

Honors Opportunities in the College of Health Solutions

The College of Health Solutions (CHS) aims to prepare the next generation of health professionals through a broad set of health degree programs. We have recently introduced degree programs that will prepare professionals for continued graduate education and health leadership positions. We are thrilled to offer challenging and rewarding experiences to Barrett students across ASU. Welcome!

Honors Opportunities in Health Sciences

This program is designed as an interdisciplinary program and draws upon the expertise of diverse faculty. Students are provided knowledge and expertise in medical/healthcare ethics, cultural aspects of health, health communications, complementary care, and evaluation of health sciences research, leading them to move directly into a range of employment opportunities within the health field and/or continue their education in discipline-specific programs.

There are three concentrations for the bachelor degree: **Healthy Lifestyle Coaching, Health Policy, and Pre-Professional.**

Bachelor of Science, in concentration area (BS)

Health Policy (BS)

Pre-Professional (BS)

<http://nursingandhealth.asu.edu/programs/healthsciences>

Honors Classes & Honors Enrichment Contracts

Barrett students entering with **lower division status** complete 30 honors credits (at least 18 must be upper division) in addition to the HON 171 and 272 course sequence, a total of 36 honor credits. Students entering with **upper division** status complete 21 honors credits (all upper division and one must be a HON 300 seminar). Specific honors courses or sections can be taken to meet this requirement.

Honors contracts can be developed with a regularly appointed faculty members for any course. Honors contract projects should be determined jointly by the student and faculty member. The honors contract should ideally increase student understanding of course topics and provide a benefit to the faculty. It is also recommended that students pursue research and projects directed by faculty in order to develop research ideas and further career opportunities prior to starting an honors thesis/creative project.

Honors Thesis/Creative Project

The honors thesis/creative project is an excellent opportunity to gain experience conducting original research under the advisement of a nutrition faculty member. A topic for your thesis or creative project usually emerges from an aspect of an introductory course that sparks your interest, and then becomes more refined as a depth of knowledge is furthered by taking other classes in the related area. For example, an interest in Childhood Obesity may begin in an Introductory Nutrition or Human Nutrition class, and more background is gathered by taking the Maternal and Child Nutrition (NTR) course and the Obesity Prescriptions (EXW) course.

In order to register for HSC 492, we need at least an email of approval from the faculty director and a short paragraph that describes the student's project. A copy of the student's prospectus is also *required* before he or she can receive an override to register for HSC 493. You can send these materials to your Faculty Honors Advisor, Karen.Sweazea@asu.edu.

All Barrett Honors students are must complete a thesis/creative project information session prior to enrolling in thesis credit (492 or 493). The session is designed to make certain each student has been informed about the process, expectations, and deadlines. Students may complete this requirement in several ways:

1. Through a workshop or course offered in an academic unit and approved by Barrett.
2. Through a workshop/session (several every semester) or a course (one each semester at PHX Downtown campus) offered by Barrett
3. Through an on-line workshop offered through Barrett via ASU Blackboard. Refer to the Barrett, The Honors College page for further information in enrolling in an information session.

We strongly encourage Health Sciences majors to begin planning their thesis/creative project by the fall of their junior year, particularly if you would like to be engaged in research during the summer before your senior year. After completing the information session, the following steps are required:

1. Meet with the Faculty Honors Advisor to discuss your areas of interest.
2. Consult with an appropriate thesis/creative project director.
3. Form a Barrett Thesis/Creative Project committee with a minimum of two members; the director (who must be a regularly appointed lecturer or professor) and one other committee member with expertise in the area of interest, after consultation with the director.
4. Develop a brief prospectus in collaboration with your thesis/creative project director and submit within the timelines identified by Barrett.
5. Complete the research or creative project with collaboration from the committee. Expectations regarding what constitute a thesis or creative project varies among faculty members and will be conveyed by your advisor. However, the thesis/creative project will require either independent development of a project with written documentation of the project rationale, method of development and evaluation of the project or completion of a research study and analysis of the results. A research paper relating the research completed by other researchers does not meet the criteria for a thesis/creative project.
6. The thesis/creative project defense must be scheduled and held according to Barrett timelines and all committee members must be physically present at the defense.

Please review the description of the nutrition and health sciences program and program faculty as potential honors advisors; freely explore other relevant ASU faculty members in other programs.

Tips

- *Explore Barrett Resources:* Barrett has excellent online resources outlining the Honors Thesis projects. A guidebook can be found at: <http://barretthonors.asu.edu/academics/thesis-and-creative-project/>
- *Attend a Thesis Workshop:* Barrett also arranges several workshops throughout the semester to help you get started with your thesis and to de-mystify the thesis process.
- *Talk to HCD Faculty:* faculty have experience mentoring students on the Honors Thesis and can guide you through the process and advise you what they might expect
- *Review past thesis documents:* Barrett Honors College has a library of documents previously prepared by Honors students. These are an excellent resource to help plan the structure of your document. You can schedule an appointment to view past projects in the Barrett Thesis Library by contacting the Barrett Advising Office at barrettadvising@asu.edu or 480-965-9155.
- *Attend thesis defenses:* Every student publicly presents thesis outcomes as part of a defense. Attending a defense before you do your own will help you prepare and give you a sense of how to present your outcomes as well as the kinds of questions you might expect. A schedule of upcoming defenses can be found at: <http://barretthonors.asu.edu/academics/thesis-and-creativeproject/defense-calendar/>
- *Talk to other HCD and CHS Honors students:* If they are currently going through the thesis process, or preparing for it, talking to other students can help plan for your thesis.
- *Talk to the HCD or CHS Faculty Honors Advisors or Advising Staff.*

