

University of Texas, Southwestern (UTSW)
CURRICULUM VITAE

Name: Jaewon Yang, Ph.D.

Position: Assistant Professor
Radiology
UT Southwestern Medical Center

Address: Department of Radiology
5323 Harry Hines Blvd., Dallas, Texas 75390-8896
Office: 214-648-7755
Email: Jaewon.Yang@utsouthwestern.edu

EDUCATION

2010 - 2014	Stanford University	Ph.D. Electrical Engineering	Paul Keall, Edward (Ted) Graves
2007 - 2010	Stanford University	M.S. Electrical Engineering	
2000 - 2007	Yonsei University	B.S. Electrical and Electronic Engineering	

PRINCIPAL POSITIONS HELD

2022 Jan	University of Texas Southwestern	Assistant Professor	Radiology
2021 – 2022	University of California San Francisco	Specialist	Radiology and Biomedical Imaging
2014 – 2021	University of California San Francisco	Associate Specialist	Radiology and Biomedical Imaging
2010 – 2014	Stanford University	Research Assistant	Radiation Oncology (Physics Division)

HONORS AND AWARDS

2019	Alavi–Mandell Award	Journal of Nuclear Medicine
2007	Full Fellowship for MS/PhD	Kwanjeong Educational Foundation (KEF)
2007	Highest honors	Yonsei University

KEYWORDS/AREAS OF INTEREST

PET, SPECT, attenuation correction, motion correction, deep learning

PROFESSIONAL ACTIVITIES**SERVICE TO PROFESSIONAL PUBLICATIONS**

2021 – present Reviewer for the Journal of Nuclear Medicine (JNM)

2020 – present Reviewer for the IEEE Transactions on Medical Imaging (IEEE TMI)

2020 – present Reviewer for the IEEE Transactions on Radiation and Plasma Medical Sciences (IEEE TRPMS)

2020 – present Reviewer for the PLOS One

2019 – present Reviewer for the Medical Physics (Med Phys)

2019 – present Reviewer for the European Journal of Nuclear Medicine

2018 – present Reviewer for the Physics in Medicine and Biology (PMB)

2018 – present Reviewer for the Biomedical Physics & Engineering Express

UNIVERSITY AND PUBLIC SERVICE**SERVICE ACTIVITIES SUMMARY**

Dr. Yang has been actively supporting the church community. Based on his religious faith, he is also participating in a non-profit organization, as a board member, that supports natural farming to address the famine of North Korea.

COMMUNITY AND PUBLIC SERVICE

2019 - present Empower & Renew Foundation (nonprofit organization) Supporting natural farming to address the famine of North Korea.

TEACHING AND MENTORING**MENTORING SUMMARY**

Dr. Yang, as a senior scientist, is actively mentoring postdocs by consulting research progress, reviewing journal manuscripts and guiding future research directions.

POSTDOCTORAL FELLOWS AND RESIDENTS MENTORED

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2022 – present	Hussein Akafzade			Research/Scholarly Mentor, Project Mentor	Postdoc
2020 – 2021	Mahsa Torkaman		Research/Scholarly Mentor, Project Mentor		Postdoc

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AND CREATIVE ACTIVITIES SUMMARY

Dr. Yang's particular research interest is to develop practical and robust imaging techniques for quantitative PET and SPECT imaging, providing clinically applicable solutions for the unmet needs of current radionuclide imaging systems.

Dr. Yang has extensively experienced quantitative data analysis using PET/MR data, developing PET quantitative imaging techniques readily applicable to daily clinics for attenuation correction and motion management.

Recently, he has completed the initial investigation of a direct CT-less deep learning (DL) approach for simultaneous correction of attenuation and scatter in quantitative PET imaging. He continues to develop and validate DL approaches for clinical applications in commercial PET and SPECT scanners that need practical and robust methods for attenuation correction.

RESEARCH AWARDS – Under Review

- | | | | |
|--|----|-------------------------|------------------------|
| 1. GRANT13645262
NIH/NIBIB, PA-20-185 | PI | 40 % effort
4/1/2023 | Yang (PI)
3/31/2028 |
|--|----|-------------------------|------------------------|
- Deep learning-based attenuation correction for SPECT MPI
- Coronary artery disease (CAD) is the leading cause of mortality, increasing healthcare cost greater than 200 billion dollars annually in the United States. Therefore, this project aims to develop and validate deep learning-based attenuation correction for SPECT myocardial perfusion imaging in stand-alone SPECT systems suffering from attenuation artifacts. Attenuation artifacts cause false-positive interpretations, resulting in decreased specificity for the diagnosis of CAD.

