

Sisi Cao, Ph.D.

School of Exercise and Nutritional Sciences | San Diego State University
5500 Campanile Drive | San Diego, CA 92182
(619) 594-1967 | scao2@sdsu.edu

Education

- Ph.D.** in Molecular Nutrition, 2017.9
The Hong Kong Polytechnic University, Hong Kong
Mentor: Man-Sau Wong, Ph.D.
Dissertation: “Investigation of Molecular Mechanisms of Fructus Ligustri Lucidi on Calcium Balance and Vitamin D Metabolism”
- B.Sc. (Hons)** in Applied Biology with Biotechnology, 2012.9
The Hong Kong Polytechnic University, Hong Kong
Graduated with First Class Honor (GPA 3.97/4)

Professional Experiences

- 2022.11- Present Research Scientist & Adjunct Faculty
School of Exercise and Nutritional Sciences, San Diego State University (SDSU), CA
- Mentor: Connie Weaver, Ph.D.
 - Research: Racial and Ethnic Subgroup Differences in Calcium and Sodium Metabolism in Response to Dietary Salt
- 2019.10- 2022.11 Post-Doctoral Scholar
Human Nutrition Program, The Ohio State University (OSU), OH
- Mentor: Richard Bruno, Ph.D., R.D.
 - Research: Achieving Nutritional Adequacy of Vitamins E and K With An Egg/Plant-Based Food Pairing
- 2018.10- 2019.9 Post-Doctoral Research Associate
Department of Nutrition Science, Purdue University, IN
- Mentor: Connie Weaver, Ph.D.
 - Research: The Effect of Dairy vs. Plant-based Beverages on Bioavailability of Calcium and Vascular Function
- 2018.6- 2018.9 Research Assistant
NICM, Western Sydney University, Sydney, Australia
- Mentor: Dennis Chang, Ph.D.
 - Research: The Functional Role of Sclerostin in Cardiovascular and Cerebrovascular Diseases

- 2012.9-2017.12 Graduate Research/Teaching Assistant/ Graduation research thesis
Department of Applied Biology and Chemical Technology
The Hong Kong Polytechnic University (PolyU), Hong Kong
- Mentor: Man-Sau Wong, Ph.D.
 - Research: Investigation of Molecular Mechanisms of *Fructus Ligustri Lucidi* on Calcium Balance and Vitamin D Metabolism
- 2010.7-8 Research intern
Institute of Biochemistry and Cell Biology,
Shanghai Institute of Biological Science, Chinese Academy of Science, China
- Mentor: Jingyi Hui, Ph.D.
 - Research: The Function of Alternative Splicing in Lung Cancer

