

# HARPER OKLAHOMA WEEKS WALLACE

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## EDUCATION

**École Normale Supérieure, PSL Research University**, Paris, France Sep 2020–Present  
M.Sc., Cognitive Science (Computational Cognitive Neuroscience) Anticipated: Jun 2022

**Denison University**, Granville, OH Aug 2017–May 2020  
B.S., Biochemistry, *Summa Cum Laude*, ΦBK, with Distinction Rank: 1/569; GPA: 4.00/4

## RESEARCH EXPERIENCE

**da Silveira Laboratory**, École Normale Supérieure Aug 2020–Present  
Graduate Research Assistant; Fulbright Scholar, France  
Advisor: Rava A. da Silveira, Ph.D., Directeur de Recherche, Département de Physique  
*Sujet de stage*: Efficient coding models for ‘irrational’ choice behavior: Accounting for preference intransitivity and context/decoy effects

**Reczek Laboratory**, Denison University Jan 2018–May 2020  
Undergraduate Research Assistant  
Advisor: Joseph J. Reczek, Ph.D., Professor, Department of Chemistry & Biochemistry  
Thesis: Controlled alignment of donor-acceptor columnar liquid crystals and interrogation of optical properties for applications in data storage and encryption

## PUBLICATIONS

- Wallace HOW**, Fikri K, Weinstein JN, Weeks WB. Improving economic conditions associated with declining ACSCs, elective surgeries, and care quality but increasing costs. (In press)
- Laskowski LF, Coble C, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila biarmipes* – *cnk*. *microPublication Biology*. (In press)
- Laskowski LF, Coble C, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila pseudoobscura* – *cnk*. *microPublication Biology*. (In press)
- Laskowski LF, Cowan B, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila erecta* – *cnk*. *microPublication Biology*. (In press)
- Cruzado JCM, Morales D, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila mojavensis* – *cnk*. *microPublication Biology*. (In press)
- Wallace HOW**, Fikri K, Weinstein JN, Weeks WB. Improving economic conditions matter for mortality: Changes in local economic distress associated with mortality among Medicare fee-for-service beneficiaries between 2003 and 2015. *J Gen Intern Med*, **2021**. <https://doi.org/10.1007/s11606-020-06410-z>.
- Van Winkle M, **Wallace HOW**, Smith N, Pomerene AT, Wood, MG, Kaehr B, Reczek JJ. Direct-write orientation of charge-transfer liquid crystals enables polarization-based coding and encryption. *Sci Rep-UK*, *10*, 15352, **2020**. <https://doi.org/10.1038/s41598-020-72037-z>.

## PATENT APPLICATION

U.S. Patent Application 17/154,220. Polarization-based coding/encryption using organic charge-transfer materials. **2021** Jan 21. Inventors: Kaehr BJ (Albuquerque NM), Reczek JJ (New Albany OH), Van Winkle M (Berkeley CA), **Wallace HOW** (Dallas TX).

## PRESENTATIONS

**Wallace HOW**, Fikri K, Weinstein JN, Weeks WB. Improving economic conditions matter for mortality among Medicare fee-for-service beneficiaries in the U.S.. (Virtual) To be presented at the iHEA World Congress on Health Economics; **2021** Jul 12–15.

**Wallace HOW**, Reczek JJ. Higher-order molecular control of self-assembling DACLCs. (Virtual) Poster session presented at Fundamental Research in Colloids, Surfaces & Nanomaterials Session; Division of Colloid and Surface Chemistry; American Chemical Society National Meeting; **2020** Mar 22–26.

**Wallace HOW**, Reczek JJ. Technology applications of self-assembling DACLCs: Information storage and encryption techniques. Poster session presented at:

(a) 23<sup>rd</sup> Annual Posters on the Hill (CUR); **2019** Apr 30; Washington, DC.

(b) Undergraduate Research Session; American Chemical Society National Meeting; **2019** Mar 31–Apr 4; Orlando, FL.

## AWARDS & HONORS

Rosalind Swenson Fulbright Enrichment Award, *U.S.–France Fulbright Commission* 2021

Fulbright Research/Study Grant, France, *Fulbright U.S. Student Program* 2020

Valedictorian, Class of 2020, *Denison University*

Provost's Academic Excellence Award, *Denison University*

ΦBK Academic Honor Society, *Denison University*

ΣΞ Scientific Research Honor Society, *Denison University*

William C. Ebaugh Award in Chemistry & Biochemistry, *Denison University*

Columbus Chapter ACS Award for Outstanding Senior, *American Chemical Society*

Barry Goldwater Scholarship, *Barry Goldwater Scholarship Foundation* 2019

J. Reid & Polly Anderson Scholarship for Excellence in Science, *Denison University*

Department Fellow, Chemistry & Biochemistry, *Denison University*

Thomas A. Evans Award in Organic Chemistry, *Denison University*

AEΔ Pre-Health Honor Society, *Denison University*

23<sup>rd</sup> Annual Posters on the Hill, *Council on Undergraduate Research*

## EMPLOYMENT & EXTRACURRICULAR

**Kaplan K-12 Learning Services**, Live-Online Team Jan 2018–Present

SHSAT and SAT Prep. Instructor

**Department of Chemistry & Biochemistry**, Denison University Jan 2018–May 2020

Teaching Assistant, Tutor (2018–2020); Department Fellow (2019–2020)

**Jazz Combo**, Denison University Jan 2018–May 2020

Alto Saxophone I

ΦΓΔ **Fraternity**, Denison University Jan 2018–May 2020

Treasurer, Social Chair (2019–2020)

**Residential Communities**, Denison University  
Community Advisor (formerly “Resident Advisor”) Jan 2019–Dec 2019

## SERVICE

**Nightline Paris**, Paris, France Oct 2020–Present  
Volunteer Responder & Training Screener, English Line

**FabLab**, Collège-Lycée Paul Valéry, Paris, France Oct 2020–Present  
Robotics and Programming Mentor

**Pathways of Central Ohio**, Newark, OH Jun 2018–Mar 2020  
Crisis Response Specialist, 2-1-1 Crisis Hotline & National Suicide Prevention Lifeline

**FIRST Robotics**, Granville, OH Middle and High Schools Jan 2018–Mar 2020  
Programming Mentor

## TECHNICAL PROFICIENCIES

### Programming

Python, Swift, Java, C#, C++, Obj-C

### Data Analysis & DBMS

MATLAB, R, Python, Excel, SQL

### Markup

L<sup>A</sup>T<sub>E</sub>X

### French

Advanced reading, writing, and speaking

## PERSONAL ACHIEVEMENTS

**The Prouty** 2018–2019  
Cycled two century rides along the Connecticut River in Vermont and New Hampshire

**Camino Portugues** 2016  
Cycled the historic 633-km pilgrimage from Lisbon, Portugal to Santiago de Compostela, Spain