



Pejman Ghanouni, MD, PhD

Associate Professor of Radiology (Body MRI) and, by courtesy, of Neurosurgery, of Obstetrics and Gynecology and of Urology

CLINICAL OFFICE (PRIMARY)

- **Diagnostic Radiology**

300 Pasteur Dr Rm HG016 MC:5227

Stanford, CA 94305

Tel (510) 974-8416 **Fax** (650) 498-8933

ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

Barbara Bonini - Administrative Associate

Email bbonini@stanford.edu

Tel 650-736-6293

Bio

BIO

Dr. Ghanouni is a board-certified, fellowship-trained diagnostic radiologist with Stanford Health Care Radiology. He is an associate professor in the Department of Radiology, Division of Body MRI at Stanford University School of Medicine, and by courtesy, of Urology, of Neurosurgery, and of Obstetrics and Gynecology.

Dr. Ghanouni is the director of the Stanford Health Care Minimally Invasive MR Interventional Center (MIMRIC) and the Focused Ultrasound Center of Excellence. He is also chief of the Division of Body MRI at Stanford University School of Medicine.

Dr. Ghanouni is recognized around the world for his extensive expertise in using advanced imaging to diagnose, manage, and treat a wide range of conditions and disorders. As a renowned leader in diagnostic and MRI-guided interventional radiology, Dr. Ghanouni creates a customized care plan for each of his patients.

Dr. Ghanouni's research interests include the latest advances in MR-guided focused ultrasound techniques to treat essential tremor, Parkinson's disease, prostate cancer, bone tumors, desmoid tumors, and uterine fibroids. An experienced physician-scientist, Dr. Ghanouni has collaboratively led clinical trials and research initiatives that explore treatments for epilepsy, pancreatic cancer, and several types of tumors. Through these clinical trials, Dr. Ghanouni has helped secure FDA approval for many MR-guided focused ultrasound treatments.

His articles have been published in dozens of peer-reviewed medical journals, including Lancet Oncology, Neurology, Investigative Radiology, European Radiology, Journal of Magnetic Resonance Imaging, Journal of Neurosurgery, New England Journal of Medicine, and Radiology. Dr. Ghanouni has been invited to speak at conferences and symposiums all over the nation and the world, including in Rome, Italy; Tel Aviv, Israel; and Riyadh, Saudi Arabia. He is widely regarded for his groundbreaking research as well as his clinical expertise.

Dr. Ghanouni is a member of several professional organizations, including the International Society for Magnetic Resonance in Medicine, the International Society for Therapeutic Ultrasound, and the European Focused Ultrasound Society.

MR-guided focused ultrasound treatment: <https://www.youtube.com/watch?v=3Bwq2YxD9eU>

CLINICAL FOCUS

- Diagnostic Radiology

ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Radiology
- Associate Professor - University Medical Line (By courtesy), Neurosurgery
- Associate Professor - University Medical Line (By courtesy), Urology
- Associate Professor - University Medical Line (By courtesy), Obstetrics & Gynecology

PROFESSIONAL EDUCATION

- Medical Education: Stanford University School of Medicine (2005) CA
- Fellowship: Stanford University Body Imaging Fellowship (2011) CA
- Residency: Stanford University Radiology Residency (2010) CA
- Internship: Santa Clara Valley Medical Center Dept of Medicine (2006) CA
- Board Certification: Diagnostic Radiology, American Board of Radiology (2010)

LINKS

- MR-guided focused ultrasound treatment: <https://stanfordhealthcare.org/stanford-health-care-now/videos/mr-guided-focused-ultrasound-mrgfus.html>

Research & Scholarship

CLINICAL TRIALS

- A Comparison of TULSA Procedure vs. Radical Prostatectomy in Participants With Localized Prostate Cancer, Recruiting
- Study of Cryoablation and Nirogacestat for Desmoid Tumor, Recruiting
- 68Ga PSMA 11 PET/MRI and 68Ga RM2 PET/MRI for Biopsy Guidance in Patients With Suspected Prostate Cancer, Not Recruiting
- A Phase IV Post Approval Clinical Study of ExAblate Treatment of Metastatic Bone Tumors for the Palliation of Pain, Not Recruiting
- Continued Access Protocol: ExAblate Transcranial MR Guided Focused Ultrasound for the Treatment of Essential Tremors, Not Recruiting
- ExAblate (MRgFUS) Treatment of Metastatic Bone Tumors for the Palliation of Pain, Not Recruiting
- ExAblate Conformal Bone System Treatment of Metastatic Bone Tumors for the Palliation of Pain, Not Recruiting
- ExAblate Transcranial MR Guided Focused Ultrasound for the Treatment of Essential Tremors, Not Recruiting
- ExAblate Treatment of Metastatic Bone Tumors for the Palliation of Pain, Not Recruiting
- ExAblate UF V2 System for the Treatment of Symptomatic Uterine Fibroids, Not Recruiting
- Feasibility of ExAblate MRI Guided High Intensity Focused Ultrasound Tx of Soft Tissue Tumors, Not Recruiting
- Magnetic Resonance Guided High Intensity Focused Ultrasound in Advanced Pancreatic Adenocarcinoma Treatment, Not Recruiting
- MR Guided Focused Ultrasound vs Radiotherapy for Palliative Pain Tx in Bone Metastases, Not Recruiting
- MR Guided High Intensity Focused Ultrasound for Lumbar Back Pain, Not Recruiting

Teaching

COURSES

2024-25

- Introduction to Imaging and Image-based Human Anatomy: BIOE 220, BMP 220, RAD 220 (Win)

2023-24

- Introduction to Imaging and Image-based Human Anatomy: BIOE 220, BMP 220, RAD 220 (Win)

2022-23

- Introduction to Imaging and Image-based Human Anatomy: BIOE 220, BMP 220, RAD 220 (Win)

2021-22

- Introduction to Imaging and Image-based Human Anatomy: BIOE 220, RAD 220 (Win)

Publications

PUBLICATIONS

- **Phase II trial of organ preservation program using short-course radiation and FOLFOXIRI for rectal cancer (SHORT-FOX): Two-Year primary outcome analysis.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*
Klebaner, D., Brown, E., Fisher, G. A., Shelton, A., Johnson, T. P., Shaheen, S., Chen, C., Heestand, G., Holden, T., Bien, J., King, D. A., Dawes, A. J., Morris, et al
2025; 207: 110884
- **ProstAtlasDiff: Prostate cancer detection on MRI using Diffusion Probabilistic Models guided by population spatial cancer atlases.** *Medical image analysis*
Li, C. X., Bhattacharya, I., Vesal, S., Ghanouni, P., Jahanandish, H., Fan, R. E., Sonn, G. A., Rusu, M.
2025; 101: 103486
- **ProCUSNet: Prostate Cancer Detection on B-mode Transrectal Ultrasound Using Artificial Intelligence for Targeting During Prostate Biopsies.** *European urology oncology*
Rusu, M., Jahanandish, H., Vesal, S., Li, C. X., Bhattacharya, I., Venkataraman, R., Zhou, S. R., Kornberg, Z., Sommer, E. R., Khandwala, Y. S., Hockman, L., Zhou, Z., Chol, et al
2025
- **MRI features that predict progression of residual disease after ablation of extra-abdominal desmoid fibromatosis.** *European radiology*
Dux, D. M., Chodakiewitz, Y., Bitton, R., Sewell, S., Sheth, V. R., Ghanouni, P., Brunsing, R. L.
2025
- **The Challenge of External Generalisability: Insights from the Bicentric Validation of a [68Ga]Ga-PSMA-11 PET Based Radiomics Signature for Primary Prostate Cancer Characterisation Using Histopathology as Reference.** *Cancers*
Ghezzi, S., Bharathi, P. G., Duan, H., Mapelli, P., Sorgo, P., Davidzon, G. A., Bezzi, C., Chung, B. I., Samanes Gajate, A. M., Thong, A. E., Russo, T., Brembilla, G., Loening, et al
2024; 16 (23)
- **"Quality over quantity:" smaller, targeted lesions optimize quality of life outcomes after MR-guided focused ultrasound thalamotomy for essential tremor.** *Frontiers in neurology*
Buch, V. P., Purger, D., Datta, A., Wang, A., Barbosa, D., Chodakiewitz, Y., Lev-Tov, L., Li, C., Halpern, C., Henderson, J., McNab, J. A., Bitton, R. R., Ghanouni, et al
2024; 15: 1450699
- **Reply to Letter to the Editor: "What predicts durable symptom relief of uterine fibroids treated with MRI-guided focused ultrasound? A multi-center trial in 8 academic centers".** *European radiology*
Bitton, R. R., Ghanouni, P.
2024

