



## Hanlee P. Ji

Professor of Medicine (Oncology) and, by courtesy of Electrical Engineering  
Medicine - Oncology

### CLINICAL OFFICE (PRIMARY)

- **Medical Oncology**

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Stanford, CA 94305  
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### ACADEMIC CONTACT INFORMATION

- **Alternate Contact**

Donna Galvez - Administration Ji Research Group  
**Email** [drgalvez@stanford.edu](mailto:drgalvez@stanford.edu)

## Bio

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### CLINICAL FOCUS

- Cancer > GI Oncology
- Medical Oncology
- Oncology (Cancer)
- Gastrointestinal Neoplasms
- Inherited Cancer Disorders
- Immunotherapy in gastrointestinal cancers

### ACADEMIC APPOINTMENTS

- Professor, Medicine - Oncology
- Professor (By courtesy), Electrical Engineering
- Member, Bio-X
- Member, Stanford Cancer Institute

### ADMINISTRATIVE APPOINTMENTS

- Department of Medicine Team Science Division Representative, Department of Medicine, Stanford University, (2022- present)
- Senior Associate Director, Stanford Genome Technology Center, (2008-2020)

### HONORS AND AWARDS

- Physician-Scientist Fellowship Award, Howard Hughes Medical Institute (1998)
- American Association Cancer Research, Scholar-in-Training Award for Research Achievement (2005)
- Merit Award for Research Achievement, American Society Clinical Oncology Foundation (2006)
- Physician Scientist Early Career Award, Howard Hughes Medical Institute (2008)
- Clinical Scientist Development Award, Doris Duke Charitable Foundation (2009)

- Research Scholar Award, American Cancer Society (2013)

## PROFESSIONAL EDUCATION

- Board Certification: Medical Oncology, American Board of Internal Medicine (2004)
- Residency: University of Iowa Hospitals and Clinics (1996) IA
- Residency: University of Washington Medical Center Dept of Medicine (2001) WA
- Medical Education: Johns Hopkins University School of Medicine (1994) MD
- Fellowship: Stanford University Hospital -Clinical Excellence Research Center (2005) CA
- B.A., Reed College , Biology
- M.D., Johns Hopkins University , Medicine

## LINKS

- DNA Discovery - Ji Research Group: <http://dna-discovery.stanford.edu/>
- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Our research group integrates new molecular technology development, advanced computation methods and genome biology to identify targets for therapy in cancer. We are pursuing projects focused on developing new therapies for stomach, bile duct and colon cancer. We also are involved in study the basis of genomic instability by examining chromosome structure.

Ongoing projects include:

- 1) Immunogenomic approaches to study cancer's interaction with the immune system and improve our understanding of immunotherapy
- 2) Identification of kinase interactions which can improve targeted therapy strategies
- 3) Use of advanced genome sequencing technologies including nanopore sequencers to understand the role of cancer rearrangements in response to therapy
- 4) Identifying genes that increase the risk of developing cancer
- 5) Developing new approaches for monitoring cancer from circulating DNA

We are developing new technologies for data storage using DNA technologies.

### CLINICAL TRIALS

- Clinical & Pathological Studies of Upper Gastrointestinal Carcinoma, Recruiting
- The Gastric Cancer Foundation: A Gastric Cancer Registry, Recruiting

## Teaching

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### COURSES

#### 2024-25

- Translational Genomics Methods: MED 212C (Spr)

#### 2023-24

- MTRAM Translational Technologies (TR): Translational genomics: MED 212C (Spr)

#### 2022-23

- MTRAM Translational Technologies (TR): Translational genomics: MED 212C (Spr)

#### 2021-22

- Single Cell Immunogenomics: BIOS 286 (Spr)

### STANFORD ADVISEES

#### Doctoral Dissertation Reader (AC)

Youlim Kim

#### Postdoctoral Faculty Sponsor

Xiangqi Bai, Junha Cha, Tianqi Chen, Dongin Lee, KyungTae Lee, Huiyun Sun, Ignacio Wichmann Perez

#### Postdoctoral Research Mentor

Xiangqi Bai, Tianqi Chen

### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biomedical Data Science (Phd Program)
- Cancer Biology (Phd Program)
- Medicine (Masters Program)

## Publications

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### PUBLICATIONS

- **The single-cell spatial landscape of stage III colorectal cancers.** *NPJ precision oncology*  
Su, A., Lee, H., Tran, M., Dela Cruz, R. C., Sathe, A., Bai, X., Wichmann, I., Pflieger, L., Moulton, B., Barker, T., Haslem, D., Jones, D., Nadauld, et al  
2025; 9 (1): 101
- **A spatial transcriptomic signature of 26 genes resolved at single-cell resolution characterizes high-risk gastric cancer precursors.** *NPJ precision oncology*  
Huang, R. J., Wichmann, I. A., Su, A., Sathe, A., Shum, M. V., Grimes, S. M., Meka, R., Almeda, A., Bai, X., Shen, J., Nguyen, Q., Luo, I., Han, et al  
2025; 9 (1): 52
- **Distinct gene signatures define the epithelial cell features of mucinous appendiceal neoplasms and pseudomyxoma metastases.** *Frontiers in genetics*  
Ayala, C., Sathe, A., Bai, X., Grimes, S. M., Shen, J., Poultsides, G. A., Lee, B., Ji, H. P.  
2025; 16: 1536982
- **The Gastric Cancer Registry: A multi-omic cellular and molecular resource for cancer biomarker and therapeutic discovery.**  
Ji, H. P., Meka, R., Perez, I., Grimes, S. M., Lee, H., Wang, Y., Sathe, A.  
LIPPINCOTT WILLIAMS & WILKINS.2025: 491

- **A phase I clinical trial adding OX40 agonism to in situ therapeutic cancer vaccination in patients with low-grade B cell lymphoma highlights challenges in translation from mouse to human studies.** *Clinical cancer research : an official journal of the American Association for Cancer Research*  
Shree, T., Czerwinski, D., Haebe, S., Sathe, A., Grimes, S., Martin, B., Ozawa, M., Hoppe, R., Ji, H., Levy, R.  
2025
- **Altered chromatin landscape and 3D interactions associated with primary constitutional MLH1 epimutations.** *Clinical epigenetics*  
Climent-Cantó, P., Subirana-Granés, M., Ramos-Rodríguez, M., Dámaso, E., Marín, F., Vara, C., Pérez-González, B., Raurell, H., Munté, E., Soto, J. L., Alonso, Á., Shin, G., Ji, et al  
2024; 16 (1): 193
- **The single-cell spatial landscape of stage III colorectal cancers.** *bioRxiv : the preprint server for biology*  
Su, A., Lee, H., Tran, M., Cruz, R. D., Sathe, A., Bai, X., Wichmann, I., Pflieger, L., Moulton, B., Barker, T., Haslem, D., Jones, D., Nadauld, et al  
2024
- **Brain metastases from esophageal cancer: A retrospective review from a single institution.** *World neurosurgery*  
Touponse, G. C., Li, G., Tai, J. W., Rodrigues, A. J., Granucci, M., Burnside, G., Bhambhani, H. P., Han, S. S., Ji, H. P., Gephart, M. H.  
2024
- **Resolving the 22q11.2 deletion using CTLR-Seq reveals chromosomal rearrangement mechanisms and individual variance in breakpoints.** *Proceedings of the National Academy of Sciences of the United States of America*  
Zhou, B., Purmann, C., Guo, H., Shin, G., Huang, Y., Pattni, R., Meng, Q., Greer, S. U., Roychowdhury, T., Wood, R. N., Ho, M., Dohna, H. Z., Abyzov, et al  
2024; 121 (31): e2322834121
- **Single cell transcriptomic analysis reveals differences between primary appendiceal tumors**  
Ayala, C. I., Sathe, A., Bai, X., Grimes, S., Lee, B., Ji, H. P.  
SPRINGER.2024: S230
- **Niche-DE: niche-differential gene expression analysis in spatial transcriptomics data identifies context-dependent cell-cell interactions.** *Genome biology*  
Mason, K., Sathe, A., Hess, P. R., Rong, J., Wu, C. Y., Furth, E., Susztak, K., Levinsohn, J., Ji, H. P., Zhang, N.  
2024; 25 (1): 14
- **Detection and analysis of complex structural variation in human genomes across populations and in brains of donors with psychiatric disorders** *Cell*  
Zhou, B., Arthur, J. G., Guo, H., et al  
2024; Published online September 30, 2024
- **GITR and TIGIT immunotherapy provokes divergent multicellular responses in the tumor microenvironment of gastrointestinal cancers.** *Genome medicine*  
Sathe, A., Ayala, C., Bai, X., Grimes, S. M., Lee, B., Kin, C., Shelton, A., Poultsides, G., Ji, H. P.  
2023; 15 (1): 100
- **A clinical trial of therapeutic vaccination in lymphoma with serial tumor sampling and single cell analysis.** *Blood advances*  
Shree, T., Haebe, S. E., Czerwinski, D. K., Eckhert, E., Day, G., Sathe, A., Grimes, S. M., Frank, M. J., Maeda, L., Alizadeh, A. A., Advani, R. H., Hoppe, R. T., Long, et al  
2023
- **Co-Occurrence of Clonally Related Follicular Lymphoma and Histiocytic Sarcoma**  
Haebe, S., Czerwinski, D. K., Sathe, A., Grimes, S., Chen, T., Martin, B., Ji, H., Levy, R., Shree, T.  
AMER SOC HEMATOLOGY.2023
- **A spatially mapped gene expression signature for intestinal stem-like cells identifies high-risk precursors of gastric cancer.** *bioRxiv : the preprint server for biology*  
Huang, R. J., Wichmann, I. A., Su, A., Sathe, A., Shum, M. V., Grimes, S. M., Meka, R., Almeda, A., Bai, X., Shen, J., Nguyen, Q., Amieva, M. R., Hwang, et al  
2023
- **Direct measurement of engineered cancer mutations and their transcriptional phenotypes in single cells.** *Nature biotechnology*  
Kim, H. S., Grimes, S. M., Chen, T., Sathe, A., Lau, B. T., Hwang, G. H., Bae, S., Ji, H. P.

