Curriculum Vitae

Roh-Eul Yoo

Department of Radiology
Seoul National University Hospital
101 Daehak-ro, Chongno-gu
Seoul, 03080, Korea

- Current Position: Clinical Associate Professor

- Education:

2005/03 ~ 2009/02	Seoul National University College of Medicine, M.D.
2012/03 ~ 2014/02	Seoul National University College of Medicine, M.M.Sc.
2014/03 ~ 2022/02	Seoul National University College of Medicine, Ph.D

- Awards:

2013	Best Scientific Paper Presentation (ECR)
2016	Best Scientific Paper Presentation (4th International Congress on Magnetic Resonance Imaging & 21st Annual Scientific Meeting of KSMRM)
2019	WFNRS Travel Grant Award
2021	서울대학교 의과대학 비전임교원 연구업적 우수교원

- Professional/Academic Activities:

2010 ~2013	KCR
2011	RSNA
2013	ECR / RSNA (2013 Introduction to Research for International Young Academics [IRIYA program])
2013	2013 ASER meeting
2014	XXth Symposium Neuroradiologicum
2016	4th International Congress on Magnetic Resonance Imaging (ICMRI) & 21st Annual Scientific Meeting of Korean Society of Magnetic Resonance in Medicine (KSMRM)
2016	2016 ASNR meeting
2017	RSNA Clinical Trials Methodology Workshop (CTMW)
2017	2017 ASNR meeting
2018	2018 ASNR meeting
2020~	Junior Deputy Editor, European Radiology
2023/11~	Deputy Editor, European Radiology (Head and neck section)

- Areas of Research Interest: Glymphatic MR, Stroke, Seizure, Brain tumors

- Scientific Publications:

Yoo RE, Choi SH, Park SH, Jung HW, Kim JH, Sohn CH, Chang KH. Primary intracerebral malignant fibrous histiocytoma: CT, MRI, and PET-CT findings. J Neuroimaging 2013;23:141-4.

Yoo RE, Park EA, Lee W, Shim H, Kim YK, Chung JW, Park JH. Image quality of adaptive iterative dose reduction 3D of coronary CT angiography of 640-slice CT: comparison with filtered back-projection. Int J Cardiovasc Imaging 2013;29:669-76.

Yoo RE, Choi SH, Cho HR, Kim TM, Lee SH, Park CK, Park SH, Kim IH, Yun TJ, Kim JH, Sohn CH, Han MH, Chang KH. Tumor blood flow from arterial spin labeling perfusion MRI: a

key parameter in distinguishing high-grade gliomas from primary cerebral lymphomas, and in predicting genetic biomarkers in high-grade gliomas. J Magn Reson Imaging 2013;38:852-60.

Yoo RE, Cho JY, Kim SY, Kim SH. Magnetic resonance evaluation of Müllerian remnants in Mayer-Rokitansky-Küster-Hauser syndrome. Korean J Radiol 2013;14:233-9.

Yoo RE, Lee JM, Yoon JH, Kim JH, Han JK, Choi BI. Differential diagnosis of benign and malignant distal biliary strictures: value of adding diffusion-weighted imaging to conventional magnetic resonance cholangiopancreatography. J Magn Reson Imaging 2014;39:1509-17.

Yoo RE, Choi SH, Cho HR, Jeon BS, Kwon E, Kim EG, Park J, Myeong WJ, Won JK, Lee YS, Kim JH, Park SW, Sohn CH. Magnetic resonance imaging diagnosis of metastatic lymph nodes in a rabbit model: efficacy of PJY10, a new ultrasmall superparamagnetic iron oxide agent, with monodisperse iron oxide core and multiple-interaction ligands. PLoS One 2014;9:e107583.

Yoo RE, Cho HR, Choi SH, Won JK, Kim JH, Sohn CH. Optimization of ultrasmall superparamagnetic iron oxide (P904)-enhanced magnetic resonance imaging of lymph nodes: initial experience in a mouse model. Anticancer Res 2014;34:5389-96.

