

DR. TRENT STELLINGWERFF

Senior Research Scientist in Sport Nutrition, Energy and Performance

Nestlé Research Center

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OBJECTIVE

Presently a senior scientist at the Nestlé Research Center in Lausanne, Switzerland, where I am coordinating and directing the research of Nestlé's physical performance based products (ie. PowerBar).

CURRENT EMPLOYEMENT & CONSULTING

Nestlé Research Center, Lausanne, Switzerland

Sept. '06 - present

- Senior Research Scientists, Dept. of Nutrition & Health, Group Deputy of Physical Performance and Mobility
- Direct all Nestlé research in the area of nutrition, performance and exercise (main brand: PowerBar)
- Nestlé Product Area Coordinator (PAC) for Performance – direct contact between research center and global business headquarters. Assist on research strategy, science consumer communications and education

Athletics Canada- Governing body for track and field in Canada

May. '07 - present

- Serve as nutrition and physiology expert consultant for Athletics Canada and Olympic caliber Canadian track and field athletes

EDUCATION

University of Maastricht, Department of Movement Sciences, Maastricht, the Netherlands.

- Post-Doctorate Fellowship in the area of Human Exercise and Skeletal Muscle Physiology (2005-2006)

University of Guelph, Department of Human Biology and Nutritional Sciences, Guelph, Ont.

- PhD Degree in the area of Human Exercise and Skeletal Muscle Physiology, Sept. 2005
- Cumulative 90% average

Cornell University, College of Human Ecology- Division of Nutritional Sciences, Ithaca NY.

- Honors Bachelor of Science in Nutrition, with a minor in Exercise Science, May 2000
- Major GPA 3.5 (~85%) – Accumulative GPA 3.3 (~80%)

North Lambton Secondary School, Forest Ont.

- 1996 graduate with honors as Class Vice-President and Ontario Scholar Recipient (A average)

COACHING EDUCATION & COACHING EXPERIENCE

NCCP Level I Technical Track and Field- York University, May 2001

NCCP Level II Distance Technical- University of Guelph, April 2002

- Course coordinator/organizer and taught physiology portion of course

NCCP Level III Distance Technical- currently completing via correspondence

- International level coaching technical course.

NCCP Level IV & V 'Task' completion:

- 'Task' 1- Nutrition
- 'Task' 4- Energy systems / physiology
- 'Task' 1- Conducting /organizing a national team camp

NCCP Level I, II and III Practical and Theory Certified

Athletics Canada Endurance Camp Coordinator- University of Guelph, April 2005.

- Camp coordinator/organizer and conducted part of an energy systems lecture and nutrition lecture.

University of Guelph Track and Field Assistant Coach & Alumni Relations

Sept. '00 – Sept. '05

- Head middle-distance coach (since '04), team travel, team recruiting, and press releases
- Coordinating the making of a promotional booklet, video and website
- Assisting in Alumni functions and team fundraising ventures

- Head Camp Director for over 70 athletes aged 7 to 13 for 6 weeks of track camps
- Assisted in elite athletes development, organization of competition travel schedules and media reports

ACADEMICS

Publications:

