Stanford

Greg Zaharchuk

Professor of Radiology (Neuroimaging and Neurointervention)

Curriculum Vitae available Online

CLINICAL OFFICE (PRIMARY)

- **Neuroradiology**

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  MC 5488

  Stanford, CA 94305

  Tel (650) 723-5393 **Fax** (650) 723-9222

ACADEMIC CONTACT INFORMATION

- **Alternate Contact**

  Susan Mir - Administrative Associate

  Email susanmir@stanford.edu

  Tel 650-736-6172

Bio

CLINICAL FOCUS

- Diagnostic Neuroimaging

ACADEMIC APPOINTMENTS

- Professor, Radiology
- Member, Bio-X
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Fellow, American Institute for Medical and Biological Engineering (AIMBE) (2020)
- Distinguished Investigator Award, The Academy for Radiology & Biomedical Imaging Research (2016)
- Scholar Award, Neuroradiology Education and Research Foundation (2009)
- Executive Council Award, American Roentgen Ray Society (2006)
- Resident/Fellow Research Award, Radiological Society of North America (2002)
- Young Investigator Award in Stroke, American Heart Association (1998)
- Young Investigator Finalist, International Society of Magnetic Resonance in Medicine (1998)
- Phi Beta Kappa, Stanford University (1989)
- Valedictorian, Materials Science and Engineering, Stanford University (1989)
- Tau Beta Pi, Stanford University (1987)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- President-Elect, American Society of Functional Neuroradiology (2020 - present)
- Deputy Editor, Journal of Magnetic Resonance Imaging (2018 - present)

- Editorial Board, Radiology (2016 - present)
- Scientific Program Committee, Neuroradiology/Head & Neck Subcommittee, Radiological Society of North America (RSNA) (2012 - present)
- Annual Meeting Program Committee, International Society of Magnetic Resonance in Medicine (2012 - 2015)
- Special Consultant to the Editor - Physics, American Journal of Neuroradiology (2011 - present)

PROFESSIONAL EDUCATION

- Internship: Rutgers Robert Wood Johnson Medical School (2001) NJ
- Board Certification: Neuroradiology, American Board of Radiology (2023)
- Board Certification: Diagnostic Radiology, American Board of Radiology (2023)
- Fellowship: University of California San Francisco (2006) CA
- Residency: University of California San Francisco (2005) CA
- MD, Harvard Medical School , Medicine (2000)
- PhD, Harvard University / Massachusetts Institute of Technology , Applied Physics (HST Program) (1999)
- BS & BA, Stanford , Materials Science & Engineering/German Studies (1990)

PATENTS

- Greg Zaharchuk, Enhao Gong, John Pauly. "United States Patent submitted Improving Quality of Medical Images Using Multi-Contrast and Deep Learning", Leland Stanford Junior University, Mar 6, 2017
- Greg Zaharchuk, Roland Bammer. "United States Patent 8,929,972 Arterial Spin Labeling MRI-based Correction Factor for Improving Quantitative Accuracy of Blood Flow and Volume Images", Leland Stanford Junior University,, Jan 6, 2015
- Greg Zaharchuk, Jean Brittain. "United States Patent 7,064,545 Method and Apparatus of Background Suppression in MR imaging using Spin Locking", General Electric Company, The Regents Of The University Of California, Jun 20, 2006
- Kookrin Char, Stephen M. Garrison, Nathan Newman, Greg Zaharchuk. "United States Patent 5,157,466 Grain Boundary Junctions in High Temperature Superconductor Films", Conductus, Inc., Oct 20, 1992
- Reed Busse, John Pauly, Greg Zaharchuk. "United States Patent 7,276,904 Method for Generating T1-weighted Magnetic Resonance Images and Quantitative T1 Maps", Leland Stanford Junior University, Oct 2, 0007

LINKS

- Center for Advanced Functional Neuroimaging: http://med.stanford.edu/cafn.html

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Improving medical image value using AI

