

# DEPARTMENT OF HUMAN HEALTH & NUTRITIONAL SCIENCES

COLLEGE OF BIOLOGICAL SCIENCE

## Teaching, Learning and Knowledge Transfer Research Group



Human Anatomy  
< Outreach Program >

Teaching

Learning

Knowledge Transfer

*The Department of Human Health and Nutritional Sciences conducts innovative, world-class research exploring the biological aspects of human health. We aim to advance our understanding of aging and chronic disease, with an emphasis on the impact of sensory contributions, nutrition, physical activity, and biomechanics as powerful determinants of human health.*

UNIVERSITY  
OF GUELPH

CHANGING LIVES  
IMPROVING LIFE

The Department of Human Health and Nutritional Sciences developed the Teaching, Learning and Knowledge Transfer (TLKT) research group to help it accomplish two of its critical missions as a modern University academic department: a. teaching and learning and b. knowledge transfer (mobilization). The research group is actively engaged in both discovery and improvement research in both of these areas. Undergraduate and graduate students at the University of Guelph now actively train in these research approaches and techniques. The group is establishing an extensive network of research partners in business, government and the not-for profit, education and healthcare sectors.



## **Genevieve Newton, PhD**

### ***Identifying strategies to enhance the learning and communication of health knowledge***

In part, learning depends on the effective communication of knowledge, which is also necessary to bring about behavior change. This is particularly relevant in the area of health, where what we learn and do greatly impacts our well-being. My research in the area of teaching, learning, and knowledge transfer spans several areas, including case-based learning, educational technologies, student assessment, and knowledge mobilization. My overall objective is to identify strategies that can be used to enhance the learning experience, to facilitate a deep approach to learning, and to effectively communicate health knowledge to targeted populations.

For more information, please visit [www.uoguelph.ca/hhns/People/GNewton.html](http://www.uoguelph.ca/hhns/People/GNewton.html)



## **William J. Bettger, PhD**

### ***Teaching, learning and knowledge transfer and the role of the professoriate***

My current research and scholarship interests fall into 4 domains. They are: 1) the role of community-based learning in undergraduate and graduate Life/Health Science education, 2) promoting the development of creativity in life/health science students, 3) learning, health and well-being in first year science students and 4) creating a culture of teaching, learning and knowledge transfer in the '21<sup>st</sup> Century University'.

For more information, please visit [www.uoguelph.ca/hhns/People/WBettger.html](http://www.uoguelph.ca/hhns/People/WBettger.html)



## **Coral Murrant, PhD**

### ***Matching assessment tools with course and degree program learning outcomes***

Course assessment tools drive how students work with and learn course material thus it is important to critically reflect on these assessment tools and determine whether they are matched with the desired learning outcomes. I am interested in teaching assessment and practices that improve student learning and develop higher order cognition and deeper student learning. Currently, I am looking at the alignment of course assessment and teaching activities in order to improve the delivery of learning outcomes. We use Blooms Taxonomy as a metric to better understand course design and use it to better align course structure and assessment to the learning outcomes of the course. I am particularly interested in improving the assessment practices in large classes.

For more information, please visit [www.uoguelph.ca/hhns/People/CMurrant.html](http://www.uoguelph.ca/hhns/People/CMurrant.html)



## **Lori Ann Vallis, PhD**

### ***Transferring theoretical, evidence based scientific knowledge to practical applications of this knowledge***

I am keenly interested in exploring different teaching techniques to enhance our students' understanding of theoretical concepts in the discipline of Kinesiology (e.g. anatomy, physiology, physics, biomechanics) and am excited at exploring innovative ways of providing hands on experiential learning opportunities to apply this knowledge in their study of human movement. To facilitate this learning process, I include problem solving case studies, hands-on laboratory sessions and more recently community based practical experiences for upper year students. In my experience, encouraging students to integrate core course concepts and seek connections between these concepts and real life scenarios results in a more effective and engaging learning experience, which our students are eager to embrace.

