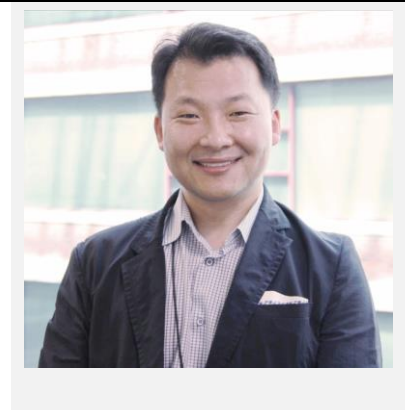




## Prof. Hak Soo Choi

### Professor of Radiology

Harvard Medical School, Boston, USA



**Biography:** Dr. Hak Soo Choi is a Professor of Radiology at Harvard Medical School and Director of the Bioengineering & Nanomedicine Program of Mass General Hospital. Dr. Choi received a Ph.D. degree in Nanomedicine from Japan Advanced Science and Technology in 2004. After postdoc training in the field of Gene and Drug Delivery, he extended his research into Molecular Cancer Imaging at Harvard. Since 2008, his laboratory has focused on developing targeted contrast agents for tissue-specific imaging, which can be used to diagnose and treat human diseases by specifically visualizing the target tissue via “Structure-Inherent Targeting” while avoiding nonspecific uptake in normal tissues (<https://sites.google.com/view/benmd>). Dr. Choi’s groundbreaking work has resulted in the publication of over 200 papers and his expertise in nanomedicine and molecular imaging holds great promise for advancing the field of cancer diagnostics and therapeutics. Dr. Choi is the inventor of FIAT-L™ Image-Guided Systems and a co-founder of Nawoo Vision and Ferrex Therapeutics.

### Honors and Awards

- 2024 Humans-In-Space Challenge Award, American Institute of Aeronautics and Astronautics
- 2023 JnJ Innovation QuickFire Challenge Award, New York, NY
- 2021 Distinguished Investigator Award, Academy for Radiology & Biomedical Imaging Research
- 2018 Finalist, Johnson & Johnson Innovation QuickFire Challenge, New York, NY
- 2016 Boston Biomedical Innovation Center Pilot Award / Drive Award (2018), Boston, MA
- 2015 CAO Pilot Grant Award for Faculty Development, BIDMC, Boston, MA
- 2013 CFTCC Innovation Award, Center for Future Technologies in Cancer Care, NIH, Bethesda
- 2010 Dana Foundation Faculty Development Award, Dana Foundation, NY
- 2009 Top 5 Young Investigator Award, World Molecular Imaging Congress, Montreal, Canada
- 2007 Charles A. King Trust Research Fellowship, The Medical Foundation, Boston, MA
- 2006 Young Scientist Award, Inoue Foundation for Science, Tokyo, Japan
- 2004 Best Ph.D. Degree Award of the Year, JAIST, Japan (summa cum laude)

### Representative Publications (selected from over 200 publications)

1. Renal clearance of quantum dots. **Nat Biotechnol.** 2007;25(10):1165-70.
2. Design considerations for tumour-targeted nanoparticles. **Nat Nanotechnol.** 2010;5(1):42-7.
3. Rapid translocation of nanoparticles from the lung airspaces to the body. **Nat Biotechnol.** 2010;28(12):1300-3.
4. Targeted zwitterionic near-infrared fluorophores for improved optical imaging. **Nat Biotechnol.** 2013;31(2):148-53.
5. Nanoparticle assembly: building blocks for tumour delivery. **Nat Nanotechnol.** 2014; 9(2): 93-4.
6. Structure-inherent targeting of near-infrared fluorophores for parathyroid and thyroid gland imaging. **Nat Med.** 2015;21:192-7.
7. Renal clearable nanochelators for iron overload therapy. **Nat Commun.** 2019;10(1):5134.
8. Near-infrared fluorescence lifetime imaging of amyloid- $\beta$  aggregates and tau fibrils through the intact skull of mice. **Nat Biomed Eng.** 2023;7:270-80.