Financial Support for the Honors Thesis in Health Sciences

Barrett has support and funding for Honors Thesis work:

- *Thesis Funding* – Students may apply to receive up to \$500 to complete their thesis to cover materials and supplies needed to complete the project.
- *Honors Project Fund* – Typically used for non-thesis related expenses such as presenting a paper at a conference or attending an annual meeting related to your major to cover such costs as travel, hotel, conference registration and supplies.
- *External Examiners Program* – As part of the thesis defense, students can apply to bring in an outside examiner or expert from another institution to serve as a thesis committee member. Students may receive up to \$1500 toward associated expenses, such as airfare and hotel.

Example Honors Thesis schedule

Junior Year

End of Spring Semester

- Find a faculty member to advise you on your Honors Thesis (the Thesis Director); begin discussing possible projects
- Enroll in HSC 492 for 3 credits

Senior Year

Start of Fall Semester

- Work with your Thesis Director to define your project and formulate an action plan for the project (the Prospectus).
 - Prepare your Prospectus and submit to Barrett. See: <http://barretthonors.asu.edu/2011/02/prospectus/>
- #### *Fall Semester*

Complete background review for project

End of Fall Semester

- Enroll in HSC 493 for 3 credits

Beginning of Spring Semester

- Continue working on project and begin preparing thesis document

Before Spring Break

- Complete first draft of the thesis document and submit to Thesis Director for initial review
- Schedule your thesis defense - remember this is your responsibility – by completing the Thesis/Creative Project Defense Reporting Form
- Note that a draft of the thesis should be sent to the entire committee for review at least two weeks before your defense

After Spring Break

- Prepare for your defense
- Hold defense; following a successful outcome, have Signature Title Page signed by all committee members
- Make any necessary changes to the thesis document based on feedback from committee

Early April

- Submit final thesis document to Barrett!

Faculty Honors Advisor, Health Sciences

Karen Sweazea. PhD

Assistant Professor, SNHP

Karen.Sweazea@asu.edu

480-965-6025



Research interest: the central focus of my research is to explore potentially protective mechanisms existing in mammalian and non-mammalian organisms against complications that can arise in diseases

associated with being overweight or having high blood sugar levels.

Education

Postdoctorate – University of New Mexico, NM, 2008, Vascular Physiology

- PhD – University of Arizona, 2005, Physiological Sciences
- BS – University of Arizona, 1998, Physiology
- AA – El Camino Community College, 1995

Recent Publications

1. **Sweazea KL**, Johnston CS, Ricklefs KD, Petersen KN. (2014) Almond supplementation in the absence of dietary advice significantly reduces C-reactive protein in subjects with type 2 diabetes. *Journal of Functional Foods*. 10: 252-259.
2. **Sweazea KL**, McMurtry JP, Elsey RM, Redig P, Braun EJ. (2014) Comparison of metabolic substrates in alligators and several birds of prey. *Zoology*. 117(4): 253-260.
3. Wilkening JL, Ray C, **Sweazea KL**. (2013) Stress hormone concentrations in Rocky Mountain populations of the American pika (*Ochotona princeps*). *Conservation Physiology*. 1: 1-13.
4. Giraudeau M, **Sweazea K**, Butler M, McGraw KJ. (2013) Effects of carotenoid and vitamin E supplementation on oxidative stress and plumage coloration in house finches (*Haemorrhous mexicanus*). *Comparative Biochemistry and Physiology*. 166A(3): 406-413.
5. Jarrett C, Lekic M, Smith CL, Pusec C, **Sweazea KL**. (2013) Mechanisms of acetylcholine-mediated vasodilation in systemic arteries from mourning doves (*Zenaida macroura*). *Journal of Comparative Physiology - B*. 183(7): 959-967.
6. **Sweazea KL** and Braun EJ. (2013) Reciprocal inhibition of *in vitro* substrate movement into avian skeletal muscle. *Zoology (Jena)*. 116(2): 85-89.
7. Davies S, Rodriguez N, **Sweazea KL**, Deviche P. (2013) The effect of acute stress and long-term corticosteroid administration on plasma metabolites in an urban and desert songbird. *Physiological and Biochemical Zoology*. 86(1): 47-60.
8. Fokidis HB, Burin des Roziers, Sparr R, Rogowski C, **Sweazea KL**, Deviche P. (2012) Unpredictable food availability induces metabolic and hormonal changes independent of food intake in a sedentary songbird. *Journal of Experimental Biology*. 215: 2920-2930.
9. Kuzmiak S, Glancy B, **Sweazea KL**, Willis WT. (2012) Mitochondrial function in sparrow pectoralis muscle. *Journal of Experimental Biology*. 215:2039-2050.
10. **Sweazea KL** and Walker BR. (2012) Impaired myogenic tone in mesenteric arteries from overweight rats. *Nutrition and Metabolism*. 9(1):18.
11. Fokidis HB, Hurley L, Rogowski C, **Sweazea K**, Deviche P. (2011) Effects of captivity and body condition on plasma corticosterone, locomotor behavior, and plasma metabolites in Curve-billed Thrashers. *Physiological and Biochemical Zoology*. 84(6): 595-606.
12. **Sweazea KL**. Endocrine Physiology Teaching Laboratory. (2011) The American Physiological Society Archive of Teaching Resources.
13. Smith CL, Toomey M, Walker BR, Braun EJ, Wolf BO, McGraw K, **Sweazea KL**. (2011) High levels of circulating antioxidants protect from the development of oxidative stress in the vasculature of mourning doves (*Zenaida macroura*). *Zoology (Jena)*. 114: 171-176.

