




Garry Gold

Stanford Medicine Professor of Radiology and Biomedical Imaging

 NIH Biosketch available Online

 Curriculum Vitae available Online

CLINICAL OFFICE (PRIMARY)

- **Lucas Center for MR Research**

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Stanford, CA 94305

Tel (650) 725-0130

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ACADEMIC CONTACT INFORMATION

- **Alternate Contact**

Jeslyn Rumbold - Administrative Assistant

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Bio

BIO

Garry E. Gold, M.D., is a clinical radiologist and an active investigator specializing in patient-oriented research. Following completion of his Master of Science in Electrical Engineering from Stanford University in 1988, Dr. Gold earned his medical degree in 1992 from the Stanford University School of Medicine. In 1993, he began the Stanford Department of Radiology Residency Program, during which he spent two years serving as an NCI Cancer Imaging Fellow from 1995-1997 under the supervision of Dr. Albert Macovski. After board certification in Radiology, Dr. Gold became an Osteoradiology Fellow at the University of California in San Diego under Dr. Donald Resnick from 1998-1999. He was appointed an Assistant Professor in Stanford's Department of Radiology in January 2000. In 2006, Dr. Gold became an Associate Professor with tenure in the Department of Radiology. In 2011 Dr. Gold was awarded the first phase of this K24 project which has produced many successful clinically oriented researchers (see tables). In 2012, Dr. Gold was promoted to Professor of Radiology and by courtesy Bioengineering and Orthopaedic Surgery. He was also appointed as the Associate Chair for Research in Radiology at Stanford. In 2017, Dr. Gold was appointed as Vice Chair for Research and Organization in the Department.

Dr. Gold has earned an international reputation as a clinical radiologist and patient-oriented researcher specializing in osteoarthritis and translational MRI development. His unique background in electrical engineering and radiology has resulted in over 200 peer-reviewed articles and eight successful patent applications. He is Past President of the International Society for Magnetic Resonance in Medicine (ISMRM) and the Society for Computer Body Tomography and Magnetic Resonance (SCBT/MR). In recognition of his widely respected research and mentoring, he has won multiple honors, including the SCBT/MR Lauterbur Award multiple times. In 2011 he was named a Fellow of the ISMRM and Academy of Radiology Research Distinguished Investigator. In 2013 he was named Faculty of the Year for Stanford Radiology. In 2016 Dr. Gold was named as a Fellow of the American Institute for Medical and Biological Engineering (AIMBE).

CLINICAL FOCUS

- Radiology
- Diagnostic Radiology

ACADEMIC APPOINTMENTS

- Professor, Radiology
- Member, Bio-X
- Member, Cardiovascular Institute

- Member, Wu Tsai Human Performance Alliance
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Department Chair, Stanford University Department of Radiology, (2022- present)
- Interim Chair, Stanford University Department of Radiology, (2020-2022)
- Vice Chair for Research and Organization, Stanford University Department of Radiology, (2017-2020)
- President, SCBT/MR, (2017-2018)
- President, ISMRM, (2015-2017)
- Chair, Workshop and Study Group Committee, ISMRM, (2014-2015)
- Chair, Workshop and Study Group Committee, ISMRM, (2014-2015)
- Chair, Radiology Compensation Committee, Stanford University, (2013- present)
- Chair, Angel Funds Selection Committee, Stanford University, (2013-2020)
- Chair, Appointment and Promotion Committee, Stanford University Department of Radiology, (2013-2020)
- Chair, Blue Sky Funds Selection Committee, Stanford University, (2013-2020)
- Chair, Student Funds Selection Committee, Stanford University, (2013-2020)
- Chair, VA Chief Faculty Search Committee, Stanford University/Veterans Administration VISN 21, (2013-2015)
- Radiology Biodesign Program Committee, Stanford University, (2013-2015)
- Associate Chair for Research, Stanford University Department of Radiology, (2012-2017)
- Advanced Leadership Development Program, Stanford University, (2012-2013)
- Chair, Annual Meeting Program Committee, ISMRM, (2012-2013)
- Program Committee Vice-Chair and Chair, ISMRM, (2011-2014)
- Vice Chair, Annual Meeting Program Committee, ISMRM, (2011-2012)
- Leadership Development Program, Stanford University, (2010-2011)
- Principal Investigator, Stanford Radiology & GE Healthcare TIGER Team, Stanford University/General Electric, (2009-2016)
- Chair, Clinical Growth Task Force, ISMRM, (2009-2010)
- Chair, Research Committee, SCBT/MR, (2009-2010)
- Co-Director, Bioengineering Scholarly Concentration, Stanford University, (2007-2015)
- Chair, Radiology Resident Research Program, Stanford University, (2007-2013)
- Chair, GE-Stanford Technical Advisory Board, Stanford University/General Electric, (2007-2009)
- Faculty Fellows, Stanford School of Medicine, (2007-2008)
- President, Musculoskeletal Study Group, ISMRM, (2005-2007)
- Chief, VA MSK Radiology, Stanford University/Veterans Administration VISN 21, (2000-2003)
- Chief, VA Radiology Research Committee, Stanford University/Veterans Administration VISN 21, (2000-2003)