RESEARCH AWARDS – PAST

- | | | |
|---------------|----------|-------------------------|
| 1. CA-0174303 | Seo (PI) | 06/01/2021 – 12/31/2022 |
|---------------|----------|-------------------------|
- Dose mapping a gamma and x-ray irradiator to determine rodent absorbed depth dose equivalence between technologies*
- The goal of this project is to generate experimentally and theoretically validated data of gamma and x-ray irradiators for rodents.
Role: Research scientist
- | | | |
|----------------|----------------|-------------------------|
| 2. R01EB026331 | Seo, Cui (PIs) | 04/01/2018 – 12/31/2022 |
|----------------|----------------|-------------------------|
- Energy-independent single photon molecular imaging technology*
- The goal of this project is to build a variable aperture, radially moving ring-like CZT-SPECT system.
Role: Research scientist
- | | | |
|----------------|---------------------|-------------------------|
| 3. R01HL135490 | Seo, Gullberg (PIs) | 05/01/2017 – 04/30/2022 |
|----------------|---------------------|-------------------------|
- Dynamic cardiac SPECT*
- The goal of this project is to develop clinical applications using dynamic cardiac SPECT techniques.
Role: Research scientist
- | | | |
|--------------------------------|---------------|-------------------------|
| 4. Exhibit A-01, GE Healthcare | Majumdar (PI) | 04/02/2014 – 05/30/2017 |
|--------------------------------|---------------|-------------------------|
- PET/MR Technology Development, PET/MR Workflow and Visualization*

The goal of this project is to develop PET/MR technologies, workflow and visualization.
Role: Research scientist

PEER REVIEWED PUBLICATIONS

1. Caravaca J, Peter R, Yang J, Gunther C, Antonio Camara Serrano J, Nostrand C, Steri V, Seo Y. Comparison and calibration of dose delivered by ¹³⁷Cs and x-ray irradiators in mice. *Phys Med Biol*. 2022 Nov 18;67(22). PubMed PMID: 36317316; PubMed Central PMCID: PMC9933773.
2. Sohn JH, Chen Y, Lituiev D, Yang J, Ordovas K, Hadley D, Vu TH, Franc BL, Seo Y. Prediction of future healthcare expenses of patients from chest radiographs using deep learning: a pilot study. *Sci Rep*. 2022 May 18;12(1):8344. PubMed PMID: 35585177; PubMed Central PMCID: PMC9117267.
3. Torkaman M, **Yang J**, Shi L, Wang R, Miller EJ, Sinusas AJ, Liu C, Gullberg GT, Seo Y. Data management and network architecture effect on performance variability in direct attenuation correction via deep learning for cardiac SPECT: A feasibility study. *IEEE Trans Radiat Plasma Med Sci*. (Epub ahead of print, published online on December 24, 2021) [PMCID: In Process]
4. **Yang J**, Shi L, Wang R, Miller EJ, Sinusas AJ, Liu CJ, Gullberg GT and Seo Y, Direct Attenuation Correction Using Deep Learning for Cardiac SPECT: A Feasibility Study. 2021 Feb. *jnumed*.120.256396; DOI: <https://doi.org/10.2967/jnumed.120.256396>
5. Huh Y, **Yang J**, Dim OU, Cui Y, Tao W, Huang Q, Gullberg GT, Seo Y, Evaluation of a variable-aperture full-ring SPECT system using large-area pixelated CZT modules: A simulation study for brain SPECT applications. *Med Phys*. 2021 May;48(5):2301-2314. doi: 10.1002/mp.14836. Epub 2021 Mar 30.
6. **Yang J**, Sohn JH, Behr S, Gullberg GT, Seo Y, CT-Less Direct Correction of Attenuation and Scatter in Image Space Using Deep Learning for Whole-Body FDG PET: Potential Benefits and Pitfalls. *Radiology*. 2020 Dec 2.
7. K Gong, **J Yang**, PEZ Larson, SC Behr, TA Hope, Y Seo, Q Li. MR-based Attenuation Correction for Brain PET Using 3D Cycle-Consistent Adversarial Network. *IEEE TRPMS*. 2020 Jan 1; PP(99):1-1.
8. **Yang J**, Park D, Gullberg GT, Seo Y. Joint correction of attenuation and scatter in image space using deep convolutional neural networks for dedicated brain ¹⁸F-FDG PET. *Phys Med Biol*. 2019 Feb 11. PMID: 30743246.
9. Kim K, Kim D, **Yang J**, El Fakhri G, Seo Y, Fessler JA, Li Q. Time of flight PET reconstruction using nonuniform update for regional recovery uniformity. *Med Phys*. 2019 Feb; 46(2):649-664. PMID: 30508255.
10. Gong K, Guan J, Kim K, Zhang X, **Yang J**, Seo Y, El Fakhri G, Qi J, Li Q. Iterative PET Image Reconstruction Using Convolutional Neural Network Representation. *IEEE Trans Med Imaging*. 2018 Sep 12. PMID: 30222554.
11. **Yang J**, Liu J, Wiesinger F, Menini A, Zhu X, Hope TA, Seo Y, Larson PEZ. Developing an efficient phase-matched attenuation correction method for quiescent period PET in abdominal PET/MRI. *Phys Med Biol*. 2018 Sep 10; 63(18):185002. PMID: 30106008.