Yoo RE, Cho JY, Kim SY, Kim SH. A systematic approach to the magnetic resonance imaging-based differential diagnosis of congenital Müllerian duct anomalies and their mimics. Abdom Imaging 2015;40:192-206.

Yoo RE, Yun TJ, Rhim JH, Yoon BW, Kang KM, Choi SH, Kim JH, Kim JE, Kang HS, Sohn CH, Han MH. Bright vessel appearance on arterial spin labeling MRI for localizing arterial occlusion in acute ischemic stroke. Stroke 2015;46:564-7.

Yoo RE, Choi SH, Kim TM, Lee SH, Park CK, Park SH, Kim IH, Yun TJ, Kim JH, Sohn CH. Independent Poor Prognostic Factors for True Progression after Radiation Therapy and Concomitant Temozolomide in Patients with Glioblastoma: Subependymal Enhancement and Low ADC Value. AJNR Am J Neuroradiol 2015;36:1846-52.

Yoo RE, Choi SH. Recent Application of Advanced MR Imaging to Predict Pseudoprogression in High-grade Glioma Patients. Magn Reson Med Sci. 2016;15:165-77.

Yoo RE, Yun TJ, Cho YD, Rhim JH, Kang KM, Choi SH, Kim JH, Kim JE, Kang HS, Sohn CH, Park SW, Han MH. Utility of arterial spin labeling perfusion magnetic resonance imaging in prediction of angiographic vascularity of meningiomas. J Neurosurg
. 2016 Sep;125(3):536-43.

Yoo RE, Goo JM, Hwang EJ, Yoon SH, Lee CH, Park CM, Ahn S. Retrospective assessment of interobserver agreement and accuracy in classifications and measurements in subsolid nodules with solid components less than 8mm: which window setting is better? Eur Radiol. 2017;27:1369-1376.

Yoo RE, Choi SH, Kim TM, Park CK, Park SH, Won JK, Kim IH, Lee ST, Choi HJ, You SH, Kang KM, Yun TJ, Kim JH, Sohn CH. Dynamic contrast-enhanced MR imaging in predicting progression of enhancing lesions persisting after standard treatment in glioblastoma patients: a prospective study. Eur Radiol. 2017;27:3156-3166.

Yoo RE, Yun TJ, Yoon BW, Lee SK, Lee ST, Kang KM, Choi SH, Kim JH, Sohn CH, Park SW, Han MH. Identification of cerebral perfusion using arterial spin labeling in patients with seizures in acute settings. PLoS One. 2017;12:e0173538.

Yoo RE, Sohn CH, Kang KM, Yun TJ, Choi SH, Kim JH, Park SW. Evaluation of Gadolinium Retention After Serial Administrations of a Macrocyclic Gadolinium-Based Contrast Agent (Gadobutrol): A Single-Institution Experience With 189 Patients. Invest Radiol. 2018;53:20-25.

Yoo RE, Yun TJ, Yoo DH, Cho YD, Kang HS, Yoon BW, Jung KH, Kang KM, Choi SH, Kim JH, Sohn CH. Monitoring Cerebral Blood Flow Change through Use of Arterial Spin Labeling in Acute Ischemic Stroke Patients after Intra-arterial Thrombectomy. Eur Radiol. 2018 Feb 23. doi: 10.1007/s00330-018-5319-0. [Epub ahead of print]

Yoo RE, Kim JH, Paeng JC, Park YJ. Radiofrequency ablation for treatment of locally recurrent thyroid cancer presenting as a metastatic lymph node with dense macrocalcification: A case report and literature review. Medicine (Baltimore). 2018;97:e0003. Review.

