

building champions 2016/17 ANNUAL REVIEW









The path to building champions is completed little by little.

Piece by piece.

Moment by moment.

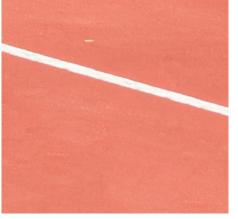
The Canadian Sport Institute Calgary (CSI Calgary) is a key contributor to this effort as we collaborate with sports, the coaches and their athletes to optimize training and maximize performance. The more than 70 practitioners that power CSI Calgary provide expertise and services in sport science and medicine, coaching, research and innovation, education, Game Plan and athlete development.

To build a champion takes time, planning, focus and determination. It is only when all the pieces come together when it matters most that we can all say mission accomplished.

Canada has built a champion.











After my injuries last year, the team at the Canadian Sport Institute Calgary put me back together and back on the podium. There's no better place than the Canadian Sport Institute Calgary for return-to-sport methodologies.

Brady Leman, Ski Cross Olympian





Erica Wiebe 2016 Olympic Champion -Wrestling Through sport we can build a better community and a better country. At the CSI Calgary we are committed to our holistic approach when working with athletes, coaches and our sport partners to build champions. Athletes competing with class, integrity and respecting their opponents reinforces our nation's commitment to investing in sport and the benefits it brings to all Canadians.

Sincere thanks are extended to our funding partners for their continued support of the CSI Calgary and the athletes and coaches we serve.

Cheryl SandercockChair, Board of Directors

Dale HenwoodPresident and CEO

Sele Denvort

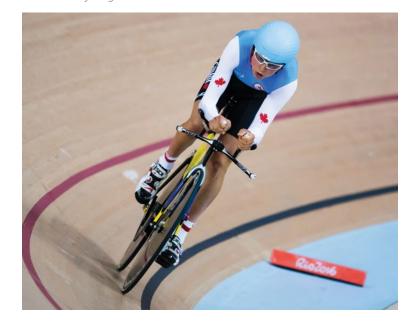
Champions come in all shapes and forms – both on and off the field.

At the CSI Calgary, we have been building champions since 1994, promoting excellence, providing support and developing leaders through their sport careers and beyond. Not only are the athletes we work with champions, so are our staff – the more than 70 dedicated professionals associated with the Institute across a multitude of disciplines.

As we move beyond the 2016 Rio Olympic/Paralympic Games and head into the 2018 PyeongChang Winter Games, we take the time to reflect upon our successes. This past year, athletes we supported stood on an impressive 22 World Championships and 7 Olympic/Paralympic Games podiums, which represent 31% of total Canadian podiums. Many athletes we supported are also champions of our community, sitting on non-profit boards and working on causes to better our city, province and country.

Members of our expert, long-term staff have also been recognized as leaders in their fields – receiving awards, speaking at high profile conferences, and being acknowledged by their peers for their research and innovation.

Michael Sametz 2016 Paralympic bronze medallist - Cycling



At the CSI Calgary, we endeavour to provide athletes and their coaches the opportunity to access the best daily training environment and expertise in science, medicine and technology. Through our established expertise, we are able to create training environments to best meet the individual and unique needs of athletes and their sports. Building champions for high performance sport is the primary focus of our dedicated support teams. Our professionals understand what needs to be done to impact performance on an individual basis and what needs to be done to build champions – one at a time.

This next year will be busy and exciting as the winter athletes prepare for the 2018 Olympic/Paralympic Games. At the end of the 2016-2017 Winter World Championships season, Canada was ranked second overall for Olympic and fifth for Paralympic winter sports. Next year, Canada expects to send its largest team ever to an Olympic/Paralympic Winter Games.

Other significant developments that have occurred in the world of sport over the past year have been the increased attention on ethics in sport, the fight for clean sport, the ongoing challenges of high performance sport funding and the need for sustaining Canadian sport facilities. Funding is an ongoing issue as governments worldwide, navigate through financial difficulties.



Stefan Daniel 2016 Paralympic silver medallist - Triathlon



olympic and paralympic preparation

We aim to optimize each sport's investment in their athletes by providing focused and customized services in an integrated high performance training environment.