HONORS AND AWARDS

- Gold Medal, ISMRM (2023)
- Gold Medal, SABI (2022)
- Outstanding Teacher Award, ISMRM (2018)
- Lodwick Award for Outstanding Publication in Musculoskeletal Science, Harvard University (2017)

- Fellow, American Institute for Medical and Biological Engineering (2016)
- Faculty of the Year, Stanford University Department of Radiology (2013)
- ARR Distinguished Investigator, Academy of Radiology Research (2012)
- Cum Laude Award, SCBT/MR (2012)
- Fellow, International Society for Magnetic Resonance In Medicine (2011)
- Stanford Firestone Medal for Excellence in Undergraduate Research, Stanford University (2011)
- Young Investigator Award, SCBT/MR (2011)
- Young Investigator Award, SCBT/MR (2010)
- Cum Laude Award, SCBT/MR (2009)
- Thought Leadership Award, GE Healthcare (2009)
- Young Investigator Award, ASB (2009)
- Lauterbur Award, SCBT/MR (2008)
- Monocoda Award, SCBT/MR (2008)
- Cum Laude Award, SCBT/MR (2007)
- Outstanding Teacher Award, ISMRM (2007)
- President's Medal, ISS (2007)
- Lauterbur Award, SCBT/MR (2006)
- Kaiser Award for Innovation in Medical Education, Stanford (2005)
- Lauterbur Award, SCBT/MR (2005)
- SCBT/MR Fellow, SCBT/MR (2005)
- Cum Laude Award, SCBT/MR (2004)
- Lauterbur Award, SCBT/MR (2003)
- President's Award, ARRS (2003)
- Lauterbur Award, SCBT/MR (2002)
- Lauterbur Award, SCBT/MR (2001)
- Resident's Teaching Award, Radiology Dept. (2000)
- Young Investigator Award, Veterans Affairs VISN 21 (2000)
- Cum Laude Award, SCBT/MR (1999)
- Medical Device Network Invention Challenge Award, Stanford University (1999)
- President's Award in Radiology, ARRS (1997)
- Roentgen Resident/Fellow Research Award, RSNA (1996)
- Young Investigator Moore Award, ISMRM (1995)
- Dean's Award for Research, Stanford University School of Medicine (1992)
- Award for Outstanding Engineering Design Project, Hewlett Packard (1988)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Undergraduate Admissions Committee, Stanford University (2015 - 2017)
- Abstract Reviewer, ISHA (2014 - present)
- Abstract Reviewer, ORS (2014 - present)
- Abstract Reviewer, ISMRM (2014 - present)

