



WINTER 2012–2013

KINESIOLOGY AND HEALTH NEWSLETTER

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PHYSICAL EDUCATION IN NEW ZEALAND: A SABBATICAL EXPERIENCE

Dr. Tristan Wallhead is an example of how research by UW's Kinesiology and Health faculty travels beyond the university and into classrooms worldwide. Last spring, Wallhead's research on cooperative learning took him from Laramie to Auckland, New Zealand, where he worked to implement theories of cooperative learning in schools across the city. For physical education teachers, the model provides an opportunity to help students practice and develop social skills along with the physical skills traditionally taught in the context of physical education.

What happens, for example, when students are put into a group and asked to juggle? The group practices throwing and catching until the inevitable happens: something is dropped. Together, the group must figure out what went wrong. They must communicate, evaluate, and strategize to develop a system to succeed. The activity allows students to practice physical skills, but also requires that the group learn to work together. This is one example of a cooperative learning task assigned to students in Wallhead's Auckland study.

Dr. Wallhead is an Associate Professor of Physical Education Teacher Education in the Division of Kinesiology and Health and was awarded a UW International Travel Grant to spend a sabbatical in Auckland during the spring 2012 semester. He arrived in Auckland in January for the beginning of the New Zealand school year. For the

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Left: Maori temple carving representing the Maori indigenous population. Right: Dr. Wallhead on a New Zealand beach.





Piha Beach in New Zealand

WALLHEAD NEW ZEALAND SABBATICAL Continued from page 1

next four months, he and co-researcher, Ben Dyson (University of Auckland), initiated an ongoing study of cooperative learning in elementary schools throughout the city.

Cooperative learning places students in groups where together they must communicate and cooperate to complete assignments.

“We use models of instruction where kids teach and learn from each other. Students work interdependently on a group task,” explained Wallhead. “Tasks promote face-to-face interaction and develop both physical and social skills.”

Tasks assigned can be as simple as a group activity, such as juggling, or can be more complex and spread out over a number of class periods. The goal is to engage

students with one another in the process of critical thinking. Students must learn to evaluate, strategize, and cooperate.

Wallhead’s research focuses on using cooperative learning methods with indigenous populations, where he believes the model can be particularly effective. “Indigenous cultures often have a more holistic view of health,” he said. Wallhead explained that while Western views of health tend to center on the physical domain, indigenous populations are more likely to recognize and value social health.

Auckland is a new and unique context for Wallhead’s continued research. Situated on an isthmus in the northern part of New Zealand, its temperate climate and water borders are a geographic and cultural change from the high plains of Wyoming.

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Giving Back to Wyoming

LARAMIE BLIZZARD SOCCER TEAMS UP WITH PHYSICAL EDUCATION TEACHING PROGRAM

This fall, UW Physical Education students teamed up with the Laramie Blizzard Soccer Club as part of a service learning project for Dr. Karen Gaudreault's Physical Education Teacher Education class, *Movement Core III—Fundamental Motor Skills*. The project allowed aspiring coaches and teachers to put the skills learned in the classroom to practice on the field. During September and October, UW students taught 2–3 sessions weekly for the local soccer club's youngest players, the 3–6 year olds enrolled in the Polar Bear Program.

With the guidance of K&H faculty, Dr. Tristan Wallhead and Dr. Gaudreault, UW students led the young players through drills and games designed to help develop fundamentals and motor skills, and to encourage participation and exercise.

“Getting the experience working with young children, seeing them have fun and improve—it doesn't get any better than that,” said Sarah Olson, a junior physical education major. Developing the skills and knowledge required of physical education instructors begins in the classroom and is realized in the field. For Olson,

the project was an opportunity to practice the teaching strategies she's learned at UW.

“It was a great opportunity to apply what we're learning out in the field,” said Olson. “I had never worked with kids this young before. I learned that you really have to be careful with what you say and how you say it. Every kid is different and you have to learn what they respond to well. You really have to know who you're working with and learn how to keep them interested,” she said.

Being positive, giving concrete pointers, and always showing enthusiasm were the strategies Olson found most effective.

