CHERIE EVELYN SAFFOLD

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EDUCATION

PhD Interdisciplinary Graduate Program in the Biomedical Sciences **2020-Present**
Vanderbilt University, Nashville, TN

BS Cellular and Molecular Biology, minor in Chemistry **2016-2020**
University of Tennessee at Martin, Martin, TN
Summa Cum Laude

RESEARCH EXPERIENCE

Graduate Student: Pathology/Microbiology/Immunology Department, Vanderbilt University **2020-Present**
- "The role of extracellular YRNAs in immune cell communication during airway inflammation"

Undergraduate Research Student: Biology Department, University of Tennessee at Martin **2018- 2020**
- "The role of non-structural proteins Nsp2 and Nsp4 in regulating alphavirus replication fidelity"

Research Intern: Pathology/Microbiology/Immunology Department Vanderbilt University **2019- 2019**
- "The role of autophagy related protein Vps34 in T-cell selection and thymus organization"

NSF-REU Research Fellow: Cell Biology Department, Whitney Laboratory for Marine Bioscience, **2018- 2018**
- "The molecular physiology of carbon dioxide movement in the larval mosquito tracheal system"

SCIENCE COMMUNICATION AND OUTREACH EXPERIENCE

Freelance Science Writer **2024-Present**
- Wrote 2 articles covering symposiums for VU Basic Sciences (highlighted writing sample: "Pharmacology, VCAR prioritize diverse funding opportunities to support trainees and faculty." VU Basic Sciences, 2 June 2024, https://medschool.vanderbilt.edu/basic-sciences/2024/06/02/pharmacology-vcar-prioritize-diverse-funding-opportunities-to-support-trainees-and-faculty/)

Science Communication Intern: Vanderbilt University **2024-Present**
- Performed social media coverage of the VI4 annual symposium and the education outreach event MegaMicrobe
- Produced and edited a video highlighting VI4 scientists and their work (Link: https://www.vumc.org/viiii/immuknow/heather-pua-katy-bunn-vi4-scientists-doing-things)

ASPIRE Job Simulation- Science Communication: Vanderbilt University **Fall 2023**
- Completed didactic course on how to write a scientific cover story which includes basic story structure, selecting a topic, conducting interviews, and editing

ASPIRE Module- Biomedical Research in the Media: Vanderbilt University **Spring 2023**
- Learned the role of university Public/Media Affairs in communicating scientific and medical breakthroughs to the public
- Developed science journalism skills by publishing two original news articles in VUMC Newspapers and the ASPIRE annual report (highlighted writing sample: "E. Coli Uses Serine to Abide Acidity." VUMC Reporter, 23 Feb. 2023, https://news.vumc.org/2023/03/23/e-coli-serine-abide-acidity/)

Science Education Volunteer: Nashville Adventure Science Center **2021-Present**

- Lead science education activities for children during museum hours and for adults during evening events

Community Outreach Coordinator: Vanderbilt PMI Graduate Student Association **2021-Present**

- Designed and facilitated a graduate student-led education event at the Adventure Science Center teaching guests about microscopy, immunology, and cell biology

RESEARCH PUBLICATIONS

Lizandra Jimenez, Ph.D. Bahnisikha Barman, Ph.D., Youn Jae Jung, Ph.D., Lauren Cocozza, B.S., B.A., Evan Krystofiak, Ph.D., **Cherie Saffold, B.S**., Kasey C. Vickers, Ph.D., John Wilson, Ph.D. T. Renee Dawson, Ph.D., and Alissa M. Weaver, M.D, Ph.D. Culture conditions greatly impact the levels of vesicular and extravesicular Ago2 and RNA in extracellular vesicle preparations. *Journal of Extracellular Vesicles,* DOI: 10.1002/jev2.12366. *Published 11/12/23.*

Postoak JL, Song W, Yang G, Guo X, Xiao S, **Saffold C**, Zhang J, Joyce S, Manley NR, Wu L, Van Kaer L. Thymic epithelial cells require the class III PI3K Vps34 for homeostasis and CD4 T lymphocyte selection. *Journal of Experimental Medicine,* DOI: 10.1084/jem.20212554. *Published 8/23/22.*

Nation GK*, **Saffold CE***, Pua HH. Secret Messengers: Extracellular RNA Communication in the Immune System. *Immunological Reviews.* (*Co-first authors) DOI: 10.1111/imr.13027. *Published 9/20/21.*

ORAL PRESENTATIONS (4 TOTAL, SELECT TALKS BELOW)

Saffold, C.E.; Pua, H.H. YRNA Export in Macrophage Extracellular Vesicles is Mediated by Mov10, Vanderbilt Center for Extracellular Vesicles Retreat, September 2023, Nashville, TN

Saffold, C.E.; Pua, H.H. Extracellular YRNA Levels Increase During Allergic Airway Inflammation, Vanderbilt Pathobiology, Microbiology, and Immunology Departmental Seminar, May 2022, Nashville, TN

POSTER PRESENTATIONS (12 TOTAL, SELECT POSTERS BELOW)

Saffold, C.E.; Pua, H.H.; Extracellular Vesicle and Protein Bound YRNA Levels Increase in the Allergic Airway, Southeastern Immunology Symposium, August 2024, Birmingham, AL

Saffold, C.E.; Grey, C.; Pua, H.H.; YRNA Export in Macrophage Extracellular Vesicles is Mediated by Mov10, Regulatory RNA Keystone Symposium, Banff, AB, December 2023

Saffold, C.E.; Grey, C.; Pua, H.H.; Differential Secretion of Extracellular Vesicle-Bound YRNAs in the Allergic Airway, International Society of Extracellular Vesicles Conference, Seattle, WA, May 2023

Saffold, C.E.; Postoak, J.L., Van Kaer, L.; The role of autophagy-related protein Vps34 in T-cell development and thymus organization, Vanderbilt University Summer Science Academy, Nashville, TN, August 2019

AWARDS AND ACCOLADES

Professional Development and Training Grant Awardee: Graduate Leadership Institute, July 2024

Outstanding Poster Award: International Society of Extracellular Vesicles, May 2023

Volunteer of the Month: Adventure Science Center, January 2022

Exceptional Abstract Award: Vanderbilt Summer Science Academy, June 2019

Outstanding Biology Student Award: University of Tennessee at Martin, April 2019