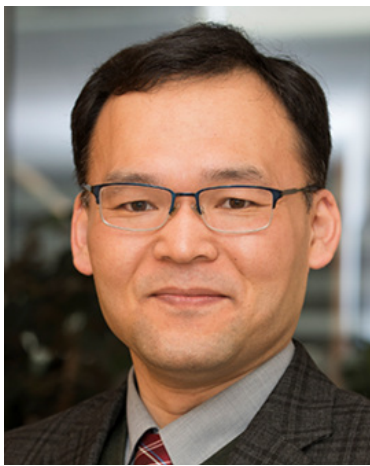


# CARNEGIE MELLON UNIVERSITY

## BME 2024 SPRING SEMINAR SERIES

### Emerging Assay Technologies for Clinical Extracellular Vesicle Analysis



#### PRESENTED BY

##### **Hakho Lee, Ph.D.**

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Department of Radiology  
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#### SCHEDULE

**Doherty Hall (DH) 2315**

**Thursday,  
March 28, 2024  
(11:00-12:00PM)**

Extracellular vesicles (EVs) offer a promising avenue for enhanced disease detection and real-time patient monitoring during treatment. However, translating EV-based diagnostics into the clinic remains hindered by several technical roadblocks. These include i) laborious manual EV isolation procedures, ii) the limited sensitivity and throughput of existing assay methods, and iii) prohibitive costs associated with conventional equipment and reagents. To unlock the full potential of EV diagnostics, innovative approaches for efficient EV isolation and molecular analysis are crucial, ideally tailored for seamless integration into automated high-throughput workflows. Our research group actively addresses these challenges by developing EV-specific diagnostic tools. This presentation will showcase our latest platforms for EV enrichment and detection, elucidating their underlying principles and highlighting their potential clinical applications.