2023

- **Follicular lymphoma evolves with a surmountable dependency on acquired glycosylation motifs in the B cell receptor.** *Blood*  
Haebe, S. E., Day, G., Czerwinski, D. K., Sathe, A., Grimes, S. M., Chen, T., Long, S. R., Martin, B. A., Ozawa, M. G., Ji, H. P., Shree, T., Levy, R.  
2023
- **Single-cell multi-gene identification of somatic mutations and gene rearrangements in cancer.** *NAR cancer*  
Grimes, S. M., Kim, H. S., Roy, S., Sathe, A., Ayala, C. I., Bai, X., Almeda-Notestine, A. F., Haebe, S., Shree, T., Levy, R., Lau, B. T., Ji, H. P.  
2023; 5 (3): zcad034
- **Pan-conserved segment tags identify ultra-conserved sequences across assemblies in the human pangenome.** *Cell reports methods*  
Lee, H., Greer, S. U., Pavlichin, D. S., Zhou, B., Urban, A. E., Weissman, T., Ji, H. P.  
2023; 3 (8): 100543
- **Transitioning single-cell genomics into the clinic.** *Nature reviews. Genetics*  
Lim, J., Chin, V., Fairfax, K., Moutinho, C., Suan, D., Ji, H., Powell, J. E.  
2023
- **Magnetic DNA random access memory with nanopore readouts and exponentially-scaled combinatorial addressing.** *Scientific reports*  
Lau, B., Chandak, S., Roy, S., Tatwawadi, K., Wootters, M., Weissman, T., Ji, H. P.  
2023; 13 (1): 8514
- **Short Tandem Repeat DNA Profiling Using Perylene-Oligonucleotide Fluorescence Assay.** *Analytical chemistry*  
Hernandez Bustos, A., Martiny, E., Bom Pedersen, N., Parvathaneni, R. P., Hansen, J., Ji, H. P., Astakhova, K.  
2023
- **Pangenome graph construction from genome alignments with Minigraph-Cactus** *NATURE BIOTECHNOLOGY*  
Hickey, G., Monlong, J., Ebler, J., Novak, A. M., Eizenga, J. M., Gao, Y., Marschall, T., Li, H., Paten, B., Abel, H. J., Antonacci-Fulton, L. L., Asri, M., Baid, et al  
2023
- **Single-molecule methylation profiles of cell-free DNA in cancer with nanopore sequencing.** *Genome medicine*  
Lau, B. T., Almeda, A., Schauer, M., McNamara, M., Bai, X., Meng, Q., Partha, M., Grimes, S. M., Lee, H., Heestand, G. M., Ji, H. P.  
2023; 15 (1): 33
- **A draft human pangenome reference.** *Nature*  
Liao, W. W., Asri, M., Ebler, J., Doerr, D., Haukness, M., Hickey, G., Lu, S., Lucas, J. K., Monlong, J., Abel, H. J., Buonaiuto, S., Chang, X. H., Cheng, et al  
2023; 617 (7960): 312-324
- **Single cell and spatial alternative splicing analysis with long read sequencing.** *Research square*  
Fu, Y., Kim, H., Adams, J. I., Grimes, S. M., Huang, S., Lau, B. T., Sathe, A., Hess, P., Ji, H. P., Zhang, N. R.  
2023
- **GITR and TIGIT immunotherapy provokes divergent multi-cellular responses in the tumor microenvironment of gastrointestinal cancers.** *bioRxiv : the preprint server for biology*  
Sathe, A., Ayala, C., Bai, X., Grimes, S. M., Lee, B., Kin, C., Shelton, A., Poultsides, G., Ji, H. P.  
2023
- **Single Cell Transcriptomic Analysis of Human Extra- and Intra-Hepatic Cholangiocarcinoma**  
Ayala, C. I., Sathe, A., Grimes, S., Bae, X., Dua, M., Poultsides, G., Visser, B., Ji, H.  
SPRINGER.2023: S177-S178
- **The Gastric Cancer Registry Genome Explorer: A tool for genomic discovery.**  
Almeda, A., Grimes, S. M., Shin, G., Lee, H., Wichmann, I., Greer, S., Ji, H. P.  
LIPPINCOTT WILLIAMS & WILKINS.2023: 434
- **Tumor-associated microbiome features of metastatic colorectal cancer and clinical implications.** *Frontiers in oncology*  
An, H. J., Partha, M. A., Lee, H., Lau, B. T., Pavlichin, D. S., Almeda, A., Hooker, A. C., Shin, G., Ji, H. P.  
2023; 13: 1310054