Sport Science

Providing leading-edge individualized testing, planning, training, monitoring and recovery of athletes and coaches in their daily training environments.

The team of experts:

- Physiologists
- Strength and Conditioning Coaches
- Biomechanics and Performance Analysts
- Registered Sport Dietitians
- Mental Performance Consultants
- Anthropometrists
- Biochemistry Lab Technicians



Athletes from for a total of 855 athletes tested in the Sport Performance Lab

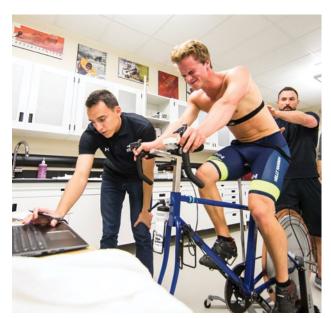


123 field tests and ,806 lab tests conducted



790 blood draws taken 850 hours of lab analysis for full blood profiling





Sport Medicine

Specializing in injury prevention, return-to-play methodologies and offering proactive performancebased athlete intake and monitoring.

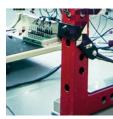
The team of experts:

- Physicians
- Physiotherapists
- Athletic Therapists
- Osteopaths
- Chiropractors
- Massage Therapists

Alpine, testing in preparation for the 2018 PyeongChang Olympic Games.



Olympic and World silver medallist Kaetlyn Osmond testing in the Sport Performance Lab.











Gold Erica Wiebe

Bronze Allison Beveridge



2016 Paralympic **Summer Games**

Silver

Stefan Daniel Alister McQueen

para-athletics,

Ross Wilson para cycling road, individual time trial

para cycling track, individual pursuit

Bronze Michael Sametz

para cycling, individual

Game Plan

Canada's total athlete wellness program, Game Plan, offers career, education and transition support with the aim of developing world-class athletes and worldclass citizens.

athletes accessed

Game Plan services

GAME PLAN

PLAN DE MATCH Deloitte.

605

individual Game Plan sessions delivered

research and innovation

Gaining knowledge through innovation and applied research is a vital component in giving Canadian athletes a competitive advantage.

In 2016/17, we had completed or are currently conducting 18 research projects with focus ranging from:

- sport concussion assessment, management and prevention
- dietary intakes and supplement use in pre-adolescent athletes
- development of a mobile application to collect and transfer heart rate variability
- bone health study in development of figure skaters
- biomechanical assessments of performance in freestyle skiing and para hockey



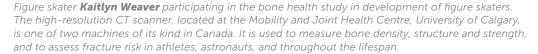




Using hardware technology developed for motor sport racing and a proprietary software program developed by Olympic Oval IT specialist, the development of a new timing system for speed skaters is now providing real-time streaming data to coaches and has the potential to be used for physical testing and race analysis.











Inertial **Measurement Unit**

We use a device called Inertial Measurement Unit (IMU), typically used to maneuver aircraft, to assess performance in freestyle skiing.

athlete development

The CSI Calgary offers programs intended to identify talent and support the development of targeted athletes.

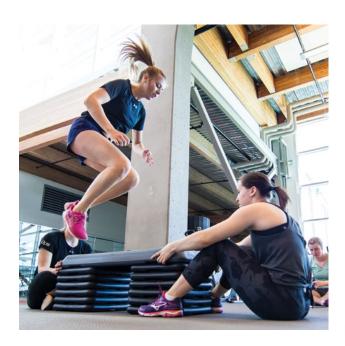
Athlete Development Programs

NextGen

The NextGen program support focuses on athletes and teams 8-5 years from the podium, as identified by the sport.

Talent Lab

Through the Talent Lab initiative, CSI Calgary identifies and fast tracks the development of targeted athletes into national team programs. We also facilitate the transfer of athletes from one sport into a different sport.



















16 Talent Lab 75 NextGen 91 athletes received support through our athlete development programs





CSI Calgary Cycling

We offer year-round programming for athletes of all ages and abilities ranging from youth development to national team and Olympic/Paralympic cyclists.