Stroke and dementia imaging

Outcome prediction with AI

Imaging of cerebral hemodynamics with MRI and CT

Noninvasive oxygenation measurement with MRI

PET/MRI in Neuroradiology

Resting-state fMRI for perfusion imaging and stroke

CLINICAL TRIALS

- Comparison of PET/CT vs. PET/MRI Using 2 Radiopharmaceuticals, Not Recruiting
- Imaging Collaterals in Acute Stroke (iCAS), Not Recruiting
- Quantifying Collateral Perfusion in Cerebrovascular Disease-Moyamoya Disease and Stroke Patients, Not Recruiting

Teaching

COURSES

2025-26

- Why College? Your Education and the Good Life: COLLEGE 101 (Aut)

2024-25

- Why College? Your Education and the Good Life: COLLEGE 101 (Aut)

2023-24

- Why College? Your Education and the Good Life: COLLEGE 101 (Aut)

2022-23

- Why College? Your Education and the Good Life: COLLEGE 101 (Aut)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Donghoon Kim

Doctoral Dissertation Co-Advisor (AC)

Ashwin Kumar

Publications

PUBLICATIONS

- **Evaluation of Image-Level Harmonization Methods for Multi-Center MR Neuroimaging.** *Journal of magnetic resonance imaging : JMRI*
  Ho, B. C., Kim, D., Kumar, A., Weiss, S., Vossler, H., Mormino, E., Zaharchuk, G.
  2026

- **Both Infarcted and Noninfarcted Brain Regions Contribute to Deep Learning-Based MRI Prediction of Acute Stroke Outcome.** *AJNR. American journal of neuroradiology*
  Liu, Y., Jiang, B., van Voorst, H., Yu, Y., Li, S., Feng, H., Zhang, Z., Luo, S., Liebeskind, D. S., Moseley, M. E., Albers, G., Wintermark, M., Lansberg, et al
  2025

- **The Current Status of AI-accelerated MRI Techniques in Clinical Use.** *Radiology*
  Haller, S., Hedderich, D., Federau, C., Weisstanner, C., Edjlali, M., Cauter, S. v., Zaharchuk, G.
  2025; 317 (2): e243819

- **The Career Academic-Career Pivots, anAJRPodcast Series (Episode 1).** *AJR. American journal of roentgenology*
  Dogra, S., Zaharchuk, G.
  2025

- **Deep Learning Applications in Imaging of Acute Ischemic Stroke: A Systematic Review and Narrative Summary.** *Radiology*
  Jiang, B., Pham, N., van Staalduinen, E. K., Liu, Y., Nazari-Farsani, S., Sanaat, A., van Voorst, H., Fettahoglu, A., Kim, D., Ouyang, J., Kumar, A., Srivatsan, A., Hussein, et al
  2025; 315 (1): e240775

- **[18F]PI-2620 Tau PET signal across the aging and Alzheimer's disease clinical spectrum** *IMAGING NEUROSCIENCE*
  Young, C. B., Vossler, H., Romero, A., Smith, V., Park, J., Trelle, A. N., Winer, J. R., Wilson, E. N., Zeineh, M. M., Sha, S. J., Khalighi, M., Yutsis, M. V., Morales, et al
  2024; 2: 18

- **Prediction of Ischemic Stroke Functional Outcomes from Acute-Phase Noncontrast CT and Clinical Information.** *Radiology*

Liu, Y., Yu, Y., Ouyang, J., Jiang, B., Ostmeier, S., Wang, J., Lu-Liang, S., Yang, Y., Yang, G., Michel, P., Liebeskind, D. S., Lansberg, M., Moseley, et al
2024; 313 (1): e240137

- **Artificial Intelligence Applications in Stroke.** *Stroke*
  Mouridsen, K., Thurner, P., Zaharchuk, G.
  2020: STROKEAHA119027479

- **Predicting PET Cerebrovascular Reserve with Deep Learning by Using Baseline MRI: A Pilot Investigation of a Drug-Free Brain Stress Test.** *Radiology*
  Chen, D. Y., Ishii, Y., Fan, A. P., Guo, J., Zhao, M. Y., Steinberg, G. K., Zaharchuk, G.
  2020: 192793