12. Gong K, **Yang J**, Kim K, El Fakhri G, Seo Y, Li Q. Attenuation correction for brain PET imaging using deep neural network based on Dixon and ZTE MR images. *Phys Med Biol*. 2018 Jun 13; 63(12):125011. PMID: 29790857.
13. Wiesinger F, Bylund M, **Yang J**, Kaushik S, Shanbhag D, Ahn S, Jonsson JH, Lundman JA, Hope T, Nyholm T, Larson P, Cozzini C. Zero TE-based pseudo-CT image conversion in the head and its application in PET/MR attenuation correction and MR-guided radiation therapy planning. *Magn Reson Med*. 2018 Oct; 80(4):1440-1451. PMID: 29457287.
14. Leynes AP, **Yang J**, Wiesinger F, Kaushik SS, Shanbhag DD, Seo Y, Hope TA, Larson PEZ. Zero-Echo-Time and Dixon Deep Pseudo-CT (ZeDD CT): Direct Generation of Pseudo-CT Images for Pelvic PET/MRI Attenuation Correction Using Deep Convolutional Neural Networks with Multiparametric MRI. *J Nucl Med*. 2018 May; 59(5):852-858. PMID: 29084824.
15. **Yang J**, Wiesinger F, Kaushik S, Shanbhag D, Hope TA, Larson PEZ, Seo Y. Evaluation of Sinus/Edge-Corrected Zero-Echo-Time-Based Attenuation Correction in Brain PET/MRI. *J Nucl Med*. 2017 11; 58(11):1873-1879. PMID: 28473594.
16. **Yang J**, Khalighi M, Hope TA, Ordovas K, Seo Y. Technical Note: Fast respiratory motion estimation using sorted singles without unlist processing: A feasibility study. *Med Phys*. 2017 May; 44(5):1632-1637. PMID: 28099995.
17. Leynes AP, **Yang J**, Shanbhag DD, Kaushik SS, Seo Y, Hope TA, Wiesinger F, Larson PE. Hybrid ZTE/Dixon MR-based attenuation correction for quantitative uptake estimation of pelvic lesions in PET/MRI. *Med Phys*. 2017 Mar; 44(3):902-913. PMID: 28112410.
18. **Yang J**, Jian Y, Jenkins N, Behr SC, Hope TA, Larson PEZ, Vigneron D, Seo Y. Quantitative Evaluation of Atlas-based Attenuation Correction for Brain PET in an Integrated Time-of-Flight PET/MR Imaging System. *Radiology*. 2017 07; 284(1):169-179. PMID: 28234560.
19. Behr SC, Mollard BJ, **Yang J**, Flavell RR, Hawkins RA, Seo Y. Effect of Time-of-Flight and Regularized Reconstructions on Quantitative Measurements and Qualitative Assessments in Newly Diagnosed Prostate Cancer With 18F-Fluorocholine Dual Time Point PET/MRI. *Mol Imaging*. 2017 Jan-Dec; 16:1536012117736703. PMID: 29169313.
20. Choi JY, **Yang J**, Noworolski SM, Behr S, Chang AJ, Simko JP, Nguyen HG, Carroll PR, Kurhanewicz J, Seo Y. 18F Fluorocholine Dynamic Time-of-Flight PET/MR Imaging in Patients with Newly Diagnosed Intermediate- to High-Risk Prostate Cancer: Initial Clinical-Pathologic Comparisons. *Radiology*. 2017 Feb; 282(2):429-436. PMID: 27513849.
21. **Yang J**, Yamamoto T, Pollock S, Berger J, Diehn M, Graves EE, Loo BW, Keall PJ. The impact of audiovisual biofeedback on 4D functional and anatomic imaging: Results of a lung cancer pilot study. *Radiother Oncol*. 2016 08; 120(2):267-72. PMID: 27256597.
22. Savic D, Padoia V, Seo Y, **Yang J**, Bucknor M, Franc BL, Majumdar S. Imaging Bone-Cartilage Interactions in Osteoarthritis Using [18F]-NaF PET-MRI. *Mol Imaging*. 2016 01 01; 15:1-12. PMID: 28654417.
23. **Yang J**, Yamamoto T, Mazin SR, Graves EE, Keall PJ. The potential of positron emission tomography for intratreatment dynamic lung tumor tracking: a phantom study. *Med Phys*. 2014 Feb; 41(2):021718. PMID: 24506609; PMCID: PMC3977800.
24. Fan Q, Nanduri A, **Yang J**, Yamamoto T, Loo B, Graves E, Zhu L, Mazin S. Toward a planning scheme for emission guided radiation therapy (EGRT): FDG based tumor tracking