Publications

1. Pokala A, Quarles WR, Ortega-Anaya J, Jimenez-Flores R, **Cao S**, Zeng M, Hodges JK, Bruno RS. Milk Fat Globule Membrane-Enriched Dairy Milk Compared with a Soy-Lecithin Enriched Beverage Does Not Adversely Affect Cardiometabolic Risk or Intestinal Inflammation in Adults with Metabolic Syndrome. *Nutrients*. 2023;15(14):3259. doi: 10.3390/nu15143259
2. Hodges JK, Maiz M, **Cao S**, Lachcik PJ, Peacock M, McCabe GP, McCabe LD, Cladis DP, Jackson GS, Ferruzzi MG, Lila MA, Bailey RL, Martin BR, Weaver CM. Moderate consumption of freeze-dried blueberry powder increased net bone calcium retention in healthy postmenopausal women: a randomized crossover trial. *The American Journal of Clinical Nutrition*. 2023 Jun 1; S0002-9165(23)65961-1. doi: 10.1016/j.ajcnut.2023.05.033.
3. Wu KC, **Cao S**, Weaver CM, King N, Patel S, Kim TY, Black DM, Kingman H, Shafer MM, Rogers SJ, Stewart L, Carter JT, Posselt AM, Schafer AL. Intestinal Calcium Absorption Decreases After Sleeve Gastrectomy Despite Optimization of Vitamin D Status. *Journal of Clinical Endocrinology & Metabolism*. 2023 Jan 17;108(2):351-360. doi: 10.1210/clinem/dgac579.
4. Xiao HH, Zhu YX, Lu L, Zhou LP, Poon CCW, Chan CO, Wang LJ, **Cao S**, Yu WX, Wong KY, Mok DK, Wong MS. The lignan-rich fraction from *Sambucus williamsii* Hance exerts bone protective effects via altering circulating serotonin and gut microbiota in rats. *Nutrients* 2022, 14(22), 4718; <https://doi.org/10.3390/nu14224718>**Cao S**, Weaver CM. Bioactives in the Food Supply: Effects on CVD Health. *Current Atherosclerosis Reports*. 2022. doi: 10.1007/s11883-022-01040-8
5. **Cao S***, Shaw EL*, Quarles WR, Sasaki GY, Day P, Hodges JK, Pokala A, Zeng M, Bruno RS. Daily Inclusion of Resistant Starch-Containing Potatoes in a Dietary Guidelines for Americans Dietary Pattern Does Not Adversely Affect Cardiometabolic Risk or Intestinal Permeability in Adults with Metabolic Syndrome: A Randomized Controlled Trial. *Nutrients* 2022;14(8):1545. doi: 10.3390/nu14081545.
6. Wu KC, **Cao S**, Weaver CM, King N, Patel S, Kingman H, Sellmeyer DE, McCauley K, Li D, Lynch SV, Kim TY, Black DM, Shafer MM, Özçam M, Lin D, Rogers SJ, Stewart L, Carter JT, Posselt AM, Schafer AL. Prebiotic to Improve Calcium Absorption in Postmenopausal Women

- After Gastric Bypass: A Randomized Controlled Trial. *The Journal of Clinical Endocrinology & Metabolism* 2021. dgab883. doi: 10.1210/clinem/dgab883.
7. Xiao HH, Yu X, Yang C, Chan CO, Lu L, **Cao S**, Wan SW, Lan ZJ, Mok DK, Chen S, Wong MS. Prenylated Isoflavonoids-Rich Extract of Erythrinae Cortex Exerted Bone Protective Effects by Modulating Gut Microbial Compositions and Metabolites in Ovariectomized Rats. *Nutrients*. 2021; 13(9), 2943; doi: 10.3390/nu13092943
 8. Xiao HH, Lu L, Poon CC, Chan CO, Wang LJ, Zhu YX, Zhou LP, **Cao S**, Yu WX, Wong KY, Mok DK, Wong MS. The lignan-rich fraction from Sambucus Williamsii Hance ameliorates dyslipidemia and insulin resistance and modulates gut microbiota composition in ovariectomized rats. *Biomed Pharmacother*. 2021;137:111372. doi: 10.1016/j.biopha.2021.111372.
 9. Zhou L, Poon CC, Wong KY, **Cao S**, Dong X, Zhang Y, Wong MS. Icaritin ameliorates estrogen-deficiency induced bone loss by enhancing IGF-I signaling via its crosstalk with non-genomic ER α signaling. *Phytomedicine*. 2021; 82:153413. doi: 10.1016/j.phymed.2020.
 10. Zhou L, Wong KY, **Cao S**, Poon CC, Yu W, Dong X, Tsim KW, Wong MS. A standardized extract of Danggui Buxue Tang decoction selectively exerts estrogenic activities distinctly from Tamoxifen. *Phytother Res*. 2021;35(3):1456-1467. doi: 10.1002/ptr.6909
 11. Zhan J, Wallace TC, Butts SJ, **Cao S**, Ansu V, Spence LA, Weaver CM, Gletsu-Miller N. Circulating Ionized Magnesium as a Measure of Supplement Bioavailability: Results From a Pilot Study for Randomized Clinical Trial. *Nutrients*. 2020; 12(5):1245. doi: 10.3390/nu12051245.
 12. **Cao S**, Cladis DP, Weaver CM. Use of Calcium Isotopic Tracers to Determine Factors that Perturb Calcium Metabolism. *J Agric Food Chem*. 2020; 68(46):12886-12892. doi: 10.1021/acs.jafc.0c01641.
 13. **Cao S**, Weaver CM, He X, Hong F. Peak Bone Mass in Chinese Adolescent: The Importance of Adequate Calcium Intake. *Chin J Endocrinol Metab*, 2020; 36(06): 453-457.
 14. Zhou L, Poon CC, Wong KY, **Cao S**, Yu W, Dong X, Lee WY, Zhang Y, Wong MS. Prenylflavonoid Icaritin Induces Estrogen Response Element-Independent Estrogenic Responses in a Tissue-Selective Manner. *J Endocr Soc*. 2019; 4(2):bvz025. doi: 10.1210/jendso/bvz025
 15. **Cao S**, Hodges JK, McCabe LD, Weaver CM. Magnesium Requirements in Children: Magnesium Requirements in Children: Recommendations for re-evaluation and comparison with current evidence for adults *Nutrition Today*. 54(5):195–206. doi: 10.1097/NT.0000000000000363
 16. Hodges JK, **Cao S**, Cladis DP, Weaver CM. Lactose intolerance and bone health: the challenge of ensuring adequate calcium intake. *Nutrients*. 2019; 11(4):718. doi: 10.3390/nu11040718.
 17. **Cao S**, Tian XL, Yu WX, Zhou LP, Dong XL, Favus MJ, Wong MS. Oleanolic acid and ursolic acid improve bone properties and calcium balance and modulate vitamin D metabolism in aged female rats. *Front Pharmacol*. 2018; 9: 1435. doi: 10.3389/fphar.2018.01435.
 18. **Cao S**, Wastney ME, Lachcik PJ, Xiao HH, Weaver CM, Wong MS. Both oleanolic acid and a mixture of oleanolic and ursolic acids mimic the effects of Fructus ligustri lucidi on bone properties and circulating 1,25-dihydroxycholecalciferol in ovariectomized rats. *J Nutr* 2018;148(12):1895-1902. doi: 10.1093/jn/nxy242.