- **Large Cancer Pedigree Involving Multiple Cancer Genes including Likely Digenic MSH2 and MSH6 Lynch Syndrome (LS) and an Instance of Recombinational Rescue from LS.** *Cancers*  
Vogelaar, I. P., Greer, S., Wang, F., Shin, G., Lau, B., Hu, Y., Haraldsdottir, S., Alvarez, R., Hazelett, D., Nguyen, P., Aguirre, F. P., Guindi, M., Hendifar, et al  
2022; 15 (1)
- **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., Poultides, G., Zhang, et al  
2022
- **RESOLVING THE EXACT BREAKPOINTS AND SEQUENCE REARRANGEMENTS OF LARGE NEUROPSYCHIATRIC COPY NUMBER VARIATIONS (CNVS) AT SINGLE BASE-PAIR RESOLUTION USING CRISPR-TARGETED ULTRALONG READ SEQUENCING (CTRL-SEQ)**  
Zhou, B., Shin, G., Vervoort, L., Greer, S., Huang, Y., Roychowdhury, T., Pattni, R., Abyzov, A., Vermeesch, J., Ji, H., Urban, A.  
ELSEVIER.2022: E88-E89
- **Predictive Model to Guide Brain Magnetic Resonance Imaging Surveillance in Patients With Metastatic Lung Cancer: Impact on Real-World Outcomes.** *JCO precision oncology*  
Wu, J., Ding, V., Luo, S., Choi, E., Hellyer, J., Myall, N., Henry, S., Wood, D., Stehr, H., Ji, H., Nagpal, S., Hayden Gephart, M., Wakelee, et al  
2022; 6: e2200220
- **Exploratory genomic analysis of high grade neuroendocrine neoplasms across diverse primary sites.** *Endocrine-related cancer*  
Sun, T. Y., Zhao, L., Van Hummelen, P., Martin, B., Hornbacker, K., Lee, H., Xia, L. C., Padda, S. K., Ji, H. P., Kunz, P.  
2022
- **The Gastric Cancer Registry: A Genomic Translational Resource for Multidisciplinary Research in Gastric Cancer.** *Cancer epidemiology, biomarkers & prevention : a publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology*  
Almeda, A. F., Grimes, S. M., Lee, H., Greer, S., Shin, G., McNamara, M., Hooker, A. C., Arce, M. M., Kubit, M., Schauer, M. C., Van Hummelen, P., Ma, C., Mills, et al  
2022
- **Germline variants of ATG7 in familial cholangiocarcinoma alter autophagy and p62.** *Scientific reports*  
Greer, S. U., Chen, J., Ogmundsdottir, M. H., Ayala, C., Lau, B. T., Delacruz, R. G., Sandoval, I. T., Kristjansdottir, S., Jones, D. A., Haslem, D. S., Romero, R., Fulde, G., Bell, et al  
2022; 12 (1): 10333
- **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
- **ALTEN: A High-Fidelity Primary Tissue-Engineering Platform to Assess Cellular Responses Ex Vivo.** *Advanced science (Weinheim, Baden-Wurtemberg, Germany)*

- Law, A. M., Chen, J., Colino-Sanguino, Y., Fuente, L. R., Fang, G., Grimes, S. M., Lu, H., Huang, R. J., Boyle, S. T., Venhuizen, J., Castillo, L., Tavakoli, J., Skhinas, et al  
2022: e2103332
- **Mucinous Epithelial Cell Secretion Drives Mucinous Ascites Formation in Pseudomyxoma Peritonei Patients**  
Ayala, C., Sathe, A., Grimes, S., Zhao, L., Bai, X., Poultides, G., Lee, B., Ji, H.  
SPRINGER.2022: 520-521
  - **KmerKeys: a web resource for searching indexed genome assemblies and variants.** *Nucleic acids research*  
Pavlichin, D. S., Lee, H., Greer, S. U., Grimes, S. M., Weissman, T., Ji, H. P.  
2022
  - **The Human Pangenome Project: a global resource to map genomic diversity.** *Nature*  
Wang, T., Antonacci-Fulton, L., Howe, K., Lawson, H. A., Lucas, J. K., Phillippy, A. M., Popejoy, A. B., Asri, M., Carson, C., Chaisson, M. J., Chang, X., Cook-Deegan, R., Felsenfeld, et al  
2022; 604 (7906): 437-446
  - **A deep learning model for molecular label transfer that enables cancer cell identification from histopathology images.** *NPJ precision oncology*  
Su, A., Lee, H., Tan, X., Suarez, C. J., Andor, N., Nguyen, Q., Ji, H. P.  
2022; 6 (1): 14
  - **Analysis of 16S rRNA sequencing in advanced colorectal cancer tissue samples**  
An, H., Partha, M. A., Lee, H., Lau, B., Shin, G., Almeda, A., Ji, H. P.  
LIPPINCOTT WILLIAMS & WILKINS.2022
  - **Single-cell characterization of CRISPR-modified transcript isoforms with nanopore sequencing.** *Genome biology*  
Kim, H. S., Grimes, S. M., Hooker, A. C., Lau, B. T., Ji, H. P.  
2021; 22 (1): 331
  - **Characterization of the consensus mucosal microbiome of colorectal cancer.** *NAR cancer*  
Zhao, L., Grimes, S. M., Greer, S. U., Kubit, M., Lee, H., Nadauld, L. D., Ji, H. P.  
1800; 3 (4): zcab049
  - **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
  - **Single-Cell Transcriptomic Analysis of a Patient with Metastatic Appendiceal Adenocarcinoma: A Stem or Crypt Cell-Like Neoplasm?**  
Ayala, C., Grimes, S. M., Lee, B., Ji, H.  
ELSEVIER SCIENCE INC.2021: S240-S241
  - **A Predictive Model to Guide Brain MRI Surveillance in Patients With Metastatic Lung Cancer: Impact on Real World Outcomes**  
Wu, J., Ding, V., Luo, S., Choi, E., Hellyer, J., Myall, N., Henry, S., Wood, D., Stehr, H., Ji, H., Nagpal, S., Gephart, M., Wakelee, et al  
ELSEVIER SCIENCE INC.2021: S1177
  - **Profiling diverse sequence tandem repeats in colorectal cancer reveals co-occurrence of microsatellite and chromosomal instability involving Chromosome 8.** *Genome medicine*  
Shin, G., Greer, S. U., Hopmans, E., Grimes, S. M., Lee, H., Zhao, L., Miotke, L., Suarez, C., Almeda, A. F., Haraldsdottir, S., Ji, H. P.  
2021; 13 (1): 145
  - **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., Poultides, G., Ji, H. P.  
AMER ASSOC CANCER RESEARCH.2021

- **New Approaches to Moderate CRISPR-Cas9 Activity: Addressing Issues of Cellular Uptake and Endosomal Escape.** *Molecular therapy : the journal of the American Society of Gene Therapy*  
van Hees, M., Slott, S., Hansen, A. H., Kim, H. S., Ji, H. P., Astakhova, K.  
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
- **Profiling SARS-CoV-2 mutation fingerprints that range from the viral pangenome to individual infection quaspecies.** *Genome medicine*  
Lau, B. T., Pavlichin, D., Hooker, A. C., Almeda, A., Shin, G., Chen, J., Sahoo, M. K., Huang, C. H., Pinsky, B. A., Lee, H. J., Ji, H. P.  
2021; 13 (1): 62
- **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
- **Goblet Cell Origins of Human Appendiceal Mucinous Neoplasms and Pseudomyxoma Peritonei Tumors**  
Ayala-Navarro, C., Grimes, S., Sathe, A., Bai, X., Poultsides, G., Lee, B., Ji, H.  
SPRINGER.2021: S30–S31
- **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
- **Pepsinogens and Gastrin Demonstrate Low Discrimination for Gastric Precancerous Lesions in a Multi-Ethnic United States Cohort.** *Clinical gastroenterology and hepatology : the official clinical practice journal of the American Gastroenterological Association*  
Huang, R. n., Park, S. n., Shen, J. n., Longacre, T. n., Ji, H. n., Hwang, J. H.  
2021
- **Unique k-mer sequences for validating cancer-related substitution, insertion and deletion mutations.** *NAR cancer*  
Lee, H., Shuaibi, A., Bell, J. M., Pavlichin, D. S., Ji, H. P.  
2020; 2 (4): zcaa034
- **SPATIAL SINGLE-CELL ANALYSIS OF COLORECTAL CANCER TUMOUR USING MULTIPLEXED IMAGING MASS CYTOMETRY**  
Minh Tran, Su, A., Lee, H., Cruz, R., Pflieger, L., Dean, A., Quan Nguyen, Ji, H., Rhodes, T.  
BMJ PUBLISHING GROUP.2020: A399
- **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
- **The COVID-19 XPRIZE and the need for scalable, fast, and widespread testing.** *Nature biotechnology*  
MacKay, M. J., Hooker, A. C., Afshinnekoo, E., Salit, M., Kelly, J., Feldstein, J. V., Haft, N., Schenkel, D., Nambi, S., Cai, Y., Zhang, F., Church, G., Dai, et al  
2020
- **A Summary of the 2020 Gastric Cancer Summit at Stanford University.** *Gastroenterology*  
Huang, R. J., Koh, H., Hwang, J. H., Summit Leaders, Abnet, C. C., Alarid-Escudero, F., Amieva, M. R., Bruce, M. G., Camargo, M. C., Chan, A. T., Choi, I. J., Corvalan, A., Davis, J. L., et al  
2020
- **CRISPRpic: fast and precise analysis for CRISPR-induced mutations via prefixed index counting.** *NAR genomics and bioinformatics*  
Lee, H., Chang, H. Y., Cho, S. W., Ji, H. P.  
2020; 2 (2): lqaa012
- **Entire landscape of epitopes from all possible missense mutations in human coding sequences.**  
Lee, H., Greer, S., Ji, H. P.



