LOGAN LEAK

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EDUCATION

Stanford University | Stanford, CA **Expected June 2024**
Doctor of Philosophy in Cancer Biology
GPA: 4.00/4.00

The University of Chicago | Chicago, IL **Diploma with General Honors, June 2019**
Bachelors of Science in Biological Sciences (specialization in cancer biology)
Overall GPA: 3.960 / Major GPA: 3.973

RESEARCH AND EXPERIENCE

Stanford University Department of Biology | Stanford, CA | *PhD Candidate* **March 2020 – present**

- Work as a graduate student research assistant in the Dixon Laboratory in the Department of Biology
  - Investigate the mechanisms of novel non-apoptotic cell death pathways
  - Utilize in vitro and in vivo assays to assess therapeutic potential of death-inducing small molecule compounds
- Wrote two review articles: One on how to make laboratories more sustainable and one on the diversity of non-apoptotic cell death pathways (see publications section)
- Completed a computational rotation project in the Majeti and Gentles Labs (Spring 2020) to assess clonality of acute myeloid leukemia (AML) patients that resulted in a second-author *Nature Communications* paper (see publications section)

Comer Children's Hospital | Chicago, IL | *Research Assistant* **June 2018 – September 2019**

- Worked as a BSCD Summer Research Fellow and President's Scholar in the LaBelle laboratory in the Department of Pediatric Hematology and Oncology at UChicago Medicine
- Performed experiments to determine the efficacy of small peptide therapies for hematologic and other pediatric cancers
- Lead research projects to elucidate crosstalk between p53 and BCL-2 family pathways for synergistic drug combinations
- Contributed to a publication on the use of stapled alpha helices to target the MCL-1 (see publications section)

Case Western Reserve University | Cleveland, OH | *Research Assistant* **June 2017 – September 2017**

- Worked on a team in the Center for AIDS Research at Case Western Reserve University
- Conducted experiments to determine how the extracellular vesicles of HIV-infected T cells increase incidence of head and neck cancer, lung cancer, and other non-AIDS defining cancers
- Led an independent project to determine cancer's effect on inflammatory responses in human immune cells

The University of Chicago | Chicago, IL | *Laboratory Technician* **October 2016 – June 2017**

- Worked in the Macleod lab in the Ben May Department for Cancer Research (BMDCR)
- Isolated DNA samples from mouse tails and genotyped using polymerase chain reaction (PCR) and gel electrophoresis
- Assisted researchers in projects pertaining to the role of BNIP3 in various cancer pathways
- Learned how to maintain and treat cell lines in culture

Case Western Reserve University | Cleveland, OH | *Research Assistant/Volunteer* **August 2015 – May 2016**

- Processed blood samples from geriatric patients and used a flow cytometer to perform high throughput quantitative analyses
- Reaffirmed trends associated with the deterioration of the immune system (immunosenescence) that occur with aging
- Presented the results at local, regional, and state science fairs, receiving a Superior rating at State Science Day

NYU Langone Healthcare | Brooklyn, NY | *Research Assistant/Volunteer* **August 2014 – May 2015**

- Collected data from two databases to retroactively inspect trends in sepsis data via statistical analysis
- Gathered novel evidence in the form of a finished research project to suggest implementation of the APACHE II system at LMC for improved patient care
- Presented findings at local and regional science fairs

RESEARCH AND EXPERIENCE

- 2023 – **Leak, L.** and Dixon, S. "Surveying the Landscape of Emerging and Understudied Non-apoptotic Cell Death Mechanisms." *Biochimicaet Biophysica Acta Molecular Cell Research* (link).
- 2023 – **Leak, L. B.**, Tamborski, J., Commissaris, A., & Brophy, J. A. (2023). Forging a path toward a more sustainable laboratory. *Trends in Biochemical Sciences*, *48*(1), 5-8 (link).
- 2022 (abstract) – **Leak, L.** and Dixon, S. "A novel cell death mechanism involving the sphingosine to glycerophospholipid pathway." *The Journal of the Federation of American Societies for Experimental Biology* (link).

