Social Cooperation Research Program

Project Division of International Healthcare Innovation Research

国際健康医療推進社会連携研究部門

Project Associate Professor　Koichiro Yuji, M.D., Ph.D.　特任准教授　博士（医学）　湯　地　晃一郎

The mission of the Project Division is to facilitate the social implementation, engagement with the public, and propagation of research findings in the healthcare field at international medical facilities through collaboration between the Institute of Medical Science, the University of Tokyo (IMSUT), and Tokyu Land Corporation. Established in November 2024 as the successor to the former Project Division of International Advanced Medical Research, we aim to bridge the gap between cutting-edge academic research and societal infrastructure. We conduct lectures and collaborative projects at international medical facilities to share knowledge and raise public awareness of the latest advances in healthcare and clinical medicine.

Implementing advanced medical research at IMSUT

Yuji, K.

Our division leads the translation of advanced medical research outcomes from IMSUT into real-world applications, particularly within international healthcare settings. By leveraging strategic partnerships, we foster an environment where scientific innovation meets practical societal needs, ensuring that the progress made in the laboratory directly contributes to the global health landscape and public well-being.

Medical DX and Clinical Laboratory Data

Yuji, K.

In the era of digital transformation (DX), the collection and utilization of big data in the healthcare field is an urgent issue. Healthcare big data is primarily comprised of electronic health records (EHR) and personal health records (PHR). Standardization and interoperability, thereby empowering patients and enhancing the resilience of the public health infrastructure, as well as the establishment of a common platform for EHR/PHR, are essential for medical DX. Clinical laboratory data account for a large portion of medical information, especially within EHRs, which reportedly comprise 93% of electronic medical records. PHRs provide a mechanism for individuals and families to accurately understand and utilize health and medical data related to their daily lives as electronic records, including self-tracked measurements such as blood pressure, pulse rate, and blood glucose levels. We actively contribute to the standardization and interoperability of these systems from the perspective of clinical laboratory medicine.

Furthermore, our division is dedicated to the social implementation of artificial intelligence (AI) and its integration into clinical medicine through high-level public engagement. As a core initiative of this division to bridge the gap between advanced technology and public understanding, a public lecture entitled "The Future Indicated by Shogi AI: Implications for Clinical Medicine" was convened on August 30, 2025, at the 72nd Annual Meeting of the Japanese Society of

Laboratory Medicine (JSLM). This session was strategically planned and executed by Project Associate Professor Yuji in his capacity as a member of the Program Committee for the 72nd JSLM. The session featured a multidisciplinary panel of experts distinguished in both professional Shogi and medical/AI research, including professional Shogi players who are also active as a physician, an AI researcher, and a medical student, as well as the Congress President of the 72nd JSLM. The discourse scrutinized the robust application of AI technologies within the field of laboratory medicine, drawing critical parallels between the evolution of strategic AI and diagnostic innovation. The discussion underscored the transformative potential of AI in augmenting clinical decision-making and emphasized the necessity of fostering a sophisticated synergy between human expertise and algorithmic precision to advance the future of healthcare DX.

Publications

1. **Yuji K,** Yuji W. Nerandomilast in Patients with Pulmonary Fibrosis. N Engl J Med. 393(13):1346, 2025.
2. **Yuji K**, Yuji W. A Comparison of Peripherally Inserted Central Catheter Materials. N Engl J Med. 392(14):1453, 2025.
3. **湯地晃一郎**. 医療DXと臨床検査の展望　医療DX実現に向けた臨床検査の現状と課題. 日本臨床検査医学会誌. 73(4) 285-289, 2025.
4. **湯地晃一郎**. 臨床検査医からみたゲノム医療および医療DXへの取り組みと課題　医療DX実現に向けた検査データ標準化. Laboratory and Clinical Practice. 43(1) 8-10, 2025.