Stanford

Anuja Anand Sathe

Basic Life Research Scientist, Medicine - Med/Oncology

Bio

HONORS AND AWARDS

- Translational Research and Applied Medicine Pilot Grant, Stanford Medicine (2019-2021)
- Leopold Casper-Promotionspreis, awarded for the best Ph.D. thesis in the field of Urology in Germany, German Association for Urology/Deutsche Gesselschaft fuer Urologie (DGU) (2016)
- Postdoctoral Fellowship, Fritz Thyssen Foundation, Germany (2015-2017)
- Scotland's Saltire Scholarship, British Council on behalf of the Scottish government (2010-2011)

EDUCATION AND CERTIFICATIONS

- Bachelor of Med & Surgery (MBBS), B. J. Medical College, Maharashtra University of Health Sciences, Pune, India (2010)
- Masters of research (MRes), University of Glasgow, Glasgow, U.K (2011)
- Doctor of Philosophy (Ph.D.), Technische Universität Mu#nchen, Munich, Germany (2015)

Professional

PROFESSIONAL INTERESTS

I am interested in understanding the impact of tumor heterogeneity in cancer. I use single-cell genomics and patient-derived models to characterize this heterogeneity in tumor sub-clones and the microenvironment. The overarching goal is to identify new treatment targets that can overcome resistance arising due to heterogeneity.

Publications

PUBLICATIONS

- **Activating Immune Effectors and Dampening Immune Suppressors Generates Successful Therapeutic Cancer Vaccination in Patients with Lymphoma**
  Shree, T., Haebe, S., Czerwinski, D. K., Eckhert, E., Day, G., Sathe, A., Grimes, S. M., Frank, M. J., Maeda, L. S., Alizadeh, A. A., Advani, R. H., Hoppe, R., Long, et al
  AMER SOC HEMATOLOGY.2022: 6450-6451
- **Prevalence of Acquired N-Glycosylation Sites at the Single Cell Level in Follicular Lymphoma**
  Haebe, S., Shree, T., Day, G., Czerwinski, D. K., Sathe, A., Grimes, S. M., Long, S. R., Martin, B., Ozawa, M. G., Ji, H. P., Levy, R.
  AMER SOC HEMATOLOGY.2022: 9211-9212
- **Colorectal cancer metastases in the liver establish immunosuppressive spatial networking between tumor associated SPP1+ macrophages and fibroblasts.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
  Sathe, A., Mason, K., Grimes, S. M., Zhou, Z., Lau, B. T., Bai, X., Su, A., Tan, X., Lee, H., Suarez, C. J., Nguyen, Q., Poultsides, G., Zhang, et al
  2022
- **Reconstructing the spatial evolution of cancer through subclone detection on copy number profiles in tumor sequencing data.**
  Wu, C., Hess, P. R., Sathe, A., Rong, J., Lau, B. T., Grimes, S. M., Ji, H. P., Zhang, N. R.