19. **Cao S**, Dong XL, Ho MX, Yu WX, Wong KC, Yao XS, Wong MS. Oleanolic acid exerts osteoprotective effects and modulates vitamin D metabolism. *Nutrients*. 2018; 10(2), pii: E247. doi: 10.3390/nu10020247.
20. Wong KC*, **Cao S***(co-first author), Dong XL, Law MC, Chan TH, Wong MS. (-)-*Epiafzelechin* protects against ovariectomy-induced bone loss in adult mice and modulate osteoblastic and osteoclastic functions in vitro. *Nutrients*. 2017; 9(5), pii: E530. doi: 10.3390/nu9050530.
21. Dong XL, **Cao S**, Zhou LP, Denney L, Wong MS, HT Feng. Ethanol extract of *Fructus ligustri lucidi* increased circulating 1,25(OH)₂D₃ levels, but did not improve calcium balance in mature ovariectomized rats. *Am J Chin Med*. 2016; 44(6): 1237-1253. doi: 10.1142/S0192415X16500695.
22. Dong XL, Li CM, **Cao S**, Zhou LP, Wong MS. A high-saturated-fat, high-sucrose diet aggravates bone loss in ovariectomized female rats. *J Nutr*. 2016; 146(6): 1172-9. doi: 10.3945/jn.115.225474.
23. Dong XL, **Cao S**, Gao QG, Feng HT, Wong MS, Yan LY. Combination treatment with *Fructus ligustri lucidi* and *Puerariae radix* offsets their independent actions on bone and mineral metabolism in ovariectomized rats. *Menopause* 2014; 21(3): 286-94. doi: 10.1097/GME.0b013e3182966fd3

