

# LAUREN CHAN, MS RD LDN

<https://www.linkedin.com/in/lauren-eve-chan/>

<https://github.com/laurenechan>

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## EDUCATION

### Oregon State University

Sept 2018 – Present

Dissertation: ‘*Semantic Evaluation of Environmental and Nutrition Factors Impacting Female Reproductive Disorders*’

### Illinois State University

Aug 2016– May 2018

Thesis: ‘*Dietary Sodium and Blood Pressure Changes in Hemodialysis Patients Undergoing a Liberalized Renal Diet Intervention*’

Aug 2016– April 2018

### Oregon State University

Sept 2012–June 2016

### PhD in Nutrition

Advisor: Dr. Melissa Haendel

### MS in Family & Consumer Sciences

Advisor: Dr. Jennifer Barnes

### Dietetic Internship

### BS in Nutrition, Summa Cum Laude

Psychology Minor

## RESEARCH EXPERIENCE

### Oregon State University

Dec 2021 – June 2023

- Ruth L. Kirschstein Predoctoral Individual National Research Service Award recipient in 2021
- Pursuing independent research focused on self-reported dietary and exposure data integration and visualization using biomedical ontologies, embedded knowledge graphs, and machine learning

### National Institute of Environmental Health Science

June 2021-Sept 2021

- Recipient of an Intramural Research Training Award (IRTA) Fellowship at the Division of National Toxicology Program
- Leading the coordination of the Environmental Polymorphisms Registry survey questions with biomedical ontology content

### Oregon State University

Jan 2019 – Dec 2021

- COVID-Pregnancy outcome and metformin-COVID severity modeling with the National COVID Cohort Collaborative (N3C)
- Curates the Medical Actions Ontology (MAxO), Environmental Conditions, Treatments, and Exposures Ontology (ECTO), Food Ontology (FoodOn) and other OBO Foundry ontologies

### Illinois State University

Aug 2016– May 2017

- Contributed to nutrition and kinesiology-based projects aimed at evaluating lifestyle changes within a hemodialysis patient population and coinciding health outcomes
- Coordinated lab projects with faculty and fellow students at Illinois State University and the University of Illinois at Urbana Champaign
- Developed dietary education materials for hemodialysis patients following a liberalized renal diet
- Extensively reviewed current literature for interdisciplinary research within multiple ISU colleges and departments

### Graduate Fellow

Advisors: Dr. M. Haendel & Dr. E. Ho

### Summer Intern

Advisor: Dr. Charles Schmitt

### Graduate Research Assistant

TIS Lab & Dallas Lab

### Graduate Research Assistant

Dept. of Family and Consumer Sciences

## TEACHING EXPERIENCE

Sept. 2018 – June 2020

### Graduate Teaching Assistant

- Instructed Human Nutrition (NUTR 240) in-seat lecture for ~ 100 students
- Facilitated all instruction for Introduction to the Nutrition Major (NUTR 104) with OSU Ecampus
- Coordinated accompanying Canvas webpage for all course facilitation
- Assisted primary instructor for Medical Nutrition Therapy series (NUTR 43X) and Lifetime for Fitness (HHS 231) course including grading and student office hour meetings

2018– 2019

### Guest Lecturer

- Coordinated and presented guest lectures for KIN 599 (Nutrition in Athletic Training), NUTR 430, NUTR 431, and NUTR 432 (Medical Nutrition Therapy I, II & III)

## PUBLICATIONS

**Chan, L.**, Vasilevsky, N., Thessen, A., McMurry, J., & Haendel, M. (2021). The landscape of nutri-informatics: a review of current resources and challenges for integrative nutrition research. *Database: The Journal of Biological Databases and Curation*, 2021. <https://doi.org/10.1093/database/baab003>

**Chan, L. E.**, Beverly, R. L., & Dallas, D. C. (2021). The Enzymology of Human Milk. In A. L. Kelly & L. B. Larsen (Eds.), *Agents of Change: Enzymes in Milk and Dairy Products* (pp. 209–243). Springer International Publishing. DOI: 10.1007/978-3-030-55482-8\_9

