees on a personal level.


LETTERS OF APPRECIATION

A handwritten letter has a personal touch that shows more sincerity than an email. Each month send a personalized letter to an employee who deserves recognition or encouragement. Perhaps they worked overtime to get a project completed on time, or proved to be a good role model. Or perhaps they have been unwell, or coping with difficult personal circumstances. Acknowledging such things through a personal letter can make a lasting impression.

SKILLS DEVELOPMENT

Ensure your appraisal systems focus on encouraging and developing employees as opposed to identifying flaws. In keeping with that, look for free online courses or tutorials your team can use.

Exemplary employees can also be appointed "Skills Champions" to recognize their high standards of work within a particular area; involve them with mentoring, training sessions, or presentations to share their expertise.

To be sure, financial constraints are no excuse for not investing time and energy into employee recognition and rewards. Not doing so can hinder your organization, so make the effort to give something back to your team. It will be time well spent, especially when you don't have money to spend. 



HOTEL
GRAND
PACIFIC

NOT JUST A GRAND HOTEL, A GREAT HOTEL.

FOCUS ON YOUR MEETING. WE'LL DO THE REST.



Our business is making corporate events truly memorable. Located on Victoria's Inner Harbour & ideally equipped with everything you need: flexible meeting spaces, hi-tech ready, exquisite food, thoughtful amenities & superb service.



For more information, email
RESERVE@HOTELGRANDPACIFIC.COM
or call 1.800.663.7550

463 BELLEVILLE STREET, VICTORIA, B.C. V8V 1X3 | 1.800.663.7550 | HOTELGRANDPACIFIC.COM

Fishing for Fossils

LIVING DINOSAURS LURK AMONG US IN THE FRASER RIVER

“WHY ON EARTH am I doing this?” That is the question that runs through my mind every time I wake at some ungodly hour to go fishing.

Today is no exception. It's a gloomy spring morning on the Fraser River and my 12-year-old son, Rowan, and I are racing across the water in a jet boat south of Mission, B.C. There is a dank chill in the air and I huddle behind the boat's dodger, secretly pining for the warmth of my recently forsaken bed. After a short run, we anchor on the south side of Matsqui Island in a spot favoured by our Great River Fishing Adventures guide, Dave Barry, who has been guiding sturgeon fishers on the Fraser River for over 14 years. Barry baits two lines with chunks of lamprey eel, and another two with pieces of eulachon (a type of smelt) before lobbing each a short distance from the boat into the muddy-brown river.

Then we wait.

For the next 20 minutes we slurp coffee, and make small talk, hoping for something — anything — to happen. Suddenly, Barry stops in mid-sentence, puts down his coffee, and points to the second of four rods, the tip of which is bouncing up and down, ever so gently. He signals for Rowan to step up to the rod and get ready.

Rowan reaches to pull the rod out of its holder, but Barry cautions him not to be too quick:

“Wait, for it,” he whispers. “Waaaaaiit for it.”

The rod continues bouncing lightly a few more times before forcefully bending into a downward arc, at which point Barry shouts, “Hit it!”

Rowan pops the rod skyward out of the holder, and starts reeling for all he's worth to set the barbless hook in the fish's mouth. Now the fight is on. The sturgeon at the end of the 150-pound-test line powers downriver with the help of the current, pulling line out of the reel as the fish zigzags side-to-side through the murky water.

After 10 minutes of struggling, both Rowan and the sturgeon are beginning to tire. Rowan's adolescent arms are beginning to shake and Barry and I

Left: Sport fishermen prepare to release a giant white sturgeon captured on the Fraser River near Hope, B.C. Great River Fishing Adventures photo





Above: Great River Fishing Adventures guide Dave Barry (centre) and his colleague Matt Clive (right) help 12-year-old Rowan Eichel return two sturgeon captured and tagged on the Fraser River. Garth Eichel photo

encourage him to hang in there.

“Do you want me to take over?” I ask.

“No, Dad!” he gasps. “I can do it.”

I respect his ambition, but have my doubts. Nevertheless, I step back and continue shouting encouragement.