7 coaches

coach education

at the 2016 Olympic/Paralympic

Games were engaged with



coaching and education

Trained and educated coaches play an instrumental role in the athletes' career. CSI Calgary shares learning and ensures transfer of knowledge through coach education programs.

Coaching Programs

Advanced Coaching Diploma

The Advanced Coaching Diploma (ACD) is a coachdriven, expert-led, peer-enriched and mentorsupported coach education program delivered both in person and online.

In partnership with Alberta Sport Connection and the Coaching Association of Canada, we hosted a number of professional development workshops on topics such as: make ethical decisions, design a basic sport program and managing conflict.



More than

4,000 hours

delivered to coaches

of training and education

First Canadian Sport Institute to have taken the pledge to abide by the **Responsible Coaching Moveme**









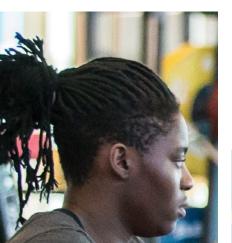


Olympic champion and 2016 Rio Olympic Games assistant chef de mission **Carol Huynh** has joined the Advanced Coaching Diploma cohort and is scheduled to graduate in June 2019. In this photo, Carol is coaching NexGen athletes Tianna Kennett and Temitope Ogunjimi.

Education

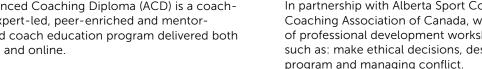
Strength and Power Performance Course

The Strength and Power Performance Course provides practical experience in a high performance training environment combined with classroom knowledge translation and the ability to exchange training ideas and philosophy with some of Canada's top strength and conditioning coaches. The course is approved by the National Strength and Conditioning Association.











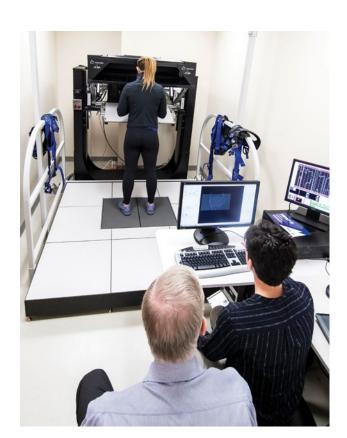
when all the pieces come together

Dr. Tara Whitten

She started her career in one sport, transferred to another, participated in two Olympic Games, winning bronze in 2012, recovered from a major injury, completed her PhD and found work in her field of neuroscience and sport. Dr. Tara Whitten is a prime example of a Champion who utilized the variety of services and expertise available for athletes at the CSI Calgary throughout her sporting career and beyond.

Whitten's journey exemplifies the importance of an Integrated Support Team approach and the value it lends athletes throughout their journeys. Champions are built one day at a time, with a team behind them.

"The CSI Calgary was incredible. I felt so supported through the whole process of my journey. There was huge collaboration between the support team and it was the best approach. I couldn't have asked for a better team."



Dr. Tara Whitten and **Dr. David Smith** are working on a project examining the stress on the body during mental overload during the KINARM Robotic test which is used in the baseline concussion evaluation. The KINARM device is located at the Benson Concussion Institute at WinSport.

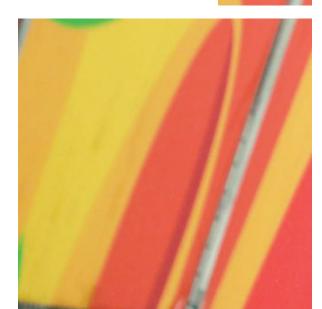










Photo du COC/Jason Ransom

the partners

CSI Calgary believes that our valued partnerships with funding partners and sponsors enable us to deliver a wide array of world-leading services to athletes and coaches. We are grateful for their support.

Funding Partners

CA

Canada































aclaro

Life is our life's work







Thanks so much for all you do to enable us as athletes to shoot for the stars. I am so incredibly blessed by this facility and even more by the people who work to make this place great.

Melissa Lotholz, Bobsleigh Athlete



Partner Training Facilities

WinSport offers Olympic and Paralympic quality training to all winter sports through its first-rate facilities which include Canada Olympic Park in Calgary (sliding track, ski hill, hockey rinks) and the Bill Warren Training Centre at the Canmore Nordic Centre. WinSport also funds two-thirds of the operating costs for the Olympic Oval at the University of Calgary.

