Curriculum Vitae

Personal Information

Title	**Pf**
Name	**James Sohn**
Degree	**PhD**
Country	**United States**
Affiliation	**University of Chicago**

Educational Background

Ph.D.	2018	Medical Physics & Engineering, Catholic University of Korea, Korea
M.S.	2014	Medical Physics & Engineering, Catholic University of Korea, Korea
B.S.	2011	Radiological Science, Catholic University of Pusan, Korea

Professional Career

2024-present	Assistant Professor, Committee on Medical Physics, University of Chicago
2023-present	Assistant Professor of Radiation and Cellular Oncology, University of Chicago
2023-Present	CEO of Oncosoft Inc.
2022-2023	Assistant Professor of Radiation Oncology, Northwestern University
2020-2022	Resident, Virginia Commonwealth University
2018-2020	Postdoctoral Fellow, Emory University
2015-2018	Visiting Scholar, University of Florida
2015-2015	Visiting Scholar, Stanford University
2011-2018	Research Associate, Catholic University of Korea

Research Field

Medical Physics in Radiation Oncology area – Brachytherapy, Adaptive Radiation Therapy and Digital Twin

Main Scientific Publications

1. Jiang R, Madondo M, Zhang X, Shao Y, Moradi M, **Sohn J**, Wu T, Yang X, Hasan Y, Tian Z. Deep Learning-based Applicator Selection between Syed and T&O in High-Dose-Rate Brachytherapy for Locally Advanced Cervical Cancer: A Retrospective Study. *Phys. Med. Biol*. 6;70(11):115023, 2025.
2. Stolen E, Schulz J, Allie L, Song C, **Sohn J**. Fully Customizable Bronze-PLA Lung Shields using 3D Printing for Total Body Irradiation (TBI). *Biomed. Phys. Eng. Express*. 11 045001, 2025.
3. **Sohn J**, Park J, Sen S, Wu T, Mielke M, Kim S. Optical Automatic Contour Tracing (O-ACT) – A Novel Optical Image-guided Contour Tracing Method for Electron Beam Shaping. *Med. Phys*. 52(2)913-923, 2025.
4. Lim SN, **Sohn J**, Klawikowski SJ, Hayes JP, Donnelly E, Das I. Characterization of brass bolus for electron beam therapy. *Biomed. Phys. Eng. Express.* 10:065046, 2024.
5. **Sohn J**, Kim H, Stolen E, Chidel G, Jang S, Furutani K, Beltran C, Lu B. Innovative 3D printing and molding process for secondary-skin-collimator fabrication. *Biomed. Phys. Eng. Express*. 10:055022, 2024.
6. Sen S, Stolen E, Chun J, Kim J, **Sohn J**. Optimized Needle Configuration for Operational Seed (ONCOSEED) Efficiency and Deployment for Prostate Seed Implants. Tech. Innov. Patient. Support. *Radiat. Oncol*. 32: 100273, 2024.
7. **Sohn J**, Das I. Investigation of triaxial cables and microdetectors in small field dosimetry. *Biomed. Phys. Eng. Express*. 10:045031, 2024.
8. **Sohn J**, Lim S, Das I, Yadav P. An Integrated and Fast Magnetic Resonance (MR) Imaging Quality Assurance (QA) Phantom for a 0.35 T MR-Linac (MRL) System. *Phys. Imaging. Radiat. Oncol*. 27 100462, 2023.
9. Das I, **Sohn J**, Lim S, Sengupta B, Feijoo M, Yadav P. Characteristics of a Plastic Scintillation Detector in Photon Beam Dosimetry. *J. Appl. Clin. Med. Phys*. 20:e14209, 2023.

10. **Sohn J**, Polizzi M, McDonagh R, Guy C, Datsang R, Weiss E, Kim S. Shallow Kinetics Induced by Metronome (SKIM): A Novel Contactless Respiratory Motion Management. *J. Appl. Clin. Med. Phys*. e14147, 2023.