

平成22年1月15日

各研究領域教授・准教授 殿  
(関係部局御中)

医学研究科長  
光山正雄

学術講演会開催について (通知)

この度、下記により学術講演会を開催致しますので、関係者へ周知方宜しくお取り計らい願います。

記

1. 演題 "Integrin control of lipid raft trafficking and Rho family GTPases."
1. 講演者 Martin Schwartz  
Professor  
Cardiovascular Research Center, Depts of Microbiology and  
Biomedical Engineering Mellon Prostate Cancer  
Research Institute University of Virginia, USA
1. 日時 平成22年 1月 26日 (火) 16:00 ~ 17:30 (終了後質疑応答)
1. 場所 医学研究科 A棟1階103号室
1. 主催 神経・細胞薬理学
1. 共催 グローバルCOE「生命原理の解明を基とする医学研究教育拠点」



(要旨) In anchorage-dependent cells, integrin mediated adhesion is required for transmission of signals downstream of growth factor receptors. This requirement is lost or diminished in metastatic cancer cells whose growth and survival are anchorage independent. Affected signals include Rac, Erk and PI 3-kinase. Previous work from our lab showed that these effects are mediated by lipid raft trafficking. Loss of integrin mediated adhesion triggers internalization of lipid raft markers from the plasma membrane to the recycling endosomes. This step is mediated by caveolin1 and goes through caveolae. Upon replating, raft markers return to the plasma membrane. The first step of exocytosis, the exit of raft markers from the RE, is mediated by Arf6, but Arf6 is not sufficient for exocytosis. The last step, docking and fusion with the plasma membrane, is mediated by RalA.

This pathway correlates with induction of anchorage independent signaling by RalA. This work therefore elucidates a novel metastasis pathway that is controlled by integrins.