



第 359 回 つくば分子生命科学セミナー

TSUKUBA MOLECULAR LIFE SCIENCE SEMINAR

演題 : Systems approach to identify miRNA regulation of inflammatory signals

演者 : Dr. Hiroshi Asahara 浅原 弘嗣 先生

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会場 : 医学系棟 Seminar Room 482

要旨 :

microRNAs (miRNAs) are non-coding RNAs that disrupt translation or posttranscriptionally degrade target mRNAs in a sequence-specific manner. They recognize their target mRNA via its intrinsic seed sequence, and thus potential target mRNAs are considered to several. Therefore, identification of the complete set of target mRNAs for each miRNAs is critical issue to understand the precise function of miRNAs and its role in pathogenesis of various diseases, in which diseases' specific miRNAs have been identified. So far, several approaches are available: 1) bio-informatics on 3' UTR sequences, 2) microarray with miRNA overexpression or downregulation, 3) comprehensive proteomics, 4) mRNA-miRNA cross-link and sequence. In addition to them, we developed a luciferase reporter library, which allows us to screen potential miRNA targets in cell base way and non-bias way. Using this strategy, we try to reveal molecular networks in chronic inflammatory diseases, such as rheumatoid arthritis, in which specific miRNAs are supposed to play critical roles.

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