AMER ASSOC CANCER RESEARCH.2020: 118–19

- **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
- **Comparative Genomic Analysis of High Grade Neuroendocrine Neoplasms across Diverse Organs**  
Sun, T. Y., Van Hummelen, P., Martin, B., Xia, C., Zhao, L., Hornbacker, K., Lee, H., Ji, H., Kunz, P.  
KARGER.2020: 51
- **Comprehensive genomic sequencing of high-grade neuroendocrine neoplasms**  
Sun, T., Van Hummelen, P., Martin, B., Xia, C., Lee, H., Zhao, L., Hornbacker, K., Ji, H., Kunz, P. L.  
AMER SOC CLINICAL ONCOLOGY.2020
- **Gastric Cancer Registry: A comprehensive patient-reported resource for multidisciplinary and translational genomic approaches to gastric cancer**  
Almeda, A., Hooker, A., Lee, H., Mills, M., Van Hummelen, P., Ford, J. M., Ji, H.  
AMER SOC CLINICAL ONCOLOGY.2020
- **Strain-resolved microbiome sequencing reveals mobile elements that drive bacterial competition on a clinical timescale.** *Genome medicine*  
Zlitni, S. n., Bishara, A. n., Moss, E. L., Tkachenko, E. n., Kang, J. B., Culver, R. N., Andermann, T. M., Weng, Z. n., Wood, C. n., Handy, C. n., Ji, H. P., Batzoglou, S. n., Bhatt, et al  
2020; 12 (1): 50
- **One Size Does Not Fit All: Marked Heterogeneity in Incidence of and Survival from Gastric Cancer among Asian American Subgroups.** *Cancer epidemiology, biomarkers & prevention : a publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology*  
Huang, R. J., Sharp, N. n., Talamoa, R. O., Ji, H. P., Hwang, J. H., Palaniappan, L. P.  
2020
- **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
- **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
- **OVERCOMING HIGH NANOPORE BASECALLER ERROR RATES FOR DNA STORAGE VIA BASECALLER-DECODER INTEGRATION AND CONVOLUTIONAL CODES**  
Chandak, S., Neu, J., Tatwawadi, K., Mardia, J., Lau, B., Kubit, M., Hulett, R., Griffin, P., Wootters, M., Weissman, T., Ji, H., IEEE  
IEEE.2020: 8822–26
- **Whole genome analysis identifies the association of TP53 genomic deletions with lower survival in Stage III colorectal cancer.** *Scientific reports*  
Xia, L. C., Van Hummelen, P. n., Kubit, M. n., Lee, H. n., Bell, J. M., Grimes, S. M., Wood-Bouwens, C. n., Greer, S. U., Barker, T. n., Haslem, D. S., Ford, J. M., Fulde, G. n., Ji, et al  
2020; 10 (1): 5009
- **Ultra-fast detection and quantification of nucleic acids by amplification-free fluorescence assay.** *The Analyst*  
Uhd, J. n., Miotke, L. n., Ji, H. P., Dunaeva, M. n., Pruijn, G. J., Jørgensen, C. D., Kristoffersen, E. L., Birkedal, V. n., Yde, C. W., Nielsen, F. C., Hansen, J. n., Astakhova, K. n.  
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
- **Structural variant analysis for linked-read sequencing data with gemtools** *BIOINFORMATICS*  
Greer, S. U., Ji, H. P.  
2019; 35 (21): 4397–99
  - **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., Poultides, G., Suarez, C., Ji, H.  
AMER ASSOC CANCER RESEARCH.2019
  - **iGRAMMy: Cloud-based characterization of microbial landscape in colorectal cancers**  
Xia, L. C., Ai, D., Guo, M., 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
  - **A functional CRISPR/Cas9 screen identifies kinases that modulate FGFR inhibitor response in gastric cancer** *ONCOGENESIS*  
Chen, J., Bell, J., Lau, B. T., Whittaker, T., Stapleton, D., Ji, H. P.  
2019; 8
  - **Structural variant analysis for linked-read sequencing data with gemtools.** *Bioinformatics (Oxford, England)*  
Greer, S. U., Ji, H. P.  
2019
  - **Single-cell transcriptome analysis identifies distinct cell types and niche signaling in a primary gastric organoid model.** *Scientific reports*  
Chen, J., Lau, B. T., Andor, N., Grimes, S. M., Handy, C., Wood-Bouwens, C., Ji, H. P.  
2019; 9 (1): 4536
  - **Single-cell transcriptome analysis identifies distinct cell types and niche signaling in a primary gastric organoid model** *SCIENTIFIC REPORTS*  
Chen, J., Lau, B. T., Andor, N., Grimes, S. M., Handy, C., Wood-Bouwens, C., Ji, H. P.  
2019; 9
  - **Haplotype-resolved and integrated genome analysis of the cancer cell line HepG2.** *Nucleic acids research*  
Zhou, B., Ho, S. S., Greer, S. U., Spies, N., Bell, J. M., Zhang, X., Zhu, X., Arthur, J. G., Byeon, S., Pattni, R., Saha, I., Huang, Y., Song, et al  
2019
  - **Single-cell RNA-Seq of follicular lymphoma reveals malignant B-cell types and coexpression of T-cell immune checkpoints** *BLOOD*  
Andor, N., Simonds, E. F., Czerwinski, D. K., Chen, J., Grimes, S. M., Wood-Bouwens, C., Zheng, G. Y., Kubit, M. A., Greer, S., Weiss, W. A., Levy, R., Ji, H. P.  
2019; 133 (10): 1119–29
  - **Comprehensive, integrated, and phased whole-genome analysis of the primary ENCODE cell line K562** *GENOME RESEARCH*  
Zhou, B., Ho, S. S., Greer, S. U., Zhu, X., Bell, J. M., Arthur, J. G., Spies, N., Zhang, X., Byeon, S., Pattni, R., Ben-Efraim, N., Haney, M. S., Haraksingh, et al  
2019; 29 (3): 472–84
  - **Comprehensive, integrated, and phased whole-genome analysis of the primary ENCODE cell line K562.** *Genome research*  
Zhou, B., Ho, S. S., Greer, S. U., Zhu, X., Bell, J. M., Arthur, J. G., Spies, N., Zhang, X., Byeon, S., Pattni, R., Ben-Efraim, N., Haney, M. S., Haraksingh, et al  
2019
  - **Targeted short read sequencing and assembly of re-arrangements and candidate gene loci provide megabase diplotypes.** *Nucleic acids research*