- **Nested Semi-Transparent Isosurface Simulated Volume-Rendering (NESTIS-VR) - An efficient on-device rendering approach for Augmented Reality headsets increasing surgeon confidence of kidney donor arterial anatomy.** *Computers in biology and medicine*
Necker, F. N., Melcher, M. L., Busque, S., Leuze, C. W., Ghanouni, P., Le Castillo, C., Nguyen, E., Daniel, B. L.
2024; 183: 109267
- **Intraprocedural Diffusion-weighted Imaging for Predicting Ablation Zone during MRI-guided Focused Ultrasound of Prostate Cancer.** *Radiology. Imaging cancer*
Bitton, R. R., Shao, W., Chodakeiwitz, Y., Brunsing, R. L., Sonn, G., Rusu, M., Ghanouni, P.
2024; 6 (5): e240009
- **Safety and Efficacy of Staged, Bilateral Focused Ultrasound Thalamotomy in Essential Tremor: An Open-Label Clinical Trial.** *JAMA neurology*
Kapliitt, M. G., Krishna, V., Eisenberg, H. M., Elias, W. J., Ghanouni, P., Baltuch, G. H., Rezai, A., Halpern, C. H., Dalm, B., Fishman, P. S., Buch, V. P., Moosa, S., Sarva, et al
2024
- **Artificial Intelligence-Driven Model for Prostate Cancer Staging with PSMA PET: A Study Integrating Radiomics Features and SVM Classifier**
Bharathi, P., Ghezzi, S., Duan, H., Mapelli, P., Davidzon, G., Bezzi, C., Chung, B., Gajate, A., Thong, A., Russo, T., Brembilla, G., Loening, A., Ghanouni, et al
SOC NUCLEAR MEDICINE INC.2024
- **RAPHIA: A deep learning pipeline for the registration of MRI and whole-mount histopathology images of the prostate.** *Computers in biology and medicine*
Shao, W., Vesal, S., Soerensen, S. J., Bhattacharya, I., Golestani, N., Yamashita, R., Kunder, C. A., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A., Rusu, M.
2024; 173: 108318
- **High-Intensity Focused Ultrasound Surgery for Tumor Ablation: A Review of Current Applications.** *Radiology. Imaging cancer*
De Maio, A., Alfieri, G., Mattone, M., Ghanouni, P., Napoli, A.
2024; 6 (1): e230074
- **MR Imaging-Guided Prostate Cancer Therapies.** *Radiologic clinics of North America*
Adamo, D. A., Greenwood, B. M., Ghanouni, P., Arora, S.
2024; 62 (1): 121-133
- **ArtHiFy: Artificial Histopathology-style Features for Improving MRI-Based Prostate Cancer Detection**
Bhattacharya, I., Shao, W., Li, X., Soerensen, S. C., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A., Rusu, M., Chen, W., Astley, S. M.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **MR-guided focused ultrasound therapy of extra-abdominal desmoid tumors: a multicenter retrospective study of 105 patients.** *European radiology*
Düx, D. M., Baal, J. D., Bitton, R., Chen, J., Brunsing, R. L., Sheth, V. R., Rosenberg, J., Kim, K., Ozhinsky, E., Avedian, R., Ganjoo, K., Bucknor, M., Dobrotwir, et al
2023
- **What predicts durable symptom relief of uterine fibroids treated with MRI-guided focused ultrasound? A multicenter trial in 8 academic centers.** *European radiology*
Bitton, R. R., Fast, A., Vu, K. N., Lum, D. A., Chen, B., Hesley, G. K., Raman, S. S., Matsumoto, A. H., Price, T. M., Tempany, C., Dhawan, N., Dolen, E., Kohli, et al
2023
- **Immunoglobulin G4-Seronegative Autoimmune Cholangiopathy With Pancreatic and Hepatic Involvement Mimicking as Primary Sclerosing Cholangitis.** *ACG case reports journal*
Achal, S., Berry, R., Wei, M. T., Banerjee, S., Ghanouni, P., Kambham, N., Kwo, P. Y.
2023; 10 (4): e01044
- **CT-guided Pulsed Radiofrequency Combined with Steroid Injection for Sciatica from Herniated Disk: A Randomized Trial.** *Radiology*
Napoli, A., Alfieri, G., De Maio, A., Panella, E., Scipione, R., Facchini, G., Albisinni, U., Spinnato, P., Nardis, P. G., Tramutoli, R., Lenzi, J., Ghanouni, P., Bazzocchi, et al
2023: 221478