Yoo RE, Kim JH, Jang EH, Jo SW, Kang KM, Yun TJ, Choi SH, Sohn CH, You SH, Choi HJ, Kim SC, Rhim JH, Park SW. Prediction of Non-Diagnostic Results in Fine-Needle Aspiration of Thyroid Nodules: Utility of On-Site Gross Visual Assessment of Specimens for Liquid-Based Cytology. Endocr Pract. 2018 Jul 5. doi: 10.4158/EP-2018-0183. [Epub ahead of print]

Yoo RE, Choi SH, Oh BM, Do Shin S, Lee EJ, Shin DJ, Jo SW, Kang KM, Yun TJ, Kim JH, Sohn CH. Quantitative dynamic contrast-enhanced MR imaging shows widespread blood-brain barrier disruption in mild traumatic brain injury patients with post-concussion syndrome. Eur Radiol. 2018 Jul 31.

Yoo RE, Yun TJ, Hwang I, Hong EK, Kang KM, Choi SH, Park CK, Won JK, Kim JH, Sohn CH. Arterial spin labeling perfusion-weighted imaging aids in prediction of molecular biomarkers and survival in glioblastomas. Eur Radiol. 2019 Aug 29.

Yoo RE, Kim JH, Bae JM, Hwang I, Kang KM, Yun TJ, Choi SH, Sohn CH, Rhim JH, Park SW. Ultrasonographic Indeterminate Lymph Nodes in Preoperative Thyroid Cancer Patients: Malignancy Risk and Ultrasonographic Findings Predictive of Malignancy. Korean J Radiol. 2020 May;21(5):598-604. doi: 10.3348/kjr.2019.0755.

Yoo RE, Kim JH, Hwang I, Kang KM, Yun TJ, Choi SH, Sohn CH, Park SW. Added Value of Computed Tomography to Ultrasonography for Assessing LN Metastasis in Preoperative Patients with Thyroid Cancer: Node-By-Node Correlation. Cancers (Basel). 2020 May 8;12(5):1190. doi: 10.3390/cancers12051190.

Yoen H, **Yoo RE**, Choi SH, Kim E, Oh BM, Yang D, Hwang I, Kang KM, Yun TJ, Kim JH, Sohn CH. Blood-Brain Barrier Disruption in Mild Traumatic Brain Injury Patients with Post-Concussion Syndrome: Evaluation with Region-Based Quantification of Dynamic Contrast-Enhanced MR Imaging Parameters Using Automatic Whole-Brain Segmentation. Korean J Radiol. 2020 Aug 11. doi: 10.3348/kjr.2020.0016. Online ahead of print.

Roh-Eul Yoo, Sun-Won Park, Ji Eun Kim, Soo Chin Kim, Ji-Young Choe, Ho-Kyung Choung, Sang In Khwarg, Ji- hoon Kim, Jeong Hyun Lee, Bo Eun Lee, Yeonah Kang. CT and MR Imaging Findings of Ocular Adnexal Mucosa-associated Lymphoid Tissue Lymphoma Associated with IgG4-related Disease. International Journal of Ophthalmology (in press)

Sanghyup Lee, **Roh-Eul Yoo**, Seung Hong Choi, Se-Hong Oh, Sooyeon Ji, Jongho Lee, Ki Young Huh, Ji Ye Lee, Inpyeong Hwang, Koung Mi Kang, Tae Jin Yun, Ji-hoon Kim, Chul-Ho Sohn. Contrast-Enhanced MRI T1 Mapping to Evaluate Glymphatic Activity in the Human Brain in Sleep-wake States. Radiology. 2021 Jun 22:203784. doi: 10.1148/radiol.2021203784. Online ahead of print.

Roh-Eul Yoo, Seung Hong Choi, Sung-Won Youn, Moonjung Hwang, Eunkyung Kim, Byung-Mo Oh, Ji Ye Lee, Inpyeong Hwang, Koung Mi Kang, Tae Jin Yun, Ji-hoon Kim, Chul-Ho Sohn.

Myelin Content in Mild Traumatic Brain Injury Patients with Post-concussion Syndrome: Quantitative Assessment with a Multidynamic Multiecho Sequence. Korean J Radiol . 2022 Feb;23(2):226-236.

