

Therapeutic strategies to target cancer-specific pathways and vulnerability

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Place: Lecture room 2, Medical Education & Library Building 3F

医学教育図書棟3階 第2講義室



Abstract

Our analysis of 149 lung cancer specimens showed that some metabolic genes were aberrantly expressed in cancer. For example, high expression levels of a ceramide metabolic gene CERS6 were associated with lung cancer metastasis. To understand underlying mechanisms, we performed IP-MS/IP-VWB analyses and identified an actin binding protein LASPI as a novel CERS6 interaction partner. In another analysis, we showed that low expression of DNA replication/repair gene POLD4 was associated with poor prognosis, and that POLD4 shortage might cause chromosomal instability. We performed a DNA fiber assay to show that in POLD4-high cells, but not in POLD4-low cells, ssDNA was accumulated in a PRIMPOL-dependent manner. Because cancer cells often show addictive nature to the highly active pathways for their survival, we suppose that PRIMPOL pathway could be targeted to induce a lethal phenotype. Our strategy to achieve this goal will be presented and discussed.

- ◆ Inviter: Professor. OKADA Seiji (Dep. Hematopoiesis) / 岡田 誠治 教授 (造血・腫瘍制御学)
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