

# Stanford

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## Emily B. Tsai

Clinical Assistant Professor, Radiology

### CLINICAL OFFICES

- **Stanford Radiology**

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### Bio

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#### BIO

Dr. Emily Tsai is a board certified radiologist with subspecialty training in thoracic imaging and image-guided procedures. Her clinical focus is on diseases affecting the lungs and airways, including cancer, interstitial lung disease, COPD, and infection. Her research focuses on quality improvement and patient outcomes. Recent projects include assessment of incidental findings and cost-effectiveness of CT screening for lung cancer, as well as application of clinical tools and machine learning to improve workflow and triage of emergent studies.

#### CLINICAL FOCUS

- Radiology
- Thoracic Imaging
- Image-Guided Biopsy

#### ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Radiology

#### HONORS AND AWARDS

- Comparative Effectiveness Research Program, Radiological Society of North America (2019-2020)
- Clinical Faculty Development Program, Association of University Radiologists (2019)
- Clinician Educator Development Program, American Roentgen Ray Society (2019)
- Annual Meeting Educational Exhibit Section Chair's Pick – Subspecialty Award, American Roentgen Ray Society (2018)
- Outstanding Nighthawk Resident Award, UCLA (2016)
- Health Policy Research Scholar Program – Outstanding Presentation Award, American College of Radiology (ACR) – Association of University Radiologists (2015)
- Annual Meeting and Leadership Summit Poster Winner, California Radiological Society (2014)
- Annual Meeting and Chapter Leadership Conference – Poster Winner (Quality and Safety), American College of Radiology, Resident and Fellow Section (2013)
- Annual Meeting and Leadership Summit Poster Winner, California Radiological Society (2013)

- Enabling Grant, Susan G. Komen for the Cure (Breast Cancer Foundation) (2008)
- Fellowship Award, Chinese American Physicians Society (2008)
- Spotlight on Leadership and Community, Stanford University, Center of Excellence in Diversity in Medical Education (2008)
- Medical Scholars Research Program Fellowship, Stanford University School of Medicine (2007-2010)
- Grant, California HealthCare Foundation (2007)

## **BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS**

- Affiliate Faculty, Stanford Center for Artificial Intelligence in Medicine and Imaging (AIMI) (2019 - present)
- Member, Society of Thoracic Radiology (2016 - present)
- Member, American College of Radiology (2012 - present)
- Member, American Roentgen Ray Society (2012 - present)
- Member, Radiological Society of North America (2008 - present)

## **PROFESSIONAL EDUCATION**

- Board Certification: Radiology, American Board of Radiology (2017)
- Fellowship: UCLA Radiology Fellowships (2017) CA
- Residency: UCLA Radiology Residency (2016) CA
- Internship: New York University Internal Medicine Residency (2012) NY
- Medical Education: Stanford University School of Medicine (2011) CA
- MD, Stanford University , Scholarly Concentration: Bioinformatics (2011)
- BS, Columbia University , Biomedical Engineering (major), Computer Science (minor) (2005)

## **LINKS**

- LinkedIn: <https://www.linkedin.com/in/emilytsai>
- Doximity: <https://www.doximity.com/cv/emily-tsai>

## **Research & Scholarship**

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### **CURRENT RESEARCH AND SCHOLARLY INTERESTS**

Lung cancer screening

Clinical applications of machine learning

Comparative effectiveness research

Image-guided biopsy and intervention

## **Publications**

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### **PUBLICATIONS**

- **The RSNA International COVID-19 Open Annotated Radiology Database (RICORD).** *Radiology*  
Tsai, E. B., Simpson, S., Lungren, M., Hershman, M., Roshkovan, L., Colak, E., Erickson, B. J., Shih, G., Stein, A., Kalpathy-Cramer, J., Shen, J., Hafez, M., John, et al  
2021: 203957
- **Cost-Effectiveness Analysis of Lung Cancer Screening Accounting for the Effect of Indeterminate Findings.** *JNCI cancer spectrum*  
Toumazis, I. n., Tsai, E. B., Erdogan, S. A., Han, S. S., Wan, W. n., Leung, A. n., Plevritis, S. K.  
2019; 3 (3): pkz035