Eli Lilley, a junior physical education major at UW, also participated in the project and praised the program. “I get this amazing energy from kids,” he said. “There were times when I felt tired beforehand, but then I'd go to a session, see these kids rush in excited to play, and I'd get energized,” he said.

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UW Faculty Advisor, Dr. Karen Gaudreault (back row, left) with the Physical Education Teacher Education students who participated as Polar Bear coaches.

POLAR BEAR SOCCER PROGRAM Continued from page 3

Before working with the Polar Bears, Lilley had never coached or played soccer before. But he found that his inexperience with the sport wasn't a hindrance; instead, it helped him relate to the young players he was coaching. During sessions, each coach worked with a group of six Polar Bears and the level of skill and enthusiasm could vary significantly among players. "I guess I felt I could relate to some of the kids. I didn't have a lot of experience with soccer," explained Lilley, "but even the players who weren't excited at the beginning of the sessions ended up getting into it. It was cool to see the kids transform."

"They pick up on stuff really quick," agreed Olson, "it was cool to see the difference between sessions."

Both students noted the challenge of working with energetic participants in a fast-paced environment. "It

could be frustrating because I knew I'd been taught certain ways to teach. I'd try to incorporate what we learned in class, but at such a fast pace, it could be difficult," said Lilley. "We were lucky to have the master teachers with us."

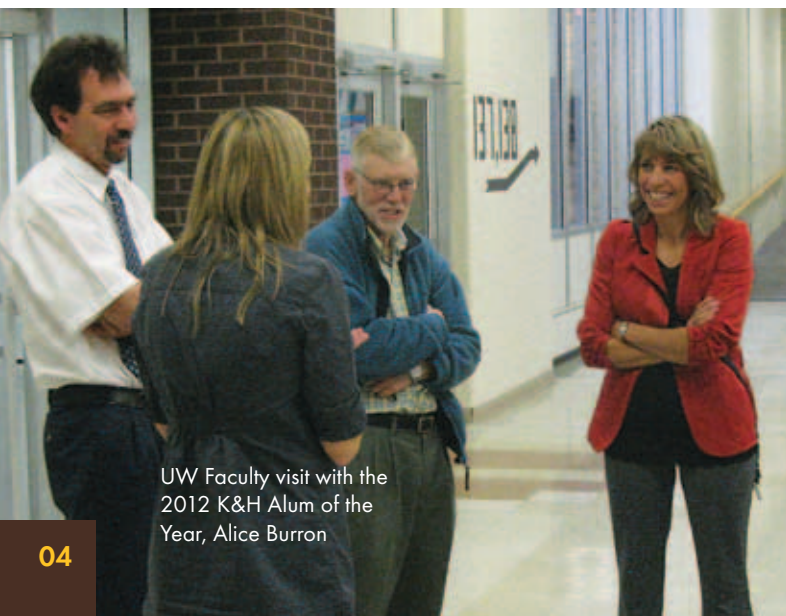
In addition to giving UW students practical coaching experience, the program gave the Polar Bears the opportunity to learn fundamentals of the sport with a group of enthusiastic coaches. It's one example of how UW is reaching out to the community, building relationships and providing opportunities for local youth and UW students alike.

"The program is very beneficial to the students and to the kids too. UW is reaching out to the community and I'm glad all these benefits came together," said Lilley.

2012 K&H ALUM OF THE YEAR: ALICE BURRON

The Division of Kinesiology and Health was pleased to name Alice Burron the 2012 Alum of the Year. Each year, the division awards The Alum of the Year to a graduate who has made a significant contribution in health, athletic training, kinesiology, physical education, or health education. Burron holds two degrees from the University of Wyoming, a B.S. in Biology ('90) and a M.S. degree in Physical and Health Education with an emphasis in Exercise Physiology ('93). Burron has since established herself as a health and fitness expert and activist. Her many roles in the field include writer and public speaker, personal trainer, exercise physiologist, and wellness resource specialist. Burron spent seven years of her career as the Wellness Coordinator at the Cheyenne Regional Medical Center. During this time