- Research Development Committee, RSNA (2014 - present)
- Bioengineering PhD Student Admissions Committee, Stanford University (2012 - present)
- Faculty Fellows Selection Committee, Stanford School of Medicine (2012 - present)
- Lucas Service Center Steering Committee, Stanford University (2012 - present)
- Stanford-VA Task Force Committee, Stanford University/Veterans Administration VISN 21 (2012 - present)
- Admissions Committee, Stanford School of Medicine (2009 - 2018)
- Committee for Affiliated Sections, ISMRM (2009 - 2010)
- Board of Trustees, ISMRM (2008 - 2017)
- Radiology Ad-Hoc Committee, Stanford University (2007 - present)
- GE Healthcare MSK MRI Medical Advisory Board, General Electric (2006 - present)
- Clinical Research Scholarly Track Committee, Stanford University (2005 - 2010)
- Committee for Financial Support, ISMRM (2005 - 2008)
- Committee on Student Stipends, ISMRM (2005 - 2008)
- Research Committee, SCBT/MR (2005 - 2008)
- Undergraduate Advising Program, Stanford University (2004 - 2006)
- Imaging Advisory Board of the Osteoarthritis Initiative, National Institutes of Health (2002 - 2009)
- Education Committee, Stanford University (2002 - 2008)
- Curriculum Reform Committee, Stanford School of Medicine (2002 - 2002)
- Education Committee & Course Organizer, ISMRM (2001 - 2004)
- Radiology Education Committee, Stanford University (2000 - 2008)
- Medical School Faculty Senate, Stanford School of Medicine (2000 - 2007)
- Scientific Program Committee, ISMRM (2000 - 2003)
- Medical Scholars Committee, Stanford School of Medicine (1999 - 2004)

PROFESSIONAL EDUCATION

- Fellowship: UCSD Medical Center (1999) CA
- Medical Education: Stanford University School of Medicine (1992) CA
- Residency: Stanford University Radiology Residency (1998) CA
- Internship: Kaiser Permanente Santa Clara Internal Medicine Residency (1993) CA
- Board Certification: Diagnostic Radiology, American Board of Radiology (1998)
- M.D., Stanford University , Medicine (1992)
- M.S., Stanford University , Electrical Engineering (1988)
- B.S., Stanford University , Electrical Engineering (1986)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My primary focus is application of new MR imaging technology to musculoskeletal problems. Current projects include: Rapid MRI for Osteoarthritis, Weight-bearing cartilage imaging with MRI, and MRI-based models of muscle. We are studying the application of new MR imaging techniques such as rapid imaging, real-time imaging, and short echo time imaging to learn more about biomechanics and pathology of bones and joints. I am also interested in functional imaging approaches using PET-MRI.

CLINICAL TRIALS

- Effects of an Herbal Topical Cream on Osteoarthritis Symptoms, Biomarkers, and Disease Progression in the Knee, Not Recruiting
- Use of PET/MR Imaging in Chronic Pain, Not Recruiting

Teaching

STANFORD ADVISEES

Med Scholar Project Advisor

Judy Mizrahi

Doctoral Dissertation Reader (AC)

