



H. Henry Guo, MD, PhD

Clinical Professor, Radiology

CLINICAL OFFICE (PRIMARY)

- **Center for Academic Medicine Dept of Radiology**

453 Quarry Rd Rm 330B

MC 5659

Stanford, CA 94305

Tel (650) 725-8018 **Fax** (650) 725-7296

Bio

BIO

Dr. Guo is a radiologist and nuclear medicine physician with subspecialty training in thoracic imaging and PET-CT. Dr. Guo's clinical and research focus are on diseases of the lungs. Dr. Guo specializes in cancer imaging as part of his work in nuclear medicine and PET, and helps to care for patients in the Thoracic Cancer Program, Lung Cancer Screening, lung graft-versus-host disease Clinic, Infectious Diseases, Interstitial Lung Diseases Clinic, Sarcoidosis, Intensive Care, and in the Nuclear Medicine Clinic.

His research background is in molecular biology, genetics, and cancer pathogenesis, and combines the tools of molecular and anatomic imaging to improve patients' outcomes. His current research projects include: imaging markers of lung and heart diseases, aided by artificial intelligence, early cancer detection, low radiation dose CT, PET-CT of the lungs, quantitative CT, and in 3D printing of thoracic structures from clinical scans.

CLINICAL FOCUS

- Chest imaging
- Oncologic imaging
- Intersitital lung diseases
- Infectious diseases
- Lung graft versus host disease
- Sarcoidosis
- 3-D printing
- quantitative CT
- Lung cancer screening
- COPD
- Pulmonary Hypertension
- Diagnostic Radiology

ACADEMIC APPOINTMENTS

- Clinical Professor, Radiology
- Member, Cardiovascular Institute

HONORS AND AWARDS

- Faculty Educator of the Year (mid career), Stanford Radiology Residency (2023)
- Clinician of the Year, Stanford Department of Radiology (2019)
- Faculty Educator of the Year (early career), Stanford Radiology Residency (2014)
- Alpha Omega Alpha, (AOA) (2005)
- ARCS Scholar, University of Washington (2002)
- MSTP, University of Washington (1998)
- Sigma Xi, MIT (1997)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, RSNA (2007 - present)
- Member, ACR (2007 - present)
- Member, SNMMI (2010 - present)
- Member, Society of Thoracic Imaging (2012 - present)

PROFESSIONAL EDUCATION

- Fellowship in Chest Radiology, Stanford Hospital and Clinics , CA USA (2012)
- Board Certification: Nuclear Medicine, American Board of Nuclear Medicine (2012)
- Fellowship: Stanford University Radiology Fellowships (2012) CA
- Board Certification: Diagnostic Radiology, American Board of Radiology (2011)
- Residency: Stanford University Radiology Residency (2011) CA
- Internship: Scripps Mercy Hospital San Diego (2007) CA
- Medical Education: University of Washington School of Medicine (2006) WA
- PhD, University of Washington , Pathology and Molecular Biology (2004)
- Bachelor of Science, Massachusetts Institute of Technology , Molecular Biology (1997)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Quantitative CT

AI assisted radiology interpretation

PET imaging of lung diseases

CT imaging biomarkers heart and lung diseases

Quality assurance of ultralow dose CT scans

Post radiation treatment changes of lung tumors

3D printing

CLINICAL TRIALS

- Detection of Integrin avb6 in IPF, PSC, and COVID19 Using PET/CT, Not Recruiting

PROJECTS

- PET-CT in lung fibrosis (September 17, 2012)
- Deep learning assisted quantitative chest CT - stanford university
- 3D printing of lung (January 2014)
- Post bone marrow transplant lung diseases - stanford university
- Quality Assurance in ultralow dose CT - Stanford (January 2014)
- Post radiation change of lung and lung tumors - Stanford

