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CLINICAL OFFICE (PRIMARY)

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Bio

BIO

Richard Chen, M.D. M.S., is Clinical Assistant Professor of Dermatology at Stanford and Chief Scientific Officer at Personalis, Inc. He attended medical school and completed residency at Stanford University, serving as Chief Resident in his final year. His interests include general dermatology, cancer genomics, precision medicine, genetics, bioinformatics and technology innovation for improved health care delivery and therapy.

CLINICAL FOCUS

- Dermatology
- Skin Cancer

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Dermatology

PROFESSIONAL EDUCATION

- Medical Education: Stanford University School of Medicine (2007) CA
- Internship: Santa Clara Valley Medical Center (2008) CA
- Residency: Stanford University Dept of Dermatology (2011) CA
- Board Certification: Dermatology, American Board of Dermatology (2011)

Publications

PUBLICATIONS

- **Sotigalimab and/or nivolumab with chemotherapy in first-line metastatic pancreatic cancer: clinical and immunologic analyses from the randomized phase 2 PRINCE trial.** *Nature medicine*

  Padron, L. J., Maurer, D. M., O'Hara, M. H., O'Reilly, E. M., Wolff, R. A., Wainberg, Z. A., Ko, A. H., Fisher, G., Rahma, O., Lyman, J. P., Cabanski, C. R., Yu, J. X., Pfeiffer, et al

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- **Distinct biosignatures associate with survival after chemoimmunotherapy in a randomized, three-arm phase II study in patients with metastatic pancreatic cancer.**
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- **A machine learning algorithm with subclonal sensitivity reveals widespread pan-cancer human leukocyte antigen loss of heterozygosity.** *Nature communications*
  Pyke, R. M., Mellacheruvu, D., Dea, S., Abbott, C. W., McDaniel, L., Bhave, D. P., Zhang, S. V., Levy, E., Bartha, G., West, J., Snyder, M. P., Chen, R. O., Boyle, et al
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- **TUMOR-INFORMED LIQUID BIOPSY MONITORING OF EVOLVING THERAPEUTIC RESISTANCE MECHANISMS IN HEAD AND NECK SQUAMOUS CELL CARCINOMA PATIENTS RECEIVING ANTI-PD-1 THERAPY**
  Abbott, C., Bedi, N., Wang, J., Northcott, J., Pyke, R., Li, R., McDaniel, L., Levy, E., Mansour, M., Colevas, D., Lyle, J., Sunwoo, J., Boyle, et al
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- **EXTENSIVELY VALIDATED HLA LOH ALGORITHM DEMONSTRATES AN ASSOCIATION BETWEEN HLA LOH AND GENOMIC INSTABILITY**
  Pyke, R., Dea, S., Mellacheruvu, D., Abbott, C., Zhang, S., McDaniel, L., Levy, E., Bartha, G., West, J., Snyder, M., Chen, R., Boyle, S.
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- **Prediction of Immunotherapy Response in Melanoma through Combined Modeling of Neoantigen Burden and Immune-Related Resistance Mechanisms.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
  Abbott, C. W., Boyle, S. M., Pyke, R. M., McDaniel, L. D., Levy, E., Navarro, F. C., Mellacheruvu, D., Zhang, S. V., Tan, M., Santiago, R., Rusan, Z. M., Milani, P., Bartha, et al
  2021; 27 (15): 4265-4276

- **Pan-cancer survey of HLA loss of heterozygosity using a robustly validated NGS-based machine learning algorithm.**
  Pyke, R., Mellacheruvu, D., Abbott, C., Dea, S., Levy, E., Zhang, S. V., Bedi, N., Colevas, A., Bhave, D., Chinnappa, M., Bartha, G., Lyle, J., West, et al
  AMER ASSOC CANCER RESEARCH.2021