In Preparation

24. Li MH, Chan CO, **Cao S**, Yu WX, Yuen AC, Dong NP, Wong MS, Mok DK. An integrated multi-metabolomics platform for discovery of bone protective effect of *Ligustri Lucidi Fructus*. *Analytica Chimica Acta*. (Submitted)
25. Yu X, Poon CCW, Zhou LP, Wong KY, **Cao S**, Lam CY, Lee WY, Wong MS. Oleanolic acid exerts bone anabolic effects via activation of osteoblastic CYP27B1 expression and activity. *Aging and Disease*. (Submitted)

Book Chapter

1. **Cao S**, Weaver CM. Potassium. *Health Professional's Guide to Dietary Supplements*. Academy of Nutrition & Dietetics, 2023. P468-474.
2. **Cao S**, Dong XL, Zhang Y, Wong MS. Bone Protective Chinese Herbs: Story of *Fructus Ligustri Lucidi*. In Connie M. Weaver, Robin M. Daly, Heike A. Bischoff-Ferrari, Man-Sau Wong eds. *Nutritional Influences on Bone Health*. 10th International Symposium. Springer International Publishing AG, Cham, 2017. P199-207.

Awards and Honors

- 2022 Emerging Leaders in Nutrition Science Abstract Recognition Award, Nutrition 2022
- 2020 Professional Development Award, The Ohio State University, US\$400
- 2019 Postdoc Travel Grant, Purdue University, US\$400
- 2016 Outbound Attachment Programme Fellowship, The Hong Kong Polytechnic University, HKD\$35,000
- 2011 The Hong Kong Polytechnic University Scholarship, HKD\$40,000
- 2011 Subject Prize for Outstanding Performance of Food Microbiology, HKD\$100

Funding

Pending:

California Prune Board (US\$225,000) 2023.8

Prune on Regulating Calcium Metabolism and Bone Calcium Uptake in Osteoporotic Rats

PI: **Sisi Cao**; Co-PI: Connie Weaver, Mee Young Hong

The goal of this animal study is to investigate the mechanism of prune on calcium metabolism.

Funded:

Egg Nutrition Center, Young Investigator Award (US\$20,000) 2020.12-2023.12

Snacking on eggs to potentiate vitamin E and K bioavailability

PI: **Sisi Cao**; Co-PI: Richard Bruno, Joshua Blakeslee

The goal of this randomized controlled trial is to examine whole eggs as a snack to potentiate spinach-derived deuterium labeled vitamin E and vitamin K bioavailability.

Contributions to funded research:

The Hong Kong Polytechnic University Central Allocation fund (15100015) (HKD\$100,000) 2015

Study of the effects of *Fructus Ligustri Lucidi*, oleanolic acid and ursolic acid on vit D metabolism

PI: Man-Sau Wong

Role: Contributed to study design, grant writing, conducting experiments, data collection and analysis, and report writing and manuscript preparation

Conference Presentations

1. **Cao S**, Rezaei S, Zeng M, Antonius M, Moats PM, Blakeslee JJ, Bruno RS. Egg-mediated Bioavailability of Plant-Derived Vitamin E in Humans: A Pilot Study. Nutrition 2023. Boston, MA, USA. July 22-25, 2023.
2. Rezaei S, **Cao S**, Zeng M, Antonius M, Moats PM, Blakeslee JJ, Bruno RS. Deuterium-labeled spinach as a plant model for studying food matrix interactions on vitamin E bioavailability in humans. Nutrition 2023. Boston, MA, USA. July 22-25, 2023.
3. Zeng M, Hodges JK, Sasaki GY, **Cao S**, Vodovotz Y, Pokala A, Vodovotz Y, Brock G, Yu Z, Bruno RS. Green Tea Extract Confection Ingestion Alleviates Endotoxemia Without Affecting Systemic Inflammation In Healthy Adults and Those With Metabolic Syndrome. Nutrition 2023. Boston, MA, USA. July 22-25, 2023.
4. Pokala A, Quarles WR, Jiménez-Flores R, Ortega-Anaya J, Hodges JK, **Cao S**, Zeng M, Bruno RS. Milk Fat Globule Membrane-Enriched Dairy Milk Does Not Adversely Affect Fasting or Postprandial Cardiometabolic and Intestinal Biomarkers in Adults with Metabolic Syndrome. Nutrition 2023. Boston, MA, USA. July 22-25, 2023.
5. Wu KC, **Cao S**, Weaver CM, King N, Patel S, Kim TY, Black DM, Kingman H, Shafer M, Rogers SJ, Stewart L, Carter JT, Posselt AM, Schafer AL. Intestinal Calcium Absorption Decreases After Laparoscopic Sleeve Gastrectomy Despite Optimization of Vitamin D Status. American Society for Bone and Mineral Research (ASBMR) 2022 Annual Meeting. Austin, TX, USA. September 9-12, 2022.
6. **Cao S**, Rezaei S, Zeng M, Antonius M, Fanua LM, Hodges JK, Blakeslee JJ, Bruno RS. Egg-mediated Bioavailability of Plant-Derived Vitamins E and K in Humans: Development of Deuterium-Labeled Spinach. Nutrition 2022. Virtual. June 14-16, 2022. Oral presentation.

