

## Short Bio: Dr. Hui-Yu Tsai

### Current Positions:

- **Professor**, Institute of Nuclear Engineering and Science, National Tsing Hua University, Hsinchu, Taiwan
- **Director**, Boron Neutron Capture Therapy (BNCT) Center, National Tsing Hua University, Hsinchu, Taiwan

Dr. Hui-Yu Tsai is a recognized expert in medical physics, radiation dosimetry, and radiation protection. With a career spanning over two decades, Dr. Tsai has made significant contributions to the field of advanced radiation therapies, particularly Boron Neutron Capture Therapy (BNCT), a highly selective cancer treatment that utilizes boron-containing compounds to deliver targeted therapeutic doses to malignant cells.

Dr. Tsai earned her Ph.D. in Nuclear Science from National Tsing Hua University (NTHU) and her B.S. in Radiologic Science and Technology from National Yang Ming University. Her work has focused on the precision and safety of radiation therapy, addressing critical challenges in patient care and treatment outcomes.

Dr. Tsai has led numerous national and international research projects, supported by Taiwan's Ministry of Science and Technology and the Atomic Energy Council. Her recent projects include the development of precision dosimetry systems, evaluation of occupational radiation exposure, and optimization of diagnostic imaging protocols. She has also collaborated extensively with leading medical centers on the clinical translation of BNCT technologies, contributing to the global progress in cancer treatment.

In addition to her research, Dr. Tsai is a dedicated educator, having mentored dozens of graduate students and emerging researchers in medical physics. She has played a key role in shaping the next generation of medical physicists through her leadership in academic and professional organizations, including the Chinese Society of Medical Physics, Taipei (CSMPT), the American Association of Physicists in Medicine (AAPM), the Asian-Oceania Federation of Organizations for Medical Physics (AFOMP), and Health Physics Society (HPS).

Dr. Tsai's contributions to the field have been recognized with several prestigious awards, including the Outstanding Teaching Award from the College of Nuclear Science at NTHU and the Summa Cum Laude Award from the Chinese Society of Medical Physics. She continues to be an influential figure in advancing radiation safety, medical physics education, and cancer therapy research.