- **Longitudinal exome-scale liquid biopsy monitoring of evolving therapeutic resistance mechanisms in head and neck squamous cell carcinoma patients receiving anti-PD-1 therapy.**
  Abbott, C. W., Bedi, N., Zhang, S. V., Northcott, J., Li, R., Pyke, R., Levy, E., Chernock, R., Mansour, M., Colevas, A., Lyle, J., Sunwoo, J. B., Boyle, et al
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- **Precision neoantigen discovery using large-scale immunopeptidomes and composite modeling of MHC peptide presentation.** *Molecular & cellular proteomics : MCP*
  Pyke, R. M., Mellacheruvu, D., Dea, S., Abbott, C., Zhang, S. V., Phillips, N. A., Harris, J., Bartha, G., Desai, S., McClory, R., West, J., Snyder, M. P., Chen, et al
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- **Association of HLA loss of heterozygosity with allele-specific neoantigen expansion in response to immunotherapy.**
  Pyke, R., Abbott, C., Dea, S., Bedi, N., Colevas, A., Levy, E., Zhang, S. V., Snyder, M., Mellacheruvu, D., Sunwoo, J. B., Chen, R., Boyle, S.
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- **Robust prediction of response to immunotherapy in a mixed cohort of previously treated and immunotherapy-naive melanoma patients.**
  Abbott, C., McDaniel, L., Pyke, R., Levy, E., Navarro, F., Wang, S., McClory, R., Snyder, M., Jang, S., Boyle, S., Chen, R.
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- **Sensitive HLA loss of heterozygosity detection reveals allele-specific neoantigen expansion as resistance mechanism to anti-PD-1 therapy**
  Pyke, R., Abbott, C., Mellacheruvu, D., Zhang, S., Bedi, N., Colevas, A., Sunwoo, J., West, J., Chen, R., Boyle, S.
  AMER ASSOC CANCER RESEARCH.2020

- **Exome scale liquid biopsy characterization of putative neoantigens and genomic biomarkers pre- and post anti-PD-1 therapy in squamous cell carcinoma of the head and neck.**
  Abbott, C., Bedi, N., Zhang, S., Li, R., Pyke, R., Levy, E., Chernock, R., Mansour, M., Sunwoo, J. B., Colevas, A., Chen, R., Boyle, S.
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- **Exome scale liquid biopsy monitoring of putative neoantigens and genomic biomarkers in patients on anti-PD-1 therapy in squamous cell carcinoma of the head and neck.**

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- **Early somatic mosaicism is a rare cause of long-QT syndrome** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Priest, J. R., Gawad, C., Kahlig, K. M., Yu, J. K., O'Hara, T., Boyle, P. M., Rajamani, S., Clark, M. J., Garcia, S. T., Ceresnak, S., Harris, J., Boyle, S., Dewey, et al
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- **Constraints on Biological Mechanism from Disease Comorbidity Using Electronic Medical Records and Database of Genetic Variants** *PLOS COMPUTATIONAL BIOLOGY*
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- **Genetic analysis in a patient with nine primary malignant neoplasms: A rare case of Li-Fraumeni syndrome** *ONCOLOGY REPORTS*
  Li, X., Kang, J., Pan, Q., Sikora-Wohlfeld, W., Zhao, D., Meng, C., Bai, C., Patwardhan, A., Chen, R., Ren, H., Butte, A. J., Ding, K.
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- **Disease Variant Landscape of a Large Multiethnic Population of Moyamoya Patients by Exome Sequencing** *G3-GENES GENOMES GENETICS*
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- **Automated diagnosis of data-model conflicts using metadata** *JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION*
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- **RIBOWEB: Linking structural computations to a knowledge base of published experimental data** *5th International Conference on Intelligent Systems for Molecular Biology (ISMB-97)*
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- **RNA secondary structure as a reusable interface to biological information resources** *GENE-COMBIS*

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- **Standardized representations of the literature: Combining diverse sources of ribosomal data** *5th International Conference on Intelligent Systems for Molecular Biology (ISMB-97)*
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- **Computational methods for defining the allowed conformational space of 16S rRNA based on chemical footprinting data** *RNA-A PUBLICATION OF THE RNA SOCIETY*
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- **Constraining volume by matching the moments of a distance distribution** *COMPUTER APPLICATIONS IN THE BIOSCIENCES*
  Chen, C. C., Chen, R. O., Altman, R. B.
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