- **Use of Deep Learning to Predict Final Ischemic Stroke Lesions From Initial Magnetic Resonance Imaging.** *JAMA network open*
  Yu, Y. n., Xie, Y. n., Thamm, T. n., Gong, E. n., Ouyang, J. n., Huang, C. n., Christensen, S. n., Marks, M. P., Lansberg, M. G., Albers, G. W., Zaharchuk, G. n.
  2020; 3 (3): e200772

- **Ultra-Low-Dose 18F-Florbetaben Amyloid PET Imaging Using Deep Learning with Multi-Contrast MRI Inputs.** *Radiology*
  Chen, K. T., Gong, E., de Carvalho Macruz, F. B., Xu, J., Boumis, A., Khalighi, M., Poston, K. L., Sha, S. J., Greicius, M. D., Mormino, E., Pauly, J. M., Srinivas, S., Zaharchuk, et al
  2018: 180940

- **Thrombectomy for Stroke at 6 to 16 Hours with Selection by Perfusion Imaging.** *The New England journal of medicine*
  Albers, G. W., Marks, M. P., Kemp, S. n., Christensen, S. n., Tsai, J. P., Ortega-Gutierrez, S. n., McTaggart, R. A., Torbey, M. T., Kim-Tenser, M. n., Leslie-Mazwi, T. n., Sarraj, A. n., Kasner, S. E., Ansari, et al
  2018; 378 (8): 708–18

- **Arterial Spin Labeling Perfusion of the Brain: Emerging Clinical Applications** *RADIOLOGY*
  Haller, S., Zaharchuk, G., Thomas, D. L., Lovblad, K., Barkhof, F., Golay, X.
  2016; 281 (2): 337-356

- **MR vascular fingerprinting: A new approach to compute cerebral blood volume, mean vessel radius, and oxygenation maps in the human brain.** *NeuroImage*
  Christen, T., Pannetier, N. A., Ni, W. W., Qiu, D., Moseley, M. E., Schuff, N., Zaharchuk, G.
  2014; 89: 262-270

- **Measuring brain oxygenation in humans using a multiparametric quantitative blood oxygenation level dependent MRI approach** *MAGNETIC RESONANCE IN MEDICINE*
  Christen, T., Schmiedeskamp, H., Straka, M., Bammer, R., Zaharchuk, G.
  2012; 68 (3): 905-911

- **Comparison of Arterial Spin Labeling and Bolus Perfusion-Weighted Imaging for Detecting Mismatch in Acute Stroke** *STROKE*
  Zaharchuk, G., El Mogy, I. S., Fischbein, N. J., Albers, G. W.
  2012; 43 (7): 1843-1848

- **Identification of Venous Signal on Arterial Spin Labeling Improves Diagnosis of Dural Arteriovenous Fistulas and Small Arteriovenous Malformations** *AMERICAN JOURNAL OF NEURORADIOLOGY*
  Le, T. T., Fischbein, N. J., Andre, J. B., Wijman, C., Rosenberg, J., Zaharchuk, G.
  2012; 33 (1): 61-68

- **Arterial Spin Label Imaging of Acute Ischemic Stroke and Transient Ischemic Attack** *NEUROIMAGING CLINICS OF NORTH AMERICA*
  Zaharchuk, G.
  2011; 21 (2): 285-?

- **Image SNR Enhancement for a Short Axial FOV Brain PET System Using Generative Deep Learning** *IEEE TRANSACTIONS ON RADIATION AND PLASMA MEDICAL SCIENCES*
  Nazari-Farsani, S., Jafaritadi, M., Fisher, J., Chin, M., Chinn, G., Khalighi, M., Zaharchuk, G., Levin, C. S.
  2026; 10 (1): 41-50

- **Biomarkers.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*

Taghavi, H. M., Karimpoor, M., van Staalduinen, E., Young, C. B., Georgiadis, M., Carlson, M. L., Romero, A., Trelle, A. N., Vossler, H., Yutsis, M., Rosenberg, J., Davidzon, G. A., Zaharchuk, et al
2025; 21 Suppl 2 (Suppl 2): e096159

