

Elizabeth Hunt

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Education

PhD, Biological and Biomedical Sciences

Jan 2022-Present

UNC-Chapel Hill *Chapel Hill, NC*

Department: Cell Biology & Physiology

Mentor: Jessica Thaxton, Ph.D.

- Currently studying the effects of endoplasmic reticulum stress and resulting morphological changes in tumor-infiltrating lymphocytes

PhD, Biomedical Sciences

Aug 2020-Dec 2021

Medical University of South Carolina *Charleston, SC*

Department: Microbiology & Immunology

Mentor: Jessica Thaxton, Ph. D.

BS, Biochemistry, *magna cum laude*

May 2019

Anderson University, *Anderson, SC*

- Final project: "*The Effect of Ciprofloxacin on MCF-7 Breast Cancer Cells*"
- Studied abroad in Croatia, Italy, and Slovenia August 2017
- Completed internship with AnMed Hospital Fall 2017 & 2018

Research Experience

Laboratory Specialist I

June 2019-July 2020

Medical University of South Carolina *Charleston, SC*

Advisor: Eduardo Maldonado, DVM, Ph.D.

- Generated, analyzed, and interpreted experimental data concerning the bioenergetics of hepatocellular carcinoma.
- Helped write and review manuscripts for publication
- Spearheaded collaboration to develop protocols for differentiating and imaging new cell lines

Summer Undergraduate Research Program

May-August 2018

Medical University of South Carolina *Charleston, SC*

Advisor: Eduardo Maldonado, DVM, Ph.D.

- Final Project: "*Mitochondrial Hyperpolarization Induced by Statins in Cancer Cells is Independent of Cellular and Mitochondrial Cholesterol Content*"
- Delivered oral presentation at SURP Colloquia

Teaching Experience

Teaching Assistant

Feb 2018-May 2019

Anderson University *Anderson, SC*

ART 262/264/362

- Assisted with in-class instruction and management
- Kept studio stocked and clean
- Assisted with kiln firings and exhibitions

Employment History

Assistant to Supply Chain Manager

June 2016-May 2019

Cornell Dubilier Marketing, Inc., *Liberty, SC*

- Organized and distributed safety materials in accordance with OSHA compliance
- Executed regular inventory counts
- Supplied all departments with weekly work orders
- Digitized records for ease of access and security
- Ordered and stocked office supplies

Publications

Christie, C., Fang, D., **Hunt, E.G.**, Morris, M., Rovini, A., Heslop, K., Beeson, G., Beeson, C., and Maldonado, E.N. "Statin-dependent modulation of mitochondrial metabolism in cancer cells is independent of cholesterol content." *The FASEB Journal*, 2019.

Heslop, K., Rovini, A., **Hunt, E. G.**, Fang, D., Morris, M., Christie, C., Gooz, M., Dehart, D., Dang, Y., Lemasters, J., and Maldonado, E.N. "JNK Activation and Translocation to Mitochondria Mediates Mitochondrial Dysfunction and Cell Death Induced by VDAC Opening and Sorafenib in Hepatocarcinoma Cells." *Biochemical Pharmacology*, 2020.

Heslop, K., Rovini, A., **Hunt, E. G.**, Fang, D., Morris, M., Gooz, M., Gerencser, A., and Maldonado, E.N. "Quantitative Analysis of Mitochondrial Membrane Potential Heterogeneity in Unsynchronized and Synchronized Cancer Cells." *The FASEB Journal*, 2020.

Meeting Abstracts/Presentations

Hunt, E. G., Fang, D., Rovini, A., Christie, C., Heslop K., and Maldonado, E.N. (2019) "Therapeutic Concentrations of Statins Hyperpolarize Mitochondria and Inhibit Cell Proliferation Without Promoting Cell Death in Hepatocarcinoma Cells." MUSC Research Day 2019, SC, USA. **Selected for Oral Presentation**

Hunt, E. G., Fang, D., Rovini, A., Christie, C., Heslop K., and Maldonado, E.N. (2019) "Therapeutic Concentrations of Statins Hyperpolarize Mitochondria and Inhibit Cell Proliferation Without Promoting Cell Death in Human Hepatocarcinoma Cells." Biophysics Annual Meeting 2020, CA, USA. **Selected for Oral Presentation**

Rovini, A., **Hunt, E. G.**, Heslop K., Gooz, M., Qin, S., Wang, G. and Maldonado, E.N (2019) "Voltage Dependent Anion Channels Regulate Proliferation of Cancer Stem Cells." Biophysics Annual Meeting 2020, CA, USA.

Rovini, A., **Hunt, E. G.**, Heslop K., Gooz, M., Qin, S., Wang, G. and Maldonado, E.N (2019) "Voltage Dependent Anion Channels Regulate Proliferation of Cancer Stem Cells." MUSC Research Day 2019, SC, USA.

Fang, D.*, Christie, C.F.*, **Hunt, E.G.**, Morris, M.E., Rovini, A., Heslop, K.A., Beeson, G., Beeson, C. and Maldonado, E.N. (2019). "Statins Modulate Mitochondrial Metabolism in Cancer Cells Independently of Cholesterol Content." Hollings Cancer Center Research Retreat 2019, SC, USA. *authors contributed equally to this work

Fang, D.*, Christie, C.*, **Hunt, E. G.**, Rovini, A., Morris, M., Heslop K., Beeson, G., Beeson, C. and Maldonado, E.N. (2018). "Statin-Dependent Decrease in Mitochondrial Metabolism in Cancer Cells is not Mediated by Changes in Cellular or Mitochondrial Cholesterol Content." MUSC Research Day 2018, SC, USA.*authors contributed equally to this work

Fang, D.*, Christie, C.*, **Hunt, E. G.**, Morris, M., Heslop K., Beeson, G., Beeson, C. and Maldonado, E.N. (2018). "Modulation of Mitochondrial Metabolism by Statins in Cancer Cells is not Mediated by Changes in Cholesterol Content." International Society of Cancer Metabolism 2018, Bratislava, Slovakia *authors contributed equally to this work

Fellowships & Grants

Ruth L. Kirschstein National Research Service Award Cellular, Biochemical, and Molecular Sciences Training Program 2020-2021
Principal Investigator: Paula Traktman, Ph.D.

Honors & Awards

South Carolina Palmetto Fellows Scholarship, Recipient 2015-2019
President's Scholarship, Anderson University, Anderson, SC 2015-2019
Dean's List, Anderson University, Anderson, SC 2015-2019
Cancer Scholar, Anderson University, Anderson, SC 2018-2019

Memberships/Service

SC-PEAR, Outreach and Community Partnerships Co-chair 2021-2022
MUSC Honor Council, College of Graduate Studies Representative 2020-2022
Anderson Science Association, Member 2015-2019
Anderson Ecological Society, Event coordinator/Founder 2016-2019
Alpha Chi Honor Society, Member 2017-2019
Clay Club, Officer 2017-2019