Ananya Goyal

Postdoctoral Faculty Sponsor

Skylar Holmes, Carly Jones

Publications

PUBLICATIONS

- **Low-dose computed tomography perceptual image quality assessment.** *Medical image analysis*
Lee, W., Wagner, F., Galdran, A., Shi, Y., Xia, W., Wang, G., Mou, X., Ahamed, M. A., Imran, A. A., Oh, J. E., Kim, K., Baek, J. T., Lee, et al
2024; 99: 103343
- **ShapeMed-Knee: A Dataset and Neural Shape Model Benchmark for Modeling 3D Femurs.** *medRxiv : the preprint server for health sciences*
Gatti, A. A., Blankemeier, L., Van Veen, D., Hargreaves, B., Delp, S. L., Gold, G. E., Kogan, F., Chaudhari, A. S.
2024
- **Reproducibility of Quantitative Double-Echo Steady-State T2 Mapping of Knee Cartilage.** *Journal of magnetic resonance imaging : JMIR*
Williams, A. A., Asay, J. L., Asare, D., Desai, A. D., Gold, G. E., Hargreaves, B. A., Chaudhari, A. S., Chu, C. R.
2024
- **Improved Resolution and Image Quality of Musculoskeletal Magnetic Resonance Imaging using Deep Learning-based Denoising Reconstruction: A Prospective Clinical Study.** *Skeletal radiology*
Do, H. P., Lockard, C. A., Berkeley, D., Tymkiw, B., Dulude, N., Tashman, S., Gold, G., Gross, J., Kelly, E., Ho, C. P.
2024
- **A deep learning approach for fast muscle water T2 mapping with subject specific fat T2 calibration from multi-spin-echo acquisitions.** *Scientific reports*
Barbieri, M., Hooijmans, M. T., Moulin, K., Cork, T. E., Ennis, D. B., Gold, G. E., Kogan, F., Mazzoli, V.
2024; 14 (1): 8253
- **3D CLUSTERING OF T2 MAPS IDENTIFIES FOCAL CARTILAGE CHANGES FROM 3-WEEKS TO 2-YEARS FOLLOWING ACL RECONSTRUCTION**
Pai, A. S., Gatti, A. A., Black, M., Young, K., Asay, J., Kogan, F., Sherman, S., Gold, G. E., Hargreaves, B., Chaudhari, A.
ELSEVIER SCI LTD.2024: S360-S361
- **Correction to: Multimodal positron emission tomography (PET) imaging in non-oncologic musculoskeletal radiology.** *Skeletal radiology*
Kogan, F., Yoon, D., Teeter, M. G., Chaudhari, A. J., Hales, L., Barbieri, M., Gold, G. E., Vainberg, Y., Goyal, A., Watkins, L.
2024
- **CARTILAGE CHANGES POST-MENISCECTOMY ARE ASSOCIATED WITH 2-YEAR POST-OPERATIVE GAIT**
Asay, J. L., Gatti, A. A., Giori, N., Andriacchi, T. P., Gold, G. E.
ELSEVIER SCI LTD.2024: S156
- **Multimodal positron emission tomography (PET) imaging in non-oncologic musculoskeletal radiology.** *Skeletal radiology*
Kogan, F., Yoon, D., Teeter, M. G., Chaudhari, A. J., Hales, L., Barbieri, M., Gold, G. E., Vainberg, Y., Goyal, A., Watkins, L.

