

Yuexuan Xu

Curriculum Vitae

Department of Population Health Science
School of Medicine and Public Health
University of Wisconsin – Madison
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Madison, WI 53726

Center for Demography of Health and Aging
University of Wisconsin – Madison
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Madison, WI 53706

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Department Webpage: <https://pophealth.wisc.edu/staff/xu-yuexuan/>

Genomic Epidemiology Lab Page: <https://engelmanlab.pophealth.wisc.edu/staff/xu-yuexuan/>

CDHA Webpage: <https://cdha.wisc.edu/staff/xu-yuexuan/>

AREAS OF INTEREST

Genomics and epidemiology: Social science genetics, genetic epidemiology, GWAS, genetics of Alzheimer's disease, gene × environment interactions in complex disease, modifiable risk factors and complex disease, life-course epidemiology, social epidemiology,
Social science: Health economics, applied econometrics, socio-economic environment and complex disease, aging, and cognitive/brain aging.

Methods: Demography, causal Inference, public policy analysis, longitudinal data modeling and analyses.

EDUCATION

University of Wisconsin-Madison

Doctor of Philosophy, Population Health Sciences

Madison, WI

Expected: December 2023

Minor: *Statistics, Quantitative Genetics, and Genetic Epidemiology*

Dissertation: *"Identification of Life Course Gene–Environment Interactions in Cognitive Decline During the Preclinical Stage of Alzheimer's"*

University of Southern California

Master of Public Policy, Health Policy and Economics Track

Los Angeles, CA

2018

Shandong University

Bachelor of Management, Public Administration

Jinan, China

2015

APPOINTMENTS AND WORKING EXPERIENCE

2020.08 – Present

Research Assistant to Professor Corinne Engelman
Department of Population Health Science
School of Medicine and Public Health
University of Wisconsin – Madison, Madison, WI, USA

2019.09 – Present

Research Assistant to Professor Jason Fletcher
Institute of Social Genomics

Center for Demography of Health and Aging
Robert M. La Follette School of Public Affairs
University of Wisconsin – Madison, Madison, WI, USA

- 2018.09 – 2019.06 Research Assistant to Dr. Titus Galama
Center for Economic and Social Research
University of Southern California, Los Angeles, CA, USA
- 2018.09 – 2018.12 Teaching Assistant to Professor John Romley
Sol Price School of Public Policy
University of Southern California, Los Angeles, CA, USA
- 2017.09 – 2018.06 Part-time Remote Policy Analyst
International Refugee Assistance Project, New York, NY, USA
- 2017.06 – 2017.10 Research Assistant for Professor Junyu Niu
Public Performance and Information Research Center
Fudan University, Shanghai, China

PUBLICATIONS

*First author manuscript

Works under review

1. **Xu, Y***, Vasiljevic, E., Deming, Y., Jonaitis, E. M., Kosciak, R. L., Van Hulle, C. A., ... & Engelman, C. D. (2023). Effect of Pathway-specific Polygenic Risk Scores for Alzheimer's Disease (AD) on Rate of Change in Cognitive Function and AD-related Biomarkers among Asymptomatic Individuals. medRxiv, 2023-01.

Conditional accepted by *Journal of Alzheimer's Disease*

2. **Xu, Y***, Sun, Z., Deming, Y., Jonaitis, E. M., ... & Engelman, C. D. (2023). Apolipoprotein E moderates the association between Non-APOE Polygenic Risk Score for Alzheimer's Disease and Aging on Preclinical Cognitive Function. medRxiv, 2023-04.

Submitted to *Alzheimer's and Dementia: the journal of Alzheimer's Association*

3. **Xu, Y***, Sun, Z., Deming, Y., Jonaitis, E. M., ... & Engelman, C. D. (2023). Mid-to-Late Life Healthy Lifestyle Modifies Genetic Risk for Longitudinal Cognitive Aging among Asymptomatic Individuals from the Wisconsin Registry for Alzheimer's Prevention.

Plan to submit to *JAMA Neurology* by July 2023

4. **Xu, Y*** & Engelman, C. D. (2023). Early life Socioeconomic Status Modifies Genetic Risk of Alzheimer's on Later Life Cognition Decline in a Population-Representative Study.