- **Trial of Globus Pallidus Focused Ultrasound Ablation in Parkinson's Disease.** *The New England journal of medicine*
Krishna, V., Fishman, P. S., Eisenberg, H. M., Kaplitt, M., Baltuch, G., Chang, J. W., Chang, W., Martinez Fernandez, R., Del Alamo, M., Halpern, C. H., Ghanouni, P., Eleopra, R., Cosgrove, et al
2023; 388 (8): 683-693
- **Focused Ultrasound and External Beam Radiation Therapy for Painful Bone Metastases: A Phase II Clinical Trial.** *Radiology*
Napoli, A., De Maio, A., Alfieri, G., Gasperini, C., Scipione, R., Campanacci, L., Siepe, G., De Felice, F., Siniscalchi, B., Chiurchioni, L., Tombolini, V., Donati, D. M., Morganti, et al
2023: 211857
- **A Pilot Study of 68Ga-PSMA11 and 68Ga-RM2 PET/MRI for Biopsy Guidance in Patients with Suspected Prostate Cancer.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
Duan, H., Ghanouni, P., Daniel, B., Rosenberg, J., Thong, A., Kunder, C., Mari Aparici, C., Davidzon, G. A., Moradi, F., Sonn, G. A., Iagaru, A.
2022
- **The Association of Tissue Change and Treatment Success During High-intensity Focused Ultrasound Focal Therapy for Prostate Cancer.** *European urology focus*
Khandwala, Y. S., Soerensen, S. J., Morisettey, S., Ghanouni, P., Fan, R. E., Vesal, S., Rusu, M., Sonn, G. A.
2022
- **A Pilot Study of 68Ga-PSMA11 and 68Ga-RM2 PET/MRI for Evaluation of Prostate Cancer Response to High Intensity Focused Ultrasound (HIFU) Therapy.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
Duan, H., Ghanouni, P., Daniel, B., Rosenberg, J., Davidzon, G. A., Mari Aparici, C., Kunder, C., Sonn, G., Iagaru, A.
2022
- **A review of artificial intelligence in prostate cancer detection on imaging.** *Therapeutic advances in urology*
Bhattacharya, I., Khandwala, Y. S., Vesal, S., Shao, W., Yang, Q., Soerensen, S. J., Fan, R. E., Ghanouni, P., Kunder, C. A., Brooks, J. D., Hu, Y., Rusu, M., Sonn, et al
2022; 14: 17562872221128791
- **Tempering optimism for MRI-guided focused ultrasound therapy Reply** *LANCET ONCOLOGY*
Ehdaie, B., Sonn, G. A., Ghanouni, P.
2022; 23 (10): E439
- **IgG4-Seronegative Autoimmune Cholangiopathy With Pancreatic and Hepatic Involvement Mimicking as Primary Sclerosing Cholangitis**
Achal, S., Wei, M., Berry, R., Banerjee, S., Ghanouni, P., Kwo, P.
LIPPINCOTT WILLIAMS & WILKINS.2022: S1231
- **Therapeutic US Applications for the Abdomen and Pelvis.** *Radiographics : a review publication of the Radiological Society of North America, Inc*
Sailer, A., Ghanouni, P., Schade, G. R., Napoli, A., Vidal-Jove, J., Raman, S. S., Mendiratta-Lala, M., Ghai, S., Abreu, A., Sundaram, K. M., Westphalen, A., Arora, S.
2022; 42 (6): E182-E183
- **Tempering optimism for MRI-guided focused ultrasound therapy - Authors' reply.** *The Lancet. Oncology*
Ehdaie, B., Sonn, G. A., Ghanouni, P.
2022; 23 (10): e439
- **Evaluation of post-ablation mpMRI as a predictor of residual prostate cancer after focal high intensity focused ultrasound (HIFU) ablation.** *Urologic oncology*
Khandwala, Y. S., Morisettey, S., Ghanouni, P., Fan, R. E., Soerensen, S. J., Rusu, M., Sonn, G. A.
2022
- **A Pilot Study of Ga-68-PSMA11 and Ga-68-RM2 PET/MRI for Evaluation of Prostate Cancer Response to High Intensity Focused Ultrasound (HIFU) Therapy**
Duan, H., Ghanouni, P., Daniel, B., Rosenberg, J., Davidzon, G. A., Aparici, C., Thong, A., Sonn, G. A., Kunder, C., Iagaru, A.
SPRINGER.2022: S497-S498
- **A Pilot Study of Ga-68-PSMA11 and 68Ga-RM2 PET/MRI for Biopsy Guidance in Patients with Suspected Prostate Cancer**
Duan, H., Ghanouni, P., Daniel, B., Rosenberg, J., Thong, A., Sonn, G. A., Kunder, C., Davidzon, G. A., Aparici, C., Moradi, F., Iagaru, A.
SPRINGER.2022: S484

- **Management of Patients with Newly Diagnosed Desmoid Tumors in a First-Line Setting.** *Cancers*
Testa, S., Bui, N. Q., Charville, G. W., Avedian, R. S., Steffner, R., Ghanouni, P., Mohler, D. G., Ganjoo, K. N.
2022; 14 (16)
- **Magnetic resonance imaging-guided focused ultrasound thalamotomy for essential tremor: 5-year follow-up results.** *Journal of neurosurgery*
Cosgrove, G. R., Lipsman, N., Lozano, A. M., Chang, J. W., Halpern, C., Ghanouni, P., Eisenberg, H., Fishman, P., Taira, T., Schwartz, M. L., McDannold, N., Hayes, M., Ro, et al
2022: 1-6
- **Comparison between MR and CT imaging used to correct for skull-induced phase aberrations during transcranial focused ultrasound.** *Scientific reports*
Leung, S. A., Moore, D., Gilbo, Y., Snell, J., Webb, T. D., Meyer, C. H., Miller, G. W., Ghanouni, P., Butts Pauly, K.
2022; 12 (1): 13407
- **Improving Transcranial Acoustic Targeting: The Limits of CT Based Velocity Estimates and The Role of MR.** *IEEE transactions on ultrasonics, ferroelectrics, and frequency control*
Webb, T. D., Fu, F., Leung, S. A., Ghanouni, P., Dahl, J., Does, M. D., Pauly, K. B.
2022; PP
- **MRI-guided focused ultrasound focal therapy for patients with intermediate-risk prostate cancer: a phase 2b, multicentre study.** *The Lancet. Oncology*
Ehdaie, B., Tempany, C. M., Holland, F., Sjoberg, D. D., Kibel, A. S., Trinh, Q., Durack, J. C., Akin, O., Vickers, A. J., Scardino, P. T., Sperling, D., Wong, J. Y., Yuh, et al
2022
- **Changes In The Cerebello-thalamo-cortical Network After MR-guided Focused Ultrasound Thalamotomy.** *Brain connectivity*
Thaler, C., Tian, Q., Wintermark, M., Ghanouni, P., Halpern, C., Henderson, J., Airan, R., Zeineh, M., Goubran, M., Leuze, C., Fiehler, J., Butts Pauly, K., McNab, et al
2022
- **Computational Detection of Extraprostatic Extension of Prostate Cancer on Multiparametric MRI Using Deep Learning.** *Cancers*
Moroianu, S. L., Bhattacharya, I., Seetharaman, A., Shao, W., Kunder, C. A., Sharma, A., Ghanouni, P., Fan, R. E., Sonn, G. A., Rusu, M.
2022; 14 (12)
- **Bridging the gap between prostate radiology and pathology through machine learning.** *Medical physics*
Bhattacharya, I., Lim, D. S., Aung, H. L., Liu, X., Seetharaman, A., Kunder, C. A., Shao, W., Soerensen, S. J., Fan, R. E., Ghanouni, P., To'o, K. J., Brooks, J. D., Sonn, et al
2022
- **Correlation of 68Ga-RM2 PET with Post-Surgery Histopathology Findings in Patients with Newly Diagnosed Intermediate- or High-Risk Prostate Cancer.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
Duan, H., Baratto, L., Fan, R. E., Soerensen, S. J., Liang, T., Chung, B. I., Thong, A. E., Gill, H., Kunder, C., Stoyanova, T., Rusu, M., Loening, A. M., Ghanouni, et al
2022
- **68Ga-PSMA-11 PET/MRI in patients with newly diagnosed intermediate or high-risk prostate adenocarcinoma: PET findings correlate with outcomes after definitive treatment.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
Moradi, F., Duan, H., Song, H., Davidzon, G. A., Chung, B. I., Thong, A. E., Loening, A. M., Ghanouni, P., Sonn, G., Iagaru, A.
2022
- **A Review of Imaging Methods to Assess Ultrasound-Mediated Ablation.** *BME frontiers*
Fite, B. Z., Wang, J., Ghanouni, P., Ferrara, K. W.
2022; 2022
- **Current management and recent progress in desmoid tumors.** *Cancer treatment and research communications*
Zhou, M. Y., Bui, N. Q., Charville, G. W., Ghanouni, P., Ganjoo, K. N.
2022; 31: 100562
- **Real-Time MRI-Guided Prostate Interventions.** *Cancers*
Masoom, S. N., Sundaram, K. M., Ghanouni, P., Futterer, J., Oto, A., Ayyagari, R., Sprengle, P., Weinreb, J., Arora, S.