2024

- **Efficient Deep-Detector Image Quality Assessment Based on Knowledge Distillation** *IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT*
Lee, W., Gold, G., Choi, J.
2024; 73
- **Accelerated Musculoskeletal Magnetic Resonance Imaging.** *Journal of magnetic resonance imaging : JMRI*
Yoon, M. A., Gold, G. E., Chaudhari, A. S.
2023
- **Identifying a stable and generalizable factor structure of major depressive disorder across three large longitudinal cohorts.** *Psychiatry research*
Tseng, V. W., Tharp, J. A., Reiter, J. E., Ferrer, W., Hong, D. S., Doraiswamy, P. M., Nickels, S.
2023; 333: 115702
- **Multiparametric MRI of Knees in Collegiate Basketball Players: Associations With Morphological Abnormalities and Functional Deficits.** *Orthopaedic journal of sports medicine*
Nosrat, C., Gao, K. T., Bhattacharjee, R., Padoia, V., Koff, M. F., Gold, G. E., Potter, H. G., Majumdar, S.
2023; 11 (12): 23259671231216490
- **Changes in tissue sodium concentration and sodium relaxation times during the maturation of human knee cartilage: Ex vivo ²³Na MRI study at 10.5 T.** *Magnetic resonance in medicine*
Zbýř, ř., Ludwig, K. D., Watkins, L. E., Lagore, R. L., Nowacki, A., Tóth, F., Tompkins, M. A., Zhang, L., Adriany, G., Gold, G. E., Shea, K. G., Nagel, A. M., Carlson, et al
2023
- **Advanced MRI Approaches for Evaluating Common Lower Extremity Injuries in Basketball Players: Current and Emerging Techniques.** *Journal of magnetic resonance imaging : JMRI*
Rubin, E. B., Schmidt, A. M., Koff, M. F., Kogan, F., Gao, K., Majumdar, S., Potter, H., Gold, G. E.
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
- **Accelerated Epigenetic Aging Is Associated With Multiple Cardiometabolic, Hematologic, and Renal Abnormalities: A Project Baseline Health Substudy.** *Circulation. Genomic and precision medicine*
Uchegara, B., Coulter Kwee, L., Regan, J., Chatterjee, R., Eckstrand, J., Swope, S., Gold, G., Schaack, T., Douglas, P., Mettu, P., Haddad, F., Shore, S., Hernandez, et al
2023; e003772
- **Towards Automatic Cartilage Quantification in Clinical Trials - Continuing from the 2019 IWOAI Knee Segmentation Challenge.** *Osteoarthritis imaging*
Dam, E. B., Desai, A. D., Deniz, C. M., Rajamohan, H. R., Regatte, R., Iriondo, C., Padoia, V., Majumdar, S., Perslev, M., Igel, C., Pai, A., Gaj, S., Yang, et al
2023; 3 (1)
- **PREDICTING CHRONIC KNEE PAIN USING AN AUTOMATED MRIBASED BONE AND CARTILAGE STATISTICAL SHAPE MODEL: DATA FROM THE OSTEOARTHRITIS INITIATIVE**
Gatti, A. A., Kogan, F., Delp, S. L., Gold, G. E., Chaudhari, A. S.
ELSEVIER SCI LTD.2023: S78-S79
- **Denervation during mandibular distraction osteogenesis results in impaired bone formation.** *Scientific reports*
Tevlin, R., Griffin, M., Chen, K., Januszzyk, M., Guardino, N., Spielman, A., Walters, S., Gold, G. E., Chan, C. K., Gurtner, G. C., Wan, D. C., Longaker, M. T.
2023; 13 (1): 2097
- **Improving Data-Efficiency and Robustness of Medical Imaging Segmentation Using Inpainting-Based Self-Supervised Learning.** *Bioengineering (Basel, Switzerland)*
Dominic, J., Bhaskhar, N., Desai, A. D., Schmidt, A., Rubin, E., Gunel, B., Gold, G. E., Hargreaves, B. A., Lenchik, L., Boutin, R., Chaudhari, A. S.
2023; 10 (2)
- **A method for measuring B0 field inhomogeneity using quantitative double-echo in steady-state.** *Magnetic resonance in medicine*
Barbieri, M., Chaudhari, A. S., Moran, C. J., Gold, G. E., Hargreaves, B. A., Kogan, F.

