Eric Davis' Curriculum Vitae

CONTACT INFORMATION

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EDUCATION

The University of North Carolina at Chapel Hill
B. S. in Biology and B.A. in Chemistry, 2012 - 2016
Cumulative GPA: 3.576

CERTIFICATIONS

EMT-B NC OEMS Certified, ACERIP, 2016
Psychological First Aid, Coursera, 2016
An Introduction to Interactive Programming in Python, Coursera, 2015

HONORS/AWARDS

Eagle Scout with Bronze Palm
Dean's List (7 Semesters)
1st Place Predoctoral Poster Presentation, Visiting Pulmonary Scholars Symposium, May 2017

RELEVENT EXPERIENCE

Research Technician, Marsico Lung Institute/UNC Cystic Fibrosis Research Center, June 2016

- Conducted and supported several research projects under Robert Tarran, Ph.D.
- Collected, analyzed, and prepared data for publication.
- Data analysis using GraphPad Prism and R.
- Assisted in drafting manuscripts and preparing figures for publication.
- Designed and built a database to support research projects.
- Support and data management for https://www.eliquidinfo.org.
- Mouse colony management and breeding.
- A variety of specialized techniques including high-throughput screening, Ussing chambers, confocal microscopy, small animal surgery, and culture of many cell types.

Undergraduate Researcher, The University of North Carolina at Chapel Hill, 2015-2016

- Conducted independent research projects under Dr. Robert Tarran, Dr. Robert Fellner, and Dr. Tongde Wu.
- Culture of primary human, mammalian, and amphibian cells.
- Performed electrophysiological experiments using Ussing chambers.
- Performed fluorescent imaging of calcium ion signaling.
- Assisted with cleaning and upkeep of laboratory.

Recruitment Coordinator, High Point Clinical Trials Center*,* summer 2015

- Contacted potential patients for participation in clinical research.
- Took medical histories and interviewed potential candidates.
- Entered patient information into a database.
- Assisted with the screening of potential research participants.
- Assisted with medical procedures during the screening process.

Lab Teaching Assistant Internship, The University of North Carolina at Chapel Hill, Fall 2013

- Worked with a teaching assistant to prepare lab materials for the Biology 101 Lab.
- Taught the genetics lecture and ran the associated lab activities.
- Demonstrated proper dissection techniques.
- Cleaned up after laboratory activities.

Data Entry, Pharmaceutical Dimensions, High Point, NC, summer 2012

- Used web-based interface to enter drug information into a system database.
- Created return-authorization documents and account information for distributors and customers.
- Maintained equipment for transport of drugs.
- Organized received materials for further processing.
- Prepared documents for review by managers.

LEADERSHIP EXPERIENCE

Scout Leader, Old North State Council, Covenant Church-Troop 42, High Point, NC, 2005-2011

- Led a group of peers in daily activities during camping trips and weekly meetings.
- Taught a two hour course on leadership techniques and communication.

ACTIVITIES/TRAVEL

Racquetball Club, UNC, Chapel Hill, NC, 2015-2017
Organizer for Tennis Recreation Club, UNC, Chapel Hill, NC, 2014 - 2016
Robotics Club, SWGHS, High Point, NC, 2010-2012
Environmental Club, SWGHS, High Point, NC, 2010-2012
High Point Youth Jazz Orchestra, led by Wally West, High Point, NC, 2009-2012
People to People Student Ambassador to Japan

VOLUNTEERING/SHADOWING

UNC-Chapel Hill Hospital Volunteer, 4 Anderson North (GI Unit), 2015-2016

- Prepared PowerPoint presentations for nursing staff meetings.
- Created supply-management checklists.
- Attended to in-patient needs.

Shadowing Dr. Scott Donaldson, UNC-Chapel Hill, June-July 2017

- Cystic fibrosis out-patient clinic
- In-patient pulmonary ward
- Consult services
- Medical Intensive Care Unit (MICU)

SKILLS/TECHNIQUES

Life Science

General, Analytic, Inorganic, Organic, and Biochemistry
Evolution, Ecology, Genetics, Molecular, Cellular, and Developmental Biology
Psychology and Behavioral Neuroscience
Anatomy and Physiology

Laboratory Techniques

Ussing Chamber (Electrophysiology)
High-throughput screening in Biological Systems
Confocal Microscopy (Leica Microsystems)
Fluorescent Recovery After Photobleaching (FRAP)
Cell Transfection
Western Blotting
Electronic Nicotine Delivery System (ENDS) Cell Culture Exposures
Culture of human primary, mammalian, and amphibian cells and cell lines
Mouse Colony Management and Breeding
Rodent and Murine Surgery/Procedures
Flame Photometry

Computer Science

Microsoft Word, Excel, PowerPoint
Programming Languages: Python, R, HTML, CSS, JS, SQL, Bash
Database: PostgreSQL, Microsoft Access
Photoshop CS6
GraphPad Prism 6
SigmaPlot

PRESENTATIONS

TCORS National Conference Poster Presentation (2017)

"Physio-chemical Properties of E-liquids as Biomarkers of Harm"
Natcher Conference Center, NIH Campus, Bethesda MD

TCORS Annual Retreat Presentation(2017)

"The Physio-Chemical Properities of E-liquids"
Rizzo Conference Center, UNC-Chapel Hill

Visiting Pulmonary Scholars Symposium Poster Presentation (2017)

1st place in the predoctoral category
Friday Center, UNC-Chapel Hill

TCORS National Conference Poster Presentation (2016)

"Evaluating E-liquid Toxicity with an Open-source High-throughput Screening Method"
Natcher Conference Center, NIH Campus, Bethesda MD

TCORS Annual Retreat Poster Presentation (2016)

"Evaluating Toxicity and Electrophysiological Effects of E-liquids"
Rizzo Conference Center, UNC-Chapel Hill

PUBLICATIONS

Eric S. Davis, M. Flori Sassano, Robert Tarran. "E-Liquid Autofluorescence can be used as a Marker of Vaping Deposition and Third-Hand Vape Exposure." Scientific Reports, 2017.

Brooke C. Matson, Stephanie L. Pierce, Scott T. Espenschied, Eric Holle, Imani H. Sweatt, **Eric S. Davis**, Robert Tarran, Steven L. Young, Trudy A. Kohout, Marcel van Duin, Kathleen M. Caron. "Adrenomedullin Improves Fertility by Promoting Cell Junctions in the Peri-Implantation Endometrium" Biology of Reproduction, 2017.

Arunava Ghosh, Raymond C. Coakley, Teresa Mascenik, Temperance R. Rowell, **Eric S. Davis**, Keith Rogers, Megan J. Webster, Hong Dang, Laura E. Herring, M. Flori Sassano, Alessandra Livraghi-Butrico, Scott K. Van Buren, Lee M. Graves, Melissa A. Herman, Scott H. Randell, Neil E. Alexis and Robert Tarran. "Chronic E-cigarette Exposure Alters the Human Bronchial Epithelial Proteome." (Submitted) 2017.

M. Flori Sassano, **Eric S. Davis**, James Keating, Bryan T. Zorn, Gary Glish, Robert Tarran. Evaluation of e-liquid toxicity using an open-source high-throughput screening assay. (Under Review at Plos Biology) 2017.