7. Hodges JK, Zeng M, **Cao S**, Pokala A, Rezaei S, Sasaki GY, Vodovotz Y, Bruno RS. Catechin-rich Green Tea Extract Reduced Intestinal Inflammation and Fasting Glucose in Metabolic Syndrome and Healthy Adults: A Randomized, Double-blind, Placebo-Controlled, Crossover Trial. *Nutrition* 2022. Virtual. June 14-16, 2022
8. Zeng M, Hodges JK, Sasaki GY, **Cao S**, Vodovotz Y, Bruno RS. Decreased Gut Permeability in Association with Decreased Gut Inflammation in Healthy and Metabolic Syndrome Adults Provided A Catechin-Rich Green Tea Confection: A Randomized, Double-Blind, Placebo-Controlled, Crossover Trial. *Nutrition* 2022. Virtual. June 14-16, 2022
9. **Cao S**, Quarles WR, Shaw EL, Sasaki GY, Dey P, Hodges JK, Pokala A, Bruno RS. Daily inclusion of potatoes into a Dietary Guidelines for Americans-based dietary pattern does not adversely impact cardiometabolic risk in adults with metabolic syndrome. *Nutrition* 2021. Virtual. June 7-10, 2021
10. Rezaei S, **Cao S**, Zeng M, Blakeslee JJ, Bruno RS. Bioaccumulation and isotopomer distribution of α -tocopherol in deuterium-labeled spinach: a tool for bioavailability studies in humans. Russell Klein Symposium, OSU. Virtual. April 15, 2021. (Second place in poster competition)
11. **Cao S**, Quarles WR, Shaw EL, Sasaki GY, Dey P, Hodges JK, Pokala A, Bruno RS. Daily inclusion of potatoes into a Dietary Guidelines for Americans-based dietary pattern does not adversely impact cardiometabolic risk in adults with metabolic syndrome. 2021 CFAES Annual Research Conference, OSU. Virtual. April 8, 2021
12. Hodges JK, **Cao S**, Lachcik PJ, Peacock M, Henry CN, McCabe GP, McCabe LD, Cladis DP, Lila MA, Ferruzzi MG, Martin BR, Weaver CM. Moderate blueberry consumption increased net bone calcium retention in healthy postmenopausal women: a randomized crossover trial. American Society for Bone and Mineral Research (ASBMR) 2020 Annual Meeting. Virtual. September 11-15, 2020.
13. Hodges JK, **Cao S**, Lachcik PJ, Peacock M, Henry CN, McCabe GP, McCabe LD, Cladis DP, Lila MA, Ferruzzi MG, Martin BR, Weaver CM. Moderate consumption of freeze-dried blueberry powder increases net bone calcium retention in healthy postmenopausal women: a randomized crossover trial. *Nutrition* 2020. Virtual. June 1-4, 2020.
14. Zhan J, Wallace TC, Butts SJ, **Cao S**, Ansu V, Spence LA, Weaver CM, Gletsu-Miller N. Whole blood ionized magnesium, a novel nutrition biomarker for magnesium intake. *Nutrition* 2020. Virtual. June 1-4, 2020.
15. Yu WX, Dong XL, **Cao S**, Chan CO, Mok DKW, Wong MS. Osteoprotective effects of oleanolic acid against bone loss are associated with its actions on fatty acid metabolism in aged female rats. ASBMR 2019 Annual Meeting. Orlando, Florida, USA, September 20-23, 2019.
16. Yu WX, **Cao S**, Wong MS. Investigation of the mechanism of oleanolic acid (OA) in modulating renal vitamin D metabolism in vitro. International Postgraduate symposium on Chinese medicine, Hong Kong, August 15th, 2019.
17. Stone MS, Martin BR, **Cao S**, Weaver CM. Short-term supplemental dietary potassium from potato and potassium gluconate effect on potassium retention in pre-hypertensive-to-hypertensive adults. *Nutrition* 2019, Baltimore, MA, USA, Jun 8-11, 2019.
18. Weaver CM, **Cao S**, JK Hodges. Magnesium metabolism and requirements in adolescents. XV International Magnesium Symposium "Magnesium in Health and Disease" Bethesda, NIH, USA, March 20-22, 2019. Oral presentation.
19. Xiao HH, Chan CO, **Cao S**, Mok DKW, Wong MS. Mass-based metabolomic analysis reveals the effects of a prenyl isoflavonoid-rich extract from *Erythrina variegata* Linn on ovariectomized rat model. *Nutrition* 2018, Boston, MA, USA, June 9-12, 2018, Poster 382.
20. Wong MS, **Cao S**, Wastney ME, Lachcik PJ, Weaver CM. Mixture of oleanolic acid and ursolic acid mimic the effects of *Fructus Ligustri Lucidi* on calcium kinetics, bone properties, and serum