Publications

PUBLICATIONS

- **Bexotegrast Shows Dose-dependent Integrin $\alpha\beta6$ Receptor Occupancy in Lungs of Participants with Idiopathic Pulmonary Fibrosis: A Phase 2, Open-Label Clinical Trial.** *Annals of the American Thoracic Society*
Mooney, J. J., Jacobs, S., Lefebvre, É. A., Cosgrove, G. P., Clark, A., Turner, S. M., Decaris, M., Barnes, C. N., Jurek, M., Williams, B., Duan, H., Kimura, R., Rizzo, et al
2024
- **CT strain metrics allow for earlier diagnosis of bronchiolitis obliterans syndrome after hematopoietic cell transplant.** *Blood advances*
Sharifi, H., Bertini, C. D., Alkhunaizi, M., Hernandez, M. P., Musa, Z., Borges, C., Turk, I., Bashoura, L., Dickey, B. F., Cheng, G. S., Yanik, G. A., Galban, C., Guo, et al
2024
- **First in human Phase I Clinical Trial of Stereotactic Irradiation to Achieve Lung Volume Reduction (SILVR) in Severe Emphysema.** *International journal of radiation oncology, biology, physics*
Kamtam, D. N., Binkley, M. S., Kapula, N., Sadeghi, C., Nesbit, S., Md, H. H., Chang, J., Maxim, P. G., Diehn, M., Loo, B. W., Shrager, J. B.
2024
- **Immediate and Follow-up Imaging Findings after Cone-Beam CT-guided Transbronchial Lung Cryobiopsy.** *Radiology. Cardiothoracic imaging*
Pogatchnik, B. P., Swenson, K. E., Duong, D. K., Shaller, B., Bedi, H., Guo, H. H.
2023; 5 (2): e220149
- **Pulmonary Vein Sign on Computed Tomography Pulmonary Angiography in Proximal and Distal Chronic Thromboembolic Pulmonary Hypertension With Hemodynamic Correlation.** *Journal of thoracic imaging*
Gopalan, D., Riley, J. Y., Leong, K., Guo, H. H., Zamanian, R. T., Hsi, A., Auger, W., Lindholm, P.
2023
- **Opportunistic Screening for Atrial Fibrillation on Routine Chest Computed Tomography.** *Journal of thoracic imaging*
Parker, W. A., Vigneault, D. M., Yang, I., Bratt, A., Marquardt, A. C., Sharifi, H., Guo, H. H.
2023
- **$\alpha\text{6}\beta\text{6}$ Integrin Positron Emission Tomography of Lung Fibrosis in Idiopathic Pulmonary Fibrosis and Long-COVID.** *American journal of respiratory and critical care medicine*
Kimura, R. H., Sharifi, H., Shen, B., Berry, G. J., Guo, H. H.
2023
- **^{64}Cu -DOTATATE Uptake in a Pulmonary Hamartoma.** *Clinical nuclear medicine*
Song, H., Guja, K. E., Yang, E. J., Guo, H. H.
2023; 48 (1): 58-60
- **Induction EGFR tyrosine kinase inhibitors prior to definitive chemoradiotherapy in unresectable stage III EGFR-mutated non-small cell lung cancer.** *Cancer treatment and research communications*
Aredo, J. V., Wakelee, H. A., Hui, A. B., Padda, S. K., Joshi, N. D., Guo, H. H., Chaudhuri, A., Diehn, M., Loo, B. W., Neal, J. W.
2022; 33: 100659
- **Applications of Three-Dimensional Printing in Surgical Oncology.** *Surgical oncology clinics of North America*
Byrd, C. T., Lui, N. S., Guo, H. H.

