Stanford

Emily Hamilton

Postdoctoral Scholar, Stanford Cancer Center

Bio

HONORS AND AWARDS

- NIH T32 Cancer Biology Training Grant, Stanford University (2016-present)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University , CANBI-PHD (2023)
- BA, Columbia University , Neuroscience & Behavior (2013)

STANFORD ADVISORS

- Maximilian Diehn, Postdoctoral Faculty Sponsor

Research & Scholarship

LAB AFFILIATIONS

- Maximilian Diehn (3/1/2017)

Publications

PUBLICATIONS

- **Inferring gene expression from cell-free DNA fragmentation profiles.** *Nature biotechnology*

  Esfahani, M. S., Hamilton, E. G., Mehrmohamadi, M., Nabet, B. Y., Alig, S. K., King, D. A., Steen, C. B., Macaulay, C. W., Schultz, A., Nesselbush, M. C., Soo, J., Schroers-Martin, J. G., Chen, et al

  2022

- **Integrating genomic features for non-invasive early lung cancer detection.** *Nature*

  Chabon, J. J., Hamilton, E. G., Kurtz, D. M., Esfahani, M. S., Moding, E. J., Stehr, H., Schroers-Martin, J., Nabet, B. Y., Chen, B., Chaudhuri, A. A., Liu, C. L., Hui, A. B., Jin, et al

  2020; 580 (7802): 245-251

- **An improved ATAC-seq protocol reduces background and enables interrogation of frozen tissues.** *Nature methods*

  Corces, M. R., Trevino, A. E., Hamilton, E. G., Greenside, P. G., Sinnott-Armstrong, N. A., Vesuna, S. n., Satpathy, A. T., Rubin, A. J., Montine, K. S., Wu, B. n., Kathiria, A. n., Cho, S. W., Mumbach, et al

  2017

- **DNA Methylation and Somatic Mutations Converge on the Cell Cycle and Define Similar Evolutionary Histories in Brain Tumors** *CANCER CELL*

  Mazor, T., Pankov, A., Johnson, B. E., Hong, C., Hamilton, E. G., Bell, R. J., Smirnov, I. V., Reis, G. F., Phillips, J. J., Barnes, M. J., Idbaih, A., Alentorn, A., Kloezeman, et al

  2015; 28 (3): 307-317

- **Noninvasive Cell-of-Origin Classification of Diffuse Large B-Cell Lymphoma Using Inferred Gene Expression from Cell-Free DNA Sequencing**

Esfahani, M., Alig, S., Mehrmohamadi, M., Hamilton, E. G., King, D. A., Schultz, A., Steen, C. B., Macaulay, C., Sworder, B., Kurtz, D. M., Diehn, M., Alizadeh, A. A.

AMER SOC HEMATOLOGY.2021

- **A comprehensive circulating tumor DNA assay for detection of translocation and copy number changes in pediatric sarcomas.** *Molecular cancer therapeutics*

  Shah, A. T., Azad, T. D., Breese, M. R., Chabon, J. J., Hamilton, E. G., Straessler, K., Kurtz, D. M., Leung, S. G., Spillinger, A., Liu, H., Behroozfard, I. H., Wittber, F. M., Hazard, et al

  2021

- **Enhanced detection of minimal residual disease by targeted sequencing of phased variants in circulating tumor DNA.** *Nature biotechnology*

  Kurtz, D. M., Soo, J., Co Ting Keh, L., Alig, S., Chabon, J. J., Sworder, B. J., Schultz, A., Jin, M. C., Scherer, F., Garofalo, A., Macaulay, C. W., Hamilton, E. G., Chen, et al

  2021

- **A noninvasive approach for early prediction of therapeutic benefit from immune checkpoint inhibition for lung cancer**

  Nabet, B. Y., Esfahani, M. S., Hamilton, E. G., Chabon, J. J., Moding, E. J., Rizvi, H., Steen, C. B., Chaudhuri, A. A., Liu, C., Hui, A. B., Stehr, H., Goljenola, L., Jin, et al

