2019-20 Canadian Sport Institute Pacific

- YEAR IN

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PACIFIC / PACIFIQUE —

### Letter from the CEO & Board Chair

To say that the past 12 months have been significant ones in the history of CSI Pacific would be an understatement.

The 2019-20 year of course ended with our facilities shutting down due to the COVID-19 pandemic. That was followed by the news in the spring time of the postponement of the Tokyo 2020 Summer Olympics and Paralympics. While this was a major disappointment to the athletes who trained so hard to attend, as well as the coaches and our staff who worked so hard to be a part of these Games, we were in full support of the strong leadership by the Canadian Olympic Committee and Canadian Paralympic Committee to withdraw prior to the postponement and put the athletes' health first.

We continue to work hard and to Collaborate. Serve. Innovate. Perform. on the way to getting our affiliated athletes and coaches, as well as our partner NSO's, ready for Tokyo 2021.

Prior to COVID-19's emergence, the 2019-20 fiscal year had been an important one for us, with some major news around our facilities. In Vancouver, both our performance lab and our corporate office relocated after a successful facility partnership with the Richmond Olympic Oval for the past five years. Our performance lab moved to UBC War Memorial Gym as part of a larger strategic partnership with UBC Kinesiology department, further strengthening UBC as both a facility and research partner going forward. At the same time, our Vancouver corporate office staff (I.T., Finance & Athlete Services) moved into a shared space with one of our NSO partners, Canada Snowboard, on Terminal Ave downtown.

Our Whistler campus received a Tire Stewardship of British Columbia Grant, which will allow us to lay a much needed new outdoor training surface that will be a huge benefit to athletes training there. This project is underway at the moment and will be ready for use very soon.

Meanwhile, our Victoria campus continues our strong facility partnership with PISE, as we continue our efforts to finalize a purpose built facility that will fit the growing needs of our organization. Our continued success has led to continued growth!

As we begin to implement our Return To Sport plan, we look forward to what will certainly be a unique year in our history for 2020-21, as we create new and innovative ways to support our sport partners on their way to Tokyo 2021.





Wendy Pattenden, CEO Canadian Sport Institute Pacific



Lance Macdonald, Board Chair Canadian Sport

Institute Pacific

### Our National Sport Partners Training in BC































#### SYSTEM ENHANCEMENT

In 2019-20, we effectively implemented one RBC Training Ground event in Kelowna BC, where we tested 146 athletes from across the Okanagan region. This event featured on-site partnership with PacificSport Okanagan, and also the UBC Okanagan Athletics department. Due to COVID-19 restrictions, we are planning to resume RBC Training Ground programming in the fall of 2020, once cleared from the various provincial and federal health ministries.

In November, we co-hosted a Paralympian Search, in Kelowna. This event featured excellent on-site collaboration with our partners at the Canadian Paralympic Committee and PacificSport Okanagan.

We also hosted a CSI Pacific proprietary PODIUM SEARCH<sup>TM</sup> program at the 2020 BC Winter Games in Fort St. John, in February 2020. We efficiently tested over 390 athletes, across 6 different sports, over 1 ½ days of testing.



#### PHYSIOLOGY



Our Physiology team collaborated with Athletics Canada coaches, biomechanists, data scientists and strength & conditioning to take steps towards understanding athletes 'fatigue signatures' at 800m pace, and athlete's biomechanical strategies to adjust to surges in racing. Essentially trying to replicate a race, without running a race (and measuring what happens to compare to coach intuition / observation / identify limiting factors.)

It was an exciting year for our physiology department with the move of our Vancouver lab to the UBC campus. We also hired a new physiologist to our team who assists with public fee for service testing.

This year, we created and successfully delivered a CSIP physiology practical lab course at the University of British Columbia Exercise testing and prescription for health and performance (11 grad students, 2 undergrad). This develops applied skills we are looking for in the next generation of practitioners.

We supported 3 targeted sports (Rowing, Athletics, Swimming and Para Tri, Para rowing) in the daily training environment and at major international events last year including Olympic test events and successful world championships for Athletics and Swimming.

Some of the research and innovation we have done over the past year include core temperature and environmental data collecting at multiple events to inform planning pacing and performance at upcoming Olympic and Paralympic games. We also sourced a new type of ice vest to improve testing effectiveness and providing guidelines and cooling solutions to our summer sport partners.

