CURRICULUM VITAE

Dongyeob Han, Ph.D.

MR Clinical Research Scientist
GE HealthCare

EMPLOYMENT:

August/2025 – present	GE HealthCare, MR Clinical Research Scientist.
July/2019 – August/2025	Siemens Healthineers Ltd., Seoul, Korea. MR Research Collaboration Scientist.
Mar/2011 - Feb/2012	Medical Imaging Research Lab.Yonsei University, Seoul, Internship

EDUCATION:

Mar/2015 - Feb/2020	Yonsei University, Seoul, Korea	Ph.D. Electrical and Electronic Engineering
Mar/2012 - Feb/2014	Yonsei University, Seoul, Korea	M.S. Electrical and Electronic Engineering
Mar/2005 - Feb/2012	Yonsei University, Seoul, Korea	B.S.. Electrical and Electronic Engineering

PUBLICATIONS:

1. Yoonho Nam**,** ***Dongyeob Han*****,** Dong-Hyun Kim. Single-scan R2* measurement with macroscopic field inhomogeneity correction, Neuroimage, December 2012, 63: 1790-1799.

2. Sung Suk Oh, Se-Hong Oh, Yoonho Nam**,** ***Dongyeob Han*****,** Randall B. Stafford, Jinyoung Hwang**,** Dong-Hyun Kim**,** HyunWook Park, Jongho Lee. An Improved Susceptibility Weighted Imaging Method using Multi-Echo Acquisition. Magnetic Resonance in Medicine, August 2014, 72:452-458.

3. ***Dongyeob Han***, Yoonho Nam, Sung-Min Gho, Dong-Hyun Kim. Volumetric R2* mapping using z-shim multi-echo gradient echo imaging. Magnetic Resonance in Medicine, Mar 2014, 73:1164-1170.

4. Taehwa Hong, ***Dongyeob Han***, Min-Oh Kim, and Dong-Hyun Kim. RF slice profile effects in magnetic resonance fingerprinting. Magnetic Resonance Imaging. September 2017;41:73-79. DOI:10.1016/j.mri.2017.04.001

5. Taehwa Hong, ***Dongyeob Han,*** and Dong-Hyun Kim. Simultaneous estimation of PD, T1, T2, T2*, and ΔB0 using magnetic resonance fingerprinting with background gradient compensation. Magnetic Resonance in Medicine. 2019;81:2614–2623. https://doi.org/10.1002/mrm.27556

6. ***Dongyeob Han***, Young Joon Lee, Dong-Hyun Kim, Moon Hyung Choi Feasibility of Novel Three-Dimensional Magnetic Resonance Fingerprinting of the Prostate Gland: Phantom and Clinical Studies. Korean J Radiol. 2021 Aug;22(8):1332-1340. doi: 10.3348/kjr.2020.1362. Epub 2021 May 20.

7. Nali Yu, Jee Young Kim, ***Dongyeob Han***, So Young Kim, Hye Mi Lee, Dong-Hyun Kim, Hyun Gi Kim. Three-Dimensional Magnetic Resonance Fingerprinting in Neonates: Quantifying Regional Difference and Maturation in the Brain. Invest Radiol. 2021 Jun 8. doi: 10.1097/RLI.0000000000000800. Epub ahead of print.

8. Young Sub Lee, Young Joon Lee, ***Dongyeob Han***, Dong-Hyng Kim, Moon Hyung Choi. Magnetic resonance fingerprinting in prostate cancer before and after contrast enhancement. British Journal of Radiology, 94: 20210479, August 2021. https://doi.org/10.1259/ bjr.20210479

9. Moon Hyung Choi, Sheen-Woo Lee, Hyun Gi Kim, Jee Young Kim, Se Won Oh, ***Dongyeob Han*****,** Dong-Hyun Kim. 3D MR fingerprinting (MRF) for simultaneous T1 and T2 quantification of the bone metastasis: Initial validation in prostate cancer patients. European Journal of Radiology. Vol 144, Nov 2021, 109990. https://doi.org/10.1016/j.ejrad.2021.109990

10. Eu Hyun Kim, Moon Hyung Choi, Young Joon Lee, ***Dongyeob Han***, Mahmoud Mostapha, Dominik Nickel. Deep learning-accelerated T2-weighted imaging of the prostate: Impact of further acceleration with lower spatial resolution on image quality. Eur J Radiol. 2021 Dec;145:110012. doi: 10.1016/j.ejrad.2021.110012. Epub 2021 Oct 30.

11. Jae-Hun Lee, Jaeuk Yi, Jun-Hyeong Kim, Kanghyun Ryu, ***Dongyeob Han***, Sewook Kim, Seul Lee, Deog Young Kim, and Dong-Hyun Kim. Accelerated 3D Myelin Water Imaging Using Joint Spatio-temporal Reconstruction. Medical Physics, June 2022, doi: 10.1002/mp.15788

12. Hyun Gi Kim, Se Won Oh, ***Dongyeob Han***, Jee Young Kim, Gye Yeon Lim. Accelerated 3D T2-weighted images using compressed sensing for pediatric brain imaging. Neuroradiology. 2022 Aug 3. doi: 10.1007/s00234-022-03028-2. Online ahead of print.