- **Incidental Findings on Lung Cancer Screening: Significance and Management** *SEMINARS IN ULTRASOUND CT AND MRI*  
Tsai, E. B., Chiles, C., Carter, B. W., Godoy, M. B., Shroff, G. S., Munden, R. F., Truong, M. T., Wu, C. C.  
2018; 39 (3): 273–81
- **Feasibility and Safety of Intrathoracic Biopsy and Repeat Biopsy for Evaluation of Programmed Cell Death Ligand-1 Expression for Immunotherapy in Non-Small Cell Lung Cancer** *RADIOLOGY*  
Tsai, E. B., Pomykala, K., Ruchalski, K., Genshaft, S., Abtin, F., Gutierrez, A., Kim, H. J., Li, A., Adame, C., Jalalian, A., Wolf, B., Garon, E. B., Goldman, et al  
2018; 287 (1): 326–32
- **Bronchopulmonary Dysplasia: From Neonate to Adult** *Contemporary Diagnostic Radiology*  
Tsai, E. B., Stenback, M., Newman, B.  
2020; 43 (17)
- **Treatment of a benign esophagopericardial fistula with an esophageal stent—a case report** *Annals of Esophagus*  
Wang, Y., Liou, D. Z., Tsai, E. B., Liu, N. S.  
2020; 3
- **Cost-Effectiveness Analysis of Lung Cancer Screening Accounting for the Effect of Indeterminate Findings** *JNCI CANCER SPECTRUM*  
Toumazis, I., Tsai, E. B., Erdogan, S., Han, S. S., Wan, W., Leung, A., Plevritis, S. K.  
2019; 3 (3)
- **Optimizing the Factual Correctness of a Summary: A Study of Summarizing Radiology Reports** *arXiv*  
Zhang, Y., Merck, D., Tsai, E. B., Manning, C. D., Langlotz, C. P.  
2019; 11
- **Approach to Pulmonary Vasculature** *CT & MR in Cardiology*  
Tsai, E. B., Wu, C. C.  
Elsevier.2019; 1
- **Unusual Tumors of the Lung** *Contemporary Diagnostic Radiology*  
Tsai, E. B., Jude, C. M., Mohammad, S. F., Deshmukh, M., Patel, M. K., Leung, A. N.  
2019; 42 (3)
- **Long-Term Experience With a Mandatory Clinical Decision Rule and Mandatory d-Dimer in the Evaluation of Suspected Pulmonary Embolism.** *Journal of the American College of Radiology : JACR*  
Soo Hoo, G. W., Tsai, E. n., Vazirani, S. n., Li, Z. n., Barack, B. M., Wu, C. C.  
2018
- **Hodgkin Disease** *Müller's Imaging of the Chest*  
Tsai, E. B., Wu, C. C., Lee, K. S.  
Elsevier.2018; 2
- **Lung Adenocarcinoma: Correlation of Quantitative CT Findings with Pathologic Findings** *RADIOLOGY*  
Ko, J. P., Suh, J., Ibadapo, O., Escalon, J. G., Li, J., Pass, H., Naidich, D. P., Crawford, B., Tsai, E. B., Koo, C. W., Mikheev, A., Rusinek, H.  
2016; 280 (3): 931-939
- **Reducing Unnecessary Portable Pelvic Radiographs in Trauma Patients: A Resident-Driven Quality Improvement Initiative** *JOURNAL OF THE AMERICAN COLLEGE OF RADIOLOGY*  
Langer, J. M., Tsai, E. B., Luhar, A., McWilliams, J., Motamedi, K.  
2015; 12 (9): 954-959
- **Atypical Carcinoid** *Specialty Imaging: Thoracic Neoplasms*  
Wu, C. C., Tsai, E. B.  
Elsevier.2015; 1
- **Typical Carcinoid** *Specialty Imaging: Thoracic Neoplasms*  
Wu, C. C., Tsai, E. B.  
Elsevier.2015; 1
- **SUVmax correlates with degree of invasiveness in early lung adenocarcinoma categorized using the new IASLC/ATS/ERS multidisciplinary classification system**

Sen, U., Friedman, K., Ko, J., Tsai, E., Koo, C., Suh, J., Naidich, D., Pass, H.  
SOC NUCLEAR MEDICINE INC.2012

● **Incidental Extracardiac Findings at Coronary CT: Clinical and Economic Impact** *AMERICAN JOURNAL OF ROENTGENOLOGY*

Lee, C. I., Tsai, E. B., Sigal, B. M., Plevritis, S. K., Garber, A. M., Rubin, G. D.  
2010; 194 (6): 1531-1538

● **The rise and fall of insulin secretion in type 1 diabetes mellitus** *DIABETOLOGIA*

Tsai, E. B., Sherry, N. A., Palmer, J. P., Herold, K. C.  
2006; 49 (2): 261-270

● **Natural history of beta-cell function in type 1 diabetes** *6th Servier-IGIS Symposium*

Sherry, N. A., Tsai, E. B., Herold, K. C.  
AMER DIABETES ASSOC.2005: S32-S39