Plan to submit to *American Journal of Epidemiology* by Oct 2023

Conference proceedings

1. **Xu, Y***, Kosciak, R.L., Jonaitis, E.M., Lu, Q., Johnson, S.C. and Engelman, C.D., 2022. Mid-to-Late Life Healthy Lifestyle Modifies Genetic Risk for Longitudinal Cognitive Aging among Asymptomatic Individuals from the Wisconsin Registry for Alzheimer's Prevention. *Alzheimer's & Dementia*, 18, p.e068806.
2. **Xu, Y***, Vasiljevic, E., Deming, Y., Jonaitis, E.M., Kosciak, R.L., Lu, Q., Johnson, S.C. and Engelman, C.D., 2022. Apolipoprotein E moderates the association between Non-APOE Polygenic Risk Score for Alzheimer's Disease and Aging on Preclinical Cognitive Function. *Alzheimer's & Dementia*, 18, p.e065650.

Completed but haven't submit

1. Fletcher, J.M. Venkataramani, A.S. and **Xu, Y.** Early Life Exposure, Gene-Environment Interactions, and Cognition in Old Age. Plan to submit to *Journal of Health Economics*
2. Fletcher, J.M., Lu, Q., Song, J, **Xu, Y.** Bald is Beautiful? Life Course Outcomes for Individuals at High Genetic Risk for Male Pattern Baldness. Plan to submit to *Social Science and Medicine*.

Work in progress

1. Integrate Rare Variants into the Comprehensive AD Genetic Risk Prediction Model. With Corinne Engelman, Jason Fletcher, Lauren Schimtz, and Qiongshi Lu
2. Comparison of PRS Methods and its Prediction Performance on AD-related Phenotypes. With Yuetiva Robles, Jiacheng Miao, and Qiongshi Lu

Exploratory work during graduate school

1. **Xu, Y***. (2018). Does Childhood Environment Moderate the Disparity in Genetic Predisposition for Peak Smoking?

Final project of directed research class under the supervision of Dr. Titus Galama at the University of Southern California

CONFERENCE PRESENTATION AND ATTENDANCE

1. Integrating Genetics into the Social Sciences (IGSS) 2019, attendee, Sep 2019, University of Colorado – Boulder.
2. "Bald is Beautiful? Life course outcomes for individuals at high genetic risk for male pattern baldness", Oral Podium Presentation, Integrating Genetics into the Social Sciences (IGSS) 2020, Sep.2020, University of Colorado – Boulder, remotely.

3. Alzheimer's Association International Conference 2021, attendee, July 2021, Alzheimer's Association, Denver, CO.
4. "Effect of Pathway-specific Polygenic Risk Scores for Alzheimer's Disease on Rate of Change in Cognitive Function and AD-related Biomarkers among Asymptomatic Individuals", Oral Podium Presentation, Integrating Genetics into the Social Sciences (IGSS) 2021, Oct.2021, University of Colorado – Boulder, Boulder, CO.
5. "Apolipoprotein E moderates the association between Non-APOE Polygenic Risk Score for Alzheimer's Disease and Aging on Preclinical Cognitive Function", Poster Presentation, Wisconsin Alzheimer's Disease Research Center Alzheimer's disease and related dementia Research Day 2022, April 2022, Madison, WI.
6. "Apolipoprotein E moderates the association between Non-APOE Polygenic Risk Score for Alzheimer's Disease and Aging on Preclinical Cognitive Function", Poster Presentation, Alzheimer's Association International Conference 2022, July 2022, San Diego, CA.
7. "Mid-to-Late Life Healthy Lifestyle Modifies Genetic Risk for Longitudinal Cognitive Aging among Asymptomatic Individuals from the Wisconsin Registry for Alzheimer's Prevention", Oral Podium Presentation, Alzheimer's Association International Conference 2022, July 2022, San Diego, CA.
8. "Mid-to-Late Life Healthy Lifestyle Modifies Genetic Risk for Longitudinal Cognitive Aging among Asymptomatic Individuals from the Wisconsin Registry for Alzheimer's Prevention", Oral Podium Presentation, Gene-environment interaction panel, Institute of Aging, University of Wisconsin-Madison, October 2022, Madison, WI
9. "Mid-to-Late Life Healthy Lifestyle Modifies Genetic Risk for Longitudinal Cognitive Aging among Asymptomatic Individuals from the Wisconsin Registry for Alzheimer's Prevention", Poster Presentation, Wisconsin Alzheimer's Disease Research Center Alzheimer's disease and related dementia Research Day 2023, April 2023, Madison, WI.
10. "Childhood self-reported socioeconomic status modifies the genetic risk of Alzheimer's on mid- and late-life cognitive decline in a population-based study", Society for Epidemiologic Research Conference 2023, Poster Presentation, June 2023, Portland, Oregon.
11. "Early life exposure to adverse socioeconomic environment modifies the genetic risk of Alzheimer's on mid- and late-life cognitive decline in the Health and Retirement Study", Poster Presentation, Alzheimer's Association International Conference 2023, July 2023, Amsterdam, Netherland (virtual attendance).