2022

- **Personalization improves the biomechanical efficacy of foot progression angle modifications in individuals with medial knee osteoarthritis.** *Journal of biomechanics*
Uhlrich, S. D., Kolesar, J. A., Kidzinski, L., Boswell, M. A., Silder, A., Gold, G. E., Delp, S. L., Beaupre, G. S.
2022; 144: 111312
- **Acute response to bone loading in humans assessed using [18F]-NaF PET/MRI**
Haddock, B., Alcantara, R. S., Gatti, A. A., St Pierre, S. R., Kuhl, E., Peirlinck, M., Suetta, C., Gold, G. E., Kogan, F.
SPRINGER.2022: S18
- **[18F]Sodium Fluoride PET-MRI Detects Increased Metabolic Bone Response to Whole-Joint Loading Stress in Osteoarthritic Knees.** *Osteoarthritis and cartilage*
Watkins, L. E., Haddock, B., MacKay, J. W., Baker, J., Uhlrich, S. D., Mazzoli, V., Gold, G. E., Kogan, F.
2022
- **Contrast solution properties and scan parameters influence the apparent diffusivity of computed tomography contrast agents in articular cartilage.** *Journal of the Royal Society, Interface*
Hall, M. E., Wang, A. S., Gold, G. E., Levenston, M. E.
2022; 19 (193): 20220403
- **Generalizability of Deep Learning Segmentation Algorithms for Automated Assessment of Cartilage Morphology and MRI Relaxometry.** *Journal of magnetic resonance imaging : JMRI*
Schmidt, A. M., Desai, A. D., Watkins, L. E., Crowder, H. A., Black, M. S., Mazzoli, V., Rubin, E. B., Lu, Q., MacKay, J. W., Boutin, R. D., Kogan, F., Gold, G. E., Hargreaves, et al
2022
- **MULTI-INSTITUTIONAL LARGE-SCALE VALIDATION OF 8 METHODS FOR AUTOMATIC KNEE MRI SEGMENTATION FOR USE IN CLINICAL TRIALS**
Dam, E. B., Desai, A., Deniz, C., Rajamohan, H., Regatte, R., Iriondo, C., Pedoia, V., Majumdar, S., Perslev, M., Igel, C., Pai, A., Gaj, S., Yang, et al
ELSEVIER SCI LTD.2022: S291-S292
- **Femoral acetabular impingement labral pathology on MRI is correlated with greater hip flexion and decreased abduction in collegiate water polo players: A pilot study.** *Journal of ISAKOS : joint disorders & orthopaedic sports medicine*
Hall, K. E., Langner, J., Segovia, N., Schultz, B., Andriacchi, T., Gold, G., Safran, M. R.
2022; 7 (1): 7-12
- **Biological and clinical correlates of the patient health questionnaire-9: exploratory cross-sectional analyses of the baseline health study.** *BMJ open*
Califf, R. M., Wong, C., Doraiswamy, P. M., Hong, D. S., Miller, D. P., Mega, J. L.
2022; 12 (1): e054741
- **Validation of watershed-based segmentation of the cartilage surface from sequential CT arthrography scans.** *Quantitative imaging in medicine and surgery*
Hall, M. E., Black, M. S., Gold, G. E., Levenston, M. E.
2022; 12 (1): 1-14
- **Automatic estimation of knee effusion from limited MRI data.** *Scientific reports*
Raman, S., Gold, G. E., Rosen, M. S., Sveinsson, B.
2022; 12 (1): 3155
- **Rigid and Non-rigid Motion Compensation in Weight-bearing CBCT of the Knee using Simulated Inertial Measurements.** *IEEE transactions on bio-medical engineering*
Maier, J., Nitschke, M., Choi, J. H., Gold, G., Fahrig, R., Eskofier, B. M., Maier, A.
2021; PP
- **Gadolinium-free assessment of synovitis using diffusion tensor imaging.** *NMR in biomedicine*
Sandford, H. J., MacKay, J. W., Watkins, L. E., Gold, G. E., Kogan, F., Mazzoli, V.
2021: e4614
- **Open Source Software for Automatic Subregional Assessment of Knee Cartilage Degradation Using Quantitative T2 Relaxometry and Deep Learning.** *Cartilage*
Thomas, K. A., Krzeminski, D., Kidzinski, L., Paul, R., Rubin, E. B., Halilaj, E., Black, M. S., Chaudhari, A., Gold, G. E., Delp, S. L.

