

Dong-Wook Rha

Curriculum Vitae



Chief Medical Officer, Angel Robotics
Professor, Dept. of Rehabilitation Medicine, Severance Rehabilitation Hospital, Yonsei University College of Medicine, Korea

Educational Background & Professional Experience

- 2018– Professor in Dept. of Medical Device Industry, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea
- 2018– Professor in Dept. of Physical medicine and Rehabilitation, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea
- 2017– Chief Medical Officer, Angel Robotics, Seoul, Korea
- 2013–2017 Associate Professor in Dept. of Physical medicine and Rehabilitation, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea
- 2012–2013 Visiting Assistant Professor in Orthopedic surgery; Stanford Medical Center, CA, USA
- 2007–2012 Assistant Professor in Dept. of Physical medicine and Rehabilitation, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea

Research Interests

- Pediatric rehabilitation, cerebral palsy, robotic rehabilitation, gait biomechanics, motion analysis

Publications

- Hong JT, Sung HN, Choi JO, Lee JS, Kim SJ, Hwang SJ, Rha DW. A prediction model of pediatric bone density from plain spine radiographs using deep learning. Sci Rep 2025;15(1):13039.
- Yoo JH, Park KB, Hong JT, Cha JM, Lee JH, Cho YB, Rha DW. Personalized musculoskeletal modeling for gait analysis and decision-making in femoral derotational osteotomy for children with cerebral palsy. J Orthop Surg Res 2025;20(1):855.
- Hong JT, Yu JH, Lee JY, Shim D, Choi TY, Cho YB, Lee JH, Rha DW. Cadence-based energy expenditure in able-bodied male people comparing cadence-based energy expenditure and oxygen cost indices in able-bodied male people. J Appl Physiol 2024;137(6):1604–1611.
- Shim D, Park D, Yoo B, Choi JO, Hong JT, Choi TY, Park ES, Rha DW. Evaluation of sitting and standing postural balance in cerebral palsy by center-of-pressure measurement using force plates: comparison with clinical measurements. Gait Posture 2022;92:110–115.
- Choi JY, Yi SH, Ao L, Tang X, Xu X, Shim D, Yoo B, Park ES, Rha DW. Virtual reality rehabilitation in children with brain injury: a randomized controlled trial. Dev Med Child Neurol 2021;63:480–487.

