

HARPER OKLAHOMA WEEKS WALLACE

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EDUCATION

École Normale Supérieure, PSL Research University, Paris, France Sep 2020–Present
M.Sc., Cognitive Sciences (Computational 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, École Normale Sup. Aug 2020–Present
Ingénieur d'études (2021–); *Stagiaire* (2020–21); Fulbright Scholar, France

Advisor: Rava A. da Silveira, Ph.D., Directeur de Recherche, Laboratoire de Physique

Sujet: Efficient-coding models 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

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*, 37(1), **2021**, 249–51. <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

U.S. Patent No. 11,151,345 (B2). Polarization-based coding/encryption using organic charge-transfer materials. Issued **2021** Oct 19. Inventors: Kaehr BJ, Reczek JJ, Van Winkle M, **Wallace HOW**. <https://patents.google.com/patent/US20210165984A1>.

PRESENTATIONS

Wallace HOW, da Silveira RA. Efficient-coding models of choice-behavioral context effects. Oral presentation at the Institute of Molecular and Clinical Ophthalmology Basel; **2021** Oct 13; Basel, Switzerland.

Wallace HOW, da Silva RA. An efficient-coding model of choice-behavioral context effects. (Virtual) Poster session presented at the Institute of Molecular and Clinical Ophthalmology Basel; **2021** Jul 15.

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, 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, <i>U.S.–France Fulbright Commission</i>	2021
Fulbright Research/Study Grant, France, <i>Fulbright U.S. Student Program</i>	2020
Valedictorian, Class of 2020, <i>Denison University</i>	
Provost’s Academic Excellence Award, <i>Denison University</i>	
ΦBK Academic Honor Society, <i>Denison University</i>	
ΣΞ Scientific Research Honor Society, <i>Denison University</i>	
William C. Ebaugh Award in Chemistry & Biochemistry, <i>Denison University</i>	
Columbus Chapter Award for Outstanding Senior, <i>American Chemical Society</i>	
Barry Goldwater Scholarship, <i>Barry Goldwater Scholarship Foundation</i>	2019
J. Reid & Polly Anderson Scholarship for Excellence in Science, <i>Denison University</i>	
Department Fellow, Chemistry & Biochemistry, <i>Denison University</i>	
Thomas A. Evans Award in Organic Chemistry, <i>Denison University</i>	
AEΔ Pre-Health Honor Society, <i>Denison University</i>	
23 rd Annual Posters on the Hill, <i>Council on Undergraduate Research</i>	

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 (2018–20); Department Fellow (2019–20)	
Jazz Combo , Denison University	Jan 2018–May 2020
Alto Saxophone I	
ΦΓΔ Fraternity , Denison University	Jan 2018–May 2020
Treasurer, Social Chair (2019–20)	
Residential Communities , Denison University	Jan 2019–Dec 2019
Community Advisor (formerly “Resident Advisor”)	

SERVICE

Nightline Paris , Paris, France Volunteer Responder, Referee, & Training Screener, English Line	Oct 2020–Feb 2022
FabLab , Collège-Lycée Paul Valéry, Paris, France Robotics and Programming Mentor	Oct 2020–Jun 2021
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

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

Semi-Marathon du Carnaval, Dunkerque, France, 1:49:13	31 Oct 2021
Harmonie Mutuelle Semi-Marathon de Paris, France, 1:59:20	5 Sep 2021
Prouty Century, NH, 5:39:43	14 Jul 2019
Prouty Century, NH, 6:09:32	13 Jul 2018
El Camino Portugués, Lisbon, Portugal–Santiago de Compostela, Spain	1–15 Jun 2016