2022; 14 (8)

- **Confirmation of Ectopic Pancreatic Tissue: A Novel Use for 18F-Fluciclovine PET.** *Clinical nuclear medicine*
Keller, E. J., de Castro, C. M., Ghanouni, P., Shah, J.
2022
- **Increasing the transmission efficiency of transcranial ultrasound using a dual-mode conversion technique based on Lamb waves.** *The Journal of the Acoustical Society of America*
Kang, K. C., Kim, Y. H., Kim, J. N., Kabir, M., Zhang, Y., Ghanouni, P., Park, K. K., Firouzi, K., Khuri-Yakub, B. T.
2022; 151 (3): 2159
- **Focused Ultrasound for Pediatric Diseases.** *Pediatrics*
Janwadkar, R., Leblang, S., Ghanouni, P., Brenner, J., Ragheb, J., Hennekens, C. H., Kim, A., Sharma, K.
2022; 149 (3)
- **A Review of Imaging Methods to Assess Ultrasound-Mediated Ablation** *BMEF: A Science Partner Journal*
Fite, B. Z., Wang, J., Ghanouni, P., Ferrara, K. W.
2022
- **Integrating zonal priors and pathomic MRI biomarkers for improved aggressive prostate cancer detection on MRI**
Bhattacharya, I., Shao, W., Soerensen, S. C., Fan, R. E., Wang, J. B., Kunder, C., Ghanouni, P., Sonn, G. A., Rusu, M., Drukker, K., Iftekharuddin, K. M.
SPIE-INT SOC OPTICAL ENGINEERING.2022
- **Patterned Interference Radiation Force for Transcranial Neuromodulation.** *Ultrasound in medicine & biology*
Kim, Y. H., Kang, K. C., Kim, J. N., Pai, C. N., Zhang, Y., Ghanouni, P., Park, K. K., Firouzi, K., Khuri-Yakub, B. T.
1800
- **The stanford prostate cancer calculator: Development and external validation of online nomograms incorporating PIRADS scores to predict clinically significant prostate cancer.** *Urologic oncology*
Wang, N. N., Zhou, S. R., Chen, L., Tibshirani, R., Fan, R. E., Ghanouni, P., Thong, A. E., To'o, K. J., Amirkhiz, K., Nix, J. W., Gordetsky, J. B., Sprengle, P., Rais-Bahrami, et al
2021
- **AAPM Task Group 241: A Medical Physicist's Guide to MRI-guided Focused Ultrasound Body Systems.** *Medical physics*
Payne, A., Chopra, R., Ellens, N., Chen, L., Ghanouni, P., Sammet, S., Diederich, C., Ter Haar, G., Parker, D., Moonen, C., Stafford, J., Moros, E., Schlesinger, et al
2021
- **A Pilot Study of 68Ga-PSMA11 PET/MRI and 68GaRM2 PET/MRI for Biopsy Guidance in Patients with Suspected Prostate Cancer**
Duan, H., Ferri, V., Ghanouni, P., Daniel, B., Hatami, N., Davidzon, G., Aparici, C., Moradi, F., Thong, A., Sonn, G., Iagaru, A.
SOC NUCLEAR MEDICINE INC.2021
- **Automated Detection of Aggressive and Indolent Prostate Cancer on Magnetic Resonance Imaging.** *Medical physics*
Seetharaman, A., Bhattacharya, I., Chen, L. C., Kunder, C. A., Shao, W., Soerensen, S. J., Wang, J. B., Teslovich, N. C., Fan, R. E., Ghanouni, P., Brooks, J. D., To'o, K. J., Sonn, et al
2021
- **Transcranial focused ultrasound phase correction using the hybrid angular spectrum method.** *Scientific reports*
Leung, S. A., Moore, D., Webb, T. D., Snell, J., Ghanouni, P., Butts Pauly, K.
2021; 11 (1): 6532
- **Evaluation of an MRI receive head coil for use in transcranial MR guided focused ultrasound for functional neurosurgery.** *International journal of hyperthermia : the official journal of European Society for Hyperthermic Oncology, North American Hyperthermia Group*
Bitton, R. R., Sheingauz, E., Assif, B., Kelm, N., Dayan, M., Butts Pauly, K., Ghanouni, P.
2021; 38 (1): 22–29
- **Selective identification and localization of indolent and aggressive prostate cancers via CorrSigNIA: an MRI-pathology correlation and deep learning framework.** *Medical image analysis*
Bhattacharya, I., Seetharaman, A., Kunder, C., Shao, W., Chen, L. C., Soerensen, S. J., Wang, J. B., Teslovich, N. C., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A., Rusu, et al

2021; 75: 102288

- **Weakly Supervised Registration of Prostate MRI and Histopathology Images**
Shao, W., Bhattacharya, I., Soerensen, S. C., Kunder, C. A., Wang, J. B., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A., Rusu, M., DeBruijne, M., Cattin, P. C., Cotin, et al
SPRINGER INTERNATIONAL PUBLISHING AG.2021: 98-107
- **Focused ultrasound for functional neurosurgery.** *Journal of neuro-oncology*
Lev-Tov, L., Barbosa, D. A., Ghanouni, P., Halpern, C. H., Buch, V. P.
2021
- **Clinically significant prostate cancer detection on MRI with self-supervised learning using image context restoration**
Bolous, A., Seetharaman, A., Bhattacharya, I., Fan, R. E., Soerensen, S., Chen, L., Ghanouni, P., Sonn, G. A., Rusu, M., Mazurowski, M. A., Drukker, K.
SPIE-INT SOC OPTICAL ENGINEERING.2021
- **Design and evaluation of an open-source, conformable skin-cooling system for body magnetic resonance guided focused ultrasound treatments.** *International journal of hyperthermia : the official journal of European Society for Hyperthermic Oncology, North American Hyperthermia Group*
Merrill, R., Odeen, H., Dillon, C., Bitton, R., Ghanouni, P., Payne, A.
2021; 38 (1): 679–90
- **3D Registration of pre-surgical prostate MRI and histopathology images via super-resolution volume reconstruction.** *Medical image analysis*
Sood, R. R., Shao, W. n., Kunder, C. n., Teslovich, N. C., Wang, J. B., Soerensen, S. J., Madhuripan, N. n., Jawahar, A. n., Brooks, J. D., Ghanouni, P. n., Fan, R. E., Sonn, G. A., Rusu, et al
2021; 69: 101957
- **Registration of pre-surgical MRI and histopathology images from radical prostatectomy via RAPSODI.** *Medical physics*
Rusu, M., Shao, W., Kunder, C. A., Wang, J. B., Soerensen, S. J., Teslovich, N. C., Sood, R. R., Chen, L. C., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A.
2020
- **Impact of skull density ratio on efficacy and safety of magnetic resonance-guided focused ultrasound treatment of essential tremor** *JOURNAL OF NEUROSURGERY*
D'Souza, M., Chen, K. S., Rosenberg, J., Elias, W., Eisenberg, H. M., Gwinn, R., Taira, T., Chang, J., Lipsman, N., Krishna, V., Igase, K., Yamada, K., Kishima, et al
2020; 132 (5): 1392–97
- **Does Fibroid Size and Bulk Affect Uterine Fibroid Symptom (UFS) Scores in Asian Compared to Caucasian Women?**
Dhanani, Z., Ramirez, N., Ghanouni, P., Chen, B.
LIPPINCOTT WILLIAMS & WILKINS.2020: 21S
- **Does Fibroid Size and Bulk Affect Uterine Fibroid Symptom (UFS) Scores in Asian Compared to Caucasian Women?**
Ramirez, N., Dhanani, Z., Ghanouni, P., Chen, B.
SPRINGER HEIDELBERG.2020: 134A
- **Bilateral Deep Brain Stimulation is the Procedure to Beat for Advanced Parkinson Disease: A Meta-Analytic, Cost-Effective Threshold Analysis for Focused Ultrasound.** *Neurosurgery*
Mahajan, U. V., Ravikumar, V. K., Kumar, K. K., Ku, S. n., Ojukwu, D. I., Kilbane, C. n., Ghanouni, P. n., Rosenow, J. M., Stein, S. C., Halpern, C. H.
2020
- **Acoustic Attenuation: Multifrequency Measurement and Relationship To CT and MR Imaging.** *IEEE transactions on ultrasonics, ferroelectrics, and frequency control*
Webb, T. D., Leung, S. A., Ghanouni, P. n., Dahl, J. J., Pelc, N. J., Pauly, K. B.
2020; PP
- **Improved Vim targeting for focused ultrasound ablation treatment of essential tremor: A probabilistic and patient-specific approach.** *Human brain mapping*
Su, J. H., Choi, E. Y., Tournias, T. n., Saranathan, M. n., Halpern, C. H., Henderson, J. M., Pauly, K. B., Ghanouni, P. n., Rutt, B. K.
2020