- 1,25(OH)₂D₃ in ovariectomized rats. Experimental Biology, Chicago, IL, USA, April 22-26, 2017. Oral presentation.
21. Zhou LP, Dong XL, **Cao S**, Tsim KWK, Wong MS. Danggui Buxue Tang Decoction (DBT), a phytoestrogen-rich formula, increased bone mineral density and improved bone properties in mature ovariectomized rats. Endocrine Society's 98th Annual Meeting and Expo., Boston, MA, USA, April 1-4, 2016. Poster SUN-360.
 22. **Cao S**, Wong KC, Chan TK, Wong MS. (-)-Epiafzelechin, a flavan-3-ol, exerts bone protective effects in vivo. The 6th International Conference on Food Factors, Seoul, South Korea, November 22-25, 2015. Oral presentation.
 23. **Cao S**, Dong XL and Wong MS. Oleanolic acid improved bone properties and calcium balance and modulated vitamin D-dependent gene expression in aged female rats. The 9th International Symposium on Nutritional Aspects of Osteoporosis, Montreal, Canada, June 17-20, 2015, Poster 7, page 27
 24. **Cao S**, Dong XL and Wong MS. Oleanolic acid and ursolic acid exerted differential regulatory effects on renal 1 α ,25-dihydroxyvitamin D metabolism in human proximal tubule HKC-8 cells and aged female rats. The 17th vitamin D workshop, Chicago, IL, USA, June 17-20, 2014, Poster 28, page 49
 25. Ho MX, **Cao S**, Wong MS. Molecular actions of flavonoids in osteoblast-like UMR106 cells involve estrogen receptor activation via ERK signaling. The 16th International Congress of Endocrinology & the Endocrine Society's 96th Annual Meeting & Expo., Chicago, IL, USA, June 17-24, 2014 Poster MON-0421
 26. Dong XL, Li CM, **Cao S**, Xiao HH, Wong MS. Aqueous extract of Danshen (*Salvia Miltiorrhiza* Bunze) protects ovariectomized rats fed high fat diet from bone loss. IOF Regionals-Hong Kong 2013, Hong Kong, December 13-15, Poster IOFHK13-1161
 27. Dong XL, **Cao S**, Gao QG, Feng HT, Wong MS, Yan LY. Co-treatment with *Fructus Ligustri Lucidi* and *Puerariae Radix* offsets their independent actions on bone/mineral metabolism in OVX rats. 2013 ASBMR annual meeting, Baltimore, MA, USA, October 4-7, 2013, Poster LB-MO31
 28. **Cao S**, Dong XL, Wong MS. Study of the effect of *Fructus Ligustri Lucidi* (FLL) on intestinal Ca transport in Caco-2 cell line. The 9th International Postgraduate symposium on Chinese medicine, Hong Kong, August 15th, 2013 poster A-07