- **A Novel Method in PET Image Reconstruction Using MRI Anatomical Priors.** *IEEE transactions on radiation and plasma medical sciences*
  Khalighi, M. M., Young, C. B., Spangler-Bickell, M. G., Deller, T. W., Jansen, F., Holley, D., Vossler, H., Zhao, M., Kogan, F., Steinberg, G., Mormino, E., Moseley, M., Zaharchuk, et al
  2025; 9 (8): 1074-1082

- **A Novel Method in PET Image Reconstruction Using MRI Anatomical Priors** *IEEE TRANSACTIONS ON RADIATION AND PLASMA MEDICAL SCIENCES*
  Khalighi, M., Young, C. B., Spangler-Bickell, M. G., Deller, T. W., Jansen, F., Holley, D., Vossler, H., Zhao, M. Y., Kogan, F., Steinberg, G., Mormino, E., Moseley, M., Zaharchuk, et al
  2025; 9 (8): 1074-1082

- **The Future of Radiology Residency Training.** *Journal of the American College of Radiology : JACR*
  England, E., Meltzer, C. C., Levey, A. O., Zaharchuk, G., Gadde, J. A.
  2025

- **ASNR Consensus Statement: Integrating Neuro-PET Interpretation into Neuroradiology Training and Practice.** *AJNR. American journal of neuroradiology*
  Ivanidze, J., Franceschi, A. M., Wintermark, M., Jordan, J. E., Aboian, M., Anderson, J. C., Assadsangabi, R., Benayoun, M. D., Benzinger, T. L., Buchpiguel, C. A., Chiang, G. C., Ebani, E. J., Famuyide, et al
  2025

- **Optimization of deep learning-based denoising for arterial spin labeling: Effects of averaging and training strategies.** *Magnetic resonance in medicine*
  Guo, J., Sharma, A., Zaharchuk, G., Rahimzadeh, H., Ilyas, N.
  2025

- **Clinical Role of Brain PET in Alzheimer Disease in the Era of Disease-Modifying Therapies.** *AJNR. American journal of neuroradiology*
  Franceschi, A. M., Keir, G., Benzinger, T. L., Cogswell, P. M., Ali, F. Z., Petrella, J. R., Prescott, J. W., Whitlow, C. T., Zaharchuk, G., Allen, J. W.
  2025

- **Deep Learning-Based Prediction of PET Amyloid Status Using MRI.** *AJNR. American journal of neuroradiology*
  Kim, D., Ottesen, J. A., Kumar, A., Ho, B. C., Bismuth, E., Young, C. B., Mormino, E., Zaharchuk, G.
  2025

- **Arterial Spin-Labeling MRI Identifies Abnormal Perfusion Metric at the Gray Matter/CSF Interface in Cerebral Small Vessel Disease.** *AJNR. American journal of neuroradiology*
  Mahammedi, A., Fettahoglu, A., Heit, J. J., Wardlaw, J. M., Zaharchuk, G.
  2025

- **Supporting Imaging Research: A Framework for Equity and Excellence in Neuroradiology.** *AJNR. American journal of neuroradiology*
  Wintermark, M., Bhala, R., Bykowski, J., Cogswell, P. M., Emch, T., Hoeffner, E., Huston, J., Liu, H. L., Radhakrishnan, R., Romero, J. M., Saigal, G., Sandhu, J., Spampinato, et al
  2025; 46 (6): 1065-1068

- **Enhanced 15O-Water PET CBF Quantification Through MR-Guided Reconstruction**
  Khalighi, M., Jiang, B., Moradi, F., Zaharchuk, G.
  SOC NUCLEAR MEDICINE INC.2025

- **Generative Artificial Intelligence to Improve Ultralow-Field-Strength MRI Scan Quality.** *Radiology*
  Wang, S., Zaharchuk, G.
  2025; 315 (1): e250932

- **Semi-Supervised Learning Allows for Improved Segmentation With Reduced Annotations of Brain Metastases Using Multicenter MRI Data.** *Journal of magnetic resonance imaging : JMRI*
  Ottesen, J. A., Tong, E., Emblem, K. E., Latysheva, A., Zaharchuk, G., Bjørnerud, A., Grøvik, E.
  2025