Just when it seems Rowan is about to collapse from exhaustion, a huge grey-and-white fish rises beside the boat, twisting and rolling at the end of the line.

I’m astonished to see the fish is almost as big as my son, measuring almost five feet in length. Barry reaches down and expertly grabs the sturgeon, removes the hook, and heaves the leviathan up over the side, and into a waiting cradle filled with water.

Rowan is completely spent, but the adrenalin of catching the biggest fish of his life keeps him on his feet. We both gaze inside the cradle to examine the beast and marvel at its appearance.

To be sure, there is no other fish quite like the sturgeon — a primitive fish that has changed little since it first appeared in the Triassic period, some 245 to 208 million years ago.

“They are living dinosaurs,” says Dean Werk, owner of Chilliwack-based Great River Fishing Adventures. “People are always blown away the first time they see one brought into the boat. They are such a unique fish, in so many respects.”

White sturgeon won’t win any beauty contests, but Werk has developed a special love for the fish

over the past 40 years, devoting much of his personal and professional life to learning about them, and supporting their conservation.

A close inspection of the sturgeon Rowan just caught reveals the attraction. Resting in several inches of water in a cradle, I’m able to get up close and personal with the *belle laide* brute — a fish like no other I’ve ever seen in all my years of fishing and scuba diving.

Perhaps the most remarkable thing I notice about the sturgeon is its curious leathery skin, lined with bony plates called scutes. It is natural to want to touch these, but Barry advises me to don rubber gloves before doing so.

“The scutes are sharp,” he warns. “They’ll shred your hands if you’re not careful.”

The skin between the scutes is like that of a shark — rough and leathery, like fine sandpaper. And like a shark, the sturgeon’s skeleton is almost entirely cartilaginous.

The sturgeon’s head is just as fascinating as its body, but much more benign. There is no danger of being hurt by the fish’s soft mouth, which is devoid of teeth. Likewise, there is nothing to fear from the four barbels dangling beneath its nose. These whisker-like sensory organs help the poor-sighted sturgeon locate food on the murky river bottom.

Less obvious, but no less fascinating, is the sturgeon’s remarkable life cycle. A slow-growing bottom feeder, they take several years to reach



sexual maturity, and can live to well over 150 years.

During their lifetime sturgeon will frequently migrate between fresh and salt water in search of food, hoovering up the carcasses of eels, eulachon, fish roe, and expired salmon.

But what makes this freshwater Methuselah truly fantastic is its exceptional size. Beluga sturgeon found in the Caspian Sea are the largest freshwater fish in the world, reaching over six metres (18 feet) in length, and weighing up to 2,000 kg (4,400 pounds). The species of white sturgeon found in the Fraser River tip the scales at slightly less, with the largest recorded fish weighing 600 kg (1,300 pounds).

Such enormous fish were not uncommon up until the late 19th and early 20th century when aggressive commercial fishing nearly wiped out Fraser River sturgeon. Even after the commercial harvest was halted, sturgeon numbers continued declining, due in part to loss of habitat to urban development, and unintentional bycatch in salmon nets.

Then in 1994 a mysterious die-off occurred, galvanizing public support and prompting government action. For its part, the B.C. government stopped the sport harvest of sturgeon and initiated a three-

year tagging and monitoring program to tag and track captured white sturgeon using a numbered passive integrated transponder (PIT) tag. A number of conservation programs were also initiated with the help of First Nations and local volunteer groups, most notably the Fraser River Sturgeon Conservation Society.

As one of the most experienced sturgeon fishing guides on the Fraser River, Werk was hired by the provincial government to take part in the initial three-year study, but continued supporting the tagging and monitoring effort when it transitioned to a private all-volunteer program.

“Our commitment to the program is huge,” says Werk. “We’ve been part of a group of some 50 to 60 volunteers who have scanned 135,000 scanned sturgeon, and tagged over 64,000 unique fish over the past 22 years. We’ve sampled from every part of the Fraser River, from the ocean right up to the Fraser Canyon.”