Antar, T., **Chan, L.**, Jason, E., Moraczewski, D., Pu, K., Ruan, E., & Thomas, A. (2021). Visualizing the Nutritional Landscape of Food: An NIH Codeathon Project. Zenodo. <https://doi.org/10.5281/zenodo.5504204>

Toro, S., Hamosh, A., Matentzoglou, N., Munoz-Torres, M., **Chan, L.**, Thaxton, C., Alyea, G., Haendel, M., Mungall, C., Robinson, P. N., & Vasilevsky, N. (2021). *New view of the Mondo Disease Ontology High-level Classification According to Harrison's Principles of Internal Medicine textbook*. <https://doi.org/10.5281/zenodo.5273598>

Reese, J. T., Coleman, B., **Chan, L.**, Blau, H., Callahan, T. J., Cappelletti, L., Fontana, T., Bradwell, K. R., Harris, N. L., Casiraghi, E., Valentini, G., Karlebach, G., Deer, R., McMurry, J. A., Haendel, M. A., Chute, C. G., Pfaff, E., Moffitt, R., Spratt, H., ... Robinson, P. N. (2021). Cyclooxygenase inhibitor use is associated with increased COVID-19 severity. *medRxiv: The Preprint Server for Health Sciences*. <https://doi.org/10.1101/2021.04.13.21255438>

Perez, L. M., Burrows, B. T., **Chan, L. E.**, Fang, H.-Y., Barnes, J. L., & Wilund, K. R. (2020). Pilot feasibility study examining the effects of a comprehensive volume reduction protocol on hydration status and blood pressure in hemodialysis patients. *Hemodialysis International. International Symposium on Home Hemodialysis, n/a(n/a)*. <https://doi.org/10.1111/hdi.12841>

Thessen, A. E., Grondin, C. J., Kulkarni, R. D., Brander, S., Truong, L., Vasilevsky, N. A., Callahan, T. J., **Chan, L. E.**, Westra, B., Willis, M., Rothenberg, S. E., Jarabek, A. M., Burgoon, L., Korrick, S. A., & Haendel, M. A. (2020). Community Approaches for Integrating Environmental Exposures into Human Models of Disease. *Environmental Health Perspectives*, 128(12), 125002. <https://doi.org/10.1289/EHP7215>

Shefchek, K. A., Harris, N. L., Gargano, M., Matentzoglou, N., Unni, D., Brush, M., Keith, D., Conlin, T., Vasilevsky, N., Zhang, X. A., Balhoff, J. P., Babb, L., Bello, S. M., Blau, H., Bradford, Y., Carbon, S., Carmody, L., **Chan, L. E.**, Cipriani, V., ... Osumi-Sutherland, D. (2020). The Monarch Initiative in 2019: an integrative data and analytic platform connecting phenotypes to genotypes across species. *Nucleic Acids Research*, 48(D1), D704–D715.

**Chan, L.** (2018). Dietary Sodium And Blood Pressure Changes In Hemodialysis Patients Undergoing A Liberalized Renal Diet Intervention. *Theses and Dissertations*. <https://doi.org/10.30707/ETD2018.Chan.L>

## PUBLICATIONS UNDER REVIEW

**Chan L,** Brody R, Dobak S, Peterson S. Digital learning: A survey of RDN attitudes and utilization of YouTube for nutrition education.

*Under editor's review at Topics in Clinical Nutrition*

**Chan L,** Vasilevsky N, Thessen A, Matentzoglou N, Duncan W, Mungall C, Haendel M. A semantic model leveraging pattern-based ontology terms to bridge environmental exposures and health outcomes.

*Set for publication in the International Conference on Biomedical Ontologies 2021 conference proceedings*

## ABSTRACTS

**Chan L,** Brody R, Dobak S, Peterson S. Digital learning: A survey of RDN attitudes and utilization of YouTube for nutrition education. 2021.

*Poster presentation at FNCE@ 2021*

**Chan L,** Thessen A, Vasilevsky N, Matentzoglou N, Mungall C, Haendel M. Semantic modeling of environmental and chemical exposures: The impact on health. 2020.