she organized events to promote health throughout the region. Currently, Burron is the Wellness Department Coordinator for Wyoming/Wellness Health Fairs. As coordinator, Burron designs and implements wellness programs for companies and communities throughout Wyoming. In addition to this work, Burron runs 2BFIT (www.2BFIT.net), a web based company she founded in 2006 in order to promote health and fitness education, and www.SoapstoneFitness.com, a website selling fitness gear. She is author of the book *4 Weeks to Fabulous Challenge*, and is co-author of the newly released *Stress as Trigger, Your Body as Target*. Burron is active in various organizations in the field. She is co-chair to the Wyoming Governor's Council on Physical Fitness and is a partner in the "Step Up Cheyenne Biggest Loser" and "Maintain Don't Gain" community health challenges. Burron's recent presentations include "Best Practices in Successful Wellness Programming," "Successful Fat Loss Strategies," and "Your Brain on Exercise." The Division of Kinesiology and Health is pleased to honor Alice Burron's commitment to promoting health and wellness, and the diverse contributions she's made to the field. Congratulations, Alice!



UW Faculty visit with the 2012 K&H Alum of the Year, Alice Burron

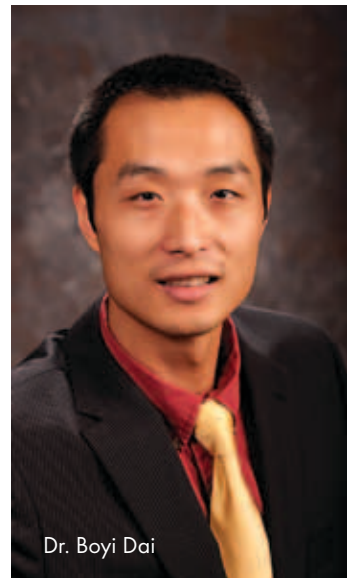
INTRODUCING NEW FACULTY:

DR. BOYI DAI

I came to Laramie for an interview this past February. I remembered that the weather was cold and the highways were closed. What I remember most, however, were the friendly people who made me feel warm inside. It was my honor to join the Division of Kinesiology and Health at the University of Wyoming. My wife, Lihan, and I moved to Laramie in August. We just had our first baby girl, Yufei, in November. We enjoy the life here.

I earned my Ph.D. in Human Movement Science at the University of North Carolina at Chapel Hill. My area of specialization is injury biomechanics and sports biomechanics. I am particularly interested in applying the knowledge of biomechanics to the developments of injury screening tools and injury prevention programs. I have been able to publish my research in biomechanics and sports medicine related scientific journals. My academic goal, as well as my life goal, is to conduct research and teach students in human movement science to help people enhance performance, prevent injury, facilitate rehabilitation, and improve quality of life.

During my free time, I enjoy playing basketball, volleyball, badminton, and walking our dog.



Dr. Boyi Dai

DR. EMILY GUSEMAN

My husband and I knew we wanted to live somewhere with real winters and easy access to outdoor recreation, so we were thrilled to have the opportunity to move to Laramie. We arrived here after spending four years in mid- and western-Michigan, where I completed my Ph.D. at Michigan State University and a research fellowship at Helen DeVos Children's Hospital in Grand Rapids. While here, I plan to continue my research on childhood obesity and metabolic syndrome, with a focus on the influences of physical activity, stress, and sleep habits on the development of these conditions. I'm excited about the opportunities available in Laramie and the state of Wyoming, and look forward to determining how exactly my research can best serve the state. In my free time, I enjoy hiking, running, and cross-country skiing with my husband and border collie-pointer mix, Kona. We're also expecting our first child in March 2013.



Dr. Emily Guseman

THANK YOU, DONORS!

The Division of Kinesiology & Health would like to thank the following donors for their contributions. Due primarily to their support, the Division has been able to offer academic scholarships for undergraduate and graduate students, fund student travel to professional conferences for educational development and presentation of research, as well as purchase necessary equipment for integral undergraduate and graduate courses. If you are interested in contributing to the enhancement of students' learning in the Division of Kinesiology & Health, please refer to the donation information within this newsletter.