Not all sport fishing operators are as committed to the tagging and monitoring program as Great River Fishing Adventures, but the company is passionate about conservation and public education. And besides, it’s good for business.



In 2012 Dean Werk (far left), owner of Great River Fishing Adventures, helped Michael and Margaret Snell land the largest fish ever caught in North America when they brought in this giant white sturgeon measuring 12-feet-4-inches. Hooked near Chilliwack, B.C., the fish took 90 minutes to bring to shore. Werk estimated the fish was over 100 years old. Great River Fishing Adventures photo

"It's part of the experience," says Werk. "People get excited about the conservation aspect of sturgeon fishing, especially the tagging and scanning. Schools and family groups really enjoy it; kids get to feel like a marine biologist for a day." What's more, he adds, "Touching a living dinosaur creates a unique passion for these fish."

Rowan puts paid to that argument for much of the day, scanning every sturgeon we catch, recording its length and girth, and inserting PIT tags into those not already tagged. Soon the thrill is as much about catching sturgeon as it is tagging them and putting them back.

With each fish caught Rowan develops a greater concern for their welfare. He asks Barry if they will be okay, and is relieved to learn that the mortality rate on catch-and-release sturgeon is less than one per cent.


"We treat them as gently as we can, but they are hardy fish," says Barry. "They've been around for millions of years, and have survived multiple ice ages and environmental changes."

Still, threats remain. Disruption of habitat on the Fraser River as a result of urban development, dyke systems and gravel mining continues to threaten re-

covery, as does illegal poaching and accidental bycatch in salmon nets. Seals and sea lions coming into the lower Fraser River for an easy meal are cause for concern, too.

Complicating matters is the fact that sturgeon are slow to grow and reproduce. Most fish don't reach sexual maturity until they are at least 15 years old, and females may only produce eggs once every three years. (Poachers know all too well that sturgeon roe can fetch upwards of \$75 an ounce.)

Notwithstanding myriad challenges, Werk is cautiously optimistic about the prospects for Fraser River sturgeon:

"The fishery is alive and well, and we're seeing a trend towards a slight population increase. There are loads of small fish in the river and that's a good sign. We'll probably never see numbers reach historic levels, but we can rebuild it." After a thoughtful pause, he adds, "A lot of people don't know we have these extraordinary fish here. I love sharing the sturgeon experience — it's a privilege to catch a living fossil, put a tag into it, and see it swim away, knowing that it might live and reproduce for another hundred years." 



Lift your
personal life to
new heights.

 **ROBINSON**
AUTHORIZED DEALER

purchase. train. maintain.
It's never been easier.

32 years of excellence  **CHINOOK HELICOPTERS.com**

call or email today. | 604.855.1100 | fly@chinookhelicopters.com

Backcountry Cuisine

GOURMET DINING IN THE GREAT OUTDOORS



Above: Head-Line Mountain Holidays and the Four Seasons Whistler Resort & Residences take fine dining to new heights.

DOES A HOT DOG taste better when cooked over a campfire? Most people will likely say yes. Why that is probably has much to do with the overall experience of being out in nature, cooking your own food over an open fire, surrounded by companions. There's something primordial about it that helps us connect with our inner caveman.

So what could a barbecue with friends high up on a mountainside do for a 12-ounce angus reserve rib-eye steak? No doubt, turning the volume to 11 in such a way makes for a more memorable "classy caveman" experience.

That is the thinking behind a collaborative endeavour between two Whistler-based businesses — Head-Line Mountain Holidays and the Four Seasons Resort and Residences Whistler — that have joined forces to provide the ultimate in customized outdoor adventure dining experiences.

For its part, HMH provides the adventure tours, while Four Seasons provides the dining experience. The combined result can take many forms, from

shucked oysters on the half-shell and Champagne served atop a glacier, to trout pan-fried on the side of a river during a guided fly fishing trip. Or perhaps an elegant serving of sushi with a glass of Riesling at a remote hot spring is more your style.

The possibilities are endless.

"We're creating memories in special places," says Eren Guryel, Executive Chef, Four Seasons Whistler. "It's hard to improve on nature, but we can enhance an outdoor experience with a five-star dining experience served in an extraordinary location."

