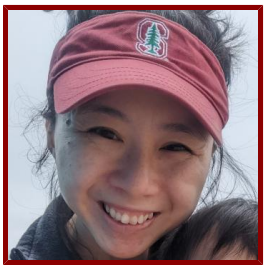
Stanford



Stephanie Tzu-Ying Chang

Assistant Professor of Radiology

CLINICAL OFFICE (PRIMARY)

- **VA Palo Alto Health Care System Dept of Radiology**

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  Palo Alto, CA 94304

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Bio

BIO

Dr. Stephanie Chang is an Assistant Professor in Radiology at Stanford University School of Medicine, Section Chief in Abdominal Imaging, and Interim Director of Diagnostic Radiology in the Department of Radiology at VA Palo Alto.

Dr. Chang's research program aims to utilize state-of-the-art diagnostic technology to non-invasively detect abdominal diseases that predispose or lead to cancer since the most beneficial and cost-effective cancer imaging occurs in the screening/early detection phase.

Currently, metabolic dysfunction-associated steatotic liver disease (MASLD) and metabolic dysfunction-associated steatohepatitis (MASH) are leading worldwide causes of end-stage liver disease and liver cancer (hepatocellular carcinoma, HCC). To determine the optimal multimodality screening and diagnostic pathway, Dr. Chang leads prospective research studies at VA Palo Alto comparing blood-based and imaging-based diagnostic tests – the Fibrosis-4 (FIB-4) Index, the Enhanced Liver Fibrosis (ELF) test, vibration controlled transient elastography (VCTE), ultrasound point shear wave elastography (US pSWE), and magnetic resonance imaging (MRI) elastography – among high-risk veterans with obesity and/or type 2 diabetes to compare relative performance and costs/benefits.

To improve detection of hepatocellular carcinoma (HCC) among patients with end-stage liver disease (cirrhosis), Dr. Chang also serves as a member of the VA National Radiology Working Group and radiology local site investigator at VA Palo Alto for a multicenter VA research study CSP #2023 PREventing liver cancer Mortality through Imaging with Ultrasound vs. MRI (PREMIUM STUDY) comparing US and MRI to determine optimal screening strategies for hepatocellular carcinoma.

While MRI has the overall highest sensitivity and specificity for many diseases and contains additional biological/prognostic information not obtainable via other imaging methods, the utility of MRI as a powerful non-invasive screening tool has been hampered by its limitations in access, time, and cost. Dr. Chang is interested in significantly shortening MRI exam times to accelerate MRI throughput, decrease patient discomfort, and reduce costs. To accomplish this goal, Dr. Chang is interested in improving pulse sequences to shorten MRI acquisition times while maintaining or increasing diagnostic quality. In addition, Dr. Chang is interested in novel MRI techniques to improve disease detection and staging.

CLINICAL FOCUS

- Diagnostic Radiology

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Radiology

ADMINISTRATIVE APPOINTMENTS

- Section Chief, Abdominal Imaging, VAPAHCS, (2026- present)
- Interim Section Chief, Abdominal Imaging, VAPAHCS, (2025-2026)
- Interim Director, Diagnostic Radiology, VAPAHCS, (2024- present)
- Lead Interpreting Physician (LIP), Mammography, VAPAHCS, (2018- present)

HONORS AND AWARDS

- RSNA Roentgen Resident/Fellow Research Award, Radiological Society of North America (RSNA) (2015)
- RSNA Magna Cum Laude Award, Radiological Society of North America (RSNA) (2015)
- RSNA Cum Laude Award, Radiological Society of North America (RSNA) (2014)
- Dean’s Prize for Research, University of California, San Francisco (UCSF) (2008)
- Phi Beta Kappa, Harvard Chapter (Alpha Iota of Massachusetts) (2004)
- Harvard Detur Book Prize, Harvard University (2003)

PROFESSIONAL EDUCATION

- Board Certification: Diagnostic Radiology, American Board of Radiology (2016)
- Fellowship, Stanford University Hospital , Body MRI (2016)
- Residency: Stanford University Hospital (2015) CA
- Residency: Mallinckrodt Institute of Radiology Washington University (2012) MO
- Internship: Kaiser Permanente Oakland Internal Medicine Residency (2011) CA
- Medical Education: University of California at San Francisco School of Medicine (2010) CA
- Undergraduate, Harvard University (2005)