in a metastatic breast cancer patient. *Med Phys.* 2013 Aug; 40(8):081708. PMID: 23927305; PMCID: PMC3732304.

25. **Yang J**, Yamamoto T, Cho B, Seo Y, Keall PJ. The impact of audio-visual biofeedback on 4D PET images: results of a phantom study. *Med Phys.* 2012 Feb; 39(2):1046-57. PMID: 22320815.

SIGNIFICANT PUBLICATIONS

1. **Yang J**, Park D, Gullberg GT, Seo Y. Joint correction of attenuation and scatter in image space using deep convolutional neural networks for dedicated brain ¹⁸F-FDG PET. *Phys Med Biol.* 2019;64:075019. [PMID: 30743246]
2. **Yang J**, Shi L, Wang R, Miller EJ, Sinusas AJ, Liu C, Gullberg GT, Seo Y. Direct Attenuation Correction Using Deep Learning for Cardiac SPECT: A Feasibility Study. *J Nucl Med.* 2021;62(11):1645-1652. [PMID: 33637586; PMCID: PMC8612332].
3. **Yang J**, Sohn JH, Behr SC, Gullberg GT, Seo Y. CT-less Direct Correction of Attenuation and Scatter in the Image Space Using Deep Learning for Whole-Body FDG PET: Potential Benefits and Pitfalls. *Radiol Artif Intell.* 2020 Dec 2;3(2):e200137. [PMID: 33937860; PMCID: PMC8043359].
4. Torkaman M, **Yang J**, Shi L, Wang R, Miller EJ, Sinusas AJ, Liu C, Gullberg GT, Seo Y. Data management and network architecture effect on performance variability in direct attenuation correction via deep learning for cardiac SPECT: A feasibility study. *IEEE Trans Radiat Plasma Med Sci.* (Epub ahead of print, published online on December 24, 2021) [PMCID: In Process]

