

# Michael T. Scherzer

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🌐 [mtscherzer.com](http://mtscherzer.com)

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## Education

- 2022 **Ph.D, Oncological Sciences**, *University of Utah*, Salt Lake City, UT.  
advisor: Professor Martin McMahon
- 2015 **M.Eng, Bioengineering**, *University of Louisville*, Louisville, KY.  
advisor: Associate Professor Levi Beverly
- 2013 **B.S, Bioengineering**, *University of Louisville*, Louisville, KY.

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## Experience

- 05/2022-pres. **Post-Doctoral Fellow**, *Judson-Torres Lab*, Univ. of Utah, Dept. of Dermatology.  
  - Progress through D.O.D-funded project to use topical microRNAs for melanoma intervention in mouse models of melanoma
  - Develop RNA-Sequencing data-sets to define transcriptional profiles of different melanocyte cell-states
- 5/2016-04/2022 **Graduate Research Assistant**, *Huntsman Cancer Institute*.  
  - Developed and characterized new mouse-models of lung adenocarcinoma
  - Employed Single-Cell RNA-Seq to profile to determine tumor-cell heterogeneity in mouse-models of lung adenocarcinoma
- 01/2013-07/2015 **Research Technician**, *Beverly Lab*, Univ. of Louisville, Dept. of Pharmacology and Toxicology.  
  - Initiated investigations into cancer-associated fibroblasts and their effect on cancer cells
  - Created large-scale lentiviral libraries encoding every gene involved in sphingolipid metabolism

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## Skills

- Cell and Molecular Biology **Tissue culture, cell line generation (human and mouse), CRISPR/Cas9, recombinant DNA cloning, IHC, IF, Flow Cytometry, Quantitative Phase Imaging (PHI, PhaseFocus).**
- Animal models **Mouse Models of Lung cancer and Melanoma, mouse husbandry, tumor implantation, intratracheal intubations, micro-CT, IVIS.**
- Data Analysis **10X genomics pre- and post- processing, bulk RNA-Seq analysis.**
- Data Visualization **ggplot2, plotly, GraphPad Prism.**

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## Selected Academic Publications (full list at [Google Scholar](#))

- 2019 JE Van Veen, **Scherzer MT**, Boshuzien J, McMahon M. Mutationally- activated PI3K promotes de-differentiation of lung tumors initiated by the BRAFV600E oncoprotein kinase. *eLife*
- 2015 **Scherzer MT**, Waigel, S., Donninger H., Arumugam V., Zacharias, W., Clark, G., Siskind, L., Soucy, P., Beverly, L. Fibroblast-derived-Extracellular Matrices: An Alternative Cell Culture System That Increases Metastatic Cellular Properties. *Plos One*