Roh-Eul Yoo. Prognostic value of ASPECTS on post-treatment diffusion-weighted imaging for acute ischemic stroke patients after endovascular thrombectomy: comparison with infarction. Eur Radiol. 2022 Dec;32(12):8077-8078

Yoo H, **Yoo RE**, Choi SH, Hwang I, Lee JY, Seo JY, Koh SY, Choi KS, Kang KM, Yun TJ. Deep learning-based reconstruction for acceleration of lumbar spine MRI: a prospective comparison with standard MRI. Eur Radiol. 2023 Jul 27. doi: 10.1007/s00330-023-09918-0.

Heo D, Lee J, **Yoo RE**, Choi SH, Kim TM, Park CK, Park SH, Won JK, Lee JH, Lee ST, Choi KS, Lee JY, Hwang I, Kang KM, Yun TJ. Deep learning based on dynamic susceptibility contrast MR imaging for prediction of local progression in adult-type diffuse glioma (grade 4). Sci Rep . 2023 Aug 24;13(1):13864.

Kanghwi Lee, **Roh-Eul Yoo**, Won-Sang Cho, Seung Hong Choi, Sung Ho Lee, Kang Min Kim, Hyun-Seung Kang, Jeong Eun Kim. Blood-Brain Barrier Disruption Imaging in Postoperative Cerebral Hyperperfusion Syndrome using DCE-MRI. J Cereb Blood Flow Metab. 2023 Nov 1:271678X231212173. doi: 10.1177/0271678X231212173.

Yoon J, Baek N, **Yoo RE**, Choi SH, Kim TM, Park CK, Park SH, Won JK, Lee JH, Lee ST, Choi KS, Lee JY, Hwang I, Kang KM, Yun TJ. Added value of dynamic contrast-enhanced MR imaging in deep learning-based prediction of local recurrence in grade 4 adult-type diffuse gliomas patients. Sci Rep. 2024 Jan 25;14(1):2171. doi: 10.1038/s41598-024-52841-7.

Hyochul Lee, **Roh-Eul Yoo**, and Seung Hong Choi. Glymphatic Magnetic Resonance Imaging: Part I—Methodologies for Evaluation of the Glymphatic System. Investig Magn Reson Imaging. 2023 Dec;27(4):196-207.

Hyochul Lee, **Roh-Eul Yoo**, and Seung Hong Choi. Glymphatic Magnetic Resonance Imaging: Part II—Applications in Sleep and Neurodegenerative Diseases. Investig Magn Reson Imaging. 2023 Dec;27(4):196-207.

Ji SH, **Yoo RE**, Choi SH, Lee WJ, Lee ST, Jeon YH, Choi KS, Lee JY, Hwang I, Kang KM, Yun TJ. Dynamic Contrast-enhanced MRI Quantification of Altered Vascular Permeability in Autoimmune Encephalitis. Radiology. 2024 Mar;310(3):e230701.

Yoo RE, Choi SH. Deep Learning-based Image Enhancement Techniques for Fast MRI in Neuroimaging. Magn Reson Med Sci. 2024 Jul 1;23(3):341-351.

Yoo RE, Kim JH, Moon HY, Park JY, Cheon S, Shin HS, Han D, Kim Y, Park SH, Choi SH. Long-term physical exercise facilitates putative glymphatic and meningeal lymphatic vessel flow in humans. Nat Commun. 2025 Apr 9;16(1):3360. doi: 10.1038/s41467-025-58726-1.

Koo SJ, **Yoo RE**, Choi KS, Lee KH, Lee HB, Shin DJ, Yoo H, Choi SH. Deep Learning-Based Reconstruction for Accelerated Cervical Spine MRI: Utility in the Evaluation of Myelopathy and Degenerative Diseases. AJNR Am J Neuroradiol. 2025 Apr 2;46(4):750-757. doi: 10.3174/ajnr.A8567.