

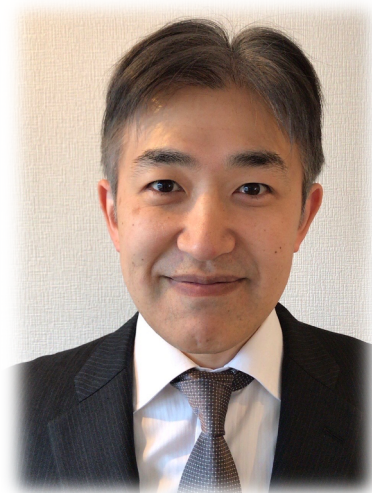
CRISPR-Cas: biology and its application to blood research

Lecturer: GOYAMA Susumu

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Date: June 21 (WED) from 5:30 p.m.
令和 5 年 6 月 21 日 (水) 17:30~

Place: Lecture room 2, Medical Education & Library Building 3F
医学教育図書棟3階 第2講義室

Abstract

Clustered Regularly Interspaced Palindromic Repeats (CRISPR)-Cas is an adaptive immune system in prokaryotes that prevents phage infection. The bacterial immune mechanism was then transformed into an efficient tool for editing the mammalian genomes. The CRISPR-Cas gene editing has revolutionized medical research over the last decade. In this talk, I will summarize the basics of CRISPR biology and the current state of the CRISPR-Cas revolution. I will also talk about our recent applications of the CRISPR-Cas system in blood research, including the in vivo CRISPR-Cas9 library screening, CRISPR-dCas9 activation library screening, development of a cellular chain reaction system using the cytosine base editor, the inducible CRISPR/Cas13-degron system, and the CRISPR-Cas13-based bimolecular fluorescence complementation (BiFC) to visualize RNA-protein interaction.

◆ Inviter: Prof. SASHIDA Goro (Transcriptional Regulation in Leukemogenesis)

／指田 吾郎 教授（白血病転写制御学）

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