



## Laura Jean Pisani, Ph.D.

Physical Science Research Scientist, Radiology - Diagnostic Radiology

 NIH Biosketch available Online

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### Bio

#### CURRENT ROLE AT STANFORD

Associate Director of Stanford Center for Innovation in In vivo Imaging (SCi3), Radiology

Member, Molecular Imaging Program at Stanford

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### Professional

#### PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Member, AAPM (1993 - present)
- Member, ISMRM (2002 - present)

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### Publications

#### PUBLICATIONS

- **Quantitative detection of macrophage activation in osteosarcoma comparing 18F-FDG PET/CT with ferumoxytol-enhanced MRI.** *Scientific reports*  
Roudi, R., Habte, F., Saladino, G. M., Vasylyv, I., Pisani, L., Wong, J., Syed, A., Daldrup-Link, H. E.  
2026
- **Correction: Dual-enzyme activated theranostic nanoparticles for image-guided glioblastoma therapy.** *Scientific reports*  
Varniab, Z. S., Chang, E., Wang, J., Duwa, R., Suryadevara, V., Wu, W., Kumar, M., Liang, T., Khatoon, Z., Morais, G. R., Falconer, R., Shi, Y., Tikhomirov, et al  
2026; 16 (1): 4475
- **A novel therapeutic strategy using a single non-toxic agent that produces consistent long-term control of orthotopic experimental glioblastomas**  
Khojasteh, A., Pisani, L., Kiebish, M., Cao, T., Nagpal, S., Nastke, M., Adamson, P., Beinat, C., Gesta, S., Hurd, R., Spielman, D., Recht, L.  
OXFORD UNIV PRESS INC.2025: v452-v453
- **Revealing the suppressors: A new PET imaging approach for detecting MDSCs before and after immunotherapy in a model of brain metastases**  
Kuo, R., Verma, R., Reyes, S., Nagy, S., Kalita, M., D'moore, D., Ehsani, A., Pisani, L., Alam, I., Milligan, G., Lim, M., James, M.  
SOC NUCLEAR MEDICINE INC.2025
- **MRI detection of senescent cells in porcine knee joints with a  $\beta$ -galactosidase responsive Gd-chelate.** *Npj imaging*  
Nernekli, K., Mangarova, D. B., Suryadevara, V., Hajipour, M., Tang, J. H., Wang, J., Liang, T., Harris, M., Ueyama, T., Lyons, J. K., Moseley, M. E., Roudi, R., Pisani, et al  
2025; 3 (1): 18
- **Dual-enzyme activated theranostic nanoparticles for image-guided glioblastoma therapy.** *Scientific reports*

- Shokri Varniab, Z., Chang, E., Wang, J., Duwa, R., Suryadevara, V., Wu, W., Kumar, M., Liang, T., Khatoon, Z., Morais, G. R., Falconer, R., Shi, Y., Tikhomirov, et al  
2025; 15 (1): 13540
- **Multimodal imaging approach to track theranostic nanoparticle accumulation in glioblastoma with magnetic resonance imaging and intravital microscopy.** *Nanoscale*  
Saladino, G. M., Mangarova, D. B., Nernekli, K., Wang, J., Annio, G., Varniab, Z. S., Khatoon, Z., Ribeiro Morais, G., Shi, Y., Chang, E., Pisani, L. J., Tikhomirov, G., Falconer, et al  
2025
  - **High Shear Stress Reduces ERG Causing Endothelial-Mesenchymal Transition and Pulmonary Arterial Hypertension.** *Arteriosclerosis, thrombosis, and vascular biology*  
Shinohara, T., Moonen, J. R., Chun, Y. H., Lee-Yow, Y. C., Okamura, K., Szafron, J. M., Kaplan, J., Cao, A., Wang, L., Guntur, D., Taylor, S., Isobe, S., Dong, et al  
2024
  - **A Novel Mouse Model for Cerebral Inflammatory Demyelination in X-Linked Adrenoleukodystrophy: Insights into Pathogenesis and Potential Therapeutic Targets.** *Annals of neurology*  
Hashemi, E., Srivastava, I. N., Aguirre, A., Yoseph, E. T., Kaushal, E., Awani, A., Ryu, J. K., Akassoglou, K., Talebian, S., Chu, P., Pisani, L., Musolino, P., Steinman, et al  
2024
  - **Reproducibility and repeatability of quantitative T2 and T2\* mapping of osteosarcomas in a mouse model.** *European radiology experimental*  
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2024; 8 (1): 74
  - **Two-Photon Intravital Microscopy of Glioblastoma in a Murine Model.** *Journal of visualized experiments : JoVE*  
Nernekli, K., Mangarova, D. B., Shi, Y., Varniab, Z. S., Chang, E., Tikenogullari, O. Z., Pisani, L., Tikhomirov, G., Wang, G., Daldrup-Link, H. E.  
2024
  - **A Novel Mouse Model for Cerebral Inflammatory Demyelination in X-Linked Adrenoleukodystrophy: Insights into Pathogenesis and Potential Therapeutic Targets** *Annals of Neurology*  
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  - **A novel mouse model of cerebral adrenoleukodystrophy highlights NLRP3 activity in lesion pathogenesis.** *bioRxiv : the preprint server for biology*  
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2023
  - **Novel Clinically Translatable Iron Oxide Nanoparticle for Monitoring Anti-CD47 Cancer Immunotherapy.** *Investigative radiology*  
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  - **Measurement of Tumor T2\* Relaxation Times after Iron Oxide Nanoparticle Administration.** *Journal of visualized experiments : JoVE*  
Ramasamy, S. K., Roudi, R., Morakote, W., Adams, L. C., Pisani, L. J., Moseley, M., Daldrup-Link, H. E.  
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  - **Tumor protease-activated theranostic nanoparticles for MRI-guided glioblastoma therapy.** *Theranostics*  
Huang, C. H., Chang, E., Zheng, L., Raj, J. G., Wu, W., Pisani, L. J., Daldrup-Link, H. E.  
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  - **Multimodal In Vivo Tracking of Chimeric Antigen Receptor T Cells in Preclinical Glioblastoma Models.** *Investigative radiology*  
Wu, W. E., Chang, E., Jin, L., Liu, S., Huang, C., Kamal, R., Liang, T., Aissaoui, N. M., Theruvath, A. J., Pisani, L., Moseley, M., Stoyanova, T., Paulmurugan, et al  
2022
  - **Brain iron deposition after Ferumoxytol-enhanced MRI: A study of Porcine Brains.** *Nanotheranostics*  
Theruvath, A. J., Aghighi, M. n., Iv, M. n., Nejadnik, H. n., Lavezo, J. n., Pisani, L. J., Daldrup-Link, H. E.  
2020; 4 (4): 195–200