- Shin, G. n., Greer, S. U., Xia, L. C., Lee, H. n., Zhou, J. n., Boles, T. C., Ji, H. P.  
2019
- **Improved read/write cost tradeoff in DNA-based data storage using LDPC codes**  
Chandak, S., Tatwawadi, K., Lau, B., Mardia, J., Kubit, M., Neu, J., Griffin, P., Wootters, M., Weissman, T., Ji, H., IEEE  
IEEE.2019: 147–56
  - **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
  - **Therapeutic Monitoring of Circulating DNA Mutations in Metastatic Cancer with Personalized Digital PCR.** *The Journal of molecular diagnostics : JMD*  
Wood-Bouwens, C. M., Haslem, D. n., Moulton, B. n., Almeda, A. F., Lee, H. n., Heestand, G. M., Nadauld, L. D., Ji, H. P.  
2019
  - **Modeling the Evolution of Ploidy in a Resource Restricted Environment**  
Kimmel, G., Barnholtz-Sloan, J., Ji, H., Altrock, P., Andor, N., Bebis, G., Benos, T., Chen, K., Jahn, K., Lima, E.  
SPRINGER INTERNATIONAL PUBLISHING AG.2019: 29–34
  - **Covalent 'click chemistry'-based attachment of DNA onto solid phase enables iterative molecular analysis.** *Analytical chemistry*  
Lau, B. T., Ji, H. P.  
2019
  - **Single-cell RNA-Seq of lymphoma cancers reveals malignant B cell types and co-expression of T cell immune checkpoints.** *Blood*  
Andor, N., Simonds, E. F., Czerwinski, D. K., Chen, J., Grimes, S. M., Wood-Bouwens, C., Zheng, G. X., Kubit, M. A., Greer, S., Weiss, W. A., Levy, R., Ji, H. P.  
2018
  - **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
  - **Multi-patient Longitudinal Monitoring of Cancer Mutations from Circulating DNA of using Personalized Single Color Digital PCR Assays**  
Wood-Bouwens, C. M., Haslem, D., Lau, B. T., Almeda, A., Moulton, B., Romero, R., Nadauld, L., Ji, H. P.  
ELSEVIER SCIENCE INC.2018: 1039
  - **SVEngine: an efficient and versatile simulator of genome structural variations with features of cancer clonal evolution.** *GigaScience*  
Xia, L. C., Ai, D., Lee, H., Andor, N., Li, C., Zhang, N. R., Ji, H. P.  
2018
  - **SVEngine: an efficient and versatile simulator of genome structural variations with features of cancer clonal evolution** *GIGASCIENCE*  
Xia, L., Ai, D., Lee, H., Andor, N., Li, C., Zhang, N. R., Ji, H. P.  
2018; 7 (7)
  - **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., Poultides, G., Ji, H.  
AMER ASSOC CANCER RESEARCH.2018
  - **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., Poultides, G. A., Ji, H.  
AMER ASSOC CANCER RESEARCH.2018
  - **Chromosome-scale haplotyping enables comprehensive discovery of cancer rearrangements and germline-related susceptibility mutations**  
Greer, S. U., Lau, B. T., Nadauld, L. D., Ji, H. P.  
AMER ASSOC CANCER RESEARCH.2018
  - **Highly sensitive digital detection of circulating DNA cancer mutations using synthetic genome standards**  
Wood-Bouwens, C. M., St Onge, R. P., Ji, H. P.  
AMER ASSOC CANCER RESEARCH.2018

- **Linked read whole genome sequencing reveals pervasive chromosomal level instability and novel rearrangements in brain metastases from colorectal cancer**  
Xia, L. C., Bell, J. M., Wood-Bouwens, C., King, D. A., Shin, G., Greer, S., Connolly, I. D., Gephart, M. H., Ji, H. P.  
AMER ASSOC CANCER RESEARCH.2018
- **Improved detection and identification of microsatellite instability features in colorectal cancer: Implications for immunotherapy**  
Shin, G., Lee, H., Grimes, S. M., Kubit, M. A., Ji, H. P.  
AMER ASSOC CANCER RESEARCH.2018
- **High-quality CNV segments from low-coverage whole genome sequencing from FFPE cancer biopsies based on an evaluation of multiple CNV tools**  
Lee, H., Xia, L., Greer, S., Bell, J., Grimes, S. M., Bouwens, C., Shin, G., Lau, B. C., Johnson, L., Andor, N., Day, K., Miller, M., Escobar, et al  
AMER ASSOC CANCER RESEARCH.2018
- **Mapping the comprehensive landscape of missense-mutation neoantigens across the human genome**  
Lee, H., Greer, S. U., Ji, H. P.  
AMER ASSOC CANCER RESEARCH.2018
- **Loss of TP53 as a prognostic biomarker of poor survival in stage III colorectal cancer patients.**  
Nadauld, L., Van Hummelen, P., Xia, L., Day, K., Lee, H., Bell, J., Grimes, S. M., Kubit, M., Miller, M., Shin, G., Wood, C., Greer, S., Escobar, et al  
AMER SOC CLINICAL ONCOLOGY.2018
- **Identification of large rearrangements in cancer genomes with barcode linked reads.** *Nucleic acids research*  
Xia, L. C., Bell, J. M., Wood-Bouwens, C. n., Chen, J. J., Zhang, N. R., Ji, H. P.  
2018; 46 (4): e19
- **Single Color Multiplexed ddPCR Copy Number Measurements and Single Nucleotide Variant Genotyping** *DIGITAL PCR: METHODS AND PROTOCOLS*  
Wood-Bouwens, C. M., Ji, H. P., KarlinNeumann, G., Bizouarn, F.  
2018; 1768: 323–33
- **Robust Multiplexed Clustering and Denoising of Digital PCR Assays by Data Gridding** *ANALYTICAL CHEMISTRY*  
Lau, B. T., Wood-Bouwens, C., Ji, H. P.  
2017; 89 (22): 11913–17
- **Chromosome-scale mega-haplotypes enable digital karyotyping of cancer aneuploidy** *NUCLEIC ACIDS RESEARCH*  
Bell, J. M., Lau, B. T., Greer, S. U., Wood-Bouwens, C., Xia, L. C., Connolly, I. D., Gephart, M. H., Ji, H. P.  
2017; 45 (19): e162
- **High Performance Detection of Cancer Mutations from Circulating DNA Using Single Color Digital PCR**  
Lau, B. T., Handy, C. M., Lee, H., Wood-Bouwens, C. M., Ji, H. P.  
ELSEVIER SCIENCE INC.2017: 1064
- **Synthetic lethality screen identifies novel druggable targets in the MYC pathway**  
Li, Y., Deutzmann, A., Bell, J., Ji, H., Felsher, D.  
AMER ASSOC CANCER RESEARCH.2017
- **Single molecule counting and assessment of random molecular tagging errors with transposable giga-scale error-correcting barcodes** *BMC GENOMICS*  
Lau, B. T., Ji, H. P.  
2017; 18: 745
- **Single-Color Digital PCR Provides High-Performance Detection of Cancer Mutations from Circulating DNA.** *The Journal of molecular diagnostics : JMD*  
Wood-Bouwens, C., Lau, B. T., Handy, C. M., Lee, H., Ji, H. P.  
2017; 19 (5): 697-710
- **Intestinal Enteroendocrine Lineage Cells Possess Homeostatic and Injury-Inducible Stem Cell Activity.** *Cell stem cell*  
Yan, K. S., Gevaert, O., Zheng, G. X., Anchang, B., Probert, C. S., Larkin, K. A., Davies, P. S., Cheng, Z. F., Kaddis, J. S., Han, A., Roelf, K., Calderon, R. I., Cynn, et al