13. Byun, Hokyun, ***Dongyeob Han***, Ho Jung Chun, Sheen-Woo Lee. "Multiparametric quantification of T1 and T2 relaxation time of bone metastasis in comparison with red or fatty bone marrow using magnetic resonance fingerprinting." Skeletal Radiology (2023): 1-10.

14. Choi, Moon-Hyung, ***Dongyeob Han***, Dong-Hyun Kim, Young-Joon Lee. "Quantitative Analysis of Prostate MRI: Correlation between Contrast-Enhanced Magnetic Resonance Fingerprinting and Dynamic Contrast-Enhanced MRI Parameters." Current Oncology 30.12 (2023): 10299-10310.

15. Lee, Seungeun, ***Dongyeob Han***, and Joon-Yong Jung. "Quantification of synovial fluid using magnetic resonance fingerprinting multicomponent imaging in the articular cartilage of the knee." Academic Radiology (2023).

16. Kim, Hyun Gi, ***Dongyeob Han***, Jimin Kim, Jeong-Sun Choi, Kyung-Ok Cho. "3D MR fingerprinting-derived myelin water fraction characterizing brain development and leukodystrophy." Journal of Translational Medicine 21.1 (2023): 1-13.

17. Sungjin Yoon, ***Dongyeob Han***, So Hyun Park. "Uncover This Tech Term: Compressed Sensing Magnetic Resonance Imaging." Korean Journal of Radiology. 2023 Dec;24(12):1293-1302.

18. Moon Hyung Choi, Young Joon Lee, Eun Sun Jung, Seongyong Pak, ***Dongyeob Han***, Dominik Nickel, Seung Bae Yoon. Rim enhancement of pancreatic ductal adenocarcinoma: investigating the relationship with DCE-MRI-based radiomics and next-generation sequencing. Front Oncol. 2024 Mar 8;14:1304187. doi: 10.3389/fonc.2024.1304187. PMID: 38525415; PMCID: PMC10959187..

19. Lee, Yoonhee, Sungjin Yoon, Munyoung Paek, ***Dongyeob Han***, Moon Hyung Choi, So Hyun Park. Advanced MRI techniques in abdominal imaging. Abdom Radiol (NY). Published online May 28, 2024. doi:10.1007/s00261-024-04369-7

20. Jimin Kim, Se Won Oh, Ha Young Lee, Moon Hyung Choi, Heiko Meyer, Stefan Huwer, Gengyan Zhao, Eli Gibson, ***Dongyeob Han***. Assessment of Deep Learning-Based Triage Application for Acute Ischemic Stroke on Brain MRI in the ER. Acad Radiol. Published online June 21, 2024. doi:10.1016/j.acra.2024.04.046

21. Jae-Hun Lee, Jae-Yoon Kim, Kanghyun Ryu, Mohammed A. Al-masni, Tae Hyung Kim, ***Dongyeob Han***, Hyun Gi Kim, Dong-Hyun Kim. JUST-Net: Jointly unrolled cross-domain optimization based spatio-temporal reconstruction network for accelerated 3D myelin water imaging. Magnetic Resonance in Medicine, 2024, 91.6: 2483-2497.

22. Dong Hwan Kim, Young Joon Lee, Sung Eun Rha, Marcel Dominik Nickel, Hyun-Soo Lee, ***Dongyeob Han***, Moon Hyung Choi. Deep learning-accelerated T2WI of the prostate for transition zone lesion evaluation and extraprostatic extension assessment. Scientific Reports, 2024, 14.1: 29249.

23. Young Joon Lee, Hyong Woo Moon, Seung Eun Jung, Yong Hyun Park, Ji Youl Lee, Dong Hwan Kim, Sung Eun Rha, Sang Hoon Kim, Kyu Won Lee, Yeong-Jin Choi, Young Sub Lee, Woojoo Lee, Seungjae Lee, Robert Grimm, Heinrich von

Busch, ***Dongyeob Han***, Bin Lou, Ali Kamen, Moon Hyung Choi. MRI-based Deep Learning Algorithm for Assisting Clinically Significant Prostate Cancer Detection: A Bicenter Prospective Study. Radiology, 2025, 314.3: e232788.

CONFERENCE ABSTRACTS (International):

1. ***Dongyeob Han***, Yoonho Nam, Sung-Min Gho, Dong-Hyun Kim. Electric poster presentation. Volumetric R2* mapping using 3D z-shimmed single scan multi-echo gradient-echo imaging. 20th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Melbourne, Australia, May 5-11, p3391, 2012.