AMER ASSOC CANCER RESEARCH.2022

- **A single-cell solution for solid tumors to detect mutations and quantify copy number variations.**
  Wu, C., Hess, P. R., Sathe, A., Rong, J., Lau, B. T., Grimes, S. M., Ji, H. P., Zhang, N. R.
  AMER ASSOC CANCER RESEARCH.2022
- **Reconstructing the spatial evolution of cancer through subclone detection on copy number profiles in tumor sequencing data**
  Wu, C., Hess, P. R., Sathe, A., Rong, J., Lau, B. T., Grimes, S. M., Ji, H. P., Zhang, N. R.
  AMER ASSOC CANCER RESEARCH.2022
- **Mucinous Epithelial Cell Secretion Drives Mucinous Ascites Formation in Pseudomyxoma Peritonei Patients**
  Ayala, C., Sathe, A., Grimes, S., Zhao, L., Bai, X., Poultsides, G., Lee, B., Ji, H.
  SPRINGER.2022: 520-521
- **In Situ Vaccination Induces Changes in Follicular Lymphoma Tumor Cells That Correlate with Abscopal Clinical Regressions**
  Haebe, S., Shree, T., Day, G., Sathe, A., Czerwinski, D. K., Grimes, S. M., Long, S. R., Martin, B., Hoppe, R., Ji, H. P., Levy, R.
  AMER SOC HEMATOLOGY.2021
- **Therapeutic and Immunologic Responses Elicited By in Situ Vaccination with CpG, Ibrutinib, and Low-Dose Radiation**
  Shree, T., Haebe, S., Czerwinski, D. K., Day, G., Sathe, A., Khodadoust, M. S., Frank, M. J., Beygi, S., Hoppe, R., Long, S. R., Martin, B., Ji, H. P., Levy, et al
  AMER SOC HEMATOLOGY.2021
- **Patient-derived ex vivo TME-models and single-cell sequencing reveal transcriptional responses to immunotherapy.**
  Sathe, A., Chen, J., Grimes, S. M., Ayala, C. I., Poultsides, G., Ji, H. P.
  AMER ASSOC CANCER RESEARCH.2021
- **Integrative single-cell analysis of allele-specific copy number alterations and chromatin accessibility in cancer.** *Nature biotechnology*
  Wu, C., Lau, B. T., Kim, H. S., Sathe, A., Grimes, S. M., Ji, H. P., Zhang, N. R.
  2021
- **An expanded universe of cancer targets.** *Cell*
  Hahn, W. C., Bader, J. S., Braun, T. P., Califano, A., Clemons, P. A., Druker, B. J., Ewald, A. J., Fu, H., Jagu, S., Kemp, C. J., Kim, W., Kuo, C. J., McManus, et al
  2021; 184 (5): 1142–55
- **Single Cell Analysis Can Define Distinct Evolution of Tumor Sites in Follicular Lymphoma.** *Blood*
  Haebe, S. E., Shree, T. n., Sathe, A. n., Day, G. n., Czerwinski, D. K., Grimes, S. n., Lee, H. n., Binkley, M. S., Long, S. R., Martin, B. A., Ji, H. P., Levy, R. n.
  2021
- **IDENTIFY IMMUNE CELL TYPES AND BIOMARKERS ASSOCIATED WITH IMMUNE-RELATED ADVERSE EVENTS USING SINGLE CELL RNA SEQUENCING**
  Chen, J., Pflieger, L., Grimes, S., Baker, T., Brems, M., Fulde, G., Snow, S., Howe, P., Sathe, A., Christensen, B., Ji, H., Rhodes, T.
  BMJ PUBLISHING GROUP.2020: A39
- **Identify biomarkers associated with immunotoxicities using single-cell RNAseq.**
  Chen, J., Pflieger, L., Sathe, A., Grimes, S., Brems, M., Pattison, T., Christensen, B., Rhodes, T., Ji, H.
  AMER ASSOC CANCER RESEARCH.2020: 32
- **Joint single cell DNA-seq and RNA-seq of gastric cancer cell lines reveals rules of in vitro evolution.** *NAR genomics and bioinformatics*
  Andor, N. n., Lau, B. T., Catalanotti, C. n., Sathe, A. n., Kubit, M. n., Chen, J. n., Blaj, C. n., Cherry, A. n., Bangs, C. D., Grimes, S. M., Suarez, C. J., Ji, H. P.
  2020; 2 (2): lqaa016
- **Single cell genomic characterization reveals the cellular reprogramming of the gastric tumor microenvironment.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
  Sathe, A. n., Grimes, S. M., Lau, B. T., Chen, J. n., Suarez, C. n., Huang, R. J., Poultsides, G. A., Ji, H. P.
  2020
- **Site to Site Comparison of Follicular Lymphoma Biopsies By Single Cell RNA Sequencing**
  Haebe, S., Shree, T., Sathe, A., Day, G., Lee, H., Czerwinski, D. K., Grimes, S., Ji, H., Levy, R.
  AMER SOC HEMATOLOGY.2019
- **Dynamic Immune Modulation Seen By Single Cell RNA-Sequencing of Serial Lymphoma Biopsies in Patients Undergoing in Situ Vaccination**

Shree, T., Haebe, S., Sathe, A., Day, G., Lee, H., Czerwinski, D. K., Grimes, S., Ji, H., Levy, R.
AMER SOC HEMATOLOGY.2019

- **Functional genomics identifies predictive markers and clinically actionable resistance mechanisms to CDK4/6 inhibition in bladder cancer** *JOURNAL OF EXPERIMENTAL & CLINICAL CANCER RESEARCH*
  Tong, Z., Sathe, A., Ebner, B., Qi, P., Veltkamp, C., Gschwend, J. E., Holm, P., Nawroth, R.
  2019; 38: 322

- **Single cell RNA sequencing of serial tumor and blood biopsies from lymphoma patients undergoing in situ vaccination**
  Shree, T., Sathe, A., Ji, H., Levy, R.
  AMER ASSOC CANCER RESEARCH.2019

