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日　時: 2011 年 5 月 19 日(木) 17 時 00 分~18 時 00 分

場　所: 実習館 2 階 総合歯科医学研究所セミナールーム

演　者: 折茂　彰　氏
(Stromal-Tumour Interaction Group, Paterson Institute for Cancer Research, The University of Manchester : Group Lead)

タイトル: **Evolution of metastasis-promoting mammary stromal myofibroblasts in human breast carcinomas**

Metastasis associates as much as 90% of cancer-related motility. The metastatic cascade is composed of series of processes that include local invasion into surrounding tissue, entering microvasculature (intravasation), survival and exit from the blood stream (extravasation), and survival and growth to form macroscopic tumour in distance organs (colonisation). However, their underlying molecular mechanisms remain unclear. It has long been conceived that epi/genetic alterations accumulated in malignant carcinoma cells are largely responsible for ability of carcinoma cells to metastasise into distant organs. Recent emerging evidence, however, supports the notion that such an ability of carcinoma cells to metastasise also depends on non-cell autonomous effect of nearby stromal cells. Carcinoma-associated fibroblasts (CAFs), rich in myofibroblasts, are a predominant cell type present within the tumour-associated stroma. The existence of these cells in large numbers is associated with a higher grade malignancy and worse progression in patients. CAFs extracted from various different human carcinomas acquire tumour-promoting property, however, their role on tumour metastasis remains obscure. Here we show that CAFs promote tumour metastasis exemplified by the increased colonisation of disseminated human breast carcinoma cells into the distance organ and discuss about the molecular mechanism underlying the CAF-induced tumour metastasis.

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