- **GABA Measurement in a Neonatal Fragile X Syndrome Mouse Model Using 1H-Magnetic Resonance Spectroscopy and Mass Spectrometry.** *Frontiers in molecular neuroscience*  
Reyes, S. T., Mohajeri, S. n., Krasinska, K. n., Guo, S. G., Gu, M. n., Pisani, L. n., Rosenberg, J. n., Spielman, D. M., Chin, F. T.  
2020; 13: 612685
- **Nanoparticle enhanced MRI can monitor macrophage response to CD47 mAb immunotherapy in osteosarcoma.** *Cell death & disease*  
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- **Magnetic Resonance Imaging of Tumor-Associated Macrophages: Clinical Translation** *CLINICAL CANCER RESEARCH*  
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2018; 24 (17): 4110–18
- **A novel theranostic strategy for MMP-14 expressing glioblastomas impacts survival**  
Mohanty, S., Chen, Z., Li, K., Morais, G., Klockow, J., Yerneni, K., Pisani, L., Chin, F., Mitra, S., Cheshier, S., Chang, E., Gambhir, S., Rao, et al  
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- **Magnetic Resonance Imaging of Tumor Associated Macrophages: Clinical Translation.** *Clinical cancer research : an official journal of the American Association for Cancer Research*  
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2018
- **Ferumoxytol Is Not Retained in Kidney Allografts in Patients Undergoing Acute Rejection.** *Molecular imaging and biology*  
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- **Detection of Stem Cell Transplant Rejection with Ferumoxytol MR Imaging: Correlation of MR Imaging Findings with Those at Intravital Microscopy.** *Radiology*  
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- **Speeding up PET/MR for cancer staging of children and young adults.** *European radiology*  
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- **Imaging Tumor Necrosis with Ferumoxytol.** *PLoS one*  
Aghighi, M., Golovko, D., Ansari, C., Marina, N. M., Pisani, L., Kurlander, L., Klenk, C., Bhaumik, S., Wendland, M., Daldrop-Link, H. E.  
2015; 10 (11)
- **Assessment of elastin deficit in a marfan mouse aneurysm model using an elastin-specific magnetic resonance imaging contrast agent.** *Circulation. Cardiovascular imaging*  
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2014; 7 (4): 690-696
- **Severe Impairment of Axonal Transport in Acute Experimental Anterior Ischemic Optic Neuropathy**  
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ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2014
- **PET Imaging of Stroke-Induced Neuroinflammation in Mice Using [F-18]PBR06** *MOLECULAR IMAGING AND BIOLOGY*

- Lartey, F. M., Ahn, G., Shen, B., Cord, K., Smith, T., Chua, J. Y., Rosenblum, S., Liu, H., James, M. L., Chernikova, S., Lee, S. W., Pisani, L. J., Tirouvanziam, et al  
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- **Ferumoxytol: a new, clinically applicable label for stem-cell tracking in arthritic joints with MRI.** *Nanomedicine*  
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  - **Evaluation of the novel USPIO GEH121333 for MR imaging of cancer immune responses.** *Contrast media & molecular imaging*  
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  - **Intravenous Ferumoxytol Allows Noninvasive MR Imaging Monitoring of Macrophage Migration into Stem Cell Transplants** *RADIOLOGY*  
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  - **Restricted field of view magnetic resonance imaging of a dynamic time series** *MAGNETIC RESONANCE IN MEDICINE*  
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AMER INST PHYSICS.2006: 76-80
  - **Effects of spatial and temporal resolution for MR image-guided thermal ablation of prostate with transurethral ultrasound** *JOURNAL OF MAGNETIC RESONANCE IMAGING*  
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2005; 22 (1): 109-118
  - **Setup error in radiotherapy: On-line correction using electronic kilovoltage and megavoltage radiographs** *40th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology*  
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