2022; 31 (4): 673-684

- **Three-dimensional-printed model of surgically resectable angioinvasive pulmonary mucormycosis.** *JTCVS techniques*
Byrd, C. T., Vyas, D., Guo, H. H., Lui, N. S.
2022; 13: 244-246
- **An Opportunity to Reduce Disparities in Lung Cancer Screening** *JAMA NETWORK OPEN*
Song, J., Guo, H.
2021; 4 (10): e2129126
- **Radiopaque Recreations of Lung Pathologies From Clinical Computed Tomography Images Using Potassium Iodide Inkjet 3-dimensional Printing: Proof of Concept.** *Journal of thoracic imaging*
Wang, J., Falkson, S. R., Guo, H. H.
2021
- **A calibration CT mini-lung-phantom created by 3-D printing and subtractive manufacturing.** *Journal of applied clinical medical physics*
Guo, H. H., Persson, M., Weinheimer, O., Rosenberg, J., Robinson, T. E., Wang, J.
2021
- **Prevalence and significance of pulmonary disease on lung ultrasonography in outpatients with SARS-CoV-2 infection.** *BMJ open respiratory research*
Fairchild, R. M., Horomanski, A., Mar, D. A., Triant, G. R., Lu, R., Lu, D., Guo, H. H., Baker, M. C.
2021; 8 (1)
- **Tracheobronchial Tumors: Radiologic-Pathologic Correlation of Tumors and Mimics** *CURRENT PROBLEMS IN DIAGNOSTIC RADIOLOGY*
Bedayat, A., Yang, E., Ghandili, S., Galera, P., Chalian, H., Ansari-Gilani, K., Guo, H.
2020; 49 (4): 275–84
- **Prognostic values of quantitative and morphological parameters of dbPET in patients with luminal-type breast cancer: A pilot study**
Miyake, K., Nakamoto, Y., Ikeda, D., Igaru, A., Daniel, B., Lipson, J., Pal, S., Mitra, E., Guo, H., Kanao, S., Kataoka, M., Toi, M., Togashi, et al
SOC NUCLEAR MEDICINE INC.2020
- **Rituximab Versus Mycophenolate in the Treatment of Recalcitrant Connective Tissue Disease-Associated Interstitial Lung Disease.** *ACR open rheumatology*
Zhu, L. n., Chung, M. P., Gagne, L. n., Guo, H. H., Guenther, Z. n., Li, S. n., Jacobs, S. n., Morisset, J. n., Mooney, J. J., Raj, R. n., Chung, L. n.
2020
- **Using Online Survey Software to Enhance Radiology Learning.** *Academic radiology*
Kelahan, L. n., Cheng, S. N., Kagoma, Y. K., Horowitz, J. M., Miller, F. H., Guo, H. H., Chow, L. n.
2020
- **Radiology-pathology Correlation in Recovered COVID-19, Demonstrating Organizing Pneumonia.** *American journal of respiratory and critical care medicine*
Pogatchnik, B. P., Swenson, K. E., Sharifi, H. n., Bedi, H. n., Berry, G. J., Guo, H. H.
2020
- **Anatomical variability in the upper tracheobronchial tree: sex-based differences and implications for personalized inhalation therapies.** *Journal of applied physiology (Bethesda, Md. : 1985)*
Christou, S. n., Chatziathanasiou, T. n., Angeli, S. n., Koullapis, P. n., Stylianou, F. n., Sznitman, J. n., Guo, H. H., Kassinos, S. C.
2020
- **Evaluation of integrin alphavbeta6 cystine knot PET tracers to detect cancer and idiopathic pulmonary fibrosis.** *Nature communications*
Kimura, R. H., Wang, L., Shen, B., Huo, L., Tummers, W., Filipp, F. V., Guo, H. H., Haywood, T., Abou-Elkacem, L., Baratto, L., Habte, F., Devulapally, R., Witney, et al
2019; 10 (1): 4673
- **Thoracic Radiologists' Versus Computer Scientists' Perspectives on the Future of Artificial Intelligence in Radiology.** *Journal of thoracic imaging*
Eltorai, A. E., Bratt, A. K., Guo, H. H.
2019