- **Enhancing the Diagnostic Accuracy of Amyloid PET: The Impact of MR-Guided PET Reconstruction.** *medRxiv : the preprint server for health sciences*
  Khalighi, M. M., Young, C. B., Weiss, S., Zeineh, M., Davidzon, G., Mormino, E., Zaharchuk, G.
  2025

- **Clinical Manifestations.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Taghavi, H. M., Karimpoor, M., van Staalduinen, E., Leventis, S., Young, C. B., Carlson, M. L., Davidzon, G. A., Romero, A., Trelle, A. N., Zaharchuk, G., Vossler, H., Rosenberg, J., Poston, et al
  2024; 20 Suppl 3: e092936

- **Elevated tau in the piriform cortex in Alzheimer's but not Parkinson's disease using PET-MR.** *Alzheimer's & dementia (Amsterdam, Netherlands)*
  Moein Taghavi, H., Karimpoor, M., van Staalduinen, E. K., Young, C. B., Georgiadis, M., Leventis, S., Carlson, M., Romero, A., Trelle, A., Vossler, H., Yutsis, M., Rosenberg, J., Davidzon, et al
  2024; 16 (4): e70040

- **[18F]PI-2620 Tau PET signal across the aging and Alzheimer's disease clinical spectrum.** *Imaging neuroscience (Cambridge, Mass.)*
  Young, C. B., Vossler, H., Romero, A., Smith, V., Park, J., Trelle, A. N., Winer, J. R., Wilson, E. N., Zeineh, M. M., Sha, S. J., Khalighi, M., Yutsis, M. V., Morales, et al
  2024; 2

- **SOM2LM: Self-Organized Multi-Modal Longitudinal Maps.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
  Ouyang, J., Zhao, Q., Adeli, E., Zaharchuk, G., Pohl, K. M.
  2024; 15002: 400-410

- **Alzheimer's Disease Anti-Amyloid Immunotherapies: Imaging Recommendations and Practice Considerations for ARIA Monitoring.** *AJNR. American journal of neuroradiology*
  Cogswell, P. M., Andrews, T. J., Barakos, J. A., Barkhof, F., Bash, S., Benayoun, M. D., Chiang, G. C., Franceschi, A. M., Jack, C. R., Pillai, J. J., Poussaint, T. Y., Raji, C. A., Ramanan, et al
  2024

- **Florbetaben amyloid PET acquisition time: Influence on Centiloids and interpretation.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
  Johns, E., Vossler, H. A., Young, C. B., Carlson, M. L., Winer, J. R., Younes, K., Park, J., Rathmann-Bloch, J., Smith, V., Harrison, T. M., Landau, S., Henderson, V., Wagner, et al
  2024

- **NeuroMix with MR Angiography: A Fast MR Protocol to Reduce Head and Neck CT Angiography for Patients with Acute Neurological Presentations.** *AJNR. American journal of neuroradiology*
  Decker, J. H., Mazal, A. T., Bui, A., Sprenger, T., Skare, S., Fischbein, N., Zaharchuk, G.
  2024

- **The promise of Confident AI denoising to make short half-life 15O-water brain PET imaging feasible**
  Sanaat, A., Khalighi, M., Hussein, R., Zhao, M., Zaidi, H., Moseley, M., Zaharchuk, G.
  SOC NUCLEAR MEDICINE INC.2024

- **Checklist for Artificial Intelligence in Medical Imaging (CLAIM): 2024 Update.** *Radiology. Artificial intelligence*
  Tejani, A. S., Klontzas, M. E., Gatti, A. A., Mongan, J. T., Moy, L., Park, S. H., Kahn, C. E.
  2024: e240300

- **Assessing the Performance of Artificial Intelligence Models: Insights from the American Society of Functional Neuroradiology Artificial Intelligence Competition.** *AJNR. American journal of neuroradiology*
  Jiang, B., Ozkara, B. B., Zhu, G., Boothroyd, D., Allen, J. W., Barboriak, D. P., Chang, P., Chan, C., Chaudhari, R., Chen, H., Chukus, A., Ding, V., Douglas, et al
  2024

