Benjamin Hauk

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EDUCATION

2022-2030 Case Western Reserve University School of Medicine
Medical Scientist Training Program
- Doctor of Medicine (expected)
- Doctor of Philosophy in Cancer Biology (expected)

2016-2020 College of William & Mary
Bachelor of Science
- Major in Computational & Applied Math & Statistics
- Major in Chemistry
- Thesis Title: "Conformational Changes of Lactate Dehydrogenase Isozymes"
- GPA: 3.94

HONORS AND AWARDS

2023	University Hospitals Research Day Poster Competition Winner
2020-2022	Cancer Research Training Award (National Cancer Institute)
2020	Merck Index Award
2020	Graduated College of William & Mary *summa cum laude*
2019	Blanton Bruner Scholarship from the Virginia Academy of Sciences
2019	College of William & Mary Honors Thesis Fellowship
2016	Eagle Scout

WORK EXPERIENCE

2020-2022 National Institutes of Health, Bethesda, MD
- National Cancer Institute (Laboratory of Genitourinary Cancer Pathogenesis)
- Wet-lab and bioinformatics research of prostate cancer epigenetics

RESEARCH EXPERIENCE

2023-present Case Western Reserve University, Radiation Oncology Department
PI: Corey Speers MD, PhD
Project: "Androgen Receptor as a Target for Radiosensitization of Triple Negative Breast Cancer"
- Performing AR ChIP-seq and Bru-seq on TNBC cell lines in the context of radiation therapy

2020-2022 National Institutes of Health, National Cancer Institute
PI: David Takeda MD, PhD
Project: "Epigenetic Landscape of Intraductal Carcinoma of the Prostate"
- Performed ChIP-seq on Radical Prostatectomy sample
- Identified candidate master transcriptional regulators of IDC-P

Project: "Using Liquid Biopsy ChIP-seq to Analyze the mCRPC"

- Analyzed ChIP-seq and whole genome sequencing data to determine changes in the epigenome of prostate cancer

Project: "Identifying Site Specific Epigenetic Differences in Metastatic Bladder Cancer"

- Analyzed ChIP-seq data for histone modifications to better understand the epigenetic changes undergone during metastasis

2017-2020 College of William & Mary, Chemistry Department
PI: Lisa Landino, PhD
Project: "Conformational Changes of Lactate Dehydrogenase Isozymes"

- Characterized the interaction of LDH-A and LDH-B with Cytochrome c
- Identified changes in catalyzation efficiency of LDH-A and LDH-B
- Defended as Honors Thesis

Summer 2018 University of Rochester, Department of Pharmacology
PI: Hugh Xia, PhD
Project: "The PDZ Binding domain's role in COX-2 localization"

- Researched COX-2 localization with altered PDZ binding domain
- Maintained cells in culture and completed immunofluorescence

BIBLIOGRAPHY

Publications

1. Sipola J, Munzur A, Kwan E, Seo C, **Hauk B**, Parekh K, Liao Y, Bernales C, Donnellan G, Bloise I, Fung E, Ng S, Wang G, Vandekerkhove, Nykter M, Annala M, Dror C, Chi K, Herberts C, Wyatt A, Takeda D. Plasma cell-free DNA chromatin immunoprecipitation profiling depicts phenotypic and clinical heterogeneity in advanced prostate cancer. *Cancer Res* 2024. https://doi.org/10.1158/0008-5472.CAN-24-2052
2. Xiang RR, Lee SA, Tyndall CF, Bhatia AR, Yin J, Singler C, **Hauk BJ**, Kipp MP, Takeda DY. CRISPR screening identifies regulators of enhancer-mediated androgen receptor transcription in advanced prostate cancer. *Cell Rep.* 2025 Feb 14;44(2):115312. doi: 10.1016/j.celrep.2025.115312.
3. McBean B, Abou Zeidane R, Lichtman-Mikol S, **Hauk B**, Speers J, Tidmore S, Flores CL, Rana PS, Pisano C, Liu M, et al. MELK as a Mediator of Stemness and Metastasis in Aggressive Subtypes of Breast Cancer. *International Journal of Molecular Sciences*. 2025; 26(5):2245. https://doi.org/10.3390/ijms26052245

Poster Presentations

1. **Hauk B**, Gurdak D, Abou Zeidane R, Lichtman-Mikol S, Pisano C, Tao M, Markovic V, Michmerhuizen A, Pierce L, Speers C. "PARP1 Inhibition Radiosensitizes Models of Inflammatory Breast Cancer to Ionizing Radiation and Demonstrates Safety in phase IB/II Clinical Trials" University Hospitals Research Day (2023). *Awarded Poster Competition Winner
2. **Hauk B**, Takeda D. "Epigenetic Profiling of Intraductal Carcinoma of the Prostate from FFPE" NIH Post-Bac Poster Day (2021).
3. **Hauk B**, Landino L. "Conformational Changes of Lactate Dehydrogenase Isozymes" Chemistry Department Honors Thesis, William & Mary (2020).
4. **Hauk B**, Xia H. "The PDZ Binding Domain is Critical of COX-2 Localization" University of Rochester 2018 Summer Symposium (2018).

COMMUNITY SERVICE

2022-Present Rainbow Babies & Children's HOPE program
- Assisted with programs aimed at families with children with cancer

2020-2022 For the Love of Children (FLOC) Tutor – Washington DC
- Designed and gave lessons to students from grades 3-12
- Assisted students in the SAT preparation and college application process

2017 Community Health Connections – Fitchburg, MA
- Helped patients after their appointments navigate the next steps in their care
- Assisted an internal study on non-emergent emergency room visits

LEADERSHIP

2019-2020 William & Mary Pre-medical club
Student Mentor
- Help guide first year students settle into life at college
- Ensure they were on the right track to pursue medical school

2019-2020 William & Mary Club Cross Country Club
Treasurer
- Applied for and managed the funds of the club
- Assisted the leadership team in planning races and events
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2017-2020 William & Mary Club Gymnastics Club
Vice President, Treasurer, Safety Officer
- Applied for and managed the funds of the club
- Assisted the leadership team in planning meets to attend and the annual showcase
- Ensured the safety of all members of the club during practices

Interests: Running, Baking