

Elizabeth Elliott

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162 Goodrich Avenue, Lexington, KY 40503

EDUCATION

University of Kentucky — Pre-Nursing Major — *In Progress*

August 2022 - PRESENT

GPA: 4.0

Current Credit Load: 21hrs

Total Credits Taken: 18hrs

Paul Laurence Dunbar High School: Math, Science, and Technology Center (selective admission, ~60 seats)

GPA (U/W): 4.00/4.711

ACT: 36

College credit in: Computer Science A, World History, Human Geography, Physics I, Statistics, United States History, English Language, Government, Biology, Calculus AB (subscore), Calculus BC, German, English Literature (2018-2022)

PUBLICATIONS

2023. Brock, K.E., Elliott, Elizabeth R., Abul-Khoudoud, M.O. and Cooper, R.L. (2023) The effects of gram-positive and gram-negative bacterial endotoxins on cardiac function in *Drosophila melanogaster* larvae. (Submitted Jan. 29, 2023; In review, TOXINS, Impact factor 2023 is 5.057)

2023. Elizabeth R. Elliott, et al. *Effects of zinc on physiological processes in Drosophila and crawfish: Cardiac, neural, synaptic transmission and behavioral assays.* (In manuscript).

2023. Elizabeth R. Elliott, Nicole Hensley, and Robin L. Cooper. *Effect of doxapram, a K_{2p} channel blocker, and pH on heart rate: Larval Drosophila model.* (In manuscript).

2023. Nicole Hensley, Elizabeth R. Elliott, and Robin L. Cooper. *Effect of 2-Aminoethoxydiphenyl borate (2-APB) on heart rate and relation with suppressed calcium activated potassium channels: Larval Drosophila model.* (In review)

PRESENTATIONS

2022. Elliott, E.R., Hensley, N., and Cooper, R.L. *2-Aminoethoxydiphenyl borate (2-APB) hyperpolarizes membrane in skeletal muscle and altering heart rate: Potential activation of K_{2p} and voltage-gated Ca²⁺ channels.* Annual Meeting of the Kentucky Chapter of the American Physiological Society, University of Kentucky, Oct.1, 2022. Lexington, KY. USA.

Abul-Khoudoud, M.O., Brock, K.E., Elliott, E.R., Li, X. and Cooper, R.L. (2023) The effects of gram-positive and gram-negative bacterial endotoxins on cardiac function in *Drosophila melanogaster* larvae. UK Center for Clinical and Translational Science, University of Kentucky. March 27, 2023

PROFESSIONAL SERVICE

2023. Co-reviewed a manuscript with Dr. Cooper submitted to the *International Journal of Molecular Sciences*.

RESEARCH EXPERIENCE

(2022-present) Research group under Dr. Robin Cooper. University of Kentucky. Investigating effects of SERCA blockers on heart rate in the larval *Drosophila* model. Investigating the effect of blocking K_{2p} channels on heart rate in larval *Drosophila* model.

(2022-present) Designing and directing a Spring 2023 STEM class of freshman students in investigations of Zn²⁺ effects on physiological functions in *Drosophila* and crawfish models. Developing the educational model for the class and providing educational media, as well as directing students on how to present research projects for poster presentations at scientific meetings. This project is being mentored by Dr. Robin Cooper

2020-2022. Research under Dr. Susan Odom and Dr. Aman Kaur. University of Kentucky. Performed chemical synthesis of phenothiazine salts for use in redox flow batteries. Carried out post-synthesis procedures on the various salts: crystallization, as well as solubility and stability analysis.

WORK/VOLUNTEER

Freelance (Paid), Lexington, KY — *Sitter (Baby-, House-, Pet-)* 2015-present
Performed light cleaning duties; maintained appearance of activity; cared for animals; cared for children; ensured security of charges and homefront; etc.

Freelance (Volunteer), Lexington, KY — *Editor* 2015-present
Read and offered editing suggestions on various pieces/types of writing; researched grammatical conventions to aid in implementation; etc.

Lexington Traditional Dance Association (Volunteer), Lexington, KY — *Outreach Worker* 2019
2019
Brainstormed methods of outreach for the organization. Efforts later suspended due to the onset of COVID-19.

Lexington Catholic (Volunteer), Lexington, KY — *Courier* 2018-2019
Aided Lexington Catholic workers in packaging food donations for transport to the Catholic Action Center; assisted with transporting the above donations (in approximately 18 trips).

SKILLS

AWARDS

LANGUAGES

Laboratory Research
Computer Proficiency
Communication (Writing/Editing)
Time Management/Multitasking
Attention to Detail

Pat Esrael Award (May 2022): PLD English award
AP Scholar with Distinction (2022, 2021, 2020)
National Merit Semifinalist (2021)
National German Exam - Gold (2021)
Speech Team Outstanding Novice Award (2020)
Speech Tournament Finalist: First (2020)
Speech Tournament Finalist: Fifth (2020, twice)
National German Exam - Silver (2019)

English (primary)
German (certified biliteracy)

REFERENCES

Dr. Robin Cooper, (Professor), Dept of Biology, University of Kentucky, Lexington, KY 40506-0225. Email: RLCOOP1@uky.edu