*Poster presentation at 11<sup>th</sup> Annual EMT Research Symposium*

**Chan L,** Dobak S, Peterson S, Chen Y. YouTube: The next frontier for nutrition support education. 2019.

*Poster presentation at FNCE@ 2019, Outstanding Abstract award winner.*

## PRESENTATIONS

**Chan L,** Vasilevsky N, Thessen A, Matentzoglou N, Duncan W, Mungall C, Haendel M. A semantic model leveraging pattern-based ontology terms to bridge environmental exposures and health outcomes. 2021.

*Oral presentation at the 12<sup>th</sup> International Conference on Biomedical Ontologies (ICBO)*

**Chan L.** YouTube: The Next Frontier of Nutrition Education. 2020.

*Presented as a Clinical Nutrition Management webinar in September 2020*

**Chan L,** Carmody L, Matentzoglou N, Vasilevsky N, Robinson P, Haendel M. Standardizing clinical nutrition intervention terminology for rare disease management. 2019.

*Lightning talk and poster presentation at CGRB Fall Conference 2019*

**Chan L,** Perez L, Burrows B, Biruete A, Barnes JL, Wilund KR. Effects of a 6-month lifestyle intervention on dietary intake and blood pressure in hemodialysis patients. *FASEB J.* 2017;31(1 Supplement):140.3–140.3.

*Oral presentation at Experimental Biology Annual Meeting 2017.*

## SERVICE EXPERIENCES

### Dietitians in Nutrition Support

June 2020 - Present

June 2018–May 2020

- Administrated and created content for DNS YouTube page including educational video resources related to nutrition support. <https://www.youtube.com/c/dietitiansinnutritionsupport>
- Coordinated volunteer contributors for YouTube video content
- Member of Executive Committee, including attendance at Leadership Retreats 2018-2020 for DNS yearly strategic planning

**YouTube Coordinator**

**Student Coordinator**

### International Conference on Biomedical Ontologies

- Reviewed a variety of abstracts and manuscripts submitted for presentation at ICBO 2021

**Program Committee Member**

### Integrated Food Ontology Workshop (IFOW)

March 2020-present

March 2021-Oct 2021

- Reviewed manuscripts and abstracts for the mixed in-person and online 2021 workshop presentations
- Developed a virtual workshop to replace the 2020 in-person workshop cancelled due to travel restrictions, offering a 4-week alternative meeting for paper presentations and community discussion

**Coordinating Team Member**

### CPHHS Curriculum Committee

Dec 2019–June 2020

- Reviews proposed new courses and course revisions for undergraduate and graduate programs within the College of Public Health and Human Sciences

**Student Member**

### Beaver Store Board of Directors

May 2013–May 2016 & Nov 2019–Present

- Communication liaison representing the OSU community at the Beaver Store, a non-profit bookstore
- Evaluated matters of finances, advertising, and future company investments
- Directed the CEO's annual evaluation based on company success including goal achievement and non-profit member benefits

**Vice Chairman and Member**

### Fresh FAVs Program

Jan 2017–April 2017

- Coordinated weekly delivery of fresh produce for 180+ participants, managing an \$11,000 budget for the 8-week program
- Directed 20 volunteers weekly to provide efficient and safe produce management
- Provided weekly produce- focused and herb-focused recipes for participants, concentrating on health and trying new foods

**Spring Coordinator**

## PROFESSIONAL MEMBERSHIPS

2014– Present

2016– Present

2018–Present

2020–Present

2020-Present

Academy of Nutrition and Dietetics

Dietitians in Nutrition Support

American Society of Nutrition

International Society for Biocuration

Joint Food Ontology Working Group

## AWARDS & HONORS

2021-present

2019-2022

2021-2022

2021

2018–2021

2019–2021

2020-2021

2018–2020

2019-2020

2017

### **Ruth L. Kirschstein National Research Service Award (F31), NIH NICHD**

Hawthorne Memorial Scholarship

Eric Englund Postgraduate Scholarship, OSU

Balz Frei Graduate Fellowship, OSU

Outstanding Social Media Award, Academy of Nutrition and Dietetics

Woodburn Fellowship

Nutrition Science Fellowship

Charley Fellowship in Foods and Nutrition

Annie Lindsay Scholarship, OSU

Thayer Raymond Scholarship, OSU

Teaching Assistantship, OSU

Cynthia W. H. Fang Memorial Scholarship

Dietitians in Nutrition Support Grant