

Stanford



Jihye Baek

Postdoctoral Scholar, Radiology

Bio

HONORS AND AWARDS

- School of Medicine Dean's Postdoctoral Fellowship, Stanford University (2024 - 2025)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Rochester , Electrical and Computer Engineering (2023)

STANFORD ADVISORS

- Jeremy Dahl, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Renal cancer early diagnosis using a novel B7-H3 targeted ultrasound contrast imaging**
Natarajan, A., Baek, J., Paulmurugan, R., Dahl, J.
AMER ASSOC CANCER RESEARCH.2026
- **Enhancing Ultrasound Molecular Imaging: Toward Real-Time RPCA-Based Filtering to Differentiate Bound and Free Microbubbles.** *IEEE transactions on ultrasonics*
Hashemi, H. S., Hyun, D., Nguyen, N., Baek, J., Natarajan, A., Tabesh, F., Andrzejek, A., Paulmurugan, R., Dahl, J. J.
2025
- **Multiparametric quantification and visualization of liver fat using ultrasound.** *WFUMB ultrasound open*
Baek, J., Kaffas, A. E., Kamaya, A., Hoyt, K., Parker, K. J.
2024; 2 (1)
- **Enhancing Ultrasound Molecular Imaging: RPCA-Based Filtering to Differentiate Tumor-Bound and Free Microbubbles**
Hashemi, H. S., Hyun, D., Baek, J., Natarajan, A., Tabesh, F., Paulmurugan, R., Dahl, J. J., IEEE
IEEE.2024
- **A multi-parametric model for progression of metabolic dysfunction-associated steatohepatitis (MASH) in humans**
Baek, J., Sanabria, S., Oyarzabal, I., Echevarria-Uraga, J. J., Quesada, C., Dahl, J., Parker, K. J., IEEE
IEEE.2024
- **Differentiable Beamforming for Distributed Attenuation Estimation and Spatial Gain Compensation (SGC)**
Frey, B. N., Hyun, D., Simson, W., Brevett, T., Zhuang, L., Baek, J., Sanabria, S. J., Dahl, J. J., IEEE
IEEE.2024
- **Frequency estimator to improve H-scan tissue characterization**
Baek, J., Brevett, T., Hyun, D., El Kaffas, A., Parker, K. J., Dahl, J., IEEE
IEEE.2024

- **Nondestructive ultrasound molecular imaging based on a neural network approach utilizing post-processed ultrasound images**

Baek, J., Hyun, D., Nataraj, A., Tabesh, F., Paulmurugan, R., Dahl, J. J., IEEE
IEEE.2024

- **Improving breast cancer diagnosis by incorporating raw ultrasound parameters into machine learning** *MACHINE LEARNING-SCIENCE AND TECHNOLOGY*

Baek, J., O'Connell, A. M., Parker, K. J.
2022; 3 (4): 045013