



# 第 379 回 つくば分子生命科学セミナー

TSUKUBA MOLECULAR LIFE SCIENCE SEMINAR

演題 : Novel Zn-finger proteins in colon cancer and transcriptional regulation

演者 : Professor Debabrata Chakravarti

Feinberg School of Medicine, Northwestern University

日時 : 2013年9月12日 (木) 17:00-18:30

会場 : 健康科学イノベーション棟 105 室

要旨 :

Our laboratory is interested in understanding the role of transcription factors, hormone signaling and epigenetics under normal and patho-physiological conditions. We will show data identifying THAP11, a Zn-finger protein as a transcriptional regulator differentially expressed in human colon cancer. Immunohistochemical analysis of human colon cancers revealed increased THAP11 expression in both primary tumors and metastases. Knockdown of THAP11 in SW620 colon cancer cells resulted in a significant decrease in cell proliferation. Host cell factor-1 (HCF-1) is a metazoan transcriptional co-regulator essential for cell cycle progression and cell proliferation. We will present evidence that HCF-1 recruitment to numerous E2F-bound promoters is mediated by the concerted action of zinc-finger transcription factors THAP11 and ZNF143. Extensive characterization of the role of this novel complex in regulation of cell cycle controlled genes will be presented.

These data establish a new model which suggests that a THAP11/ZNF143/HCF-1 complex is a critical component of the transcriptional regulatory network governing cell proliferation and a role for THAP11 in colon cancer.

連絡先 : 筑波大学医学医療系 奥脇 暢 (内線 7950、e-mail:mokuwaki@md.tsukuba.ac.jp )

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