

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

Équipe biophysique et neurosciences théoriques, ENS Aug 2020–Present
Ingénieur d'études (2021–); *Stagiaire* (2020–21); Fulbright Scholar, France
Advisor: Rava A. da Silva, Ph.D., Directeur de Recherche, Département de Physique
Sujet: An efficient-coding model of choice-behavioral context effects and preference intransitivity
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

Dasgupta J, Moura E, **Wallace HOW**, Stamm J, Thompson JS, Rele CP. *Drosophila pseudoobscura* – *Thor. MicroPubl Biol.* (In press)
Dasgupta J, Moura E, Leissa G, **Wallace HOW**, Stamm J, Thompson JS, Rele CP. *Drosophila eugracilis* – *Thor. MicroPubl Biol.* (In press)
Laskowski LF, Coble C, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila biarmipes* – *cnk. MicroPubl Biol.* (In press)
Laskowski LF, Coble C, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila pseudoobscura* – *cnk. MicroPubl Biol.* (In press)
Laskowski LF, Cowan B, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila erecta* – *cnk. MicroPubl Biol.* (In press)
Cruzado JCM, Morales D, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila mojavensis* – *cnk. MicroPubl Biol.* (In press)
Wallace HOW, Fikri K, Weinstein JN, Weeks WB. Improving economic conditions associated with care pattern and cost changes. *Soc Determ Health*, 7(1), **2021**. <https://doi.org/10.22037/sdh.v7i1.35144>.
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, **2020**. <https://doi.org/10.1038/s41598-020-72037-z>.

PATENT APPLICATION

U.S. Patent Application 17/154,220 (Publication No. 2021/0165984). Polarization-based coding/encryption using organic charge-transfer materials. **2021** Jun 3. Inventors: Kaehr BJ, Reczek JJ, Van Winkle M, **Wallace HOW**. <https://patents.google.com/patent/US20210165984A1>.

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) Oral presentation at the iHEA World Congress on Health Economics; **2021** Jul 12–15.

Wallace HOW, da Silveira RA. An efficient-coding model of choice-behavioral context effects. (Virtual) Poster session presented at the Institute of Molecular and Clinical Ophthalmology Basel; **2021** May 27.

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) 23rd 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 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*

23rd Annual Posters on the Hill, *Council on Undergraduate Research*

EMPLOYMENT & EXTRACURRICULAR

| | |
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| Kaplan K-12 Learning Services , Live-Online Team SHSAT and SAT Prep. Instructor | Jan 2018–Present |
| Department of Chemistry & Biochemistry , Denison University Teaching Assistant, Tutor (2018–20); Department Fellow (2019–20) | Jan 2018–May 2020 |
| Jazz Combo , Denison University Alto Saxophone I | Jan 2018–May 2020 |
| ΦΓΔ Fraternity , Denison University Treasurer, Social Chair (2019–20) | Jan 2018–May 2020 |
| Residential Communities , Denison University Community Advisor (formerly “Resident Advisor”) | Jan 2019–Dec 2019 |

SERVICE

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| Nightline Paris , Paris, France Volunteer Responder, Referee, & Training Screener, English Line | Oct 2020–Present |
| FabLab , Collège-Lycée Paul Valéry, Paris, France Robotics and Programming Mentor | Oct 2020–Present |
| Pathways of Central Ohio , Newark, OH Crisis Response Specialist, 2-1-1 Crisis Hotline & National Suicide Prevention Lifeline | Jun 2018–Mar 2020 |
| FIRST Robotics , Granville, OH Middle and High Schools Programming Mentor | Jan 2018–Mar 2020 |

TECHNICAL PROFICIENCIES

| | |
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| Programming Python, Swift, Java, C#, C++, Obj-C | Markup L ^A T _E X |
| Data Analysis & DBMS MATLAB, R, Python, Excel, SQL | Languages English (native), French (C1) |

PERSONAL ACHIEVEMENTS

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| The Prouty Cycled two century rides along the Connecticut River in Vermont and New Hampshire | Jul 2018, 2019 |
| Camino Portugues Cycled the historic 633-km pilgrimage from Lisbon, Portugal to Santiago de Compostela, Spain | Jun 2016 |