

# 第52回シグナル伝達医学 グローバルCOE学術講演会



日時：2012年1月23日（月）18：30～

場所：研究棟B 2F 共同会議室

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## microRNAs that suppress cancer metastasis

<Abstract>

Metastasis is the major cause of mortality from solid cancers. Therefore, understanding its process is critical for developing effective cancer therapeutics. Despite its clinical importance, the molecular mechanisms underlying the metastatic process are still poorly understood. miR-335 and 126 were previously identified as metastatic suppressors in breast cancer cells. miR-335 expression, which reduces invasion and tumor initiation capacity, is down-regulated by a combination of genomic and genetic alterations in highly metastatic cell populations as well as in a large cohort of breast cancer patients. miR-126 reduces metastatic angiogenesis by suppressing the expression of 3 target genes, IGFBP2, PITPNC1 and MERTK. IGFBP2 directly increases recruitment of endothelial cells to metastatic sites by promoting IGFI/IGFIR activation. Increased PITPNC1 level assist IGFI-mediated endothelial recruitment by promoting IGFBP2 secretion. In contrast to IGFBP2, MERTK suppress inhibitory signal for endothelial recruitment. Here we identified a non-cell autonomous role for miR-126 in regulating endothelial recruitment, angiogenesis and metastatic initiation.

吉田光邦氏は学習院中等科を卒業(2002年)後に単身渡米され、Cornell UniversityにてBSを取得後、Rockefeller Universityにて癌転移におけるmicroRNA研究に従事しておられます。また、2012年からはWashington University(St. Louis)MD. PhD.コースに進学される予定です。本セミナー(英語)では最新の研究内容(Nature. In press)とともに、米国におけるClinician-Scientist教育についてもお話いただける予定です。特に学部生・大学院生の方は奮ってご参加下さい。

担当：血管生物学分野 植村 明嘉

連絡先：「次世代シグナル伝達医学の教育研究国際拠点」

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