- **Case Report on Deep Brain Stimulation Rescue After Suboptimal MR-Guided Focused Ultrasound Thalamotomy for Essential Tremor: A Tractography-Based Investigation.** *Frontiers in human neuroscience*
Saluja, S. n., Barbosa, D. A., Parker, J. J., Huang, Y. n., Jensen, M. R., Ngo, V. n., Santini, V. E., Pauly, K. B., Ghanouni, P. n., McNab, J. A., Halpern, C. H.
2020; 14: 191
- **MRI-Guided Focused Ultrasound of Osseous Metastases: Treatment Parameters Associated With Successful Pain Reduction.** *Investigative radiology*
Bitton, R. R., Rosenberg, J. n., LeBlang, S. n., Napoli, A. n., Meyer, J. n., Butts Pauly, K. n., Hurwitz, M. n., Ghanouni, P. n.
2020
- **ProsRegNet: A deep learning framework for registration of MRI and histopathology images of the prostate.** *Medical image analysis*
Shao, W. n., Banh, L. n., Kunder, C. A., Fan, R. E., Soerensen, S. J., Wang, J. B., Teslovich, N. C., Madhuripan, N. n., Jawahar, A. n., Ghanouni, P. n., Brooks, J. D., Sonn, G. A., Rusu, et al
2020; 68: 101919
- **Three-year follow-up of prospective trial of focused ultrasound thalamotomy for essential tremor.** *Neurology*
Halpern, C. H., Santini, V., Lipsman, N., Lozano, A. M., Schwartz, M. L., Shah, B. B., Elias, W. J., Cosgrove, G. R., Hayes, M. T., McDannold, N., Aldrich, C., Eisenberg, H. M., Gandhi, et al
2019
- **Predictors of Outcomes After Focused Ultrasound Thalamotomy.** *Neurosurgery*
Krishna, V., Sammartino, F., Cosgrove, R., Ghanouni, P., Schwartz, M., Gwinn, R., Eisenberg, H., Fishman, P., Chang, J. W., Taira, T., Kaplitt, M., Rezai, A., Rumia, et al
2019
- **Prolonged heating in nontargeted tissue during MR-guided focused ultrasound of bone tumors** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Bitton, R. R., Webb, T. D., Pauly, K., Ghanouni, P.
2019; 50 (5): 1526–33
- **Prostate Magnetic Resonance Imaging Interpretation Varies Substantially Across Radiologists** *EUROPEAN UROLOGY FOCUS*
Sonn, G. A., Fan, R. E., Ghanouni, P., Wang, N. N., Brooks, J. D., Loening, A. M., Daniel, B. L., To'o, K. J., Thong, A. E., Leppert, J. T.
2019; 5 (4): 592–99
- **Evaluation of the routine use of pelvic MRI in women presenting with symptomatic uterine fibroids: When is pelvic MRI useful?** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Kim-Nhien Vu, Fast, A. M., Shaffer, R. K., Rosenberg, J., Dababou, S., Marrocchio, C., Vasanaawala, S. S., Lum, D. A., Chen, B., Hovsepian, D. M., Ghanouni, P.
2019; 49 (7): E271–E281
- **Magnetic-resonance-guided focused ultrasound treatment of non-spinal osteoid osteoma in children: multicentre experience.** *Pediatric radiology*
Arrigoni, F., Napoli, A., Bazzocchi, A., Zugaro, L., Scipione, R., Bruno, F., Palumbo, P., Anzidei, M., Mercatelli, D., Gravina, G. L., Zoccali, C., Ghanouni, P., Barile, et al
2019
- **How Often is the Dynamic Contrast Enhanced Score Needed in PI-RADS Version 2?** *Current problems in diagnostic radiology*
Roh, A. T., Fan, R. E., Sonn, G. A., Vasanaawala, S. S., Ghanouni, P., Loening, A. M.
2019
- **Are fibroid and bony pelvis characteristics associated with urinary and pelvic symptom severity?**
Shaffer, R. K., Dobberfuhr, A. D., Vu, K., Fast, A. M., Dababou, S., Marrocchio, C., Lum, D. A., Hovsepian, D. M., Ghanouni, P., Chen, B.
MOSBY-ELSEVIER.2019
- **Prolonged Heating in Nontargeted Tissue During MR-guided Focused Ultrasound of Bone Tumors.** *Journal of magnetic resonance imaging : JMRI*
Bitton, R. R., Webb, T. D., Pauly, K. B., Ghanouni, P.
2019
- **MR-Guided Focused Ultrasound Versus Radiofrequency Capsulotomy for Treatment-Refractory Obsessive-Compulsive Disorder: A Cost-Effectiveness Threshold Analysis.** *Frontiers in neuroscience*