Patent

Wong MS, Dong XL, **Cao S**, Wang Y. Preparation of vitamin D₃ by oleanolic acid and ursolic acid: Use of drugs with metabolic enzyme activity. China patent no. CN109745330B, filed on 11/2017. <https://patents.google.com/patent/CN109745330B/en>

Teaching Experience

Graduate Level Course

2021.4 Guest speaker for HUMNNTR7762 Advanced Micronutrients on “Vitamin K and Fluoride” Human Nutrition Program, The Ohio State University

Undergraduate Level Course

2022.3 Guest speaker for HUMNNTR 4610 Micronutrients and Phytochemicals on “Vitamin K”, “Vitamin D and Calcium”. Human Nutrition Program, The Ohio State University

2021.11 Guest speaker for HUMNNTR 4610 Micronutrients and Phytochemicals on “Vitamin K”

Human Nutrition Program, The Ohio State University

2012 – 2016 Graduate Teaching Assistant, The Hong Kong Polytechnic University

Courses: ABCT3011 Principles of Nutrition; ABCT2326 Human Physiology;

ABCT315 Metabolism; ABCT1103 Fundamental Laboratory Techniques;

ABCT3005 Microbiology; ABCT1D06 Nutrition and Health Living;

SN3226 Physiology; ABCT1D09 Green House Gases and Life.

Students Mentored

1. Abby Jimenez, Weaver Lab graduate student, 2023-
2. Christina Vialva, Weaver Lab undergraduate student, 2023-
3. Palmer Moats, Bruno Lab undergraduate student, 2022
4. Maria Antonius, Bruno Lab undergraduate student, 2021- 2022
5. Morgan Harvey, Bruno Lab undergraduate student, 2021- 2022
6. Lili Fanua, Bruno Lab undergraduate student, 2021
7. Arya Singh, undergraduate student assistant, DOSU program, 2021-2022
8. Shahabeddin Rezaei, Bruno Lab graduate student, OSU, 2020- 2022
9. Min Zeng, Bruno Lab graduate student, OSU, 2020-2021
10. Wenxuan Yu, Wong Lab graduate student, PolyU, 2016-2017
11. Chris Chun-Kei Sit, Wong Lab summer intern, PolyU, 2016
12. Tzu-Chuan Chu, Wong Lab Honors student (first-class honor), PolyU, 2016-2017
13. Kiu-Fung Mak, Wong Lab Honors student (first-class honor), PolyU, 2015-2016
14. Gladys Hui-Kei Sit, Wong Lab summer intern, PolyU, 2014
15. Shuangcheng Wu, Wong Lab Honors student (first-class honor), PolyU, 2013-2014
16. Tianxiang Nie, Wong Lab Honors student (second-up honor), PolyU, 2013-2014
17. Ka-Wing Tam, Wong Lab Honors student, PolyU, 2013-2014
18. Jacky Chan, Wong Lab Honors student, PolyU, 2012-2013