2017; 21 (1): 78-90.e6

- **Precision Oncology Strategy in Trastuzumab-Resistant Human Epidermal Growth Factor Receptor 2-Positive Colon Cancer: Case Report of Durable Response to Ado-Trastuzumab Emtansine.** *JCO precision oncology*  
Haslem, D. S., Ji, H. P., Ford, J. M., Nadauld, L. D.  
2017; 1
- **Genomic Instability in Cancer: Teetering on the Limit of Tolerance** *CANCER RESEARCH*  
Andor, N., Maley, C. C., Ji, H. P.  
2017; 77 (9): 2179-2185
- **Tandem Oligonucleotide Probe Annealing and Elongation To Discriminate Viral Sequence** *ANALYTICAL CHEMISTRY*  
Taskova, M., Uhd, J., Miotke, L., Kubit, M., Bell, J., Ji, H. P., Astakhova, K.  
2017; 89 (8): 4363-4366
- **A Targeted Resequencing Approach to Identify Actionable Somatic Copy Number Alterations with High Sensitivity Alongside SNVs and Indels from Clinical Tumor Specimens**  
De La Vega, F. M., Mendoza, D., Bouhlai, Y., Vilborg, A., Koehler, R., Pouliot, Y., Irvine, S., Trig, L., Goodsaid, F., Ji, H. P.  
ELSEVIER SCIENCE INC.2017: S48
- **CRISPR-Cas9-targeted fragmentation and selective sequencing enable massively parallel microsatellite analysis** *NATURE COMMUNICATIONS*  
Shin, G., Grimes, S. M., Lee, H., Lau, B. T., Xia, L. C., Ji, H. P.  
2017; 8
- **Linked read sequencing resolves complex genomic rearrangements in gastric cancer metastases.** *Genome medicine*  
Greer, S. U., Nadauld, L. D., Lau, B. T., Chen, J. n., Wood-Bouwens, C. n., Ford, J. M., Kuo, C. J., Ji, H. P.  
2017; 9 (1): 57
- **Precision Oncology Strategy in Trastuzumab-Resistant Human Epidermal Growth Factor Receptor 2-Positive Colon Cancer: Case Report of Durable Response to Ado-Trastuzumab Emtansine** *JCO PRECISION ONCOLOGY*  
Haslem, D. S., Ji, H. P., Ford, J. M., Nadauld, L. D.  
2017; 1
- **Intestinal Enteroendocrine Lineage Cells Possess Homeostatic and Injury-Inducible Stem Cell Activity** *Cell Stem Cell*  
Yan, K., Gevaert, O., Zheng, G., Anchang, B., Probert, C., et al  
2017; 21 (1): 78 - 90.e6
- **Massively Parallel Single Cell RNA-Seq of Primary Lymphomas Reveals Distinct Cellular Lineages and Diverse, Intratumoral Transcriptional States**  
Andor, N., Simonds, E., Chen, J., Grimes, S., Wood, C., Czerwinski, D. K., Handy, C., Levy, R., Ji, H. P.  
AMER SOC HEMATOLOGY.2016
- **A genome-wide approach for detecting novel insertion-deletion variants of mid-range size.** *Nucleic acids research*  
Xia, L. C., Sakshuwong, S., Hopmans, E. S., Bell, J. M., Grimes, S. M., Siegmund, D. O., Ji, H. P., Zhang, N. R.  
2016; 44 (15)
- **Haplotyping germline and cancer genomes with high-throughput linked-read sequencing.** *Nature biotechnology*  
Zheng, G. X., Lau, B. T., Schnall-Levin, M., Jarosz, M., Bell, J. M., Hindson, C. M., Kyriazopoulou-Panagiotopoulou, S., Masquelier, D. A., Merrill, L., Terry, J. M., Mudivarti, P. A., Wyatt, P. W., Bharadwaj, et al  
2016; 34 (3): 303-311
- **Pan-cancer analysis of the extent and consequences of intratumor heterogeneity.** *Nature medicine*  
Andor, N., Graham, T. A., Jansen, M., Xia, L. C., Aktipis, C. A., Petritsch, C., Ji, H. P., Maley, C. C.  
2016; 22 (1): 105-113
- **Pan-cancer analysis of the etiology and consequences of intra-tumor heterogeneity**  
Andor, N., Graham, T. A., Petritsch, C., Ji, H. P., Maley, C. C.  
AMER ASSOC CANCER RESEARCH.2015
- **Pan-cancer analysis of the etiology and consequences of intratumor heterogeneity**

- Andor, N., Graham, T. A., Petritsch, C., Ji, H. P., Maley, C. C.  
AMER ASSOC CANCER RESEARCH.2015
- **The Cancer Genome Atlas Clinical Explorer: a web and mobile interface for identifying clinical-genomic driver associations** *GENOME MEDICINE*  
Lee, H., Palm, J., Grimes, S. M., Ji, H. P.  
2015; 7
  - **Enzyme-Free Detection of Mutations in Cancer DNA Using Synthetic Oligonucleotide Probes and Fluorescence Microscopy** *PLOS ONE*  
Miotke, L., Maity, A., Ji, H., Brewer, J., Astakhova, K.  
2015; 10 (8)
  - **A new multiple feature approach for rapid and highly accurate somatic structural variation discovery from whole cancer genome sequencing**  
Xia, L. C., Bell, J., Chen, J., Zhang, N. R., Ji, H. P.  
AMER ASSOC CANCER RESEARCH.2015
  - **Identification of novel tumor suppressor candidates and characterizing their potential driver role in familial cholangiocarcinoma**  
Greer, S., Nadauld, L. D., Lau, B., Miotke, L., Hopmans, E., Wood, C. M., Bell, J. M., Ji, H. P.  
AMER ASSOC CANCER RESEARCH.2015
  - **Megabase-scale phased haplotypes of genetic aberrations from whole cancer genome sequencing of primary colorectal tumors**  
Lau, B., Bell, J. M., Schnall-Levin, M., Jarosz, M., Hopmans, E., Wood, C. M., Zheng, G. X., Giorda, K., Ji, H. P.  
AMER ASSOC CANCER RESEARCH.2015
  - **Clonal structure analysis of cancer genomes at single molecule resolution**  
Lau, B., Ji, H.  
AMER ASSOC CANCER RESEARCH.2015
  - **Pan-cancer analysis of the causes and consequences of Intra-tumor heterogeneity**  
Andor, N., Graham, T. A., Aktipis, A. C., Petritsch, C., Ji, H. P., Maley, C. C.  
AMER ASSOC CANCER RESEARCH.2015
  - **Allele-specific copy number profiling by next-generation DNA sequencing.** *Nucleic acids research*  
Chen, H., Bell, J. M., Zavala, N. A., Ji, H. P., Zhang, N. R.  
2015; 43 (4)
  - **Enzyme-Free Detection of Mutations in Cancer DNA Using Synthetic Oligonucleotide Probes and Fluorescence Microscopy.** *PloS one*  
Miotke, L., Maity, A., Ji, H., Brewer, J., Astakhova, K.  
2015; 10 (8)
  - **Emergence of Hemagglutinin Mutations During the Course of Influenza Infection.** *Scientific reports*  
Cushing, A., Kamali, A., Winters, M., Hopmans, E. S., Bell, J. M., Grimes, S. M., Xia, L. C., Zhang, N. R., Moss, R. B., Holodniy, M., Ji, H. P.  
2015; 5: 16178-?
  - **The Cancer Genome Atlas Clinical Explorer: a web and mobile interface for identifying clinical-genomic driver associations.** *Genome medicine*  
Lee, H., Palm, J., Grimes, S. M., Ji, H. P.  
2015; 7 (1): 112-?
  - **Single-Color, Multiplexed, Droplet Digital PCR Analysis of the Clinical Significance of Hemizygous Loss of WRN Gene in Colorectal Cancer**  
Lee, H., Lau, B., Zavala, N. A., Ji, H. P.  
ELSEVIER SCIENCE INC.2014: 768
  - **A robust and rapid targeted sequencing technology for iterative multiple genomic features in cancer**  
Lau, B., Cushing, A., Ji, H.  
AMER ASSOC CANCER RESEARCH.2014
  - **Highly sensitive and specific digital quantification of cancer genetic aberrations**  
Miotke, L. K., Lau, B., Rumma, R., Ji, H.  
AMER ASSOC CANCER RESEARCH.2014