- 2022 (submitted) – Schnorenberg, M., **Leak, L.**, Raczy, M., Watkins, E., Kucera, I., Ting, J., Hubbell, J., Tirrell, M., and LaBelle, J. "Dual p53 reactivation and BCL-2 family targeting in B cell malignancies using CD19-specificpolymersomes."
- 2021 – Benard, B., **Leak, L.**, Azizi, A., Thomas, D., Gentles, A., and Majeti, R. "Clonal architecture and variant allele frequency predict clinical outcomes and drug response in acute myeloid leukemia." *Nature Communications* (link).
- 2019 - Hadji, A., Schmitt, G., Schnorenberg, M., Roach, L., Hickey, C., **Leak, L.**, Tirrell, M., and LaBelle, J. "Preferential Targeting of MCL-1 by a Hydrocarbon-Stapled BIM BH3 Peptide." *Oncotarget* (link).
- 2018 – **Leak, L.**, Chen, L., Ye, D., and Jin, G. "Immune Checkpoint Expression in Peripheral Blood Mononuclear Cells Treated with Conditioned Media from Head and Neck and Lung Cancer Cells." *Scientia* research journal at the University of Chicago (link).

PRESENTATIONS

- 6/2022 – **"A Novel Cell Death Mechanism Involving the Sphingosine-to-glycerophospholipid Pathway,"** oral presentation, Stanford Institutes of Medicine Summer Research (SIMR) program (Stanford, CA)
- 4/2022 – **"A Novel Cell Death…,"** oral presentation and poster presentation, Experimental Biology/American Society of Biochemistry and Molecular Biology Annual Meeting (Philadelphia, PA)
- 11/2021 – **"A Novel Cell Death…,"** poster presentation, Stanford Cancer Biology Annual Retreat (Woodside, CA)
- 4/2019 – **"Recovering Cell Death Pathways in Cancer Cells Using Stapled Alpha Helix Peptide Amphiphiles and Proteolysis Targeting Chimeras (PROTACs),"** oral presentation, Chicago Area Undergraduate Research Symposium (CAURS) (Chicago, IL)
- 10/2018 – **"Recovering Cell Death…,"** poster presentation, 5th Annual University of Chicago Undergraduate Research Symposium (Chicago, IL)
- 10/2018 – **"Recovering Cell Death…,"** oral presentation, 2018 UChicago Biological Sciences Collegiate Division Summer Fellowship Research Symposium (Chicago, IL)
- 4/2018 - **"Inflammatory cytokine expression in peripheral blood mononuclear cells treated with conditioned media from head and neck and lung cancer cells in vitro,"** poster presentation, Chicago Area Undergraduate Research Symposium (CAURS) (Chicago, IL)
- 11/2017 – **"Inflammatory cytokine expression…,"** poster presentation, oSTEM National Conference (Chicago, IL)
- 2016 – **"The effect of aging on naïve and memory T cell subsets,"** poster presentation, Bridging Engineering, Science, and Technology (BEST) Medicine Research Fair, Northeastern Ohio Science and Engineering Fair (NEOSEF), University of Akron Regional Science Fair, and Ohio Academy of Science State Science Day (Akron, Cleveland, and Columbus, OH),
- 2015 – **"A retrospective analysis of variables associated with mortality rates and APACHE II scores of sepsis patients at an inner city community hospital in New York City,"** poster presentation, Bridging Engineering, Science, and Technology(BEST) Medicine Research Fair, Northeastern Ohio Science and Engineering Fair (NEOSEF), and University of Akron Regional Science Fair (Akron, Cleveland, and Columbus, OH)

HONORS AND AWARDS

Best Presentation (Stanford Cancer Biology Program Annual Retreat) – October 2022
National Science Foundation Graduate Research Fellowship Honorable Mention – April 8, 2019 & March 30, 2020
Stanford Graduate Fellowship – Gerhard Casper Fellow – March 2019 – June 2022
Phi Beta Kappa – University of Chicago – June 2019
Dean's List (The University of Chicago) – June 2017, June 2018, June 2019
National Merit Scholarship (Eaton Corporation) – April 2016
President's Scholar (The University of Chicago) – March 2016

SKILLS AND INTERESTS

Computer Skills:
Proficient in Adobe Illustrator, RStudio, Prism, Microsoft Office Suite
Programming languages: R, Python, git, C++, HTML
Lab Skills:
Cell culture, cell death assays, western blotting, flow cytometry, qPCR, DNA and RNA processing, cloning, in vivo experiments
Language Proficiencies:
English (native speaker), Spanish (conversational)
Social Media: LinkedIn, Twitter