Scientific Skills

- Molecular biology: RT-qPCR, gel electrophoresis, protein assays, Western blotting, competitive ligand binding assay, ELISA
- Cell biology: tissue culture, MTT assay, ALP assay, cell migration assay
- Microbiology: bacterial culture, growth monitor, transformation, transfection
- Bioanalytical chromatography: HPLC, LC-MS
- Animal husbandry: mice colony breeding, mice and rat colony maintenance, genotyping, oral gavaging, surgical and blood-drawing techniques, ovariectomized and jugular catheter surgeries, tissue isolation
- Clinical Trial: IRB and CT.gov protocols maintenance, subject recruitment, data management
- Mineral analysis: AAS, ICP-OES, stable calcium isotope preparation and analysis
- Bone biology: Micro-CT analysis
- Histopathology: H&E staining and immunohistochemistry
- Statistics: GraphPad Prism, SPSS, R (basic)

- Computer programs: NDSR (for diet design and analysis), Microsoft office package
- Additional skills: grant/research proposal/research paper writing, laboratory management.

Service and Leadership Positions

2023-2024	President-elect, Vitamin and Mineral Groups Engaging Members (GEM), ASN
2023.6	Session Chair and Poster Judge, Nutrition 2023, American Society for Nutrition
2023.3	Abstract Judge, Nutrition 2023, American Society for Nutrition (ASN)
2023.3	Poster Judge, SDSU Student Symposium 2023
2023.2-	Voting member, Institutional Review Board (IRB), SDSU
2022.6	Session Chair, Micronutrients, Nutrition 2022, ASN
2022-2023	Secretary, Vitamin and Mineral Research Interest Sections (RIS), ASN
2022.4	Abstract and Poster Judge, CFAES Annual Conference, OSU
2022.3	Abstract and Poster Judge, Edward F. Hayes Graduate Research Forum, OSU
2022.2	Proposal Reviewer, 2022 Present's Research Excellence Catalyst proposal, OSU
2021.7-2022.4	Mentor, in Researcher, Mentor, Teacher (RMT/DOSU) program, OSU
2021.7	Proposal Reviewer, 2021 Present's Research Excellence Catalyst proposal, OSU
2021.6	Mentor, Annual SIG/ECN Speed Mentoring Event, Nutrition 2021, ASN
2021.6	Session Chair, Vitamin and Mineral RIS Forum, Nutrition 2021, ASN
2021.4	Poster Judge, CFAES Annual Conference, OSU
2021.3	Abstract and Poster Judge, Edward F. Hayes Graduate Research Forum, OSU
2021.2	Abstract Judge, Nutrition 2021, ASN
2021-2022	Peer reviewer, Postdoc Professional Development Awards, OSU
2021-2022	Postdoc Representative, Vitamin and Mineral RIS, ASN
2020.2	Oral Presentation Judge, Edward F. Hayes Graduate Research Forum, OSU
2019.6	Poster Judge, Nutrition 2019, ASN
2019.3	Poster Judge, Office of Interdisciplinary Graduate Programs Spring Reception, Purdue University
2013-2016	Tutor of Chengde Hall, Student Resident Halls, PolyU
2012-2013	Research Student Representative on Faculty Research Committee, PolyU

Memberships

2019-Present	American Society for Nutrition (ASN)
2019-Present	American Society for Bone and Mineral Research (ASBMR)

Ad-Hoc Reviewing Activities

1. Bioengineered (Editorial board 2021.7-present)
2. Nutrition Research (Editorial board 2023.8-present)
3. Frontiers in Nutrition (Review editor 2022.7-present)
4. BMC Complementary Medicine and Therapies
5. Cell Cycle
6. Chinese Journal of Integrative Medicine
7. Frontiers in Cellular and Infection Microbiology

8. Frontiers in Endocrinology
9. Frontiers in Nutrition
10. Frontiers in Pharmacology
11. Health Professional's Guide to Dietary Supplements
12. International Journal of Molecular Sciences
13. Journal of Clinical Medicine
14. Journal of Dietary Supplements
15. Journal of the American College of Nutrition
16. Nutrients
17. Nutrition Research Reviews
18. Osteoporosis International
19. Pharmaceutical Biology
20. Phytomedicine
21. Phytotherapy Research
22. PLOS One
23. Scientific Reports