Articles published in peer-reviewed journals

- Pfeiffer, Beate, Alexandra Cotterill, Dominik Grathwohl, **Trent Stellingwerff** and Asker E. Jeukendrup. The effect of carbohydrate gels on gastrointestinal tolerance during a 16km run. *Accepted Feb. 2009: International Journal of Sport Nutrition and Exercise Metabolism.*
- Pelsers, Maurice MA, **Trent Stellingwerff**, and Luc J.C. van Loon. The role of membrane fatty-acid transporters in regulating skeletal muscle substrate use during exercise. *Sports Medicine- 38(5): 387-399, 2008.*
- **Stellingwerff, Trent**, Mike K. Boit and Peter T. Res. Nutritional strategies to optimize training and racing in middle-distance athletes. *Journal of Sports Sciences- 25(S1): S17-S28, 2007.*
- Koopman, Rene, Milou Beelen, **Trent Stellingwerff**, Bart Pennings, Wim H. Saris, Arie K. Kies, Harm Kuipers and Luc J.C. van Loon. Co-ingestion of carbohydrate with protein does not further augment post-exercise protein synthesis. *American Journal of Physiology: Endocrinology and Metabolism- 293(3): E833-E842, 2007.*
- **Stellingwerff, Trent**, Hanneke Boon, Anemie P. Gijsen, Jos H. Stegen, Harm Kuipers and Luc J. van Loon. Carbohydrate supplementation during prolonged cycling exercise spares muscle glycogen but does not affect intramyocellular lipid use. *Pflugers Archive- European Journal of Physiology- 454(4): 635-647, 2007.*
- **Stellingwerff, Trent**, Hanneke Boon, Richard A. Jonkers, Joan M. Senden, Lawrence L. Spriet, René Koopman and Luc J. van Loon. Significant intramyocellular use during prolonged cycling in endurance-trained males as assessed by three difference methodologies. *American Journal of Physiology: Endocrinology and Metabolism- 292(6): E1715-E1723, 2007.*
- **Stellingwerff, Trent**, George J.F. Heigenhauser and Lawrence L. Spriet. Reply to letter "Pyruvate metabolism in working human skeletal muscle" by Henderson et al. *American Journal of Physiology: Endocrinology and Metabolism- 292(4): E1238-E1239, 2007.*
- **Stellingwerff, Trent**, Paul J. LeBlanc, Melanie G. Hollidge, George J.F. Heigenhauser and Lawrence L. Spriet. Hyperoxia decreases muscle glycogenolysis, lactate production and lactate efflux during steady state exercise. *American Journal of Physiology: Endocrinology and Metabolism- 290(6): E1180-E1190, 2006.*
- **Stellingwerff, Trent**, Lawrence L. Spriet, Matthew J. Watt, Nicholas E. Kimber, Mark Hargreaves, John A. Hawley and Louise M. Burke. Decreased PDH activation and glycogenolysis during exercise following fat adaptation with carbohydrate restoration. *American Journal of Physiology: Endocrinology and Metabolism- 290(2): E380-E388, 2006.*
- **Stellingwerff, Trent**, Lee R. Glazier, Matthew J. Watt, Paul J. LeBlanc, George J.F. Heigenhauser and Lawrence L. Spriet. Effects of hyperoxia on skeletal muscle carbohydrate metabolism during transient and steady-state exercise. *Journal of Applied Physiology. 98 (1): 250-256, 2005.*
- Glazier, Lee, **Trent Stellingwerff** and Lawrence L. Spriet. Effects of microhydrin supplementation on endurance performance and metabolism in well-trained cyclists. *International Journal of Sport Nutrition and Exercise Metabolism. 14(5): 560-573, 2004.*
- Watt, Matthew J., **Trent Stellingwerff**, George J. F. Heigenhauser and Lawrence L. Spriet. Effects of plasma adrenaline on hormone-sensitive lipase at rest and during moderate exercise in human skeletal muscle. *Journal of Physiology. 550(1): 325-332, 2003.*

• **Stellingwerff, Trent**, Matthew J. Watt, George J.F. Heigenhauser and Lawrence L. Spriet. Effects of reduced free fatty acid availability on skeletal muscle PDH activation during aerobic exercise. *American Journal of Physiology: Endocrinology and Metabolism*- 284(3):E589-E596, 2003.

• Watt, Matthew J, George J.F. Heigenhauser, **Trent Stellingwerff**, Mark Hargreaves and Lawrence L. Spriet. Carbohydrate ingestion reduces skeletal muscle acetylcarnitine availability but has no effect on substrate phosphorylation at the onset of exercise in man. *Journal of Physiology*. 544(3): 949-956, 2002.

Book sections

• **Stellingwerff, Trent** and Jacques Décombaz. Athlete nutrition from post-exercise recovery to training adaptation. In: *Alimentarium Book- Recherche et alimentation en dialogue*. E. V. Schärer-Züblin (Editor). Wiley-Blackwell Press. Weinheim, Germany. pp. 194-200, 2009.

• **Stellingwerff, Trent**. Case Study: 2008 Olympic 50km race-walker – Practical applications of science to optimize endurance performance. 4th *Applied Sports Nutrition Conference Proceedings*. Published by Nutrifit and PowerBar, May, 2009.