- **Oncogenic transformation of diverse gastrointestinal tissues in primary organoid culture** *NATURE MEDICINE*  
Li, X., Nadauld, L., Ootani, A., Corney, D. C., Pai, R. K., Gevaert, O., Cantrell, M. A., Rack, P. G., Neal, J. T., Chan, C. W., Yeung, T., Gong, X., Yuan, et al  
2014; 20 (7): 769-777
- **A programmable method for massively parallel targeted sequencing.** *Nucleic acids research*  
Hopmans, E. S., Natsoulis, G., Bell, J. M., Grimes, S. M., Sieh, W., Ji, H. P.  
2014; 42 (10)
- **Oncogenic transformation of diverse gastrointestinal tissues in primary organoid culture.** *Nature medicine*  
Li, X., Nadauld, L., Ootani, A., Corney, D. C., Pai, R. K., Gevaert, O., Cantrell, M. A., Rack, P. G., Neal, J. T., Chan, C. W., Yeung, T., Gong, X., Yuan, et al  
2014
- **High sensitivity detection and quantitation of DNA copy number and single nucleotide variants with single color droplet digital PCR.** *Analytical chemistry*  
Miotke, L., Lau, B. T., Rumma, R. T., Ji, H. P.  
2014; 86 (5): 2618-2624
- **A phase II study of capecitabine, carboplatin, and bevacizumab for metastatic or unresectable gastroesophageal junction and gastric adenocarcinoma.**  
Kunz, P. L., Nandoskar, P., Koontz, M., Ji, H., Ford, J. M., Balise, R. R., Kamaya, A., Rubin, D., Fisher, G. A.  
AMER SOC CLINICAL ONCOLOGY.2014
- **Metastatic tumor evolution and organoid modeling implicate TGFBR2 as a cancer driver in diffuse gastric cancer** *GENOME BIOLOGY*  
Nadauld, L. D., Garcia, S., Natsoulis, G., Bell, J. M., Miotke, L., Hopmans, E. S., Xu, H., Pai, R. K., Palm, C., Regan, J. F., Chen, H., Flaherty, P., Ootani, et al  
2014; 15 (8)
- **MendeLIMS: a web-based laboratory information management system for clinical genome sequencing.** *BMC bioinformatics*  
Grimes, S. M., Ji, H. P.  
2014; 15 (1): 290-?
- **Identification of Insertion Deletion Mutations from Deep Targeted Resequencing.** *Journal of data mining in genomics & proteomics*  
Natsoulis, G., Zhang, N., Welch, K., Bell, J., Ji, H. P.  
2013; 4 (3)
- **RVD: a command-line program for ultrasensitive rare single nucleotide variant detection using targeted next-generation DNA resequencing.** *BMC research notes*  
Cushing, A., Flaherty, P., Hopmans, E., Bell, J. M., Ji, H. P.  
2013; 6: 206-?
- **Systematic genomic identification of colorectal cancer genes delineating advanced from early clinical stage and metastasis.** *BMC medical genomics*  
Lee, H., Flaherty, P., Ji, H. P.  
2013; 6: 54-?
- **DETECTING MUTATIONS IN MIXED SAMPLE SEQUENCING DATA USING EMPIRICAL BAYES** *ANNALS OF APPLIED STATISTICS*  
Muralidharan, O., Natsoulis, G., Bell, J., Ji, H., Zhang, N. R.  
2012; 6 (3): 1047-1067
- **Identification of a novel deletion mutant strain in *Saccharomyces cerevisiae* that results in a microsatellite instability phenotype.** *BioDiscovery*  
Ji, H. P., Morales, S., Welch, K., Yuen, C., Farnam, K., Ford, J. M.  
2012
- **Improving bioinformatic pipelines for exome variant calling** *GENOME MEDICINE*  
Ji, H. P.  
2012; 4

- **The Human OligoGenome Resource: a database of oligonucleotide capture probes for resequencing target regions across the human genome.** *Nucleic acids research*  
Newburger, D. E., Natsoulis, G., Grimes, S., Bell, J. M., Davis, R. W., Batzoglou, S., Ji, H. P.  
2012; 40 (Database issue): D1137-43
- **Performance comparison of whole-genome sequencing platforms** *NATURE BIOTECHNOLOGY*  
Lam, H. Y., Clark, M. J., Chen, R., Chen, R., Natsoulis, G., O'Huallachain, M., Dewey, F. E., Habegger, L., Ashley, E. A., Gerstein, M. B., Butte, A. J., Ji, H. P., Snyder, et al  
2012; 30 (1): 78-U118
- **The Human OligoGenome Resource: a database of oligonucleotide capture probes for resequencing target regions across the human genome** *NUCLEIC ACIDS RESEARCH*  
Newburger, D. E., Natsoulis, G., Grimes, S., Bell, J. M., Davis, R. W., Batzoglou, S., Ji, H. P.  
2012; 40 (D1): D1137-D1143
- **A cross-sample statistical model for SNP detection in short-read sequencing data** *NUCLEIC ACIDS RESEARCH*  
Muralidharan, O., Natsoulis, G., Bell, J., Newburger, D., Xu, H., Kela, I., Ji, H., Zhang, N.  
2012; 40 (1)
- **Quantitative and Sensitive Detection of Cancer Genome Amplifications from Formalin Fixed Paraffin Embedded Tumors with Droplet Digital PCR.** *Translational medicine (Sunnyvale, Calif.)*  
Nadauld, L., Regan, J. F., Miotke, L., Pai, R. K., Longacre, T. A., Kwok, S. S., Saxonov, S., Ford, J. M., Ji, H. P.  
2012; 2 (2)
- **Ultrasensitive detection of rare mutations using next-generation targeted resequencing** *NUCLEIC ACIDS RESEARCH*  
Flaherty, P., Natsoulis, G., Muralidharan, O., Winters, M., Buenrostro, J., Bell, J., Brown, S., Holodniy, M., Zhang, N., Ji, H. P.  
2012; 40 (1)
- **Targeted sequencing library preparation by genomic DNA circularization** *BMC BIOTECHNOLOGY*  
Myllykangas, S., Natsoulis, G., Bell, J. M., Ji, H. P.  
2011; 11
- **Efficient targeted resequencing of human germline and cancer genomes by oligonucleotide-selective sequencing** *NATURE BIOTECHNOLOGY*  
Myllykangas, S., Buenrostro, J. D., Natsoulis, G., Bell, J. M., Ji, H. P.  
2011; 29 (11): 1024-U95
- **A Flexible Approach for Highly Multiplexed Candidate Gene Targeted Resequencing** *PLOS ONE*  
Natsoulis, G., Bell, J. M., Xu, H., Buenrostro, J. D., Ordonez, H., Grimes, S., Newburger, D., Jensen, M., Zahn, J. M., Zhang, N., Ji, H. P.  
2011; 6 (6)
- **Genetic-based biomarkers and next-generation sequencing: the future of personalized care in colorectal cancer** *PERSONALIZED MEDICINE*  
Kim, R. Y., Xu, H., Myllykangas, S., Ji, H.  
2011; 8 (3): 331-345
- **Genetic-based biomarkers and next-generation sequencing: the future of personalized care in colorectal cancer.** *Personalized medicine*  
Kim, R. Y., Xu, H., Myllykangas, S., Ji, H.  
2011; 8 (3): 331-345
- **Identification of Novel LNK Mutations In Patients with Chronic Myeloproliferative Neoplasms and Related Disorders** *52nd Annual Meeting and Exposition of the American-Society-of-Hematology (ASH)*  
Oh, S. T., Zahn, J. M., Jones, C. D., Zhang, B., Loh, M. L., Kantarjian, H., Simonds, E. F., Bruggner, R. V., Abidi, P., Natsoulis, G., Bell, J., Buenrostro, J., Nolan, et al  
AMER SOC HEMATOLOGY.2010: 143-44
- **Detecting simultaneous change points in multiple sequences** *BIOMETRIKA*  
Zhang, N. R., Siegmund, D. O., Ji, H., Li, J. Z.  
2010; 97 (3): 631-645
- **Detecting simultaneous change points in multiple sequences.** *Biometrika*