- **Single-Lumen Endotracheal Tube and Bronchial Blocker for Airway Management During Tracheobronchoplasty for Tracheobronchomalacia: A Case Report.** *A&A practice*
Lui, N. S., Guo, H. H., Sung, A. W., Peterson, A., Kulkarni, V. N.
2019
- **A Young Woman With a Rapidly Growing Thoracic Tumor.** *Chest*
Lai, Y. K., Holmes, B., Guo, H. H.
2019; 155 (5): e145–e148
- **Serial Cardiac FDG-PET for the Diagnosis and Therapeutic Guidance of Patients With Cardiac Sarcoidosis** *JOURNAL OF CARDIAC FAILURE*
Ning, N., Guo, H., Jagaru, A., Mitra, E., Fowler, M., Witteles, R.
2019; 25 (4): 307–11
- **Left Atrial Volume as a Biomarker of Atrial Fibrillation at Routine Chest CT: Deep Learning Approach** *Radiology: Cardiothoracic Imaging*
Bratt, A., Guenther, Z., Lewis, H., Kadoch, M., Adams, P. L., Leung, A. N., Guo, H. H.
2019; 1 (5): 1-7
- **The Intralobular Gradient as Seen in Re-Expansion Pulmonary Edema** *Radiology: Cardiothoracic Imaging*
Lai, Y. K., Lindholm, P., Guo, H. H.
2019; 1 (5): 1
- **3D Printing and the Cystic Fibrosis Lung.** *Journal of cystic fibrosis : official journal of the European Cystic Fibrosis Society*
Mirza, A. A., Robinson, T. E., Gifford, K., Guo, H. H.
2018
- **From Ocean Deep to Mountain High: Similar Computed Tomography Findings in Immersion and High-Altitude Pulmonary Edema.** *American journal of respiratory and critical care medicine*
Lindholm, P., Swenson, E. R., Martínez-Jiménez, S., Guo, H. H.
2018; 198 (8): 1088-1089
- **Prognostic Value of Pretreatment FDG-PET Parameters in High-dose Image-guided Radiotherapy for Oligometastatic Non-Small-cell Lung Cancer** *CLINICAL LUNG CANCER*
Chin, A. L., Kumar, K. A., Guo, H. H., Maxim, P. G., Wakelee, H., Neal, J. W., Diehn, M., Loo, B. W., Gensheimer, M. F.
2018; 19 (5): E581–E588
- **Synchronous primary lung adenocarcinomas harboring distinct MET Exon 14 splice site mutations.** *Lung cancer (Amsterdam, Netherlands)*
Wang, S. X., Lei, L., Guo, H. H., Shrager, J., Kunder, C. A., Neal, J. W.
2018; 122: 187–91
- **Synchronous primary lung adenocarcinomas harboring distinct MET Exon 14 splice site mutations** *LUNG CANCER*
Wang, S. Y., Lei, L., Guo, H. H., Shrager, J., Kunder, C. A., Neal, J. W.
2018; 122: 187–91
- **SERIAL CARDIAC FDG-PET IN THE DIAGNOSIS AND THERAPEUTIC GUIDANCE OF PATIENTS WITH CARDIAC SARCOIDOSIS: A STANFORD EXPERIENCE**
Ning, N., Guo, H. H., Jagaru, A., Mitra, E., Fowler, M., Witteles, R.
ELSEVIER SCIENCE INC.2018: 1690
- **Improving Quality of Dynamic Airway Computed Tomography Using an Expiratory Airflow Indicator Device.** *Journal of thoracic imaging*
Hahn, L. D., Sung, A. W., Shafiq, M. n., Guo, H. H.
2018
- **3D Printing and the Cystic Fibrosis Lung**
Mirza, A. A., Robinson, T. E., Guo, H. H.
AMER THORACIC SOC.2018
- **Prognostic Value of Pretreatment FDG-PET Parameters in High-dose Image-guided Radiotherapy for Oligometastatic Non-Small-cell Lung Cancer.** *Clinical lung cancer*
Chin, A. L., Kumar, K. A., Guo, H. H., Maxim, P. G., Wakelee, H. n., Neal, J. W., Diehn, M. n., Loo, B. W., Gensheimer, M. F.