The CSI Calgary is also supported by select facilities and clinics across Alberta that allow us to deliver high performance services to athletes and their coaches in their daily training environments.

Glenmore Velodrome Mount Royal University City of Calgary - Foothills Athletic Park **Repsol Centre**

University of Alberta

 High Performance Training and Research Centre/ Saville Centre

University of Calgary

Olympic Oval

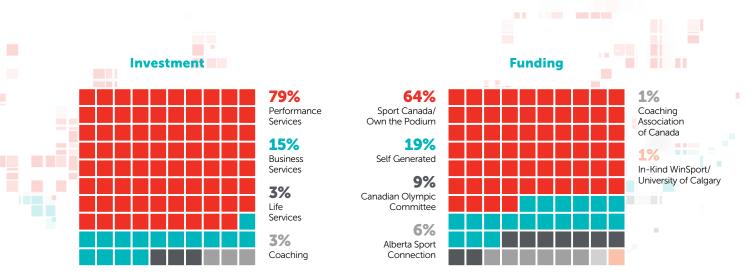
Partner Clinics

EFW Radiology Glen Sather Sports Medicine Clinic Marda Loop Physiotherapy THE Downtown Sports Clinics University of Calgary Sport Medicine Centre WinSport Medicine Clinic









CSI Calgary Funding Source Trend



CSI Calgary is incorporated under the Societies Act of the Province of Alberta as a not-for-profit organization. The Institute is a tax-receipt Registered Canadian Amateur Athletic Association (RCAAA). The independent auditing firm of KPMG audits CSI Calgary finances annually.

Board of Directors

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WinSport

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University of Calgary

Lorraine Lafrenière

Coaching Association of Canada



Featuring healthy, fresh and organic menu choices, the FFG kiosk is located at the University of Calgary. Fuel for Gold (FFG) is designed to generate sustainable funding to reinvest into support services and programming.







olympic, paralympic and world championships top 8 results

gold

Mark Arendz

PARA - Biathlon, 12.5km Middle - Standing, WC Coach: Robin McKeever

Mark Arendz

PARA - Biathlon, 7.5km Sprint - Standing, WC Coach: Robin McKeever

Ben Hebert

Curling, Men's, WC Coach: John Dunn

Brian McKeever

PARA - Cross-Country Skiing, 20km - Visually Impaired, WC Coach: Robin McKeever

Brian McKeever

PARA - Cross-Country Skiing 10km - Visually Impaired, WC Coach: Robin McKeever

Graham Nishikawa Robin McKeever (Guide)

PARA - Cross-Country Skiing 20km - Visually Impaired, WC Coach: Robin McKeever

Graham Nishikawa Robin Mckeever (Guide)

PARA - Cross-Country Skiing 10km - Visually Impaired, WC Coach: Robin McKeever

Erica Wiebe

Wrestling, Freestyle 75 kg, OG Coaches: Leigh Vierling, Paul Ragusa



silver

Mark Arendz

PARA - Biathlon, 15km Individual - Standing, WC Coach: Robin McKeever

Bailey Bram Sarah Davis

Brianne Jenner Rebecca Johnston Brigette Lacquette Meaghan Mikkelson-Reid Lauriane Rougeau **Jillian Saulnier**