  AMER ASSOC CANCER RESEARCH.2020

- **Chromatin accessibility patterns in cell-free DNA reveal tumor heterogeneity**

  Esfahani, M., Mehrmohamadi, M., Steen, C. B., Hamilton, E. G., King, D. A., Soo, J., Macaulay, C., Jin, M., Kurtz, D. M., Nabet, B., Moding, E., Chabon, J., Newman, et al

  AMER ASSOC CANCER RESEARCH.2020

- **Integrating genomic features for non-invasive early lung cancer detection** *NATURE*

  Chabon, J. J., Hamilton, E. G., Kurtz, D. M., Esfahani, M. S., Moding, E. J., Stehr, H., Schroers-Martin, J., Nabet, B. Y., Chen, B., Chaudhuri, A. A., Liu, C., Hui, A. B., Jin, et al

  2020

- **Noninvasive Early Identification of Therapeutic Benefit from Immune Checkpoint Inhibition.** *Cell*

  Nabet, B. Y., Esfahani, M. S., Moding, E. J., Hamilton, E. G., Chabon, J. J., Rizvi, H. n., Steen, C. B., Chaudhuri, A. A., Liu, C. L., Hui, A. B., Almanza, D. n., Stehr, H. n., Gojenola, et al

  2020

- **KEAP1/NFE2L2 mutations predict lung cancer radiation resistance that can be targeted by glutaminase inhibition.** *Cancer discovery*

  Binkley, M. S., Jeon, Y. J., Nesselbush, M. n., Moding, E. J., Nabet, B. Y., Almanza, D. n., Kunder, C. n., Stehr, H. n., Yoo, C. H., Rhee, S. n., Xiang, M. n., Chabon, J. J., Hamilton, et al

  2020

- **Circulating tumor DNA analysis for detection of minimal residual disease after chemoradiotherapy for localized esophageal cancer.** *Gastroenterology*

  Azad, T. D., Chaudhuri, A. A., Fang, P. n., Qiao, Y. n., Esfahani, M. S., Chabon, J. J., Hamilton, E. G., Yang, Y. D., Lovejoy, A. n., Newman, A. M., Kurtz, D. M., Jin, M. n., Schroers-Martin, et al

  2019

- **Phased Variant Enrichment for Enhanced Minimal Residual Disease Detection from Cell-Free DNA** *American Society of Hematology*

  Kurtz, D. M., Soo, J., Alig, S., Keh, L. C., Macaulay, C., Jin, M. C., Scherer, F., Hamilton, E. G., Liu, C., Chen, B., Craig, A., Diehn, M., Alizadeh, et al

  2019

- **Distinct Chromatin Accessibility Profiles of Lymphoma Subtypes Revealed By Targeted Cell Free DNA Profiling**

  Mehrmohamadi, M., Esfahani, M. S., Soo, J., Scherer, F., Schroers-Martin, J. G., Chen, B., Kurtz, D. M., Hamilton, E., Liu, C., Diehn, M., Alizadeh, A. A.

  AMER SOC HEMATOLOGY.2018

- **Polybrominated diphenyl ethers (PBDEs) and hydroxylated PBDE metabolites (OH-PBDEs) in maternal and fetal tissues, and associations with fetal cytochrome P450 gene expression.** *Environment international*

  Zota, A. R., Mitro, S. D., Robinson, J. F., Hamilton, E. G., Park, J. S., Parry, E., Zoeller, R. T., Woodruff, T. J.

  2018; 112: 269-278

- **Transcriptional Dynamics of Cultured Human Villous Cytotrophoblasts.** *Endocrinology*

  Robinson, J. F., Kapidzic, M., Gormley, M., Ona, K., Dent, T., Seifikar, H., Hamilton, E. G., Fisher, S. J.

  2017; 158 (6): 1581-1594