Publications

PUBLICATIONS

- **Cost-Effectiveness of Blood-Based Fibrosis Screening in High-Risk Metabolic Liver Diseases With Emerging Therapies** *GASTRO HEP ADVANCES*
  Chen, W., Chang, S. T., Cheung, R. C., Chalfin, D. B., Sangha, K., Kao, S., Boltyenkov, A. T.
  2026; 5 (5)
- **Cost-Effectiveness of Blood-Based Fibrosis Screening in High-Risk Metabolic Liver Diseases With Emerging Therapies.** *Gastro hep advances*
  Chen, W., Chang, S. T., Cheung, R. C., Chalfin, D. B., Sangha, K., Zoe Kao, S. Y., Boltyenkov, A. T.
  2026; 5 (5): 100923
- **Deep Learning-Enabled Screening of Chronic Kidney Disease from Echocardiography.** *medRxiv : the preprint server for health sciences*
  Yuan, V., Ieki, H., Sandhu, A., Nguyen, L. H., Cheng, P. P., Chang, S. T., Ambrosy, A. P., Kwan, A. C., Go, A. S., Cheng, S., Ouyang, D.
  2026
- **Practice changing RCT design and rationale: Abbreviated MRI plus AFP vs. ultrasound plus AFP for HCC surveillance in cirrhosis (PREMIUM study).** *JHEP reports : innovation in hepatology*

Ioannou, G. N., Taddei, T. H., Planeta, B. M., Huang, G. D., Weiss, N. S., Morgan, T. R., Dominitz, J. A., Abou-Alfa, G. K., Bashir, M. R., Beheshti, M. V., Singal, A. G., Moylan, C. A., Boland, et al

2026; 8 (2): 101666

- **Comparison of Referral Rates and Costs Using Fibrosis-4 and Enhanced Liver Fibrosis (ELF) Testing Strategies for Initial Evaluation of Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) in a Veteran Population.** *The journal of applied laboratory medicine*

  Yeramaneni, S., Chang, S. T., Cheung, R. C., Chalfin, D. B., Sangha, K., Levy, H. R., Boltyenkov, A. T.

  2025

- **Reply: Is lifestyle modification effective for individuals with high fibrosis-4 index without an additional 2nd tier test?** *Hepatology (Baltimore, Md.)*

  Sangha, K., Chang, S. T., Cheung, R., Deshpande, V. S.

  2023

- **Reply: modeling concerns.** *Hepatology (Baltimore, Md.)*

  Sangha, K., Chang, S. T., Cheung, R., Deshpande, V. S.

  2023

- **Assessment of T2-weighted Image Quality at Prostate MRI in Patients with and Those without Intramuscular Injection of Glucagon.** *Radiology. Imaging cancer*

  Sundaram, K. M., Rosenberg, J., Syed, A. B., Chang, S. T., Loening, A. M.

  2023; 5 (3): e220070

- **Cost effectiveness of MRE vs VCTE in staging fibrosis for non-alcoholic fatty liver disease (NAFLD) patients with advanced fibrosis.** *Hepatology (Baltimore, Md.)*

  Sangha, K., Chang, S., Cheung, R., Deshpande, V.

  2023

- **T1 signal intensity ratio of the pancreas as an imaging biomarker for the staging of chronic pancreatitis.** *Abdominal radiology (New York)*

  Tirkes, T., Dasyam, A. K., Shah, Z. K., Fogel, E. L., Vege, S. S., Li, L., Li, S., Chang, S. T., Farinas, C. A., Grajo, J. R., Mawad, K., Takahashi, N., Venkatesh, et al

  2022

- **Inter-observer variability of radiologists for Cambridge classification of chronic pancreatitis using CT and MRCP: results from a large multi-center study.** *Abdominal radiology (New York)*

  Tirkes, T., Shah, Z. K., Takahashi, N., Grajo, J. R., Chang, S. T., Wachsman, A. M., Mawad, K., Farinas, C. A., Li, L., Appana, S. N., Conwell, D. L., Yadav, D., Dasyam, et al

  2020

- **View-Sharing Artifact Reduction With Retrospective Compressed Sensing Reconstruction in the Context of Contrast-Enhanced Liver MRI for Hepatocellular Carcinoma (HCC) Screening** *JOURNAL OF MAGNETIC RESONANCE IMAGING*

  Shaikh, J., Stoddard, P. B., Levine, E. G., Roh, A. T., Saranathan, M., Chang, S. T., Muelly, M. C., Hargreaves, B. A., Vasanawala, S. S., Loening, A. M.

  2019; 49 (4): 984–93

- **View-Sharing Artifact Reduction With Retrospective Compressed Sensing Reconstruction in the Context of Contrast-Enhanced Liver MRI for Hepatocellular Carcinoma (HCC) Screening.** *Journal of magnetic resonance imaging : JMRI*

  Shaikh, J., Stoddard, P. B., Levine, E. G., Roh, A. T., Saranathan, M., Chang, S. T., Muelly, M. C., Hargreaves, B. A., Vasanawala, S. S., Loening, A. M.