Blayre Turnbull Hayley Wickenheiser Hockey, Women's, WC

Coaches: Doug Derraugh, Howie Draper, Dwayne Gylywoychuk

Head Coach: Laura Schuler Assistant

Stefan Daniel

Para-triathlon, Men, PG Coach: Carolyn Murray

Vincent De Haître

Speed Skating, 1000m, WC Coach: Bart Schouten

Kaillie Humphries Melissa Lotholz

Bobsleigh, 2-Man Competition - Women, WC Coach: Stephan Bosch

Justin Kripps Jesse Lumsden

Bobsleigh, 2-Man Competition - Men, WC Coach: Stephan Bosch

Alister McQueen

Athletics, Javelin Throw, PG Coach: Kim Cousins

Kaetlyn Osmond

Figure Skating, Singles, WC Coach: Robin McKeever

Alana Ramsay

Para - Alpine Skiing, Super-G - Standing, WC Coach: Robin McKeever

Kirk Schornstein

Para - Alpine Skiing, Downhill - Standing, WC Coach: Robin McKeever

Ross Wilson

Para-cycling, Individual Time Trial, PG Coach: Cam Jennings

Ross Wilson

Para-cycling, Individual Pursuit, PG Coach: Cam Jennings

bronze

Mark Arendz Brian McKeever Graham Nishikawa Robin Mckeever (Guide) Emily Weekes

PARA - Cross-Country Skiing. 4 x 2.5km Relay Open, WC Coach: Robin McKeever

Mark Arendz

PARA - Cross-Country Skiing, 10km - Standing, WC Coach: Robin McKeever

Allison Beveridge

Cycling - Track, Team Pursuit, OG Coach: Craig Griffin

Ivanie Blondin

Speed Skating, 5000m, WC Coach: Bart Schouten

Olivier Jean

Speed Skating, Mass Start 16 Laps, WC Coach: Bart Schouten

Kimberley McRae

Luge, Women's Singles, WC Coach: Wolfgang Staudinger

Manuel Osborne-Paradis

Alpine Skiing, Super G, WC Coach: Burkhard Schaffer

Alana Ramsay

Para - Alpine Skiing, Downhill - Standing, WC Coach: Jean-Sébastien Labrie

Alana Ramsav

Para - Alpine Skiing, Super Combined - Standing, WC Coach: Jean-Sébastien Labrie

Alana Ramsay

Para - Alpine Skiing, Giant Slalom - Standing, WC Coach: Jean-Sébastien Labrie

Michael Sametz

Para-cycling, Individual Time Trial, PG Coach: Philippe Abbott

fourth

Jordan Belchos Ted-Jan Bloemen Benjamin Donnelly

Speed Skating, Team Pursuit 8 Laps, WC Coaches: Bart Schouten, Todd McClements

Ted-Jan Bloemen

Speed Skating, 10000m, WC Coach: Bart Schouten

Ivanie Blondin

Speed Skating, 3000m, WC Coach: Bart Schouten

Vincent De Haître

Speed Skating, 1500m, WC Coach: Bart Schouten

Zak Madell

Wheelchair Rugby, Mixed, PG Coach: Kevin Orr

Andrew Poie Kaitlyn Weaver

Figure Skating, Ice Dance, WC Coaches: Nikolai Morozov, Pasquale Camerlengo

Kirk Schornstein

Para - Alpine Skiing, Super-G - Standing, WC Coach: Jean-Sébastien Labrie

Kirk Schornstein

Para - Alpine Skiing, Super Combined - Standing, WC Coach: Jean-Sébastien Labrie

Emily Weekes

PARA - Cross-Country Skiing, 15km - Standing, WC Coach: Robin McKeever

fifth

Mark Arendz

PARA - Cross-Country Skiing, 20km - Standing, WC Coach: Robin McKeever

Blair Bann Jay Blankenau **Rudy Verhoeff**

Graham Vigrass Volleyball, Men, OG Head Coach: Glenn Hoag

Morgan Bird

Para-swimming, 4 x 100m Freestyle Relav. PG Coaches: Wendy Johnson, Kristina Crook

Morgan Bird

Para-swimming, 4 x 100m Medley Relay, PG Coaches: Wendy Johnson, Kristina Crook

Morgan Bird

Para-swimming, 100m Freestyle, PG Coaches: Wendy Johnson, Kristina Crook

Ted-Jan Bloemen

Phil Brown

Erik Read

Speed Skating, 5000m, WC Coach: Bart Schouten

Candace Crawford Erin Mielzynski Ali Nullmeyer **Trevor Philp**

Alpine Skiing, Team Event, WC Coaches: Paolo De Florian, Manuel Gamper, Peter Rybarik

