



Lauren Watkins

Instructor, Radiology

Bio

ACADEMIC APPOINTMENTS

- Instructor, Radiology

HONORS AND AWARDS

- Summa Cum Laude Merit Award, International Society for Magnetic Resonance in Medicine (2020)
- Top-scoring Abstract Award, International Society for Magnetic Resonance in Medicine Musculoskeletal Study Group (2020)
- Best Poster Award, BIO-X (2019)
- Travel Award, BIO-X (2019)
- Student Travel Award, International Society for Magnetic Resonance in Medicine (2018-2020)
- William K. Bowes, Jr. Graduate Fellow, Stanford Vice Provost for Graduate Education (2016-2019)
- Mark and Pamela Lamp Graduate Scholar, Purdue University (2015-2016)
- Women in Engineering Award, Purdue University (2012-2015)
- Trustees Scholar, Purdue University (2011-2015)

PROFESSIONAL EDUCATION

- Ph.D., Stanford University , Bioengineering (2021)
- M.S., Purdue University , Biomedical Engineering (2016)
- B.S., Purdue University , Biomedical Engineering (2015)

Publications

PUBLICATIONS

- **Changes in tissue sodium concentration and sodium relaxation times during the maturation of human knee cartilage: Ex vivo 23 Na MRI study at 10.5 T.** *Magnetic resonance in medicine*
Zbýř, Š., Ludwig, K. D., Watkins, L. E., Lagore, R. L., Nowacki, A., Tóth, F., Tompkins, M. A., Zhang, L., Adrian, G., Gold, G. E., Shea, K. G., Nagel, A. M., Carlson, et al
2023
- **[Formula: see text] Field inhomogeneity correction for qDESS [Formula: see text] mapping: application to rapid bilateral knee imaging.** *Magma (New York, N.Y.)*
Barbieri, M., Watkins, L. E., Mazzoli, V., Desai, A. D., Rubin, E., Schmidt, A., Gold, G. E., Hargreaves, B. A., Chaudhari, A. S., Kogan, F.
2023
- **Non-contrast MRI of synovitis in the knee using quantitative DESS.** *European radiology*
Thoenen, J., Stevens, K. J., Turmezei, T. D., Chaudhari, A., Watkins, L. E., McWalter, E. J., Hargreaves, B. A., Gold, G. E., MacKay, J. W., Kogan, F.

2021

- **[18F]NaF PET-MRI provides direct in-vivo evidence of the association between bone metabolic activity and adjacent synovitis in knee osteoarthritis: a cross-sectional study.** *Osteoarthritis and cartilage*

MacKay, J., Watkins, L., Gold, G., Kogan, F.

2021

- **Assessment of Quantitative [18F]Sodium Fluoride PET Measures of Knee Subchondral Bone Perfusion and Mineralization in Osteoarthritic and Healthy Subjects.** *Osteoarthritis and cartilage*

Watkins, L., MacKay, J., Haddock, B., Mazzoli, V., Uhlrich, S., Gold, G., Kogan, F.

2021

- **Characterizing the transient response of knee cartilage to running: Decreases in cartilage T2 of female recreational runners.** *Journal of orthopaedic research : official publication of the Orthopaedic Research Society*

Crowder, H. A., Mazzoli, V. n., Black, M. S., Watkins, L. E., Kogan, F. n., Hargreaves, B. A., Levenston, M. E., Gold, G. E.

2021

- **Evaluating the Relationship between Dynamic Na[F-18]F-Uptake Parameters and MRI Knee Osteoarthritic Findings**

Watkins, L., MacKay, J., Haddock, B., Mazzoli, V., Uhlrich, S., Gold, G., Kogan, F.

SOC NUCLEAR MEDICINE INC.2020

- **Effects of Dynamic Na[F-18]F- Duration on Uptake Parameters in the Knee**

Watkins, L., Haddock, B., Kogan, F.

SOC NUCLEAR MEDICINE INC.2020

- **Rapid volumetric gagCEST imaging of knee articular cartilage at 3 T: evaluation of improved dynamic range and an osteoarthritic population.** *NMR in biomedicine*

Watkins, L. E., Rubin, E. B., Mazzoli, V. n., Uhlrich, S. D., Desai, A. D., Black, M. n., Ho, G. K., Delp, S. L., Levenston, M. E., Beaupré, G. S., Gold, G. E., Kogan, F. n.

2020: e4310

- **Flexible and efficient optimization of quantitative sequences using automatic differentiation of Bloch simulations.** *Magnetic resonance in medicine*

Lee, P. K., Watkins, L. E., Anderson, T. I., Buonincontri, G., Hargreaves, B. A.

2019

- **Acellular and cellular high-density, collagen-fibril constructs with suprafibrillar organization** *BIOMATERIALS SCIENCE*

Blum, K. M., Novak, T., Watkins, L., Neu, C. P., Wallace, J. M., Bart, Z. R., Voytik-Harbin, S. L.

2016; 4 (4): 711-723