EXTERNAL TRAINING, CERTIFICATES, AND WORKSHOPS

Novel models for longitudinal continuous outcomes workshop

Time: December 2022

Organizer: Alzheimer's Association and Stanford University

DNA methylation analysis workshop

Time: October 2021

Organizer: University of Colorado

Statistical workshop on genomic family data

Time: September 2020

Organizer: University of Colorado

Genome-wide Data Analysis

Time: September 2020 to December 2020

Organizer: University of Wisconsin-Madison and Tinbergen Institute

TEACHING EXPERIENCE

Fall 2018 PPD 558 Multi-variate Statistical Analysis - Graduate-level course, 40 students

Teaching Assistant to Dr. John Romley

Sol Price School of Public Policy, University of Southern California

GRANTS

Identification of Gene–Environment Interactions in Cognitive Decline During the Preclinical Stage of Alzheimer’s

Source: UW-Madison Center for Demography and Health of Aging, NIH, P30AG017266

Total direct costs: \$50,000

Project period: 09/01/2022-08/31/2023

PI: Corinne Engelman

Role: Student Investigator

This pilot project aims to understand how early-to-late life environments modify the genetic risk of AD on later-life cognition among asymptomatic individuals. This award directly supports my dissertation research, and my responsibility includes drafting grant proposals, performing relevant analyses, and drafting the final manuscript. The results from this project will be served as preliminary data for a future R01 grant application.

AWARDS AND SCHOLARSHIPS

UW-Madison Student Research Competition Grant 2022-2023

Source: University of Wisconsin-Madison Graduate School, USA

Time: April 2023

Award: \$1500

Rankin / Skatrud Research Award

Source: University of Wisconsin-Madison Department of Population Health Sciences, USA

Time: January 2022

Award: \$1,000

UW-Madison Student Research Competition Grant 2021-2022

Source: University of Wisconsin-Madison Graduate School, USA

Time: October 2021

Award: \$600

UW-Madison Chancellors' Fellowship

Source: University of Wisconsin-Madison Graduate School, USA

Time: September 2019

Award: \$26,000 and tuition remission

Outstanding Student Scholarship

Source: University of Wisconsin-Madison Department of Population Health Sciences, USA

Time: September 2019

Award: \$1,000

Phi Alpha Alpha Honorary Member

Source: Network of Schools of Public Policy, Affairs, and Administration, USA

Outstanding Undergraduate Thesis Award

Source: Shandong University, China

SKILLS

Data Analytical Software: STATA, Excel-Macro, SAS, Arc-GIS, Matlab, PLINK, GCTA, LDSC

Programming Language: Python, R

Office Software: Microsoft Word, Excel, Power-point; Google Office Software; LaTeX

MEMBERSHIPS

ISTAART member

International Society to Advance Alzheimer's Research and Treatment

ADDITIONAL INFORMATION

Languages: **Mandarin** (Native); **English** (Proficient); **Cantonese** (Limited Proficiency)

Personal Website: <https://zippdozen.github.io>

ORCID: 0000-0002-2732-7199

Nationality: China

REFERENCE

Upon request