- Kumar, K. K., Bhati, M. T., Ravikumar, V. K., Ghanouni, P., Stein, S. C., Halpern, C. H.
2019; 13: 66
- **MR-Guided Focused Ultrasound Versus Radiofrequency Capsulotomy for Treatment-Refractory Obsessive-Compulsive Disorder: A Cost-Effectiveness Threshold Analysis** *FRONTIERS IN NEUROSCIENCE*
Kumar, K. K., Bhati, M. T., Ravikumar, V. K., Ghanouni, P., Stein, S. C., Halpern, C. H.
2019; 13
 - **Are Fibroid and Bony Pelvis Characteristics Associated with Urinary and Pelvic Symptom Severity?** *American journal of obstetrics and gynecology*
Shaffer, R. K., Dobberfuhr, A. D., Vu, K., Fast, A. M., Dababou, S., Marrocchio, C., Lum, D. A., Hovsepian, D. M., Ghanouni, P., Chen, B.
2019
 - **Evaluation of the routine use of pelvic MRI in women presenting with symptomatic uterine fibroids: When is pelvic MRI useful?** *Journal of magnetic resonance imaging : JMRI*
Vu, K., Fast, A. M., Shaffer, R. K., Rosenberg, J., Dababou, S., Marrocchio, C., Vasanaawala, S. S., Lum, D. A., Chen, B., Hovsepian, D. M., Ghanouni, P.
2019
 - **Applying the PRECISION approach in biopsy naïve and previously negative prostate biopsy patients.** *Urologic oncology*
Wang, N. N., Teslovich, N. C., Fan, R. E., Ghanouni, P. n., Leppert, J. T., Brooks, J. D., Ahmadi, S. n., Sonn, G. A.
2019
 - **Framework for the co-registration of MRI and Histology Images in Prostate Cancer Patients with Radical Prostatectomy**
Rusu, M., Kunder, C., Fan, R., Ghanouni, P., West, R., Sonn, G., Brooks, J., Angelini, E. D., Landman, B. A.
SPIE-INT SOC OPTICAL ENGINEERING.2019
 - **Impact of skull density ratio on efficacy and safety of magnetic resonance-guided focused ultrasound treatment of essential tremor.** *Journal of neurosurgery*
D'Souza, M. n., Chen, K. S., Rosenberg, J. n., Elias, W. J., Eisenberg, H. M., Gwinn, R. n., Taira, T. n., Chang, J. W., Lipsman, N. n., Krishna, V. n., Igase, K. n., Yamada, K. n., Kishima, et al
2019: 1–6
 - **A rapid beam simulation framework for transcranial focused ultrasound.** *Scientific reports*
Leung, S. A., Webb, T. D., Bitton, R. R., Ghanouni, P. n., Butts Pauly, K. n.
2019; 9 (1): 7965
 - **Teaching Urologists "How to Read Multi-Parametric Prostate MRIs Using PIRADSV2": Results of an iBook Pilot Study.** *Urology*
Wang, N. N., Fan, R. E., Ghanouni, P. n., Sonn, G. A.
2019
 - **Performance of multiparametric MRI appears better when measured in patients who undergo radical prostatectomy.** *Research and reports in urology*
Wang, N. N., Fan, R. E., Leppert, J. T., Ghanouni, P., Kunder, C. A., Brooks, J. D., Chung, B. I., Sonn, G. A.
2018; 10: 233-235
 - **Measurements of the Relationship Between CT Hounsfield Units and Acoustic Velocity and How It Changes With Photon Energy and Reconstruction Method** *IEEE TRANSACTIONS ON ULTRASONICS FERROELECTRICS AND FREQUENCY CONTROL*
Webb, T. D., Leung, S. A., Rosenberg, J., Ghanouni, P., Dahl, J. J., Pelc, N. J., Pauly, K.
2018; 65 (7): 1111–24
 - **Bowel endometriosis: diagnosis and management** *AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY*
Nezhat, C., Li, A., Falik, R., Copeland, D., Razavi, G., Shakib, A., Mihailide, C., Bamford, H., DiFrancesco, L., Tazuke, S., Ghanouni, P., Rivas, H., Nezhat, et al
2018; 218 (6): 549–62
 - **Gallium 68 PSMA-11 PET/MR Imaging in Patients with Intermediate- or High-Risk Prostate Cancer.** *Radiology*
Park, S. Y., Zacharias, C., Harrison, C., Fan, R. E., Kunder, C., Hatami, N., Giesel, F., Ghanouni, P., Daniel, B., Loening, A. M., Sonn, G. A., Iagaru, A.
2018: 172232

- **Neurological adverse event profile of magnetic resonance imaging-guided focused ultrasound thalamotomy for essential tremor** *MOVEMENT DISORDERS*
Fishman, P. S., Elias, W., Ghanouni, P., Gwinn, R., Lipsman, N., Schwartz, M., Chang, J. W., Taira, T., Krishna, V., Rezai, A., Yamada, K., Igase, K., Cosgrove, et al
2018; 33 (5): 843–47
- **Neurologic Adverse Event Profile of MRI-Guided Focused Ultrasound Thalamotomy for Essential Tremor**
Fishman, P. S., Elias, W., Ghanouni, P., Gwinn, R., Lipsman, N., Schwartz, M., Chang, J., Taira, T., Krishna, V., Yamada, K., Igase, K., Cosgrove, G., Kishima, et al
LIPPINCOTT WILLIAMS & WILKINS.2018
- **Tumor characterization by ultrasound-release of multiple protein and microRNA biomarkers, preclinical and clinical evidence** *PLOS ONE*
D'Souza, A. L., Chevillet, J. R., Ghanouni, P., Yan, X., Tewari, M., Gambhir, S. S.
2018; 13 (3): e0194268
- **High-Intensity Focused Ultrasound for Pain Management in Patients with Cancer** *RADIOGRAPHICS*
Dababou, S., Marrocchio, C., Scipione, R., Erasmus, H., Ghanouni, P., Anzidei, M., Catalano, C., Napoli, A.
2018; 38 (2): 603–23
- **Thermal diffusivity and perfusion constants from in vivo MR-guided focussed ultrasound treatments: a feasibility study** *INTERNATIONAL JOURNAL OF HYPERTHERMIA*
Dillon, C. R., Rieke, V., Ghanouni, P., Payne, A.
2018; 34 (4): 352–62
- **Performance of multiparametric MRI appears better when measured in patients who undergo radical prostatectomy** *RESEARCH AND REPORTS IN UROLOGY*
Wang, N. N., Fan, R. E., Leppert, J. T., Ghanouni, P., Kunder, C. A., Brooks, J. D., Chung, B., Sonn, G. A.
2018; 10: 233–35
- **Diffusion MRI tractography for improved transcranial MRI-guided focused ultrasound thalamotomy targeting for essential tremor.** *NeuroImage. Clinical*
Tian, Q., Wintermark, M., Jeffrey Elias, W., Ghanouni, P., Halpern, C. H., Henderson, J. M., Huss, D. S., Goubran, M., Thaler, C., Airan, R., Zeineh, M., Pauly, K. B., McNab, et al
2018; 19: 572–80
- **Use of High-intensity Focused Ultrasound in the Management of Extra-abdominal Desmoid Tumors** *CURRENT MEDICAL IMAGING REVIEWS*
Bartocci, M., Bazzocchi, A., Napoli, A., Ghanouni, P., Spinnato, P., Facchini, G., Bonomo, L., Albisinni, U.
2018; 14 (1): 47–52
- **A prospective trial of magnetic resonance-guided focused ultrasound thalamotomy for essential tremor: Results at the 2-year follow-up.** *Annals of neurology*
Chang, J. W., Park, C. K., Lipsman, N. n., Schwartz, M. L., Ghanouni, P. n., Henderson, J. M., Gwinn, R. n., Witt, J. n., Tierney, T. S., Cosgrove, G. R., Shah, B. B., Abe, K. n., Taira, et al
2018; 83 (1): 107–14
- **The impact of computed high b-value images on the diagnostic accuracy of DWI for prostate cancer: A receiver operating characteristics analysis.** *Scientific reports*
Ning, P. n., Shi, D. n., Sonn, G. A., Vasanawala, S. S., Loening, A. M., Ghanouni, P. n., Obara, P. n., Shin, L. K., Fan, R. E., Hargreaves, B. A., Daniel, B. L.
2018; 8 (1): 3409
- **MRI monitoring of focused ultrasound sonications near metallic hardware.** *Magnetic resonance in medicine*
Weber, H. n., Ghanouni, P. n., Pascal-Tenorio, A. n., Pauly, K. B., Hargreaves, B. A.
2018; 80 (1): 259–71
- **Treatment of Low-Flow Vascular Malformations of the Extremities Using MR-Guided High Intensity Focused Ultrasound: Preliminary Experience** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*
Ghanouni, P., Kishore, S., Lungren, M. P., Bitton, R., Chan, L., Avedian, R., Bazzocchi, A., Pauly, K., Napoli, A., Hovsepian, D. M.
2017; 28 (12): 1739–44