CONFERENCE ABSTRACTS

1. Torkaman M, **Yang J**, Shi L, Wang R, Miller EJ, Sinusas AJ, Liu C, Gullberg GT, Seo Y, Direct Image-Based Attenuation Correction using Conditional Generative Adversarial Network for SPECT Myocardial Perfusion Imaging. SPIE Annual Conference. 2021.
2. **Yang J**, Shi L, Wang R, Liu C, Gullberg GT, Seo Y. CT-Less Attenuation Correction in Image Space Using Deep Learning for Dedicated Cardiac SPECT: A Feasibility Study. SNMMI Annual Meeting. 2020.
3. **Yang J**, Sohn JH, Park D, Gullberg GT, Seo Y. CT-less direct correction of attenuation and scatter in image space using deep learning for total-body PET: A feasibility study. RSNA Conference. 2019
4. Gong K, **Yang J**, Kim K, Fakhri GE, Y, Li Q, Attenuation Correction of PET/MR Using Cycle-Consistent Adversarial Network. *J Nucl Med*, May 2019, 60 (supplement 1) 171.
5. **Yang J**, Park D, Sohn JH, Wang ZJ, Gullberg GT, Seo Y. Joint correction of attenuation and scatter using deep convolutional neural networks (DCNN) for time-of-flight PET. IEEE MIC Conference. 2018
6. Gong K, Wu D, Kim K, **Yang J**, Fakhri GE, Seo Y, Li Q. EMnet: An Unrolled Deep Neural Network for PET Image Reconstruction. SPIE Annual Conference. 2018.
7. **Yang J**, Wiesinger F, Menini A, Liu J, Hope TA, Seo Y, Larson PEZ. Phase-matched MR-based attenuation correction for quiescent period PET/MRI: A feasibility study. SNMMI Annual Meeting. 2017

8. **Yang J**, Wiesinger F, Menini A, Liu J, Hope TA, Seo Y, Larson PEZ. Respiratory phase-matched MR-based attenuation correction (MRAC) for four-dimensional (4D) PET in PET/MRI: A Feasibility Study. ISMRM Annual Meeting. 2017.
9. A. P. Leynes, **J. Yang**, D. D. Shanbhag, S. S. Kaushik, F. Wiesinger, Y. Seo, T. A. Hope, P. E. Z. Larson. Direct Pseudo-CT Image Synthesis Using Deep Learning for Pelvis PET/MR Attenuation Correction. ISMRM Annual Meeting. 2017.
10. S Kaushik, D Shanbhag, A Leynes, **J Yang**, PEZ Larson, H Ravishankar, TA Hope, F Wiesinger. Deep Learning based pseudo-CT estimation using ZTE and Dixon MR images for PET attenuation correction. ISMRM Annual Meeting. 2017.
11. F Wiesinger, S Ahn, S Kaushik, C Cozzini, D Beque, L Cheng, **J Yang**, A Leynes, D Shanbhag, TA Hope, and PEZ Larson. Whole-Body, Zero TE Based Pseudo CT Conversion. ISMRM Annual Meeting. 2017.
12. S Ahn, **J Yang**, J Liu, Y Seo, TA Hope, PEZ Larson, and F Wiesinger. Joint estimation applied to attenuation correction for quiescent period respiratory gated PET data in PET/MR. ISMRM Annual Meeting. 2017.
13. **Yang J**, Wiesinger F, Kaushik S, Shanbhag D, Leynes A, Hope TA, Larson PEZ, Vigneron D, Majumdar S, Seo Y, Quantitative evaluation of Zero TE MR-based attenuation correction (ZTAC) for PET/MR brain imaging in an integrated time-of-flight PET/MR. SNMMI Annual Meeting. 2016.
14. K Kim, **J Yang**, G Fakhri, Y Seo, Q. Li, Accurate attenuation correction of TOF-PET/MR scanner using both MLAA and anatomic prior. SNMMI Annual Meeting. 2016.
15. J Choi, **J Yang**, S Noworolski, S Behr, J Kurhanewicz, A Chang, J Simko, H Nguyen, P Carroll, Y Seo, A pilot study of 18F-fluorocholine dynamic time-of-flight PET/MRI in newly diagnosed intermediate-to-high risk prostate cancer. SNMMI Annual Meeting. 2016.
16. A Leynes, **J Yang**, D Shanbhag, S Kaushik, F Wiesinger, Y Seo, TA Hope, PEZ Larson, Quantitative evaluation of the effect of bone on pelvic lesion uptake for MR-based attenuation correction on an integrated time-of-flight PET/MRI system. ISMRM Annual Meeting. 2016.
17. F Wiesinger, S Kaushik, D Shanbhag, V Chebrolu, V Vaidya, **J Yang**, A Leynes, TA Hope, PEZ Larson, ZTAC: Zero TE based PET/MR attenuation correction. ISMRM Annual Meeting. 2016.
18. S Kaushik, D Shanbhag, F Wiesinger, V Chebrolu, V Vaidya, **J Yang**, PEZ Larson, TA Hope, Machine learning based pseudo-CT estimation using single ZTE MR image for PET attenuation correction. ISMRM Annual Meeting. 2016.
19. **Yang J**, Tohme M, Jian Y, Behr S, Vigneron D, Majumdar S, Seo Y. Quantitative evaluation of atlas-based MR attenuation correction for brain PET imaging using a time-of-flight PET/MRI system: a direct comparison with CT-based attenuation correction. SNMMI Annual Meeting, 2015
20. **Yang J**, Y. Jian Y, Tohme M, Behr S, Vigneron D, Majumdar S, Seo Y. Quantitative evaluation of bone-anatomy compensation methods for MR-based attenuation correction for brain PET imaging in a time-of-flight PET/MRI system. WMIC. 2015.