- Zhang, N. R., Siegmund, D. O., Ji, H., Li, J. Z.  
2010; 97 (3): 631-645
- **Oncogenic BRAF Mutation with CDKN2A Inactivation Is Characteristic of a Subset of Pediatric Malignant Astrocytomas** *CANCER RESEARCH*  
Schiffman, J. D., Hodgson, J. G., VandenBerg, S. R., Flaherty, P., Polley, M. C., Yu, M., Fisher, P. G., Rowitch, D. H., Ford, J. M., Berger, M. S., Ji, H., Gutmann, D. H., James, et al  
2010; 70 (2): 512-519
  - **Targeted deep resequencing of the human cancer genome using next-generation technologies** *BIOTECHNOLOGY AND GENETIC ENGINEERING REVIEWS, VOL 27*  
Myllykangas, S., Ji, H. P.  
2010; 27: 135-158
  - **Identification of a biomarker panel using a multiplex proximity ligation assay improves accuracy of pancreatic cancer diagnosis** *JOURNAL OF TRANSLATIONAL MEDICINE*  
Chang, S. T., Zahn, J. M., Horecka, J., Kunz, P. L., Ford, J. M., Fisher, G. A., Le, Q. T., Chang, D. T., Ji, H., Koong, A. C.  
2009; 7
  - **ASSOCIATION OF 7Q34 COPY NUMBER GAINS AND KIAA1549-BRAF GENE FUSIONS WITH JUVENILE PILOCYTIC ASTROCYTOMA**  
Hodgson, J., VandenBerg, S. R., James, C., Perry, A., Gutmann, D., Fisher, P., Ford, J., Ji, H., Schiffman, J.  
OXFORD UNIV PRESS INC.2009: 960
  - **Molecular inversion probes reveal patterns of 9p21 deletion and copy number aberrations in childhood leukemia** *CANCER GENETICS AND CYTOGENETICS*  
Schiffman, J. D., Wang, Y., McPherson, L. A., Welch, K., Zhang, N., Davis, R., Lacayo, N. J., Dahl, G. V., Faham, M., Ford, J. M., Ji, H. P.  
2009; 193 (1): 9-18
  - **Paired phospho-proteomic and genomic analyses reveal functionally distinct subclones in refractory pediatric acute myeloid leukemia**  
Simonds, E., Schiffman, J., Gramatges, M., Dahl, G., Ford, J., Lacayo, N., Ji, H., Nolan, G.  
AMER ASSOC CANCER RESEARCH.2009
  - **Disperse-a software system for design of selector probes for exon resequencing applications** *BIOINFORMATICS*  
Stenberg, J., Zhang, M., Ji, H.  
2009; 25 (5): 666-667
  - **Molecular inversion probe assay for allelic quantitation.** *Methods in molecular biology (Clifton, N.J.)*  
Ji, H., Welch, K.  
2009; 556: 67-87
  - **Next-generation DNA sequencing** *NATURE BIOTECHNOLOGY*  
Shendure, J., Ji, H.  
2008; 26 (10): 1135-1145
  - **FOXM1 OVEREXPRESSION AND DNA AMPLIFICATION IN PEDIATRIC ASTROCYTOMAS**  
Hodgson, G., VandenBerg, S., Fisher, P., Yu, M., James, C., Rowitch, D., Ford, J., Ji, H., Schiffman, J.  
OXFORD UNIV PRESS INC.2008: 805-6
  - **Analysis of Genomic Instability in Colorectal Carcinoma**  
Flaherty, P., Davis, R. W., Ji, H.  
FEDERATION AMER SOC EXP BIOL.2008
  - **Gene-specific delineation of copy number aberrations in follicular lymphoma with molecular inversion probes** *49th Annual Meeting of the American-Society-of-Hematology*  
Ji, H. P., Welch, K. M., Wang, Y., Faham, M., Akasaka, T., Czerwinski, D., Davis, R. W., Levy, R.  
AMER SOC HEMATOLOGY.2007: 766A-767A
  - **Molecular Inversion Probes (MIPs) identify novel areas of allelic imbalance in childhood leukemia**  
Schiffman, J. D., Welch, K., Davis, R., Lacayo, N. J., Dahl, G. V., Wang, Y., Faham, M., Ford, J. M., Ji, H. P.  
AMER SOC HEMATOLOGY.2007: 431A

- **Adapting molecular inversion probe (MIP) technology for allele quantification in childhood leukemia**  
Schiffman, J. D., Welch, K. M., Davis, R., Dahl, G. V., Lacayo, N. J., Faham, M., Ford, J. M., Ji, H.  
AMER SOC CLINICAL ONCOLOGY.2007
- **Multigene amplification and massively parallel sequencing for cancer mutation discovery** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Dahl, F., Stenberg, J., Fredriksson, S., Welch, K., Zhang, M., Nilsson, M., Bicknell, D., Bodmer, W. F., Davis, R. W., Ji, H.  
2007; 104 (22): 9387-9392
- **Multiplex amplification of all coding sequences within 10 cancer genes by Gene-Collector** *NUCLEIC ACIDS RESEARCH*  
Fredriksson, S., Baner, J., Dahl, F., Chu, A., Ji, H., Welch, K., Davis, R. W.  
2007; 35 (7)
- **Multiplexed protein detection by proximity ligation for cancer biomarker validation** *NATURE METHODS*  
Fredriksson, S., Dixon, W., Ji, H., Koong, A. C., Mindrinos, M., Davis, R. W.  
2007; 4 (4): 327-329
- **Under-expression of Kalirin-7 increases iNOS activity in cultured cells and correlates to elevated iNOS activity in Alzheimer's disease hippocampus** *JOURNAL OF ALZHEIMERS DISEASE*  
Youn, H., Ji, I., Ji, H. P., Markesbery, W. R., Ji, T. H.  
2007; 12 (3): 271-281
- **Reproducibility Probability Score - incorporating measurement variability across laboratories for gene selection** *NATURE BIOTECHNOLOGY*  
Lin, G., He, X., Ji, H., Shi, L., Davis, R. W., Zhong, S.  
2006; 24 (12): 1476-1477
- **Data quality in genomics and microarrays** *NATURE BIOTECHNOLOGY*  
Ji, H., Davis, R. W.  
2006; 24 (9): 1112-1113
- **The MicroArray Quality Control (MAQC) project shows inter- and intraplatform reproducibility of gene expression measurements** *NATURE BIOTECHNOLOGY*  
Shi, L., Reid, L. H., Jones, W. D., Shippy, R., Warrington, J. A., Baker, S. C., Collins, P. J., de Longueville, F., Kawasaki, E. S., Lee, K. Y., Luo, Y., Sun, Y. A., Willey, et al  
2006; 24 (9): 1151-1161
- **Molecular inversion probe analysis of gene copy alterations reveals distinct categories of colorectal carcinoma** *CANCER RESEARCH*  
Ji, H., Kumm, J., Zhang, M., Farnam, K., Salari, K., Faham, M., Ford, J. M., Davis, R. W.  
2006; 66 (16): 7910-7919
- **Analysis of genomic DNA copy number alterations in chromosome arm 18q demonstrates distinct molecular categories of colorectal carcinoma.**  
Ji, H., Zhang, M., Farnam, K., Salari, K., Davis, R., Ford, J. M.  
AMER SOC CLINICAL ONCOLOGY.2006: 542S
- **A functional assay for mutations in tumor suppressor genes caused by mismatch repair deficiency** *HUMAN MOLECULAR GENETICS*  
Ji, H. P., King, M. C.  
2001; 10 (24): 2737-2743
- **Spondyloepimetaphyseal dysplasia with joint laxity (SEMDJL): Presentation in two unrelated patients in the United States** *AMERICAN JOURNAL OF MEDICAL GENETICS*  
Smith, W., Ji, H. L., Mouradian, W., Pagon, R. A.  
1999; 86 (3): 245-252
- **Molecular classification of the inherited hamartoma polyposis syndromes: Clearing the muddied waters** *AMERICAN JOURNAL OF HUMAN GENETICS*  
Eng, C., Ji, H. L.  
1998; 62 (5): 1020-1022

- **Inherited mutations in PTEN that are associated with breast cancer, Cowden disease, and juvenile polyposis** *AMERICAN JOURNAL OF HUMAN GENETICS*

Lynch, E. D., OSTERMEYER, E. A., Lee, M. K., Arena, J. F., Ji, H. L., Dann, J., Swisshelm, K., Suchard, D., MACLEOD, P. M., KVINNSLAND, S., Gjertsen, B. T., Heimdal, K., Lubs, et al  
1997; 61 (6): 1254-1260

- **HOTSPOTS FOR UNSELECTED TY1 TRANSPOSITION EVENTS ON YEAST CHROMOSOME-III ARE NEAR TRANSFER-RNA GENES AND LTR SEQUENCES** *CELL*

Ji, H., Moore, D. P., BLOMBERG, M. A., Braiterman, L. T., Voytas, D. F., Natsoulis, G., Boeke, J. D.  
1993; 73 (5): 1007-1018