

## Summary of EXW-KIN Faculty Research Interests

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### Dr. Marc Adams ([marc.adams@asu.edu](mailto:marc.adams@asu.edu))

Honors students only?	All Students	Internship available?	Yes
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Dr. Adams seeks several research assistants for two large-scale lifestyle interventions. Students in fields such as public/population health, exercise and wellness, nutrition, kinesiology, biology, psychology, urban planning, GIS, computer science, biomedical engineering, or sustainability among others are encouraged to apply. Four of our students have successfully defended Barrett honors theses and went on to do great things (e.g. NASA, PA, PT, or PhD programs). Dozens more have gained experience in research for the budding health and technology professional. Send resume and brief cover letter. We consider new students on a weekly basis.

Our studies offer an excellent opportunity to work with real people and develop lab and field research skills. One study promotes walking/physical activity daily via a technology-based intervention and the other works with children in schools to improve diet. For the walking intervention, we use text messaging & activity monitors to promote walking among inactive adults. In addition, we're testing whether "walkable neighborhoods" or walkability influences physical activity. For the dietary intervention, we're testing whether salad bars during lunch help to increase elementary, middle, and high school students' fruit and vegetable intake and reduce waste.

### Dr. Siddhartha Angadi ([Siddhartha.Angadi@asu.edu](mailto:Siddhartha.Angadi@asu.edu))

Honors students only?	Yes	Internship available?	Yes
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Dr. Angadi has a couple of studies on-going. 1– to examine the effects of aerobic pre-conditioning exercise prior to chemotherapy induction in women with breast cancer and if cardiotoxic side-effects of doxorubicin can be ameliorated. 2 – To study the effects of exercise in ameliorating the cardiometabolic effects of over-feeding.

### Dr. Chong Lee ([chong.lee@asu.edu](mailto:chong.lee@asu.edu))

Honors students only?	All Students	Internship available?	Yes
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Dr. Lee's current research focuses on investigating the health hazards of sarcopenic obesity. Students will gain a direct experience of research in sarcopenic obesity (1) identifying the major risk factors of sarcopenic obesity, (2) examining the associations of muscle mass, muscle strength, muscle power, and lifestyle factors, and (3) studying the obesity paradox in relation to sarcopenic obesity. Students will have an opportunity to complete their honors thesis project using this dataset. One or two students are needed for this project.

### Dr. Matthew Buman ([matthew.buman@asu.edu](mailto:matthew.buman@asu.edu))

Honors students only?	All Students	Internship available?	Yes
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Dr. Buman's research interests are in behaviors across the 24 hours – sleep, sedentary behavior, and physical activity – and how collectively these behaviors can be harnessed for health promotion and disease prevention.

His current projects are as follows:

(1) Implementation of a worksite intervention to reduce sedentary behavior and increase light-intensity physical activity in predominantly seated workers, examining its effects on health behaviors, cardiometabolic health,

and workplace productivity;

(2) use of smartphone-based interventions to improve sleep, sedentary behavior, and physical activity in pre-diabetic Veterans at the Phoenix VA and individuals with obstructive sleep apnea at Mayo Clinic Arizona;

(3) validation of commercial and research grade wearable sensors to measure physical activity and sleep behaviors

**Dr. Cheryl Der Ananian** ([cheryld@asu.edu](mailto:cheryld@asu.edu))

Honors students only?	All	Internship available?	No
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Dr. Der Ananian's research interests focus on developing and implementing physical activity programs for older adults with an emphasis on chronic disease management. She is also the faculty advisor for the Exercise is Medicine on Campus © initiative with ASU. We were recently awarded Silver Level Status for this initiative. Dr. Der Ananian is currently seeking students who can assist with the implementation and evaluation of the Exercise is Medicine Initiative at ASU. This is a collaborative effort with the Sun Devil Fitness Complex and Health Services at Arizona State University. Dr. Der Ananian has on-going research projects related to physical activity and aging including a worksite intervention for people with arthritis, the development of a physical activity and nutrition program for middle-aged Mexican men (with Drs. Hooker and Vega-Lopez) and a weight loss intervention for people with arthritis. She is also looking for a student who could help develop a video and/or web-based fall prevention program for older adults and a physical activity APP for students at ASU.

**Dr. Christopher Berger** ([cgb@asu.edu](mailto:cgb@asu.edu))

Honors students only?	N	Internship available?	Y
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Dr. Berger is an exercise physiologist whose primary interests involve the study of resistance training and its effects on metabolism, energy balance, and body composition. This area requires him to be proficient in nutrition and its impact on body function (physiology). He has secondary interests in healthy air travel and the professional development of exercise scientists.