2021: 19476035211042406

- **Synthesizing Quantitative T2 Maps in Right Lateral Knee Femoral Condyles from Multicontrast Anatomic Data with a Conditional Generative Adversarial Network.** *Radiology. Artificial intelligence*
Sveinsson, B., Chaudhari, A. S., Zhu, B., Koonjoo, N., Torriani, M., Gold, G. E., Rosen, M. S.
2021; 3 (5): e200122
- **Imaging of Synovial Inflammation in Osteoarthritis, From the AJR Special Series on Inflammation.** *AJR. American journal of roentgenology*
Thoenen, J., MacKay, J. W., Sandford, H. J., Gold, G. E., Kogan, F.
2021
- **Validation of watershed-based segmentation of the cartilage surface from sequential CT arthrography scans** *QUANTITATIVE IMAGING IN MEDICINE AND SURGERY*
Hall, M. E., Black, M. S., Gold, G. E., Levenston, M. E.
2021
- **Continuous health monitoring: An opportunity for precision health.** *Science translational medicine*
Gambhir, S. S., Ge, T. J., Vermesh, O., Spitler, R., Gold, G. E.
2021; 13 (597)
- **Weight-Bearing C-Arm Cone-Beam CT Using a Dynamic Range Reducer (DyRaR): Initial Prototype and Phantom Studies**
Bennett, N., Zhang, H., Mueller, K., Fahrig, R., Maier, A., Levenston, M., Gold, G., Wang, A.
WILEY.2021
- **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
- **The International Workshop on Osteoarthritis Imaging Knee MRI Segmentation Challenge: A Multi-Institute Evaluation and Analysis Framework on a Standardized Dataset.** *Radiology. Artificial intelligence*
Desai, A. D., Caliva, F., Iriondo, C., Mortazi, A., Jambawalikar, S., Bagci, U., Perslev, M., Igel, C., Dam, E. B., Gaj, S., Yang, M., Li, X., Deniz, et al
2021; 3 (3): e200078
- **OPEN SOURCE AND AUTOMATIC SUBREGIONAL ASSESSMENT OF KNEE CARTILAGE DEGRADATION USING QUANTITATIVE T2 RELAXOMETRY AND DEEP LEARNING**
Thomas, K. A., Krzeminski, D., Kidzinski, L., Paul, R., Rubin, E. B., Halilaj, E., Black, M. S., Chaudhari, A., Gold, G. E., Delp, S. L.
ELSEVIER SCI LTD.2021: S43-S44
- **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
- **MR method for measuring microscopic histologic soft tissue textures.** *Magnetic resonance in medicine*
Sonn, G. A., Fan, R. E., Kunder, C. A., Gold, G. E., James, K. M., Parker, I. D., Carlson, J. M., Cannizzaro, S. M., James, T. W.
2021
- **Detection of knee synovitis using non-contrast-enhanced qDESS compared with contrast-enhanced MRI.** *Arthritis research & therapy*
de Vries, B. A., Breda, S. J., Sveinsson, B., McWalter, E. J., Meuffels, D. E., Krestin, G. P., Hargreaves, B. A., Gold, G. E., Oei, E. H.
2021; 23 (1): 55
- **A neural network to predict the knee adduction moment in patients with osteoarthritis using anatomical landmarks obtainable from 2D video analysis.** *Osteoarthritis and cartilage*
Boswell, M. A., Uhlrich, S. D., Kidzinski, L., Thomas, K., Kolesar, J. A., Gold, G. E., Beaupre, G. S., Delp, S. L.
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
- **T2 relaxation times of knee cartilage in 109 patients with knee pain and its association with disease characteristics.** *Acta orthopaedica*
Verschuereen, J. n., Van Langeveld, S. J., Dragoo, J. L., Bierma-Zeinstra, S. M., Reijman, M. n., Gold, G. E., Oei, E. H.
2021: 1–6
- **Effects of the Competitive Season and Off-Season on Knee Articular Cartilage in Collegiate Basketball Players Using Quantitative MRI: A Multicenter Study.** *Journal of magnetic resonance imaging : JMRI*
Rubin, E. B., Mazzoli, V. n., Black, M. S., Young, K. n., Desai, A. D., Koff, M. F., Sreedhar, A. n., Kogan, F. n., Safran, M. R., Vincentini, D. J., Knox, K. A., Yamada, T. n., McCabe, et al
2021
- **Diffusion Tensor Imaging of Skeletal Muscle Contraction Using Oscillating Gradient Spin Echo.** *Frontiers in neurology*
Mazzoli, V. n., Moulin, K. n., Kogan, F. n., Hargreaves, B. A., Gold, G. E.
2021; 12: 608549
- **Dynamic Range Reducer for C-Arm Cone-Beam CT Acquisitions: Initial Prototype and Evaluation**
Zhang, H., Bennett, N., Hsieh, S., Mueller, K., Fahrig, R., Maier, A., Levenston, M., Gold, G., Wang, A.
WILEY.2020: E393
- **Reconstructing C-Arm Cone-Beam CT Knee Scans Using an Open-Source GPU-Based Toolbox**
Zhang, H., Mueller, K., Fahrig, R., Maier, A., Levenston, M., Gold, G., Wang, A.
WILEY.2020: E403-E404
- **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
- **Key components of a successful PET/MR department**
Holley, D., Khalighi, M., Iagaru, A., Gold, G.
SOC NUCLEAR MEDICINE INC.2020
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