Thanks to our donors who have contributed between May 2012 and December 2012:

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K&H SUCCESSES, FALL 2012

STUDENT SUCCESSES

Nick Myers was admitted into the Master's program in Sport Management at Northern Illinois University.

Caroline Wells was selected for an internship with USA Swimming at the Olympic Training Center in Colorado Springs, Colorado.

Shawn Rockey, M.S., was accepted into the University of Washington's Physician Assistant Program (MEDEX), beginning June 2012, in Seattle and Spokane, Washington.

FACULTY SUCCESSES

PUBLICATIONS & PRESENTATIONS:

Pelletier, D.L., **Porter, C.M.**, Aarons, G.A., Wuehler S.E., and Neufeld, L.M. (2013) "Expanding the Frontiers of Population Nutrition Research: New Questions, New Methods, and New Approaches." *Advances in Nutrition*. 4, 92–114.

Pelletier, D.L., **Porter, C.M.**, Aarons, G.A., Wuehler S.E., and Neufeld, L.M. (2012) "Expanding the Frontiers of Nutrition Research: New Questions, New Methods, and New Approaches," Symposium Summary. *Advances in Nutrition*. 3, 728–729.

Porter, C.M. & Pelletier, D.L. (2012) "Finding Common Ground: perspectives on community-based childhood obesity prevention." *Health Promotion Practice*. 13(6), 826–834.

Porter, C.M. (2013) "Choice: What we mean by it, and what that means for preventing childhood obesity." *Public Health Nutrition*. 16(01), 123–129.

Readdy, T. & Ebbeck, V. (*accepted for publication*). Obsessive-compulsive disorder symptoms and their correlates in community-based exercisers. *Psychology of Sport & Exercise*.

Willis, K.S., Broughton, K.S., **Smith, D.T.**, and D.E. Larson-Meyer. Vitamin D status & biomarkers of inflammation in runners. *Open Access Journal of Sports Medicine*, 3: 25–42, 2012.

Li, L., Hua, Y., Dong, M., Li, Q., **Smith, D.T.**, Yuan, M., Jones, K. R., and J. Ren. Short-term Lenalidomide

(Revlimid) administration ameliorates cardiomyocyte contractile dysfunction in ob/ob obese mice. *Obesity (Silver Springs)*, 2012 doi:10.1038/oby.2012.106. PMID 22522886.

Zhu, Q., Shockley, K., Riley, M.A., Tolston, M.T., & Bingham, G.P. (in press). Felt heaviness is used to perceive the affordance for throwing but rotational inertia does not affect either. *Experimental Brain Research*. This article was rated as one of the "NeuroStars" (Top Cited or Most Widely Discussed) articles by *Springer Neuroscience* on December 6, 2012 (<http://www.springer.com/biomed/neuroscience/neurostars?SGWID=0-1751113-0-0-0>).

Dai, B., Butler, R. J., Garrett, W. E., and Queen, R. M. (2012). ACL reconstruction in adolescent patients: limb asymmetry and functional knee bracing. *American Journal of Sports Medicine*. 40 (12), 2756–2763.

Dai, B., Ware, W. B., and Giuliani, C. A. (2012). A structural equation model relating physical function, pain, and impaired mobility (IM), and falls in older adults. *Archives of Gerontology and Geriatrics*, 55 (3), 645–652.

GRANTS/CONTRACTS

2013 **Porter, C.M.** [PI] with Sutter, V. and Woodsum, G.M. (1/13–12/13). Growing Resilience: Piloting home gardens as health interventions in Wind River Indian Reservation and in Albany County, Wyoming. UW INBRE award supported by grants from the National Center for Research Resources (5P20RR016474-12) and the National Institute of General Medical Sciences (8 P20 GM103432-12) from the National Institutes of Health. (\$142,225)

Smith, D.T. awarded a contract from Performance Health Systems, Inc., 2012–2013. Title: *Validation of bioDensity in chronic disease prevention and athletic populations*. (\$5,877)

AWARDS

Derek Smith and **Marci Smith** were recognized by the Cap and Gown Chapter of Mortar Board as University of Wyoming "Top Profs" for the exceptional contributions to the University of Wyoming and service to students.