  2018

- **Variable-Density Single-Shot Fast Spin-Echo MRI with Deep Learning Reconstruction by Using Variational Networks** *RADIOLOGY*

  Chen, F., Taviani, V., Malkiel, I., Cheng, J. Y., Tamir, J. I., Shaikh, J., Chang, S. T., Hardy, C. J., Pauly, J. M., Vasanawala, S. S.

  2018; 289 (2): 366–73

- **Reporting Standards for Chronic Pancreatitis by Using CT, MRI, and MR Cholangiopancreatography: The Consortium for the Study of Chronic Pancreatitis, Diabetes, and Pancreatic Cancer.** *Radiology*

  Tirkes, T., Shah, Z. K., Takahashi, N., Grajo, J. R., Chang, S. T., Venkatesh, S. K., Conwell, D. L., Fogel, E. L., Park, W., Topazian, M., Yadav, D., Dasyam, A. K., Consortium for the Study of Chronic Pancreatitis, et al

  2018: 181353

- **Variable-Density Single-Shot Fast Spin-Echo MRI with Deep Learning Reconstruction by Using Variational Networks.** *Radiology*

Chen, F., Taviani, V., Malkiel, I., Cheng, J. Y., Tamir, J. I., Shaikh, J., Chang, S. T., Hardy, C. J., Pauly, J. M., Vasanawala, S. S.
2018: 180445

- **Molecular and Clinical Approach to Intra-abdominal Adverse Effects of Targeted Cancer Therapies** *RADIOGRAPHICS*
  Chang, S. T., Menias, C. O., Lubner, M. G., Mellnick, V. M., Hara, A. K., Desser, T. S.
  2017; 37 (5): 1461–82

- **Sonographic Differentiation of Complicated From Uncomplicated Appendicitis Implications for Antibiotics-First Therapy** *JOURNAL OF ULTRASOUND IN MEDICINE*
  Xu, Y., Jeffrey, R. B., Chang, S. T., DiMaio, M. A., Olcott, E. W.
  2017; 36 (2): 269-277

- **Preoperative Multidetector CT Diagnosis of Extrapancreatic Perineural or Duodenal Invasion Is Associated with Reduced Postoperative Survival after Pancreaticoduodenectomy for Pancreatic Adenocarcinoma: Preliminary Experience and Implications for Patient Care** *RADIOLOGY*
  Chang, S. T., Jeffrey, R. B., Patel, B. N., DiMaio, M. A., Rosenberg, J., Willmann, J. K., Olcott, E. W.
  2016; 281 (3): 816-825

- **The imaging findings of typical and atypical genital and gynecologic infections** *ABDOMINAL RADIOLOGY*
  Orlowski, H. L., Mellnick, V. M., Dahiya, N., Katz, D. S., Chang, S. T., Siegel, C., Menias, C. O.
  2016; 41 (12): 2294-2309

- **Three-step sequential positioning algorithm during sonographic evaluation for appendicitis increases appendiceal visualization rate and reduces CT use.** *AJR. American journal of roentgenology*
  Chang, S. T., Jeffrey, R. B., Olcott, E. W.
  2014; 203 (5): 1006-1012

- **Metastatic Melanoma in the Chest and Abdomen: The Great Radiologic Imitator** *SEMINARS IN ULTRASOUND CT AND MRI*
  Chang, S. T., Desser, T. S., Gayer, G., Menias, C. O.
  2014; 35 (3): 272-289

- **Imaging of Primary Gastrointestinal Lymphoma** *SEMINARS IN ULTRASOUND CT AND MRI*
  Chang, S. T., Menias, C. O.
  2013; 34 (6): 558-565

- **Sonography of the normal appendix: its varied appearance and techniques to improve its visualization.** *Ultrasound quarterly*
  Ung, C., Chang, S. T., Jeffrey, R. B., Patel, B. N., Olcott, E. W.
  2013; 29 (4): 333-341

- **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

- **Gemcitabine chemotherapy and single-fraction stereotactic body radiotherapy for locally advanced pancreatic cancer** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
  Schellenberg, D., Goodman, K. A., Lee, F., Chang, S., Kuo, T., Ford, J. M., Fisher, G. A., Quon, A., Desser, T. S., Norton, J., Greco, R., Yang, G. P., Koong, et al
  2008; 72 (3): 678-686

- **Impact of integrated PET/CT on variability of target volume delineation in rectal cancer** *TECHNOLOGY IN CANCER RESEARCH & TREATMENT*
  Patel, D. A., Chang, S. T., Goodman, K. A., Quon, A., Thorndyke, B., Gambhir, S. S., McMillan, A., Loo, B. W., Koong, A. C.
  2007; 6 (1): 31-36

- **Stereotactic body radiotherapy for unresectable pancreatic cancer** *38th San Francisco Radiation Oncology Conference*
  Chang, S. T., Goodman, K. A., Yang, G. R., Koong, A. C.
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