21. **Yang J**, Yamamoto T, Loo B, Graves EE, Keall PJ. Positron emission tomography (PET)-guided dynamic lung tumor tracking for cancer radiotherapy: First patient simulations. AAPM Annual Meeting. 2014.
22. P Keall, J Yang, T Yamamoto, S Pollock, M Diehn, J Berger, E Graves, B Loo, The Impact of Audiovisual Biofeedback On Image Quality During 4D Functional and Anatomic Imaging: Results of a Prospective Clinical Trial. AAPM Annual Meeting. 2014.
23. A Nanduri, Q Fan , **J Yang**, T Yamamoto, E Graves, B Loo, S Mazin, Dynamic Treatment of Clinical Margins Beyond the PET-Avid Target in Emission Guided Radiation Therapy: A Retrospective Patient Study. AAPM Annual Meeting. 2014.
24. **Yang J**, Yamamoto T, Mazin S, Cui J, Levin CS, Graves EE, Keall PJ. The potential of positron emission tomography (PET) for intra-treatment dynamic tumor tracking during radiotherapy: A phantom study. AAPM Annual Meeting. 2013.
25. **Yang J**, Yamamoto T, Gopalan S, Berger J, Johnston E, Chung M, Eclov N, Diehn M, Loo B, Graves EE, Keall PJ. Impact of audiovisual biofeedback respiratory training on 4D-PET image quality. AAPM Annual Meeting. 2013.
26. Q Fan, A Nanduri, **J Yang**, T Yamamoto, B Loo, E Graves, L Zhu, S Mazin, Demonstration of a Planning Scheme for Emission Guided Radiation Therapy (EGRT) in a Metastatic Breast Cancer Patient. AAPM Annual Meeting. 2013.
27. S Pollock, D Lee, T Kim, T Yamamoto, B Loo, **J Yang**, P. Keall, Respiratory Guidance for Lung Cancer Patients: An Investigation of Audiovisual Biofeedback Training and Effectiveness. AAPM Annual Meeting. 2013.
28. Q Fan, A Nanduri, **J Yang**, T Yamamoto, B Loo, E Graves, L Zhu, S Mazin, Simultaneous Tracking of Multiple Metastases Using FDG-PET Emission Guided Radiation Therapy (EGRT) in a Breast Cancer Patient. ASTRO Annual Meeting. 2013.
29. S Mazin, A Nanduri, **J Yang**, T Yamamoto, B Loo, E Graves. Lung Cancer Patient Feasibility Study for Emission Guided Radiation Therapy. AAPM Annual Meeting. 2012.
30. J Cui, **J Yang**, E Graves, C Levin, GPU-Enabled PET Motion Compensation Using Sparse and Low-Rank Decomposition. IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC). 2012.
31. **Yang J**, Yamamoto T, Gopalan S, Diehn M, Berger J, Loo B, Graves EE, Keall PJ. Impact of audiovisual biofeedback on 4D PET image quality. ASTRO Annual Meeting, 2011.
32. S Mazin, **J Yang**, T Yamamoto, A Nanduri, Free Breathing Motion Tracking in Emission Guided Radiation Therapy. AAPM Annual Meeting. 2011.
33. **Yang J**, Yamamoto T, Cho B, Seo Y, Keall PJ, Audiovisual biofeedback significantly reduces motion blurring artifacts in four-dimensional (4D) PET images. AAPM Annual Meeting. 2010.

INVITED TALK

1. **Yang J**, CT-Less Attenuation Correction in PET/MRI, Brain PET, and Dedicated Cardiac SPECT Using MRI or Deep Learning Algorithms. 2022 64th Annual Meeting to be held July 10 - 14, in Washington, DC. Session Title: Attenuation Correction in PET and SPECT with and without Transmission Imaging.

