

**Dr. Christopher MacLean (PhD)**  
**Director, Fortius Laboratory & Applied Biomechanics**



**Presentation:** Running Injury Prevention & Management: A Biomechanical Approach

**Biography:**

Dr. Christopher MacLean is a nationally-recognized Biomechanist. A key member of the sport medical advisory team behind Fortius Sport & Health, he has a Master of Science degree (Human Kinetics) from the University of British Columbia and a Ph.D. (Biomechanics) from the University of Massachusetts Amherst. He is the past President of the Prescription Foot Orthotic Laboratory Association. He was involved in the prescription foot orthotic industry for the past 22 years and was the Director of Biomechanics at Paris Orthotics Lab Division in Vancouver, B.C. His research efforts over the past several years have focused on the mechanism of lower extremity orthopaedic (overuse and traumatic) injuries and the influence of therapeutic interventions. He has also been involved in research on the influence of footwear and exercise interventions.

**Elizabeth Ann Perrotta**  
**Applied Exercise Physiologist – Fortius Sport & Health**  
**MKin, CSCS, CEP, ISKA – Level 1 Anthropometrist**



**Presentation:** Physiological Determinants in Fire Fighters

**Biography:**

As part of the Fortius Lab team within Fortius Sport & Health, Certified Exercise Physiologist Elizabeth Perrotta brings experience in exercise physiology, strength and conditioning, anthropometry, phlebotomy and various sport specific certifications. Elizabeth has been published in a number of industry journals including Circulation, the American College of Sports Medicine and the Canadian Society for Exercise Physiology. She has been a Guest Lecturer and Laboratory Instructor at the University of Calgary where she completed her Masters of Kinesiology, Specializing in Applied Exercise Physiology. Elizabeth was previously an Exercise Physiology Technician at the Canadian Sport Center in Calgary as well as the manager of the Molecular Exercise Physiology Lab at the University of Calgary. Prior to completing her Masters she worked as a physiology lab technician in the Work Physiology Laboratory while at the University of Alberta where she performed testing for incumbent firefighters.

**Joanna Irvine**  
**Registered Dietician – Canadian Sport Institute Pacific**  
**BSc, IOC Diploma Sport Nutrition**



**Presentation:** Nutritional Strategies for Sport Performance and Rehabilitation

**Biography:**

Joanna Irvine is a Registered Dietitian and a graduate of the specialized Sport Nutrition program from the International Olympic Committee. Over the past several years she has been providing nutrition support to a variety of teams and individual athletes including the Women's National Field Hockey team, the National BMX team, Swimming Canada and BC Gymnastics, to help optimize athletes' performance during both training and competition. Joanna has also managed the Podium Fuel program based in Whistler, which provides Canadian winter athletes with high quality, sport specific meals to support them during intensive training camps. Aside from her passion for work and drive to stay current with sport nutrition research, Joanna enjoys being active and outdoors with her very energetic family.

**Johann Windt**  
**Data Analyst – Vancouver Whitecaps FC**  
**PhD – Student in Experimental Medicine**  
**University of British Columbia**



**Presentation:** Exercise Stress & Training Load

**Biography:**

Johann Windt is a Vanier Scholar at the University of British Columbia and the Data Analyst for the Vancouver Whitecaps FC. His prevention-first mindset empowers his dual goals of preventing injuries in athletes while preventing lifestyle-related chronic disease in sedentary populations - both of which are best achieved through proper exercise prescription.

Johann's PhD research and applied work builds on previous athletic injury models to incorporate the effects of training and competition workloads while considering individual athlete characteristics.

When he's not taking doctoral courses in data analysis, writing papers, or working with the White Caps, you are likely to find Johann doing something active with his wife or friends – warding off chronic diseases while trying not to get hurt.