14. Matyas ML, Lowy ME, **Sweazea KL**, Alvarez DF. (2011) Monitoring physiology trainee needs to focus professional society responses: The APS Trainee Needs Surveys. *Advances in Physiology Education*. 35: 168-177.
15. **Sweazea KL**, Walker BR. (2011) High fat feeding impairs endothelin-1 mediated vasodilation through increased iNOS-derived nitric oxide and oxidative stress. *Hormone and Metabolic Research*. 43: 470-476.
16. **Sweazea KL**, Kanagy NL, Walker BR. (2011) Oxidative impairment of endothelium-dependent vasodilation in high fat diet fed rats exposed to eucapnic intermittent hypoxia. *Respiration*. 81: 47-56.
17. **Sweazea KL**, Lekic M, Walker BR. (2010) Comparison of mechanisms involved in impaired vascular reactivity between high sucrose and high fat diets in rats. *Nutrition and Metabolism*. 7:48.
18. **Sweazea KL** and Walker BR. (2009) Antioxidant and vasodilatory effects of heme oxygenase on mesenteric vasoreactivity following chronic hypoxia. *Microcirculation*. 16(2): 131-141.
19. Braun EJ and **Sweazea KL**. (2008) Invited review: Glucose regulation in birds. *Comparative Biochemistry and Physiology*. 151B: 1-9.
20. **Sweazea KL**, McMurtry JP, Braun EJ. (2006) Inhibition of lipolysis does not affect insulin sensitivity to glucose uptake in the mourning dove. *Comparative Biochemistry and Physiology*. 144B(3): 387-394.
21. **Sweazea KL** and Braun EJ. (2006) Glucose transporter (GLUT) expression in English sparrows (*Passer domesticus*). *Comparative Biochemistry Physiology*. 144B(3): 263-270.
22. **Sweazea KL** and Braun EJ. (2006) Oleic acid uptake by *in vitro* English sparrow skeletal muscle. *Journal of Experimental Zoology*. 305A(3):268-276.
23. Marquez JM, **Sweazea KL**, Braun EJ. (2006) Skeletal muscle fiber composition of English sparrow (*Passer domesticus*). *Comparative Biochemistry and Physiology*. 143B:126-131.
24. **Sweazea KL** and Braun EJ. (2005) Glucose transport by English sparrow (*Passer domesticus*) skeletal muscle. *Journal of Experimental Zoology*. 303A:143-153.

Current/Recent Grants and Projects

- Evaluation of the anti-aging properties of Product B (Principal Investigator; Co-PI: Carol Johnston, PhD (Nutrition Program)), Funded by Isagenix International, 2013-2014
- Potential therapeutic benefits of flaxseeds in the treatment of type 2 diabetes symptoms (Lead-Principal Investigator; PI: Kristin Ricklefs, Doctoral Student, PANW Program), Funded by Ameriflax, 2013-2014
- Almond ingestion to reduce hemoglobin A1c in individuals with type 2 diabetes (Principal Investigator; Co-PI: Carol Johnston, PhD), Funded by The Almond Board of California, 2012-2013
- Putative cryoprotectant role of glucose in birds (Lead Investigator; Principal investigator: Krystal Tsosie, Master's Student (SoLS)), Funded by American Ornithologists' Union, 2011-2012
- Effects of Obesity on Vascular Function in a Model of Sleep Apnea (Principal Investigator). Funded by the UNM School of Medicine, Cardiovascular and Metabolic Diseases Program, February-June 2007

Honors/Awards

- New Investigator Award, Comparative and Evolutionary Physiology Section of the American Physiological Society, 2015
- Outstanding Faculty Mentor Award, Faculty Women's Association, ASU, 2014
- Dale J Benos Early Career Professional Service Award, American Physiological Society, 2014
- August Krogh Young Investigator Award, The Microcirculatory Society, 2008
- Research Recognition Award, The American Physiological Society, Comparative and Evolutionary Physiology Section, 2006
- Women in Science and Engineering (WISE) Travel Grant, 2004