2018

- **Initial Experience With Simultaneous 18F-FDG PET/MRI in the Evaluation of Cardiac Sarcoidosis and Myocarditis.** *Clinical nuclear medicine*
Hanneman, K., Kadoch, M., Guo, H. H., Jamali, M., Quon, A., Iagaru, A., Herfkens, R.
2017; 42 (7): e328-e334
- **Identification of Pulmonary Hypertension Caused by Left Heart Disease (World Health Organization Group 2) Based on Cardiac Chamber Volumes Derived from Chest CT.** *Chest*
Aviram, G., Rozenbaum, Z., Ziv-Baran, T., Berliner, S., Topilsky, Y., Fleischmann, D., Sung, Y. K., Zamanian, R. T., Guo, H. H.
2017
- **Pulmonary function after lung tumor stereotactic ablative radiotherapy depends on regional ventilation within irradiated lung.** *Radiotherapy and oncology*
Binkley, M. S., King, M. T., Shrager, J. B., Bush, K., Chaudhuri, A. A., Popat, R., Gensheimer, M. F., Maxim, P. G., Henry Guo, H., Diehn, M., Nair, V. S., Loo, B. W.
2017; 123 (2): 270-275
- **Association of morphological and quantitative parameters on dedicated breast PET with the expression status of hormone receptors, HER2 and Ki-67 in breast cancers**
Miyake, K., Ikeda, D., Iagaru, A., Quon, A., Daniel, B., Lipson, J., Pal, S., Mitra, E., Guo, H., Nakamoto, Y., Nishimatsu, K., Kanao, S., Kataoka, et al
SOC NUCLEAR MEDICINE INC.2017
- **Left Atrium Maximal Axial Cross-Sectional Area is a Specific Computed Tomographic Imaging Biomarker of World Health Organization Group 2 Pulmonary Hypertension.** *Journal of thoracic imaging*
Jivraj, K., Bedayat, A., Sung, Y. K., Zamanian, R. T., Haddad, F., Leung, A. N., Rosenberg, J., Guo, H. H.
2017; 32 (2): 121-126
- **Predictive radiogenomics modeling of EGFR mutation status in lung cancer** *SCIENTIFIC REPORTS*
Gevaert, O., Echeagaray, S., Khuong, A., Hoang, C. D., Shrager, J. B., Jensen, K. C., Berry, G. J., Guo, H. H., Lau, C., Plevritis, S. K., Rubin, D. L., Napel, S., Leung, et al
2017; 7
- **Coccidioidomycosis: Surgical Issues and Implications.** *Surgical infections*
Forrester, J. D., Guo, H. H., Weiser, T. G.
2016: -?
- **Clinical significance of extraskelatal computed tomography findings on 18F-NaF PET/CT performed for osseous metastatic disease evaluation.** *Nuclear medicine communications*
Guo, H. H., Moradi, F., Iagaru, A.
2016; 37 (9): 975-982
- **A Wandering Pulmonary Nodule.** *American journal of respiratory and critical care medicine*
Van Wert, R., Gayer, G., Guo, H. H., Nair, V. S.
2016: -?
- **Pre-treatment non-target lung FDG-PET uptake predicts symptomatic radiation pneumonitis following Stereotactic Ablative Radiotherapy (SABR).** *Radiotherapy and oncology*
Chaudhuri, A. A., Binkley, M. S., Rigdon, J., Carter, J. N., Aggarwal, S., Dudley, S. A., Qian, Y., Kumar, K. A., Hara, W. Y., Gensheimer, M., Nair, V. S., Maxim, P. G., Shultz, et al
2016; 119 (3): 454-460
- **99mTc-MDP scintigraphy vs. 18F-NaF PET/CT for detection of skeletal metastases**
Wu, F., Jamali, M., Hatami, N., Sonni, I., Baratto, L., Guo, H., Quon, A., Mitra, E., Iagaru, A.
SOC NUCLEAR MEDICINE INC.2016
- **Methyl Methacrylate Mimicking a Retained Guide Wire.** *Journal of vascular and interventional radiology : JVIR*
Moradzadeh, N. n., Hwang, G. n., Nair, V. n., Guo, H. H.
2016; 27 (12): 1906
- **F18 NaF PET/CT of the spine for the pre-interventional evaluation of back pain**
Guo, H., Dodd, R., Huy Do, Quon, A.

SOC NUCLEAR MEDICINE INC.2012

- **Demonstration of peripheral nerve root involvement by non-Hodgkin's lymphoma on F-18-FDG PET/CT** *EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING*
Guo, H., Mosci, C., Iagaru, A.
2012; 39 (4): 729-730
- **Frameshift Mutagenesis and Microsatellite Instability Induced by Human Alkyladenine DNA Glycosylase** *MOLECULAR CELL*
Klapacz, J., Lingaraju, G. M., Guo, H. H., Shah, D., Moar-Shoshani, A., Loeb, L. A., Samson, L. D.
2010; 37 (6): 843-853
- **Best Cases from the AFIP Fatal 2009 Influenza A (H1N1) Infection, Complicated by Acute Respiratory Distress Syndrome and Pulmonary Interstitial Emphysema** *RADIOGRAPHICS*
Guo, H. H., Sweeney, R. T., Regula, D., Leung, A. N.
2010; 30 (2): 327-333
- **Substrate binding pocket residues of human alkyladenine-DNA glycosylase critical for methylating agent survival** *DNA REPAIR*
Chen, C., Guo, H. H., Shah, D., Blank, A., Samson, L. D., Loeb, L. A.
2008; 7 (10): 1731-1745
- **A dual-fluorescence reporter system for high-throughput clone characterization and selection by cell sorting** *NUCLEIC ACIDS RESEARCH*
Choe, J., Guo, H. W., van den Engh, G.
2005; 33 (5): e49
- **Protein tolerance to random amino acid change** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
GUO, H. H., Choe, J., Loeb, L. A.
2004; 101 (25): 9205-9210
- **Tumbling down a different pathway to genetic instability** *JOURNAL OF CLINICAL INVESTIGATION*
GUO, H. H., Loeb, L. A.
2003; 112 (12): 1793-1795
- **Endogenous mutagenesis and cancer.** *Mutation research*
Davidson, J. F., Guo, H. H., Loeb, L. A.
2002; 509 (1-2): 17-21