2. ***Dongyeob Han***, Yoonho Nam, Sung-Min Gho, and Dong-Hyun Kim. Electric poster presentation. Macroscopic B0 inhomogeneity corrected QSM based on a field mapping algorithm using a single-scan 3D z-shim multi-echo GRE. 21th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Salt Lake City, USA, April 20-26, 2013, p3852.

3. ***Dongyeob Han***, Yoonho Nam, Sung-Min Gho, and Dong-Hyun Kim. Traditional poster presentation. Multi-echo QSM using flyback readout gradients with z-shimming. 2nd International Workshop on MRI Phase Contrast & Quantitative Susceptibility Mapping (QSM), July 25-27, 2013. Ithaca, New York (USA), p38.

4. ***Dongyeob Han***, Yoonho Nam, Sung-Min Gho, and Dong-Hyun Kim. **Power poster presentation.** A method for macroscopic B0 field inhomogeneity compensated SWI using 3D z-shim multi-echo GRE. 22nd Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Milano, Italy, May 10- 16, 2014, p629.

5. ***Dongyeob Han***, Min-Oh Kim, Dosik Hwang, and Dong-Hyun Kim. **Oral presentation.** A fast simultaneous water/fat decomposition and T1, T2 quantification method using dual TR bSSFP. 23rd Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Toronto, Canada, May 30- June 5, 2015, p2206.

6. ***Dongyeob Han***, Min-Oh Kim, Hongpyo Lee, Taehwa Hong and Dong-Hyun Kim. **Oral presentation.** A Free-breathing water/fat separation and T1, T2 quantification method using dual TR FISP in abdomen. 24th Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Singapore, May 7- May 13, 2016.

7. ***Dongyeob Han***, Taehwa Hong, Dong-Hyun Kim. Development of Magnetic Resonance Fingerprinting (MRF) Combined with FISP and Multi-Echo SPGR Acquisition for Proton Density, T1, T2, T2* and Field Mapping. 25th Annual Meeting of the International Society of Magnetic Resonance in Medicine, Hawaii, USA, April 22-27, 2017. P3711.

8. ***Dongyeob Han***, Taehwa Hong, Dong-Hyun Kim. High Resolution MRF-FISP with Radial Acquisition for MSK Imaging. 25th Annual Meeting of the International Society of Magnetic Resonance in Medicine, Hawaii, USA, April 22-27, 2017. P5100

9. ***Dongyeob Han***, Taehwa Hong, Dong-Hyun Kim. **Oral presentation.** A simultaneous water/fat decomposition and quantification method using MRF-FISP with increasing orthogonality between water and fat MRF signal. ISMRM Workshop on Magnetic Resonance Fingerprinting, Cleveland Museum of Art, Cleveland, OH, USA, October 15-17, 2017.

10. ***Dongyeob Han***, Taehwa Hong, Dong-Hyun Kim. A simultaneous water/fat decomposition and quantification method using MRF-FISP with orthogonal matching pursuit. 5th International Congress on Magnetic Resonance Imaging (ICMRI) 2017.

11. ***Dongyeob Han***, Taehwa Hong, Dong-Hyun Kim. Single echo radial random alternating TE acquisition for B0 field inhomogeneity robust fat suppression. ISMRM 2018. Paris, France, June 16-21, 2018, #4218

12. ***Dongyeob Han***, Taehwa Hong, Dong-Hyun Kim. 3D high resolution MRF using hybrid radial-cartesian multi-shot EPI in knee. 7th International Congress on Magnetic Resonance Imaging (ICMRI) 2019.

13. ***Dongyeob Han***, Taehwa Hong, Dong-Hyun Kim. High resolution 3D magnetic resonance fingerprinting with hybrid radial cartesian-EPI acquisition. ISMRM 2018. Montreal, Canada, May 11-16, 2019, #4550

RESEARCH AWARDS (International):

1. **Magna Cum Laude** - ***Dongyeob Han***, Yoonho Nam, Sung-Min Gho, and Dong-Hyun Kim. A method for macroscopic B0 field inhomogeneity compensated SWI using 3D z-shim multi-echo GRE. 22nd Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Milano, Italy, May 10- 16, 2014, p629.

2. **Summa Cum Laude** - ***Dongyeob Han***, Min-Oh Kim, Dosik Hwang, and Dong-Hyun Kim. A fast simultaneous water/fat decomposition and T1, T2 quantification method using dual TR bSSFP. 23rd Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Toronto, Canada, May 30- June 5, 2015, p2206.

3.**Best Poster Awards** - ***Dongyeob Han***, Taehwa Hong, Dong-Hyun Kim. A simultaneous water/fat decomposition and quantification method using MRF-FISP with orthogonal matching pursuit. 5th International Congress on Magnetic Resonance Imaging (ICMRI) 2017.

4.**Best Poster Awards** - ***Dongyeob Han***, Taehwa Hong, Dong-Hyun Kim. 3D high resolution MRF using hybrid radial-cartesian multi-shot EPI in knee. 7th International Congress on Magnetic Resonance Imaging (ICMRI) 2019.