• **Stellingwerff, Trent**. Nutrition for middle-distance running. *Applied Sports Nutrition Conference Proceedings*. Published by Nutrifit and PowerBar, May, 2008.

Other non-peer reviewed publications

• **Stellingwerff, Trent**. Fat and Body Weight Regulation. *Running Room Magazine*. July/August: pg. 31-32 2005.

• **Stellingwerff, Trent**. Dietary Fat: The Good, The Bad and the Ugly. *Running Room Magazine*. May/June: pg. 22-23, 2005.

• **Stellingwerff, Trent**. Fat 411: Physiology of Fat. *Running Room Magazine*. Mar./April: pg. 24-25, 2005.

• **Stellingwerff, Trent**. Different Ergogenic Aids: Claims versus Reality. *Running Room Magazine*. Jan./Feb.: pg. 30-31, 2005.

• **Stellingwerff, Trent**. How to Choose the Right Sports Drink. *Running Room Magazine*. Nov./Dec.: pg. 22-23, 2004.

• **Stellingwerff, Trent**. Protein and the Runner. *Running Room Magazine*. Sept./Oct.: pg. 30-31, 2004.

• **Stellingwerff, Trent**. Low Carbohydrate Diets for Runners- Facts, Myths and Controversy. *Running Room Magazine*. July/Aug.: pg.30-31, 2004.

• **Stellingwerff, Trent**. Lifestyle Choices for an Aging Population. *Running Room Magazine*. Mar./Apr.: pg. 42-43, 2004.

• **Stellingwerff, Trent**. Optimizing Performance AFTER the ‘Event’: Nutrition, Hydration and Racing Tips. *Running Room Magazine*. Jan/Feb: pg. 34-35, 2004.

• **Stellingwerff, Trent**. Optimizing Performance DURING the ‘Event’: Nutrition, Hydration and Racing Tips. *Running Room Magazine*. Nov./Dec: pg. 36-37, 2003.

• **Stellingwerff, Trent**. Optimizing Performance BEFORE the ‘Event’: Nutrition, Hydration and Racing Tips. *Running Room Magazine*. Sept./Oct: pg. 54-66, 2003.

• **Stellingwerff, Trent**. Nutrition and hydration concerns for the endurance runner. *Running Room Magazine*. March/April; pg. 34-35, 2002

• **Stellingwerff, Trent**. Some ethical situations and questions to consider with doping and drug testing in sport. - Appeared on: www.letsrun.com: : January 2002.

Major Presentations (not at scientific conferences):

• **Stellingwerff, Trent**. Case Study: 2008 Olympic 50km race-walker – Practical applications of science to optimize endurance performance. – *keynote speaker, 4th Applied Sports Nutrition Conference – Munich, Germany, May, 2009.*

• **Stellingwerff, Trent**. The importance of nutrition for the developing adolescent athlete. – *keynote speaker at Athletics Canada Technical Congress - Toronto, Canada, November, 2008.*

• **Stellingwerff, Trent**. Nutrition and Performance. – *Conference introduction, 5th Nestlé International Nutrition Symposium – Lausanne, Switzerland, October, 2008.*

• **Stellingwerff, Trent**. Nutritional recommendations for individual sports. – *keynote speaker, Spanish Olympic Committee Symposium on Medicine and Science - Madrid, Spain, September, 2008.*

• **Stellingwerff, Trent**. Nutrition for middle-distance athletes. – *keynote speaker, 2nd Applied Sports Nutrition Conference University - Indianapolis, IN, May, 2008.*