Patrick Chan

Figure Skating, Singles, WC Coaches: Marina Zoueva, Oleg Epstein, Johnny Johns

Alex Gough

Luge, Women's Singles, WC Coach: Wolfgang Staudinger

Brittany Hudak

PARA - Biathlon, 12.5km Individual - Standing, WC Coach: Robin McKeever

Brittany Hudak

PARA - Cross-Country Skiing, 15km - Standing, WC Coach: Robin McKeever

Heather McLean

Speed Skating, 500m, WC Coach: Kevin Crockett

Nick Poloniato Neville Wright

Bobsleigh, 2-Man Competition, Men. WC Coach: Stephan Bosch

Alana Ramsay

Para - Alpine Skiing. Slalom - Standing, WC Coach: Jean-Sébastien Labrie

Arinn Young

Wheelchair Basketball, Women, PG Head Coach Michael Broughton

sixth

Cynthia Appiah

Bobsleigh, 2-Man Competition -Women, WC Coach: Stephan Bosch

Jordan Belchos

Speed Skating, 10000m, WC Coach: Bart Schouten

Noah Bowman

Freestyle Skiing, Halfpipe Coach: Trennon Paynter

Lascelles Brown Alexander Kopacz Justin Kripps Jesse Lumsden

Bobsleigh, 4-Man Competition, WC Coach: Stephan Bosch

Sam Edney Alex Gough Justin Snith Tristan Walker

Luge, Team - Relay, WC Coach: Wolfgang Staudinger

Marie-Michèle Gagnon

Alpine Skiing, Alpine Combined, WC Coach: Manuel Gamper

Marsha Hudey

Speed Skating, 500m, WC Coach: Kevin Crockett

Alysia Rissling

Bobsleigh, 2-Man Competition -Women, WC Coach: Stephan Bosch

Kirk Schornstein

Para - Alpine Skiing, Slalom - Standing, WC Coach: Jean-Sébastien Labrie

Elisabeth Vathie

Skeleton, Individual, WC Coach: Ivo Pakalns

Emily Weekes

PARA - Cross-Country Skiing, 1km Sprint - Standing, WC Coach: Robin McKeever

Isabelle Weidemann

Speed Skating, 5000m, WC Coach: Xiuli Wang

seventh

Chantal Beauchesne Angelena Dolezar Danielle Ellis **Leanne Muldrew Jennifer Oakes Shacarra Orr Heidi Peters Tessa Popoff Amber Skyrpan Jolan Wong Katelyn Wright**

Sitting Volleyball, Women, PG Coach: Nicole Ban

Morgan Bird

Para-swimming, 50m Freestyle, PG Coaches: Wendy Johnson, Kristina Crook

Jenn Brown

Athletics, Discus, PG Coach: Kim Cousins

Rosalind Groenewoud

Freestyle Skiing, Halfpipe, WC Coach: Trennon Paynter

Brady Leman

Ski Cross, WC Coach: Stanley Hayer

Brendan Mackay

Freestyle Skiing, Halfpipe, WC Coach: Trennon Paynter

Emily Weekes

PARA - Cross-Country Skiing, 5km - Standing, WC Coach: Robin McKeever

Tara Whitten

Cycling - Road, Time Trial, OG Coach: Denise Kelly

eighth

Jordan Belchos Speed Skating, 5000m, WC Coach: Bart Schouten

Brittany Hudak

PARA - Biathlon, 10km Middle - Standing, WC Coach: Robin McKeever

Kate O'Brien **Monique Sullivan**

Cycling - Track, Team Sprin, OG Coach: Erin Hartwell

Mirela Rahneva Skeleton, Individual, WC Coach: Ivo Pakalns

Emily Weekes PARA - Biathlon, 6km Sprint - Standing, WC Coach: Robin McKeever



OG Olympic Games

PG Paralympic Games

WC World Championships







This limited edition report is printed on paper made using sustainable forestry practices. A downloadable PDF is available at csicalgary.ca

The Canadian Sport Institute Calgary provides world-class training environments in Alberta. With the support of our partners, we deliver leading sport science and medicine, coaching education and life services to help Canada's high performance athletes achieve Olympic and Paralympic podium performances. For more information, please visit **csicalgary.ca**

 $\hbox{@ Dave Holland Photography, the official photographer of the Canadian Sport Institute Calgary}\\$