Students interested in working with Dr. Berger should contact him via e-mail with evidence of current Adult CPR/AED, First Aid, and CITI training.

**Dr. Jack Chisum** ([Jack.Chisum@asu.edu](mailto:Jack.Chisum@asu.edu))

Honors students only?	All Students	Internship available?	Yes
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Dr. Chisum will be accepting highly motivated Barrett Honors Students or other undergraduate students this calendar year. The research designs are open for discussion but the majority of our current work concerns increased efficiency of professional dialog with the client/person. We have implemented a study with Mayo Clinic (July 23<sup>rd</sup>) to analyze the practitioner/patient communication with the Mayo Clinic Registered Dietitians. The MI Labs are in negotiation with several segments of the US Army (War College Psychologists concerning PTSD patients, quantifying subjective data concerning a learning module with the General Staff, etc.). We are scheduled to start a research and learning cycle for Mayo Clinic Endocrinologists the Fall 2018 Semester.

**Dr. Jared Dickinson** ([Jared.Dickinson.asu.edu](mailto:Jared.Dickinson.asu.edu))

Honors students only?		Internship available?	
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Research interests include the mechanisms that contribute to the loss of muscle size and function with aging (i.e., sarcopenia), how exercise and nutrition can serve as targeted strategies to preserve or restore muscle function in older adults (both healthy and clinical populations), and how aging impacts the adaptive response to exercise. I utilize a combination of whole muscle and molecular measures (from muscle biopsies) to explore my research questions.

We are currently examining the role of exercise intensity on the adaptive response of aging muscle, the role of exercise preconditioning for preventing chemotherapy-related toxicity, the influence of aging on the relationship between muscle size characteristics (using ultrasound) and muscle strength/function, and the effect of acetaminophen consumption on the adaptive response of skeletal muscle to resistance exercise.

**Dr. Dounskaia** ([Natalia.Dounskaia@asu.edu](mailto:Natalia.Dounskaia@asu.edu))

Honors students only?	Yes	Internship available?	No
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Dr. Natalia Dounskaia is inviting honor students to participate in research conducted in her lab. Two projects are available to join:

1. Designing and investigating a novel intervention in postural control and stability in elderly people with a purpose to prevent falls and reduce the risk of injuries.
2. Studying development of coordinated arm movements in children of 5-12 years of age.

Both projects include reading related scientific literature, testing subjects of different ages with the use of motion recording equipment, analyzing the obtained data, and writing thesis. If the contribution is sufficient, students may become co-authors on scientific articles.

**Dr. Glenn Gaesser** ([Glenn.Gaesser@asu.edu](mailto:Glenn.Gaesser@asu.edu))

Honors students only?	Yes	Internship available?	No
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Research Interests include the effects of exercise and diet on cardiometabolic health. We currently are investigating whether regular exercise can offset the negative effect of overeating that typically accompanies holiday weight gain. Other projects include the effect of replacing sitting with standing or light-intensity physical activity during the work day on blood pressure and blood glucose control.

**Dr. Jennifer Huberty** ([jhuberty@asu.edu](mailto:jhuberty@asu.edu))

Honors students only?	Y	Internship available?	Y
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Dr. Huberty's research is related to complementary approaches to health including yoga, meditation, and physical activity. She is particularly interested in online interventions and using consumer-based products to implement interventions. Much of her work focuses on women's health and also cancer. Dr. Huberty has a number of research studies she is conducting that encompasses one or some of the following: technology (mobile apps, discussion boards, online interventions), health behaviors (e.g., physical activity, sitting time) during and after pregnancy, mental health (e.g., depression, stress) and physical activity (e.g., yoga). She has recently begun looking at the effects of meditation on fatigue and quality of life in cancer patients.

Studies currently being conducted/getting started:

1. Use of yoga to improve mental health in women during the perinatal period and post-partum.
3. Use of a mobile app to reduce sitting time in pregnant women.
4. Use of yoga and/or meditation to improve blood cancer symptom burden.
5. Meditation as a means to reduce stress in college students.

- 6. Development of online interventions for rural populations.
- 6. Use of yoga to manage gestational weight during pregnancy (doc student project).

Dr. Huberty welcomes Barrett's honors students and undergraduates interested in any of these topics or this population (middle-aged women, pregnant women, cancer patients) to gain research experience, complete an internship and/or to conduct their thesis. **Specifically, Dr. Huberty welcomes Barrett students who desire to conduct a thesis that can be presented at a conference or published in a manuscript.**

**Dr. Teresa Hart** ([teresa.abraham@asu.edu](mailto:teresa.abraham@asu.edu))

Honors students only?	Honors and MS students	Internship available?	No
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Dr. Hart's research interests include promotion of health through physical activity and nutrition. Populations of interest include older adults, people with developmental disabilities, and school-aged children.