SERVICE DELIVERED	APPROX #
Body composition assessment	615
Resting metabolic rate test	50
VO2max / lactate step test	360
Wingate test	60
Lactate strips used	3400
Athletes impacted	500

#### ATHLETE COACH SERVICES



We have 2429 registered athletes with 324 registered coaches across BC.

We ran 15 Sport Performance speaker Series seminars with total attendance of 554 and total athlete and coach attendance of 365. We continue to offer free Speaker Series On-Demand presentations through our website and have released 18 Podiumcasts with 632 listens across 15 countries!

Currently, we have 317 community partners (GymWorks, FoodStuff, SportHealth, etc) across BC.

2429
REGISTERED

324
REGISTERED
COACHES

33
SPEAKER SERIES
& PODIUMCASTS

317
community
partners



We continued our Imagine
Canada Standards
Accreditation, demonstrating
our ongoing excellence in five
areas of operations. These
areas are: Board Governance,
Financial Accountability and
Transparency, Fundraising,
Staff Management,
Volunteer Involvement. CSI
Pacific has been accredited
with Imagine Canada since
2015.



Team and department connection has been at the forefront to increase the strength of our Nutrition team this year. We have worked towards ongoing refinement of our institute supplement policy and procedural guide.

Continuing with the theme of collaboration, we are involved with revamping basecamp which is our national platform for supporting communication and collaboration across our Canadian High Performance nutrition practitioners. This is an effort to build out collaborative initiatives of resource sharing across COPSI Network Nutrition departments.

Our research and innovation for 2019-2020 includes the completion of our sodium bicarb study and magnesium for sleep project, both of which were completed for Rowing Canada. We also implemented a supplement safety tracking system for Softball Canada.



## CANADIAN SPORT SCHOOL

Canadian Sport School has 30 Victoria students with campuses now in Victoria, Prince George and Kelowna, with plans in place for an additional location in Penticton fall of 2020.

CSS was transitioned internally from Talent Development to our System Enhancement department late in the fiscal year. Laura-Ellen de Vries became the CSS Victoria Coach in fall 2020, replacing longtime program coach, Jenn Joyce.





In 2018-19, CSI Pacific staff completed 46 national and international conference presentations in the fields of Data Science, Biomechanics and Performance Analysis, Strength and Conditioning, Mental Performance, Nutrition, Sport Technology, Athlete Pathway and Physiology.

This past year we completed eight Own The Podium-funded "Innovation for Gold" grants and also conducted 26 additional research and innovation projects across our Institute throughout all three campuses. This work includes tightly-woven Industry, University and Institute collaborations between UBC Kinesiology, SFU, Camosun Innovates, UVic and CSI Calgary, as well as other international collaborators.

Our collaborations have led to 22 peer reviewed publications this year.

CSI Pacific has eight adjunct professors on staff, at universities throughout Canada and Australia.

Dr David Clarke (CSI Pacific Senior Advisor in sport analytics innovation and research) developed and led an Applied Sport Analytics course at SFU that included many or our staff as contributors and helped instigate current research projects.

We have two Mitacs scholars working in our institute on applied sport research - Amarah Epp-Stobbe (UVic, Rugby Canada) and Gareth Sandford (UBC, Athletics Canada) - who also both won the OTP Gord Sleivert Young Investigator Award this past year.



#### **MENTAL PERFORMANCE**

Over the past year, we have increased our Mental Performance team size with the hire of two new contractors, Geoff Hackett (Victoria) and Matt Fisher (Vancouver). Our team now consists of nine people, as a combination of staff and contractors.

We were granted the "Innovation for Gold" grant award to test the validity of biofeedback training with Women's Rugby 7s program.

With this grant came the creation of the Mindroom at our Victoria Campus, which is used to upskill all mental performance consultants on the utility of biofeedback training. This has allowed us to add biofeedback training services to our sport partners.

In 2019, two of our practitioners were invited to speak at conferences: Alex Hodgins spoke at the 2019 Association for Applied Sport Psychology conference in Portland, Oregon and Dr. Sharleen Hoar spoke at the 2019 SPIN conference in Toronto, ON.



Strength & Conditioning continues to be in high demand across all our campuses, with hundreds of athletes in direct contact with our service providers daily.

This year we had a number of summer athletes qualify for Tokyo 2021 and our winter sport athletes performed strongly, with many podium finishes in the lead up for qualifying for Beijing 2022.

Despite the shutdown, our athletes continue to train remotely with guidance from staff across departments. To support this demand, a number of our PS1 (junior) practitioners have developed into PS2 roles and UVic, in partnership with CSI Pacific, has begun a Sport Science Pathway to develop future PS1 practitioners.

