BIOGRAPHICAL SKETCH

NAME
Woo, Dong-Cheol

Position title
Assistant Professor

Affiliation
Asan Institute for Life Sciences, Asan Medical Center, Seoul, Korea

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YYYY	FIELD OF STUDY
Korea Advanced Institute of Science and Technology (KAIST)	B.S.	08/2004	Nuclear Engineering
The Catholic University of Korea	Ph.D.	08/2010	Medical Physics and Biomedical Engineering
Beth Israel Deaconess Medical Center, Harvard Medical School	Post-Doctoral	09/2010 – 09/2011	Magnetic Resonance Research
Department of Radiology, UT Southwestern Medical Center	Post-Doctoral	09/2011 – 09/2013	Magnetic Resonance Research

A. Personal Statement

My main research topics are focused on the area of MRI/MRS technical development for basic and preclinical/clinical applications. I have implemented preclinical MRI/MRS and molecular imaging to study the various animal models (rat/mouse) at 7T/9.4T. I have been investigating many key techniques, such as in vivo multinuclear MR imaging methods, and data processing methods related to MRI/MRS. In particular, I am involved in Bio-imaging for new drug development project (C-BiND) utilizing MR at 7T/9.4T. It is known that in vivo MR imaging can be used to make decision a drug efficacy as providing anatomical/pathological/physiological information of various organs. The ongoing research of MR imaging for drug development is focused on the setup of new hardware/software, as well as applications to many animal models (stroke, tumor, Alzheimer disease,…).

B. Interests

- Physics of Magnetic Resonance Imaging/Spectroscopy
- Preclinical Application of MRI/MRS
- Animal models for in vivo MRI/MRS in Drug Development
- Magnetic Resonance Engineering (RF coils system)
- Multi-nuclei MRI (Sodium/Phosphorus MRI)

C. Research Funding and Honors

Research Grants

2014.7-2019.10 Involved, Center of Bioimaging for New Drug Development (CBiND), The Korea Health Technology R&D Project through the Korea Health Industry Development Institute.

2015.7 – 2018.6 Principal Investigator, Validation of MRI reporter system for gene expression quantification, Basic Science Research Program through the National Research Foundation of Korea.

2016.5 – 2017.12 Sub Principal Investigator, Phase II clinical trials in Europe for the development of cancer cachexia treatment, Korea Evaluation Institute of Industrial Technology.

2018.3 – 2022.2 Principal Investigator, Establishment of the Liver Disease Severity Standard in Preclinical MR imaging for Drug Development, Basic Science Research Program through the National Research Foundation of Korea.

Professional Memberships

2006- Member, Korean Society of Medical Physics
2006- Member, Korean Society of Magnetic Resonance in Medicine
2007- Member, International Society of Magnetic Resonance in Medicine