- **Recommendations for quantitative cerebral perfusion MRI using multi-timepoint arterial spin labeling: Acquisition, quantification, and clinical applications.** *Magnetic resonance in medicine*
  Woods, J. G., Achten, E., Asllani, I., Bolar, D. S., Dai, W., Detre, J. A., Fan, A. P., Fernández-Seara, M. A., Golay, X., Günther, M., Guo, J., Hernandez-Garcia, L., Ho, et al

2024

- **Can Imaging Neuroinflammation with PET/MRI Help Us Put Out Brain Fires?** *Radiology*
  Zaharchuk, G.
  2024; 310 (3): e240322

- **A Clinical and Imaging Fused Deep Learning Model Matches Expert Clinician Prediction of 90-Day Stroke Outcomes.** *AJNR. American journal of neuroradiology*
  Liu, Y., Shah, P., Yu, Y., Horsey, J., Ouyang, J., Jiang, B., Yang, G., Heit, J. J., McCullough-Hicks, M. E., Hugdal, S. M., Wintermark, M., Michel, P., Liebeskind, et al
  2024

- **Exploring the performance and explainability of fine-tuned BERT models for neuroradiology protocol assignment.** *BMC medical informatics and decision making*
  Talebi, S., Tong, E., Li, A., Yamin, G., Zaharchuk, G., Mofrad, M. R.
  2024; 24 (1): 40

- **Random expert sampling for deep learning segmentation of acute ischemic stroke on non-contrast CT.** *Journal of neurointerventional surgery*
  Ostmeier, S., Axelrod, B., Liu, Y., Yu, Y., Jiang, B., Yuen, N., Pulli, B., Verhaaren, B. F., Kaka, H., Wintermark, M., Michel, P., Mahammedi, A., Federau, et al
  2024

- **SOM2LM: Self-Organized Multi-Modal Longitudinal Maps**
  Ouyang, J., Zhao, Q., Adeli, E., Zaharchuk, G., Pohl, K. M.
  edited by Linguraru, M. G., Dou, Q., Feragen, A., Giannarou, S., Glocker, B., Lekadir, K., Schnabel, J. A.
  SPRINGER INTERNATIONAL PUBLISHING AG.2024: 400-410

- **Turning brain MRI into diagnostic PET: 15O-water PET CBF synthesis from multi-contrast MRI via attention-based encoder-decoder networks.** *Medical image analysis*
  Hussein, R., Shin, D., Zhao, M. Y., Guo, J., Davidzon, G., Steinberg, G., Moseley, M., Zaharchuk, G.
  2023; 93: 103072

- **Early-Frame [18F]Florbetaben PET/MRI for Cerebral Blood Flow Quantification in Patients with Cognitive Impairment: Comparison to an [15O]Water Gold Standard.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
  Fettahoglu, A., Zhao, M., Khalighi, M., Vossler, H., Jovin, M., Davidzon, G., Zeineh, M., Boada, F., Mormino, E., Henderson, V. W., Moseley, M., Chen, K. T., Zaharchuk, et al
  2023

- **Clinical grade [¹⁵O]O₂ Production for Human Inhalation PET/MRI study**
  Park, J., Kellow, R., Watkins, R., Zaharchuk, G., Fan, A., Shen, B.
  ELSEVIER SCIENCE INC.2023: S105

- **Segmenting Cervical Arteries in Phase Contrast Magnetic Resonance Imaging Using Convolutional Encoder-Decoder Networks** *APPLIED SCIENCES-BASEL*
  Campbell, B., Yadav, D., Hussein, R., Jovin, M., Hoover, S., Halbert, K., Holley, D., Khalighi, M., Davidzon, G. A., Tong, E., Steinberg, G. K., Moseley, M., Zhao, et al
  2023; 13 (21)

- **Reducing Gadolinium Contrast With Artificial Intelligence.** *Journal of magnetic resonance imaging : JMRI*
  Tsui, B., Calabrese, E., Zaharchuk, G., Rauschecker, A. M.
  2023

- **LSOR: Longitudinally-Consistent Self-Organized Representation Learning.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
  Ouyang, J., Zhao, Q., Adeli, E., Peng, W., Zaharchuk, G., Pohl, K. M.
  2023; 14220: 279-289

