第438回和漢研セミナー

講演者　**Varisa Pongrakhananon PhD**

Associate Professor
Department of Pharmacology and Physiology
Faculty of Pharmaceutical Sciences
Chulalongkorn University, Thailand
チュラロンコン大学・薬学部　准教授

Title

Unraveling the Role of CAMSAP3 in Regulating Lung Cancer Cell Metastasis

Cancer metastasis remains a significant cause of lung cancer-related mortality worldwide, particularly in patients with advanced stages with less than 5% of survival rate. Understanding the molecular mechanisms driving this process is crucial to identify potential therapeutic targets. Microtubule-associated proteins have been implicated in cancer, and our recent research demonstrated that calmodulin-regulated spectrin-associated protein family member 3 (CAMSAP3), a minus-end microtubule-binding protein, acts as a negative regulator of lung cancer metastasis. CAMSAP3 knockout promoted in vitro cell migration, invasion, and angiogenesis, along with increased in vivo metastatic potential. In association with microtubule dynamic, the absence of CAMSAP3 led to elevated tubulin acetylation, which required for stabilizing active AKT, thereby enhancing the epithelial-to-mesenchymal transition. Additionally, proteomic analysis revealed that CAMSAP3 interacted with nucleolin and inhibited its function as an mRNA stabilizer. Consequently, HIF-1□ mRNA degradation occurred, leading to the suppression of downstream targets, including vascular endothelial growth factor (VEGF) and matrix metalloproteinases (MMPs). These findings shed light on the potential role of CAMSAP3 in cancer cell biology and its impact on metastasis-related processes.

日　時：**2023年9月15日（金）　15時00分　～　16時00分**

場　所：**薬学部研究棟Ⅱセミナー室8（杉谷キャンパス）**

主催　：和漢医薬学総合研究所
連絡先：生体防御学領域早川芳弘（076-434-7620）