



이름: 황상원 / Hwang Sangwon

직위: 조교수 / Assistant Professor

소속: 연세대학교 원주의과대학 /

Yonsei University Wonju College of Medicine

기타소속: 정밀의학과 /

Department of Precision Medicine

강연 제목: 디지털 헬스 빅데이터 분석 및 인공지능 모델 개발을 위한 라이프로그 빅데이터 플랫폼 구축

Establishment of lifelog big data platform for digital health big data analysis and AI model development

#### Abstract:

Digital healthcare is rapidly emerging as a fundamental industry in contemporary society, blending healthcare and Information and Communication Technology (ICT) to manage individual health and diseases. The increasing prevalence of big data-driven precision medicine, such as clinical information, genomics, and lifelogs, calls for the development of efficient, demand-oriented healthcare services. To achieve this, it is crucial to secure various lifelog data generated in daily life. However, the current data collection methods primarily rely on doctors and medical staff, limiting continuous participation and utilization by patients or the public. Moreover, domestically collected lifelogs are challenging to use as valuable data due to their fragmented nature, as they are gathered individually by various small and medium-sized businesses and hospitals. With the growing lifespan and rapid aging of the population, medical expenses for chronic diseases are on the rise, necessitating systematic lifelog management to enhance the quality of life. To address this issue, we have developed an integrated management platform capable of handling personal lifelogs, such as those from wearables and social media networks. This platform includes a system designed to collect, analyze, and utilize an individual's health information throughout their lifetime. Multiple companies and organizations are participating as centers to establish an efficient data collection system. Furthermore, we have developed a structure that facilitates integrated research between the platform and these centers. Each center produces and manages medical data, including blood pressure, blood glucose, air quality, metabolic syndrome, auditory function tests, and dietary nutrition information. By leveraging the data accumulated on the platform, we aim to offer customized management services that reduce the direct and indirect social costs associated with chronic disease patients. In the future, we also anticipate developing various business models and creating new value through personalized big data services.

#### Brief Biosketch

- (현) 연세대학교 원주의과대학 정밀의학과, 조교수
- 연세대학교 원주의과대학 인공지능빅데이터의학센터, 연구교수
- 연세대학교 컴퓨터정보통신공학부 소프트웨어공학연구실, 박사후연구원