Gourmet in the great outdoors is not without its challenges, though. David Baarschars, Chef de Cuisine, at the Four Seasons Whistler, says chefs have to be ready to go on short notice, which means plenty of preparation beforehand:

"There's no store to go to if you forget the olive oil. Kitchen staff have to be organized and ready to respond with fresh food that can be easily transported and served right away."

Wildlife is a consideration, too, says Guryel. "We don't want to be grilling steaks on a barbecue when bears are coming out of hibernation!"

Still, both men say the opportunity to prepare high-quality meals in the wilderness for guests is a chef's dream come true.

The same can be said for the Head-Line Mountain Holidays guides who take care of organizing and customizing any remote wilderness dining experience in the backcountry.

Doug Washer, Head-Line's President and CEO, says it's tremendous fun to be able to provide memorable experiences for people, whether it's a romantic dinner for a couple in an ice cave, or a catered barbecue for a corporate group snowmobiling atop a glacier.

"You only live once, and adventure dining is definitely a once-in-a-lifetime experience," says Washer. "There's nothing quite like going somewhere extraordinary with friends and being pampered with a chef-prepared meal served in a glorious environment." With a grin, he adds, "my favourite thing is the desserts. They're fancy, over-the-top delicious, and they make the backcountry just that much better."

YOUR MID-ISLAND CONNECTION

Nanaimo to Vancouver in just 18 minutes!



\$129

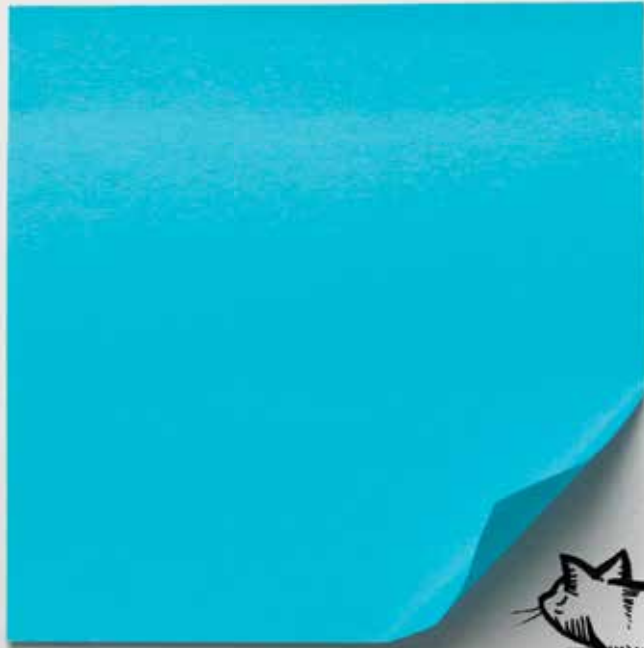
one way, per person
incl. taxes & fees
subject to availability

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Twin Engine Sikorsky S76 helicopter | <input checked="" type="checkbox"/> Day and evening flights | <input checked="" type="checkbox"/> Never overbooked |
| <input checked="" type="checkbox"/> Instrument Flight Capable | <input checked="" type="checkbox"/> Light package/envelope courier service | <input checked="" type="checkbox"/> 18 minutes between Downtown Nanaimo & Downtown Vancouver |
| <input checked="" type="checkbox"/> Free parking at all terminals | <input checked="" type="checkbox"/> Free drop off shuttle van service | <input checked="" type="checkbox"/> Kids Fly Free* |

**Restrictions apply*



helijet.com | @helijet | helijet | 1.800.665.4354



**CURIOSITY.
SHOW US YOURS.**

You have great things inside you. Let the transformative power of our cohort-based learning model put your work and life experience to great use. You'll collaborate with like-minded, industry-leading peers every step of the way in an applied, practical and personalized platform for success. If you're ready for the next step in your career, and life, let's talk. We see great things ahead.

1.877.778.6227 | royalroads.ca/helijet



Royal Roads
UNIVERSITY

LIFE.CHANGING