# 令和７年度　第４回　大学院セミナー

2025 年　4 月　14 日

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| 分　野　名<br><br>(責任者名)(内線) | 医歯薬学総合研究科　放射線医療科学専攻<br>血液内科学分野（原研内科）<br>責任者名　宮﨑泰司　　内線　7111 |
| 演　　題 | 原研研究集会<br>GENKEN research seminar |
| 講　師　等 | 原研内科　助教　田口正剛<br>Masataka Taguchi, Assistant professor, Dept. of Hematology<br>准教授　安東恒史<br>Koji Ando, Associate professor, Dept. of Hematology |
| 概要 | Masataka Taguchi,<br>Title: **Distinct genome alterations in clonal hematopoiesis among atomic bomb survivors**.<br><br>Clonal hematopoiesis (CH) is an outgrowth of mutated blood cells derived from a single hematopoietic stem cell. The incidence of CH increases along with aging, and some of the CH, which possess genomic alterations found in hematological neoplasms but lack hematological manifestations, significantly relates to the development of myeloid neoplasms (MNs), termed CH of indeterminate potential (CHIP). Ionizing radiation is a risk of hematological neoplasms such as leukemia and myelodysplastic syndromes, which was demonstrated by the large epidemiological studies of atomic bomb survivors (ABS). These risks were shown to persist more than 50 years after the exposure, suggesting that CH including CHIP in ABS could have specific features induced by A-bomb radiation and associate with the increased risk of MNs among ABS. To test this hypothesis, we analyzed CH among 80 ABS and 20 control subjects using whole exome sequencing. In this seminar, we will present the findings of the study and discuss future directions.<br><br>Koji Ando,<br>Title: **Combination therapy of PHD2 inhibitor (IOX4) and PRMT5 inhibitor (EPZ015666) or CDK9 inhibitor (Flavopiridol) synergistically inhibits cell proliferation for adult T-cell leukemia / lymphoma**<br>PRMT5 inhibitor (PRMT5i) (EPZ015666) is shown to be effective for malignant tumors including ATL, but the mechanism is not fully elucidated. PRMT5 has an important role in RNA splicing via methylation of SM protein. We focused on the effect for RNA splicing as the mechanism of antitumor effect of PRMT5i. Therefore, we develop a new therapeutic method based on the antitumor mechanism. The gene expression profiles and rMATS revealed that PRMT5i suppressed the gene expression of PHD2 via skipping of exon 4. PHD2 inhibitor (PHD2i) (IOX4) concentration-dependently suppressed the growth of ATL cell lines. Furthermore, the combination of PHD2i and PRMT5i or CDK9 inhibitor (CDK9i) (Flavopiridol) showed synergistic antitumor effects on ATL cell lines. |
| 開　催　日　時 | 2025 年　4 月　23 日（　水　）<br>17：30　～　18：30 |
| 開　催　方　法 | Zoom |
| 備　　考 | 受講を希望する場合は、ID・パスワードをお教えしますので、必ずご連絡ください。<br>（内線 7111 or Email: k-seven@nagasaki-u.ac.jp）<br><br>If you would like to participate in this seminar and need Zoom ID and Password, please contact k-seven@nagasaki-u.ac.jp. |

□先端医療科学特論（基礎編）　　□先端医療科学特論（臨床編）
□先端新興感染症病態制御学特論　　■先端放射線医療科学特論
□日本語（Japanese）　　■英語（English）
□対面（Face to face）　　■オンライン(Online)