The future is bright!



Great staff collaboration and initiative created an improved Strategic Plan which will guide our efforts for the next three years. Aligning our Core Strategies and Key Outcomes will help define our success in the years to come



# BIOMECHANICS & PERFORMANCE ANALYSIS

Through 2019-2020, our Biomechanics and Performance Analysis team supported over 10 National Sport organizations including: Swimming, Wheelchair Rugby, Women's 7's Rugby, Track Cycling, Athletics & Para Athletics, Rowing, Snowboard, Freestyle Ski, Cross Country Skiing, Biathlon and Soccer.

Some of the research projects (for Own The Podium Innovations 4 Gold) over the year have focused on technology and analytics. Matt Jensen has led a cycling timing system, while Amarah Epp-Stobbe has focused on Rugby 7's analytics. Ming-Chang Tsai has been developing a snow sport measurement system as well as a para-sport measurement system with contributions by Marc Klimstra, Matt Jensen and Robert Rupf (OTP-Mitacs PhD student).

We also collaborated with the Datafest Hackathon competition via the American Statistical Association. This annual competition included over 40 universities with more than 3000 undergraduate students. Two North American Universities were involved (University of Toronto and Waterloo) and Canada's Women's 7's Rugby team – with whom we work extremely closely – was used as the dataset.





GAME PLAN
PLAN DE MATCH
Powered by | Parrainé par
Deloitte.

#### **GAME PLAN**

We transitioned a new Game Plan Advisor, Sarah Kiengersky, who is positioned based in Victoria to better support National Team training groups. Sarah supports hundreds of registered athletes and ran 11 team workshops for national training groups during the year. CSIP continues to offer one-on-one advising sessions to Game Plan eligible athletes.



#### DATA SOLUTIONS

2019-2020 was the first year of Data Solutions as an official discipline within CSI Pacific. The inception of this new discipline brought about a great deal of change and growth.

Ryan Brodie, Ming Chang-Tsai and Marc Klimstra attended the OTP (Own The Podium) Data Think tank in Toronto to begin the year. This event was followed by participation in the creation of a final report and recommendations, which now form the backbone of national and institute initiatives in providing Data Science services and raising data literacy.

Smartabase continues to be the key athlete data software for CSIP and our NSO partners. Data solutions staff were involved in the continued build-out of Smartabase forms and in providing assistance to sports engaged with CSIP in the use of that system. Triathlon Canada worked with CSIP to bring their Smartabase environment as a partnered site with the Institute. Rugby Canada continued their development and use of the system through the great work of Amarah Epp-Stobbe, who continues to drive innovation with that NSO partner. Athletics Canada, Soccer Canada and Rowing Canada also have important presence in our Smartabase, as well as the development of athlete monitoring and other workflows.

Data Solutions continued to grow through the adoption of new collaborative tools such as Microsoft Teams, allowing the Institute to share resources, discussion and software code in the pursuit of innovations in sport data analysis. This has enabled new data solutions staff to develop their skills more quickly and engage in relevant technical discussions at an earlier stage than would have been the case previously.

#### **CONSISTENT SUCCESS**

#### **PYEONGCHANG 2018 OLYMPICS**

28% of the athletes lived/trained in BC, and these athletes won 38% of Canada's medals

#### **PYEONGCHANG 2018 PARALYMPICS**

44% of the athletes lived/trained in BC, and these athletes won 57% of Canada's medals

#### **RIO 2016 OLYMPICS**

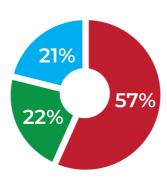
45% of the athletes lived/trained in BC, and these athletes won 50% of Canada's medals

#### **RIO 2016 PARALYMPICS**

27% of the athletes lived/trained in BC, and these athletes won 34% of Canada's medals

#### **FINANCIAL SUMMARY 2019-20**

#### **Funding**



## Total Funding (in 1000's)

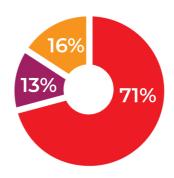
National Funding Partners: \$4,147

Provincial Funding Partners: \$1,635

Other Contributions, Fee for \$1,527 Service, Sponsorships & Misc:

Total \$7,309

#### **Expenditures**



### Total Expenditures (in 1000's)

Performance Service: \$5,127

■ Talent Development: \$950

Business Operation: \$1,140

Total \$7,217

#### **FUNDING PARTNERS**

