- **Noninvasive Therapy for Osteoid Osteoma: A Prospective Developmental Study with MR Imaging-guided High-Intensity Focused Ultrasound.** *Radiology*
Napoli, A., Bazzocchi, A., Scipione, R., Anzidei, M., Saba, L., Ghanouni, P., Cozzi, D. A., Catalano, C.
2017; 162680-?
- **Cost-effectiveness of focused ultrasound, radiosurgery, and DBS for essential tremor.** *Movement disorders*
Ravikumar, V. K., Parker, J. J., Hornbeck, T. S., Santini, V. E., Pauly, K. B., Wintermark, M., Ghanouni, P., Stein, S. C., Halpern, C. H.
2017
- **MR Thermometry Near Metallic Devices Using Multispectral Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Weber, H., Taviani, V., Yoon, D., Ghanouni, P., Pauly, K. B., Hargreaves, B. A.
2017; 77 (3): 1162-1169
- **Magnetic resonance-guided focused ultrasound treatment of extra-abdominal desmoid tumors: a retrospective multicenter study** *EUROPEAN RADIOLOGY*
Ghanouni, P., Dobrotwir, A., Bazzocchi, A., Bucknor, M., Bitton, R., Rosenberg, J., Telischak, K., Busacca, M., Ferrari, S., Albinini, U., Walters, S., Gold, G., Ganjoo, et al
2017; 27 (2): 732-740
- **Improved cortical bone specificity in UTE MR Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Johnson, E. M., Vyas, U., Ghanouni, P., Pauly, K. B., Pauly, J. M.
2017; 77 (2): 684-695
- **A meta-analysis of palliative treatment of pancreatic cancer with high intensity focused ultrasound.** *Journal of therapeutic ultrasound*
Dababou, S., Marrocchio, C., Rosenberg, J., Bitton, R., Pauly, K. B., Napoli, A., Hwang, J. H., Ghanouni, P.
2017; 5: 9-?
- **Concurrent Imatinib and Radiation Therapy for Unresectable and Symptomatic Desmoid Tumors.** *Sarcoma*
Moding, E. J., Million, L., Avedian, R., Ghanouni, P., Kunder, C., Ganjoo, K. N.
2017; 2017: 2316839
- **Prostate Magnetic Resonance Imaging Interpretation Varies Substantially Across Radiologists.** *European urology focus*
Sonn, G. A., Fan, R. E., Ghanouni, P. n., Wang, N. N., Brooks, J. D., Loening, A. M., Daniel, B. L., To'o, K. J., Thong, A. E., Leppert, J. T.
2017
- **Efficient Transcranial Ultrasound Delivery via Excitation of Lamb Waves: Concept and Preliminary Results**
Firouzi, K., Ghanouni, P., Khuri-Yakub, B. T., IEEE
IEEE.2017
- **Transcranial MRI-guided high-intensity focused ultrasound for treatment of essential tremor: A pilot study on the correlation between lesion size, lesion location, thermal dose, and clinical outcome.** *Journal of magnetic resonance imaging : JMIR*
Federau, C. n., Goubran, M. n., Rosenberg, J. n., Henderson, J. n., Halpern, C. H., Santini, V. n., Wintermark, M. n., Butts Pauly, K. n., Ghanouni, P. n.
2017
- **Clinically Approved Nanoparticle Imaging Agents.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
Thakor, A. S., Jokerst, J. V., Ghanouni, P., Campbell, J., Mittra, E., Gambhir, S. S.
2016
- **Specialized volumetric thermometry for improved guidance of MRgFUS in brain.** *Magnetic resonance in medicine*
Marx, M., Ghanouni, P., Butts Pauly, K.
2016
- **Predicting variation in subject thermal response during transcranial magnetic resonance guided focused ultrasound surgery: Comparison in seventeen subject datasets.** *Medical physics*
Vyas, U., Ghanouni, P., Halpern, C. H., Elias, J., Pauly, K. B.
2016; 43 (9): 5170-?
- **A Randomized Trial of Focused Ultrasound Thalamotomy for Essential Tremor.** *New England journal of medicine*
Elias, W. J., Lipsman, N., Ondo, W. G., Ghanouni, P., Kim, Y. G., Lee, W., Schwartz, M., Hynynen, K., Lozano, A. M., Shah, B. B., Huss, D., Dallapiazza, R. F., Gwinn, et al

2016; 375 (8): 730-739

- **Correcting heat-induced chemical shift distortions in proton resonance frequency-shift thermometry.** *Magnetic resonance in medicine*
Gaur, P., Partanen, A., Werner, B., Ghanouni, P., Bitton, R., Butts Pauly, K., Grissom, W. A.
2016; 76 (1): 172-182
- **Correcting Heat-Induced Chemical Shift Distortions in Proton Resonance Frequency-Shift Thermometry** *MAGNETIC RESONANCE IN MEDICINE*
Gaur, P., Partanen, A., Werner, B., Ghanouni, P., Bitton, R., Pauly, K. B., Grissom, W. A.
2016; 76 (1): 172-182
- **Magnetic resonance-guided focused ultrasound treatment of extra-abdominal desmoid tumors: a retrospective multicenter study.** *European radiology*
Ghanouni, P., Dobrotwir, A., Bazzocchi, A., Bucknor, M., Bitton, R., Rosenberg, J., Telischak, K., Busacca, M., Ferrari, S., Albisinni, U., Walters, S., Gold, G., Ganjoo, et al
2016: -?
- **MR thermometry near metallic devices using multispectral imaging.** *Magnetic resonance in medicine*
Weber, H., Taviani, V., Yoon, D., Ghanouni, P., Pauly, K. B., Hargreaves, B. A.
2016
- **Improved cortical bone specificity in UTE MR Imaging.** *Magnetic resonance in medicine*
Johnson, E. M., Vyas, U., Ghanouni, P., Pauly, K. B., Pauly, J. M.
2016
- **Is MR-guided High-intensity Focused Ultrasound a Feasible Treatment Modality for Desmoid Tumors?** *CLINICAL ORTHOPAEDICS AND RELATED RESEARCH*
Avedian, R. S., Bitton, R., Gold, G., Butts-Pauly, K., Ghanouni, P.
2016; 474 (3): 697-704
- **Improving thermal dose accuracy in magnetic resonance-guided focused ultrasound surgery: Long-term thermometry using a prior baseline as a reference.** *Journal of magnetic resonance imaging*
Bitton, R. R., Webb, T. D., Pauly, K. B., Ghanouni, P.
2016; 43 (1): 181-189
- **Establishing a clinical service for the treatment of osteoid osteoma using magnetic resonance-guided focused ultrasound: overview and guidelines.** *Journal of therapeutic ultrasound*
Temple, M. J., Waspe, A. C., Amaral, J. G., Napoli, A., LeBlang, S., Ghanouni, P., Bucknor, M. D., Campbell, F., Drake, J. M.
2016; 4: 16-?
- **Transcranial MRI-Guided Focused Ultrasound: A Review of the Technologic and Neurologic Applications** *AMERICAN JOURNAL OF ROENTGENOLOGY*
Ghanouni, P., Pauly, K. B., Elias, W. J., Henderson, J., Sheehan, J., Monteith, S., Wintermark, M.
2015; 205 (1): 150-159
- **TU-B-210-01: MRg HIFU - Bone and Soft Tissue Tumor Ablation.** *Medical physics*
Ghanouni, P.
2015; 42 (6): 3598-?
- **Optimization of White-Matter-Nulling Magnetization Prepared Rapid Gradient Echo (MP-RAGE) Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Saranathan, M., Tourdias, T., Bayram, E., Ghanouni, P., Rutt, B. K.
2015; 73 (5): 1786-1794
- **International consensus on use of focused ultrasound for painful bone metastases: Current status and future directions** *INTERNATIONAL JOURNAL OF HYPERTHERMIA*
Huisman, M., Ter Haar, G., Napoli, A., Hananel, A., Ghanouni, P., Loevey, G., Nijenhuis, R. J., Van den Bosch, M. A., Rieke, V., Majumdar, S., Marchetti, L., Pfeffer, R. M., Hurwitz, et al
2015; 31 (3): 251-259
- **T2-based temperature monitoring in abdominal fat during MR-guided focused ultrasound treatment of patients with uterine fibroids.** *Journal of therapeutic ultrasound*