- **Non-inferiority of deep learning ischemic stroke segmentation on non-contrast CT within 16-hours compared to expert neuroradiologists.** *Scientific reports*
  Ostmeier, S., Axelrod, B., Verhaaren, B. F., Christensen, S., Mahammedi, A., Liu, Y., Pulli, B., Li, L., Zaharchuk, G., Heit, J. J.
  2023; 13 (1): 16153

- **International EANM-SNMMI-ISMRM consensus recommendation for PET/MRI in oncology.** *European journal of nuclear medicine and molecular imaging*
  Veit-Haibach, P., Ahlström, H., Boellaard, R., Delgado Bolton, R. C., Hesse, S., Hope, T., Huellner, M. W., Iagaru, A., Johnson, G. B., Kjaer, A., Law, I., Metser, U., Quick, et al
  2023
- **International EANM-SNMMI-ISMRM consensus recommendation for PET/MRI in oncology** *EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING*
  Veit-Haibach, P., Ahlstrom, H., Boellaard, R., Delgado Bolton, R. C., Hesse, S., Hope, T., Huellner, M. W., Iagaru, A., Johnson, G. B., Kjaer, A., Law, I., Metser, U., Quick, et al
  2023
- **USE-Evaluator: Performance metrics for medical image segmentation models supervised by uncertain, small or empty reference annotations in neuroimaging.** *Medical image analysis*
  Ostmeier, S., Axelrod, B., Isensee, F., Bertels, J., Mlynash, M., Christensen, S., Lansberg, M. G., Albers, G. W., Sheth, R., Verhaaren, B. F., Mahammedi, A., Li, L. J., Zaharchuk, et al
  2023; 90: 102927
- **Short- and Long-Term MRI Assessed Hemodynamic Changes in Pediatric Moyamoya Patients After Revascularization.** *Journal of magnetic resonance imaging : JMRI*
  Zhao, M. Y., Tong, E., Duarte Armindo, R., Fettahoglu, A., Choi, J., Bagley, J., Yeom, K. W., Moseley, M., Steinberg, G. K., Zaharchuk, G.
  2023
- **Functional Outcome Prediction in Acute Ischemic Stroke Using a Fused Imaging and Clinical Deep Learning Model.** *Stroke*
  Liu, Y., Yu, Y., Ouyang, J., Jiang, B., Yang, G., Ostmeier, S., Wintermark, M., Michel, P., Liebeskind, D. S., Lansberg, M. G., Albers, G. W., Zaharchuk, G.
  2023
- **Role of Brain Imaging in the Prediction of Intracerebral Hemorrhage Following Endovascular Therapy for Acute Stroke.** *Stroke*
  Seners, P., Wouters, A., Maïer, B., Boisseau, W., Gory, B., Heit, J. J., Cognard, C., Mazighi, M., Gaudilliere, B., Lemmens, R., Zaharchuk, G., Albers, G. W., Leigh, et al
  2023
- **Longitudinal alterations of cerebral blood flow in high-contact sports.** *Annals of neurology*
  Karimpoor, M., Georgiadis, M., Zhao, M. Y., Goubran, M., Moein Taghavi, H., Mills, B. D., Tran, D., Mouchawar, N., Sami, S., Wintermark, M., Grant, G., Camarillo, D. B., Moseley, et al
  2023
- **Predicting FDG-PET Images From Multi-Contrast MRI Using Deep Learning in Patients With Brain Neoplasms.** *Journal of magnetic resonance imaging : JMRI*
  Ouyang, J., Chen, K. T., Duarte Armindo, R., Davidzon, G. A., Hawk, K. E., Moradi, F., Rosenberg, J., Lan, E., Zhang, H., Zaharchuk, G.
  2023
- **Measuring Quantitative Cerebral Blood Flow in Healthy Children: A Systematic Review of Neuroimaging Techniques.** *Journal of magnetic resonance imaging : JMRI*
  Zhao, M. Y., Tong, E., Duarte Armindo, R., Woodward, A., Yeom, K. W., Moseley, M. E., Zaharchuk, G.
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