# Distinguished Lecture Series

# Explainable AI and Applications in Health Science



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시간: **2019년 9월 27일(금) 오후 4시 30분**

장소: **우정정보관 604호**

## Abstract

In recent years explainable AI (XAI) has emerged and is receiving major attention. The talk will first briefly introduce to XAI (see e.g. Samek et al 2019) and Layer-wise relevance propagation (LRP) as a workhorse of XAI. Then applications in medicine will be discussed. We will refer to two recent ML applications in cancer medicine, one touching foundational research (Binder et al.) and the other one demonstrating translational (Jurmeister et al Science Translational Medicine 2019). Specifically, we show first that we can combine morphological and molecular data for analyzing cancer pathology. The second topic demonstrates research of immediate clinical applicability, where methylation data is being used for diagnosing an important difficult case (metastasis vs. lung cancer).