**Dr. Simon Holzapfel** ([simon.holzapfel@asu.edu](mailto:simon.holzapfel@asu.edu))

Honors students only?	All Students	Internship available?	Potentially
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Dr. Holzapfel is the director of a community exercise program for adults with Down syndrome (ExDS; [exds.weebly.com](http://exds.weebly.com)). This program is ongoing and runs from the start to end of each semester. Student tasks include exercise prescription, personal training, fitness assessments, cognitive assessments, data entry, and equipment maintenance. Research goals include the assessment of the feasibility and effectiveness of the program. The goal of ExDS is a positive impact on the physical, mental, and social well-being of adults with Down syndrome.

**Dr. Scott Leischow** ([scott.leischow@asu.edu](mailto:scott.leischow@asu.edu))

Honors students only?	All Students	Internship available?	Yes
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*Social Media and E-Cigarette Use.* We are looking for a bright and motivated undergraduate or graduate student who is interested in working on an ongoing NIH study that is assessing how social media are being used to share information about e-cigarettes and vape products. In particular, we are interested in students who have some experience with social media (eg Reddit, Twitter, etc), who can write well, have an interest in learning research.

*Smoking Cessation.* We are looking for a bright and motivated undergraduate or graduate student who is interested in working on a NIH-funded clinical trial that is assessing the safety and efficacy of a smoking cessation medication. In particular, we are interested in students who have an interest in learning biomedical research, can assist research staff in the conduct of the study, and can conduct literature searches and summarize findings in well written reports.

*Tobacco Control.* We develop new projects related to tobacco control, and students interested in the general topic of tobacco control, including prevention, treatment, new products such as Juul and other e-cigarettes, and policy change are welcome to contact me about developing a project.

**Dr. Daniel Peterson** ([daniel.peterson1@asu.edu](mailto:daniel.peterson1@asu.edu))

Honors students only?	All Students	Internship available?	No
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Research Interests: I study how the brain controls movement and how this information can be used to improve physical rehabilitation of neurological populations. In particular, I'm interested in rehabilitation for improving balance and reducing falls in people with Parkinson's disease and multiple sclerosis, among others.

Specific projects include investigating the motor control and biomechanics of "reactive" stepping (i.e. the first step one takes when they lose their balance). I will be investigating these steps in both healthy and neurological populations.

**Dr. Shannon D. R. Ringenbach** ([shannon.ringenbach@asu.edu](mailto:shannon.ringenbach@asu.edu))

Honors students only?		Internship available?	
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Dr. Ringenbach is conducting several innovative exercise studies with cognitive, motor, clinical, mental and physical health pre and posttests typically with three groups 1) Voluntary rate stationary cycling 2) Assisted Cycling (at a rate ~35% greater than voluntary) 3) no cycling

Studies are being conducted with Down syndrome adolescents, older adults with Down syndrome, adults with ADHD, typical obese children and typical obese adults and we have a related study with stroke patients. The framework from her Sensorimotor Development Research Lab is behavioral neuroscience.

**Dr. Pamela Swan** (PSwan@asu.edu)

Honors students only?	x	Internship available?	x
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Dr. Swan's research interests include the effects of weight loss and weight gain on health; effects of exercise on cardiometabolic health; effects of physical activity and obesity on resting metabolism; effects of severe weight loss (Post Bariatric Surgery) on muscular/skeletal health and wellbeing; and effects of exercise on regional adiposity and health. Dr. Swan has a number of research studies that she and her graduate students are conducting that may be of interest to undergraduate students who want research experience.

1. Understanding the cardiometabolic effects of body weight cycling;
2. Effects of vibration exercise training on glucose control, and muscle strength and endurance in obese men and women;
3. Effects of obesity status on post exercise hypotensive response to exercise;
4. Effects of severe weight loss on resting metabolism, bone loss, muscular strength and fitness.

Dr. Swan welcomes Barrett's honors students and undergraduates in her laboratory. Students interested in topics of obesity, exercise and cardiometabolic health are invited to join her team to gain research experience and/or to conduct their thesis.

**Dr. Shawn Youngstedt** (shawn.youngstedt@asu.edu)

Honors students only?	All Students	Internship available?	Potentially
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Dr. Youngstedt studies the effects of exercise and weight loss on sleep apnea as well as the effect of daily napping on the heart and amyloid beta levels in older adults at risk for Alzheimer's Disease. He also hopes to recruit a Barrett student to help investigate claims that MyPillow help people sleep better.