For more information, please visit [www.uoguelph.ca/hhns/People/LVallis.html](http://www.uoguelph.ca/hhns/People/LVallis.html)



## **Kerry Ritchie, PhD**

### ***Strategies to improve student learning and engagement in large classes***

Many pedagogical approaches have been identified to enhance student learning, including community engaged learning, writing intensive courses and one-on-one research opportunities. However, these high impact practices are typically reserved for small class sizes. My goal is to modify and scale these best practices to suit the current realities of large class sizes and to assess the impact of these modified teaching strategies on student learning and engagement. In particular, I am interested in novel methods for teaching and assessing critical thinking and communication skills in health sciences education.

For more information, please visit [www.uoguelph.ca/hhns/People/KRitchie.html](http://www.uoguelph.ca/hhns/People/KRitchie.html)



## **Justine Tishinsky, PhD**

### ***Enhancing learning outcomes of first year students***

My primary research involvement entails improving student learning outcomes in the First Year Biology Experience by developing means to foster the development of higher order thinking skills, such as oral and written communication and independent learning. Additionally, as an instructor in the First Year Seminar program, I am interested in promoting student engagement through a small, discussion-oriented format where interdisciplinary topics such as the art and science of sleep can be explored. Finally, I am interested in applying my background in science to explore the link between chronobiology and academic performance in undergraduate students.



## **Alison M. Duncan, PhD, RD**

### ***Knowledge translation and transfer of research relating functional foods to healthy aging***

My interest in KTT stems from a growing interaction with stakeholders related to my applied research program in the agri-food, health and nutrition continuum. I have led two research grants that focus on KTT activities aimed to fill gaps in agriculture, food, nutrition and health continuum to create a food-first strategy and focus on healthy aging. These activities have included dissemination events that engage a variety of stakeholders, resource development, facilitation of collaborative research opportunities and training of highly qualified personnel. I have also co-created and co-instructed a graduate course for the past 5 years that focuses on KT of human health and nutritional sciences using a journalistic approach.

For more information, please visit [www.uoguelph.ca/hhns/People/ADuncan.html](http://www.uoguelph.ca/hhns/People/ADuncan.html)



## **John Srbely, PhD**

### ***Knowledge translation strategies for professional practice***

Effective health care delivery is predicated on the systematic translation of empirical knowledge to inform evidence-based, best-practice policy. My research program is focused on the study of chronic musculoskeletal pain and emphasizes the application of discovery in basic mechanisms to clinical practice and technology. I am actively involved in the Canadian Chiropractic Practice Guidelines Initiative and Ontario Kinesiology Association Academic Advisory Committees to design and implement knowledge translation strategies that will advance evidence-based clinical practice.

For more information, please visit [www.uoguelph.ca/hhns/People/JSrbely.html](http://www.uoguelph.ca/hhns/People/JSrbely.html)