- **Stellingwerff, Trent.** Fat – Is it the “holy grail” of energy for the endurance athlete?– *invited speaker, University of Birmingham School of Sport Sciences Symposium - Birmingham, England, May, 2008.*
- **Stellingwerff, Trent.** Performance Nutrition R&D at Nestlé: from science to product – *scientific keynote speaker for European media launch of PowerBar C2max - Lisbon, Portugal, March, 2008.*
- **Stellingwerff, Trent.** Sport Nutrition as a Recovery Tool- Optimizing post-exercise protein synthesis. – *keynote speaker at Athletics Canada Technical Congress, November, 2007.*
- **Stellingwerff, Trent, Mike Boit and Peter Res.** Nutritional strategies to optimize training and racing in middle-distance athletes. – *keynote speaker at the 2007 International Association of Athletics Federations (IAAF) Consensus Congress on Nutrition in Athletics- Monaco, April 2007.*
- **Stellingwerff, Trent.** Optimizing nutrition before and after an event. – *keynote speaker at Sports Nutrition for Endurance Athletes Symposium- Lausanne, Switzerland, April, 2007.*
- **Stellingwerff, Trent.** Athletics Canada Endurance Camp- hosted by Guelph National Endurance Centr. Nutrition for the Elite Endurance Athlete- *1hr. educational presentation, April 2005.*
- **2003-Entire Speaking Series for Gatorade Canada-** on Nutrition and Hydration including: Vancouver Marathon, Ottawa Marathon, Ontario Hockey League Trainer’s Meeting, Ironman Canada, Victoria Marathon.
- **Stellingwerff, Trent.** Nutrition and hydration concerns for the Ironman Triathlete. – *presentation for Gatorade Canada (Second Dimension Int.) at Ironman Canada, Penticton, B.C.- August, 2002.*
- **Stellingwerff, Trent.** Gatorade Education- Physiology of hydration and carbohydrate supplementation. – *3 hr educational presentation for Quaker-Tropicana-Gatorade, Toronto- August, 2002.*
- **Stellingwerff, Trent.** Athletics Canada National Coaching Certificate Program- Level II Distance Running: Basic physiology during distance running and application in racing and training.–*3hr. educational presentation, May 2002.*

Scholarships and Academic Awards:

- **European College of Sports Science- Young Investigator Award Winner 2006**
- 1 of 10 oral presentations awarded at the annual congress for young investigators.
- **University of Guelph College of Biological Sciences nominee for the Forester Medal 2006**
- 1 of 6 students nominated for being the best graduate student at the Univ. of Guelph
- **Natural Science and Engineering Research Council of Canada (NSERC) 2005 – 2007**
- Government of Canada Post-Doctorate Fellowship/Research Grant and Stipend for work at Maastricht University, Netherlands.
- **Natural Science and Engineering Research Council of Canada (NSERC) 2003 – 2005**
- Government of Canada PhD Research Grant and Stipend for work at the University of Guelph, Canada.
- **Ontario Graduate Scholarship (OGS)- Science and Technology Award 2001 & 2002**
- University of Guelph Departmental Award
- **Gatorade Sport Science Student Grant Program Award 2002**
- 1 of 12 students selected worldwide for industrial research award.
- **Academic All-Canadian Honors 2001 & 2002**
- University of Guelph national medallist in track and field and an ‘A’ average
- **BSc Honours Graduate- Cornell University 2000**
- 1 of 8 students to graduate with honours from the Department of Nutritional Sciences- Cornell University
- **Dean’s List- Cornell University 1999 - 2000**
- **Red Key Honour Society- Cornell University 1997 - 2000**
- For successful varsity athletes with high academic standing.

ACTIVITIES AND INTERESTS

Athletics- Track and Field

- Former varsity athlete for the University of Guelph
- Elected Indoor and Outdoor Cornell Team Co-Captain for the 1999-2000 season
- Self-motivation and dedication has lead to a prominent level of accomplishment at the high school and NCAA/CIS University level in distance running (2-time Track and Field All-Canadian)
- Chosen as 1 of 20 Cornell athletes to participate in 2-½ week European Tour in 1998
- **Current running PB’s:** 800m: 1:53.05, 1000m: 2:26.93, 1500m: 3:53.11

10km XC: 33:10, ½ Marathon: 1:15:15, Marathon 2:57:38

Volunteering

- Volunteer ~30hrs a semester at the University of Guelph and Cornell University in activities ranging from community clean-ups, to reading to children at the public library
- Volunteer and assist with the Guelph Athletics Society (GAS) in helping-out with a non-for-profit road race series that benefits the Wellington County Children's Society
- Volunteered many hours for Kids Summer Track Camps and Elementary School tours and assisted in organizing and running track meets at home and Cornell.