Tami Benham-Deal, **Boyi Dai**, **Marci Smith**, and **Arthur Zhu** received funding from the 2012 ECTL Assessment Academy for assessment of the K&H curriculum.

WALLHEAD NEW ZEALAND SABBATICAL Continued from page 2

Auckland is a multicultural city, host to immigrants from neighboring Pacific islands and Asia. There is also a large population of Maori, a Polynesian ethnic group indigenous to New Zealand, in the city. In the schools where Wallhead was conducting research, student populations were 90% Pacific Islanders and included Maori as well as Fijian, Samoan, and Tongan students. In each school, Wallhead and Dyson worked with teachers to integrate cooperative learning strategies into their curriculum.

“You have to work with the teachers before you can work with the students,” Wallhead explained. In each school, he led workshops for teachers and modeled lessons in their classrooms.

Though Wallhead specializes in using cooperative learning in the context of physical education, the strategies can be applied across the curriculum. He noted that in New Zealand, elementary classroom teachers are charged with teaching physical education along with core subjects.

Wallhead found that teachers often felt less comfortable in the gym setting than in the classroom and therefore trained teachers to apply cooperative learning in different contexts, from math class to physical education.

When he departed in May, teachers had begun to assign simple cooperative tasks to students. He hopes that as they grow more comfortable with the model, they’ll begin to implement more complex cooperative learning scenarios into their classrooms.

Now back in Wyoming, Wallhead is reviewing videos of the teachers and students he worked with in Auckland and moving into the assessment phase of the project. Over the next year, he and Dyson will engage in a didactic study of how cooperative learning can change the learning environment, students, and teachers. This lens of inquiry considers not only the end goal—the effect on the students—but also considers the process of learning, beginning with the teachers. The study will look at how teachers have learned, how they develop as facilitators of cooperative learning, and how they implement these strategies into their classrooms.

For Wallhead, part of the pleasure of his time in Auckland was the students’ enthusiasm for sport. “It’s a sports culture,” he said, naming rugby as the country’s most popular game. For the physical education instructor, the joy of engaging students in play is only the beginning. With the right strategies, teachers can equip students with social skills which will serve them both on and off the field.

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GROWING RESILIENCE IN WYOMING

Assistant Professor of Public Health, Christine M. Porter, has been working closely with Gayle Woodsum of Feeding Laramie Valley in Albany County and with Dr. Virginia Sutter of Blue Mountain Associates in the Wind River Reservation for almost two years on the \$5-million, five-year, USDA-funded project called Food Dignity (www.fooddignity.org). From that work, it has become clear that there is a strong desire among many families and households to develop home food gardens. Thus, this team is now collaborating further on a pilot project to create an action research design that discerns the health benefits of home gardens while serving immediate priorities in these communities. Eastern Shoshone and Northern Arapaho Tribal Health organizations and Wyoming Survey Analysis and Design are additional key partners in this project, along with new K&H faculty member, Dr. Emily Guseman.

The project is called “Growing Resilience: Piloting home gardens as health interventions.” The work is supported by a UW INBRE award of \$142,000 for 2013 under federal grants from the National Center for Research Resources (5P20RR016474-12) and the National Institute of General Medical Sciences (8 P20 GM103432-12) from the National Institutes of Health (NIH). The team’s goal is to use the design and provisional pilot data to apply for NIH funding in 2014 for a full scale project involving at least a hundred families and households.

Home and community food gardens have been associated with benefits such as increased vegetable consumption, greater physical activity, and strong family and social networks. However, no randomized controlled trials have been done and there are many other possible benefits that the Growing Resilience team plans to assess. The team also plans to gather stories about the challenges and benefits households experience with gardening.

Expert gardener, Tim Thomas, shows Indian corn seeds he and his wife, Kathleen, are saving and sharing to help restore traditional foods on Wind River Indian Reservation.