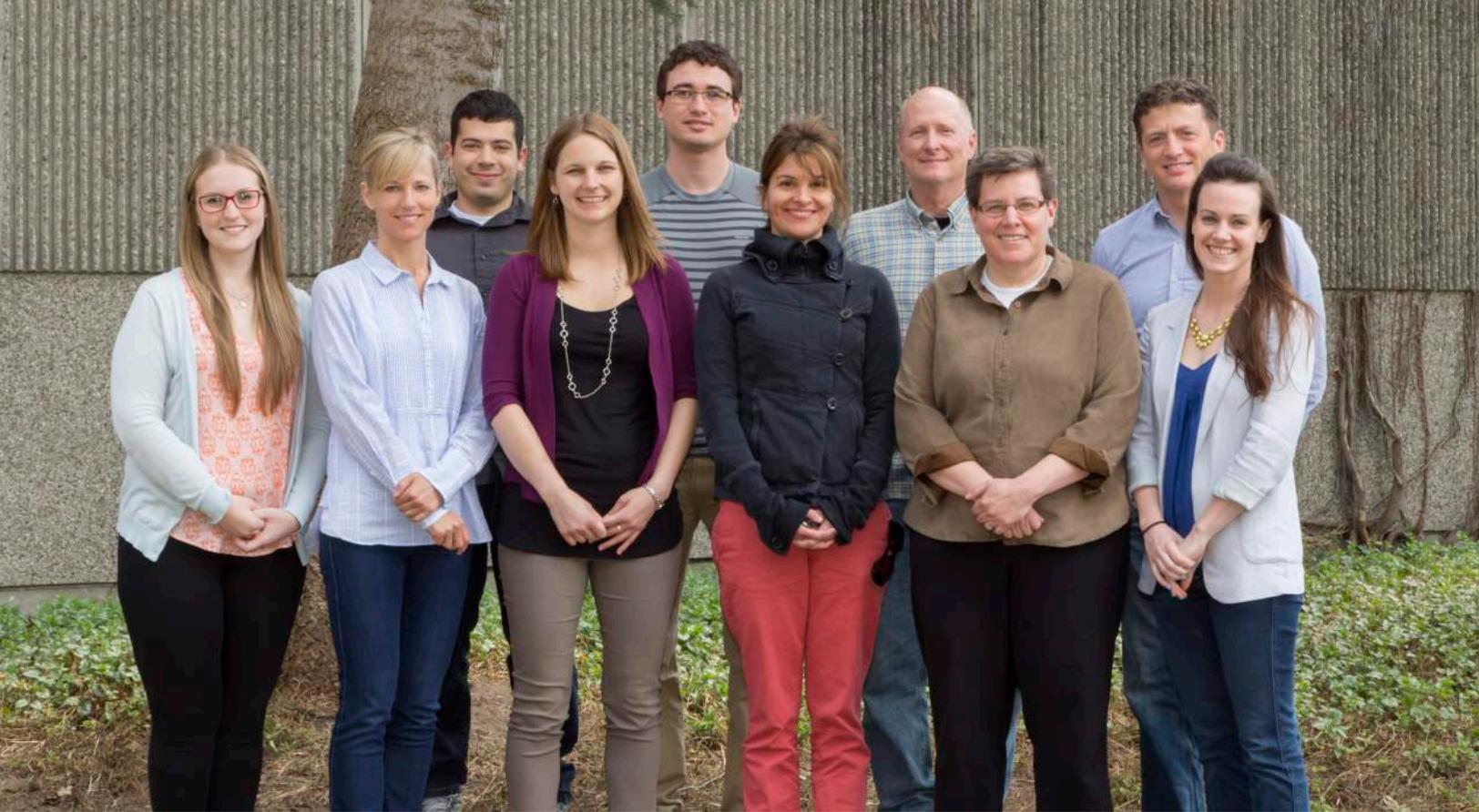


## **Lorraine Jadeski, PhD**

### ***Advanced teaching methods in human anatomy, translating anatomy for public health issues***

In terms of advanced teaching methods in human anatomy, I am currently working on two major projects: 1) the development of computer-based educational resources to enhance our dissection-based human anatomy program, and 2) the development of advanced teaching strategies for educational outreach by senior anatomy students. I also have projects at the elementary school, high school and University levels, which link a natural fascination with the study of anatomy to select public health messages.

For more information, please visit [www.uoguelph.ca/hhns/People/LJadeski.html](http://www.uoguelph.ca/hhns/People/LJadeski.html)



The needs of the Department of Human Health and Nutritional Sciences are constantly evolving as we strive to produce top-level research in the health sciences. We are continually seeking collaborative partners who share our passion for human health and the promotion of a healthy lifestyle for the maintenance of health, aging, and the treatment of chronic disease.

Opportunities include:

- Contractual research partnerships
- Graduate Student Support  
PhD Student – \$19,300/year (4 years)  
MSc Student – \$15,300/year (2 years)
- Support in the form of research grants and awards

For more information about our research and how you can collaborate with the Department of Human Health and Nutritional Sciences, please visit [www.uoguelph.ca/hhns](http://www.uoguelph.ca/hhns), or contact the Department Liaison Officer by phone (519-824-4120 ext. 54104) or email ([hhnsliaisonofficer@uoguelph.ca](mailto:hhnsliaisonofficer@uoguelph.ca)).



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