- Ozhinsky, E., Kohi, M. P., Ghanouni, P., Rieke, V.
2015; 3: 15-?
- **Magnetic resonance-guided focused ultrasound for patients with painful bone metastases: phase III trial results.** *Journal of the National Cancer Institute*
Hurwitz, M. D., Ghanouni, P., Kanaev, S. V., Iozzeff, D., Gianfelice, D., Fennessy, F. M., Kuten, A., Meyer, J. E., Leblang, S. D., Roberts, A., Choi, J., Larner, J. M., Napoli, et al
2014; 106 (5)
 - **Respiration based steering for high intensity focused ultrasound liver ablation.** *Magnetic resonance in medicine*
Holbrook, A. B., Ghanouni, P., Santos, J. M., Dumoulin, C., Medan, Y., Pauly, K. B.
2014; 71 (2): 797-806
 - **Respiration Based Steering for High Intensity Focused Ultrasound Liver Ablation** *MAGNETIC RESONANCE IN MEDICINE*
Holbrook, A. B., Ghanouni, P., Santos, J. M., Dumoulin, C., Medan, Y., Pauly, K. B.
2014; 71 (2): 797-806
 - **Magnetic Resonance-Guided Focused Ultrasound for Patients With Painful Bone Metastases: Phase III Trial Results.** *Journal of the National Cancer Institute*
Hurwitz, M. D., Ghanouni, P., Kanaev, S. V., Iozzeff, D., Gianfelice, D., Fennessy, F. M., Kuten, A., Meyer, J. E., Leblang, S. D., Roberts, A., Choi, J., Larner, J. M., Napoli, et al
2014; 106 (5)
 - **In vivo USPIO magnetic resonance imaging shows that minocycline mitigates macrophage recruitment to a peripheral nerve injury** *MOLECULAR PAIN*
Ghanouni, P., Behera, D., Xie, J., Chen, X., Moseley, M., Biswal, S.
2012; 8
 - **Rapid MR venography in children using a blood pool contrast agent and multi-station fat-water-separated volumetric imaging** *PEDIATRIC RADIOLOGY*
Ghanouni, P., Walters, S. G., Vasanaawala, S. S.
2012; 42 (2): 242-248
 - **MR Imaging-guided Cryoablation for the Treatment of Benign Prostatic Hyperplasia** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*
Ghanouni, P., Gill, H., Kaye, E., Pauly, K. B., Daniel, B.
2011; 22 (10): 1427-1430
 - **In vivo MR acoustic radiation force imaging in the porcine liver** *MEDICAL PHYSICS*
Holbrook, A. B., Ghanouni, P., Santos, J. M., Medan, Y., Pauly, K. B.
2011; 38 (9): 5081-5089
 - **Magnetic resonance guided high-intensity focused ultrasound ablation of musculoskeletal tumors.** *Current orthopaedic practice*
Avedian, R. S., Gold, G., Ghanouni, P., Pauly, K. B.
2011; 22 (4): 303-308
 - **Computed Tomographic Diagnosis of Appendicitis Within a Spigelian Hernia** *JOURNAL OF COMPUTER ASSISTED TOMOGRAPHY*
Deshmukh, S., Ghanouni, P., Mindelzun, R., Roos, J.
2010; 34 (2): 199-200
 - **An Interdisciplinary Initiative to Reduce Radiation Exposure: Evaluation of Appendicitis in a Pediatric Emergency Department With Clinical Assessment Supported by a Staged Ultrasound and Computed Tomography Pathway** *10th Annual Academic Emergency Medicine Consensus Conference/Annual Meeting of the Society-for-Academic-Emergency-Medicine*
Ramarajan, N., Krishnamoorthi, R., Barth, R., Ghanouni, P., Mueller, C., Dannenburg, B., Wang, N. E.
WILEY-BLACKWELL PUBLISHING, INC.2009: 1258–65
 - **Early Sonographic Diagnosis of Intrauterine Device Migration to the Adnexa** *JOURNAL OF CLINICAL ULTRASOUND*
Deshmukh, S., Ghanouni, P., Jeffrey, R. B.
2009; 37 (7): 414-419
 - **Ductal pattern enhancement on magnetic resonance imaging of the breast due to ductal lavage** *BREAST JOURNAL*

Ghanouni, P., Kurian, A. W., Margolis, D., Hartman, A., Mills, M. A., Plevritis, S. K., Ford, J. M., Daniel, B. L.
2007; 13 (3): 281-286

- **General purpose, field-portable cell-based biosensor platform** *BIOSENSORS & BIOELECTRONICS*
Gilchrist, K. H., Barker, V. N., Fletcher, L. E., DeBusschere, B. D., Ghanouni, P., Giovangrandi, L., Kovacs, G. T.
2001; 16 (7-8): 557-564
- **Single-molecule spectroscopy of the beta(2) adrenergic receptor: Observation of conformational substates in a membrane protein** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Peleg, G., Ghanouni, P., Kobilka, B. K., Zare, R. N.
2001; 98 (15): 8469-8474
- **Functionally different agonists induce distinct conformations in the G protein coupling domain of the beta(2) adrenergic receptor** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Ghanouni, P., Gryczynski, Z., Steenhuis, J. J., LEE, T. W., Farrens, D. L., Lakowicz, J. R., Kobilka, B. K.
2001; 276 (27): 24433-24436
- **Agonist-induced conformational changes in the G-protein-coupling domain of the beta(2) adrenergic receptor** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Ghanouni, P., Steenhuis, J. J., Farrens, D. L., Kobilka, B. K.
2001; 98 (11): 5997-6002
- **The effect of pH on beta(2) adrenoceptor function - Evidence for protonation-dependent activation** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Ghanouni, P., Schambye, H., Seifert, R., LEE, T. W., Rasmussen, S. G., Gether, U., Kobilka, B. K.
2000; 275 (5): 3121-3127
- **Characterization of ligand-induced conformational states in the beta(2) adrenergic receptor** *8th Swiss Workshop of Methodology in Receptor Research*
Kobilka, B., Gether, U., Seifert, R., Lin, S., Ghanouni, P.
MARCEL DEKKER INC.1999: 293-300
- **Examination of ligand-induced conformational changes in the beta(2) adrenergic receptor** *2nd International Symposium on Membrane Receptors Signal Transduction and Drug Action / 19th Symposium on Biomembrane-Drug Interaction*
Kobilka, B., Gether, U., Seifert, R., Lin, S. S., Ghanouni, P.
PERGAMON-ELSEVIER SCIENCE LTD.1998: 1509-12
- **Agonists induce conformational changes in transmembrane domains III and VI of the beta(2) adrenoceptor** *EMBO JOURNAL*
Gether, U., Lin, S., Ghanouni, P., Ballesteros, J. A., Weinstein, H., Kobilka, B. K.
1997; 16 (22): 6737-6747