- **Comprehensive characterization of gastric cancer at single-cell resolution**
  Chen, J., Sathe, A., Grimes, S., Greer, S., Lau, B., Renschler, A., Poultsides, G., Suarez, C., Ji, H.
  AMER ASSOC CANCER RESEARCH.2019

- **Single cell RNA sequencing reveals multiple adaptive resistance mechanisms to regorafenib in colon cancer**
  Sathe, A., Lau, B. T., Grimes, S., Greer, S., Ji, H.
  AMER ASSOC CANCER RESEARCH.2019

- **scPred: accurate supervised method for cell-type classification from single-cell RNA-seq data.** *Genome biology*
  Alquicira-Hernandez, J. n., Sathe, A. n., Ji, H. P., Nguyen, Q. n., Powell, J. E.
  2019; 20 (1): 264

- **Single Cell RNA Sequencing of Serial Tumor and Blood Biopsies from Lymphoma Patients on an in Situ Vaccination Clinical Trial**
  Shree, T., Sathe, A., Czerwinski, D. K., Long, S. R., Ji, H., Levy, R.
  AMER SOC HEMATOLOGY.2018

- **Targeting the PI3K/AKT/mTOR Pathway in Bladder Cancer.** *Methods in molecular biology (Clifton, N.J.)*
  Sathe, A., Nawroth, R.
  2018; 1655: 335-350

- **Characterization of colorectal liver metastasis at single-cell resolution reveals dynamic interplay in the tumor microenvironment**
  Sathe, A., Chen, J., Wood-Bouwens, C., Almeda, A., Lau, B., Grimes, S. M., Poultsides, G. A., Ji, H.
  AMER ASSOC CANCER RESEARCH.2018

- **Integrated single-cell DNA and RNA analysis of intratumoral heterogeneity and immune lineages in colorectal and gastric tumor biopsies**
  Lau, B., Andor, N., Sathe, A., Wood-Bouwens, C., Poultsides, G., Ji, H.
  AMER ASSOC CANCER RESEARCH.2018

- **Parallel PI3K, AKT and mTOR inhibition is required to control feedback loops that limit tumor therapy.** *PloS one*
  Sathe, A., Chalaud, G., Oppolzer, I., Wong, K. Y., von Busch, M., Schmid, S. C., Tong, Z., Retz, M., Gschwend, J. E., Schulz, W. A., Nawroth, R.
  2018; 13 (1): e0190854

- **Applying the chicken embryo chorioallantoic membrane assay to study treatment approaches in urothelial carcinoma.** *Urologic oncology*
  Skowron, M. A., Sathe, A., Romano, A., Hoffmann, M. J., Schulz, W. A., van Koeveringe, G. A., Albers, P., Nawroth, R., Niegisch, G.
  2017

- **Wntless promotes bladder cancer growth and acts synergistically as a molecular target in combination with cisplatin.** *Urologic oncology*
  Schmid, S. C., Sathe, A., Guerth, F., Seitz, A. K., Heck, M. M., Maurer, T., Schwarzenböck, S. M., Krause, B. J., Schulz, W. A., Stoehr, R., Gschwend, J. E., Retz, M., Nawroth, et al
  2017

- **CDK4/6 Inhibitors in Cancer Therapy: A Novel Treatement Strategy for Bladder Cancer.** *Bladder cancer (Amsterdam, Netherlands)*
  Pan, Q., Sathe, A., Black, P. C., Goebell, P. J., Kamat, A. M., Schmitz-Draeger, B., Nawroth, R.
  2017; 3 (2): 79-88

- **CDK4/6 Inhibition Controls Proliferation of Bladder Cancer and Transcription of RB1** *JOURNAL OF UROLOGY*
  Sathe, A., Koshy, N., Schmid, S. C., Thalgott, M., Schwarzenboeck, S. M., Krause, B. J., Holm, P. S., Gschwend, J. E., Retz, M., Nawroth, R.
  2016; 195 (3): 771-779

- **Mutant PIK3CA controls DUSP1-dependent ERK 1/2 activity to confer response to AKT target therapy** *BRITISH JOURNAL OF CANCER*
  Sathe, A., Guerth, F., Cronauer, M. V., Heck, M. M., Thalgott, M., Gschwend, J. E., Retz, M., Nawroth, R.
  2014; 111 (11): 2103-2113