

セミナーのご案内

日時：平成21年2月26日（水）15:30～16:30

場所：A棟4階セミナー室

講師：Jilly Evans (Vice President Biology, Amira Pharmaceuticals)

演題 「Development of DP2 receptor antagonists for allergic and inflammatory diseases」

要旨 Prostaglandin D₂ (PGD₂) is released from activated mast cells in allergic asthma and other diseases. PGD₂ acts mainly on two cell surface G protein-coupled receptors, the DP1 and DP2 (previously called CRTH2) receptors. Both DP1 and DP2 knockout mice have been shown to be protected in allergic airways models. In human cells, PGD₂ stimulation of DP2 on eosinophils, basophils and Th2 cells results in cell migration and activation. *In vivo* this DP2 activation can result in increased influx of cells into sites of inflammation, enhanced blood IgE and increased airway hyperreactivity. The development of DP2 receptor antagonists at Amira Pharmaceuticals involves *in vitro*, *in vivo* and drug metabolism and pharmacokinetic profiling of compounds. The pharmaceutical development of a DP2 clinical candidate will be detailed.

1. Miller DK et al. Identification and isolation of a membrane protein necessary for leukotriene production. *Nature* 343: 278-281 (1990).
2. Feighner SD et al. Receptor for motilin identified in the human gastrointestinal system. *Science* 284: 2184-2188 (1999).
3. Lynch KR et al. Characterization of the human cysteinyl leukotriene CysLT₁ receptor. *Nature* 399: 789-793 (1999).
4. Heise CE et al. Characterization of the human cysteinyl leukotriene 2 receptor. *J. Biol. Chem.* 275: 30531-30536 (2000).
5. Howard AD et al. Identification of receptors for neuromedin U and its role in feeding. *Nature* 406: 70-74 (2000)
6. Ferguson AD et al. Crystal structure of inhibitor bound 5-lipoxygenase-activating protein. *Science* 317:510-512 (2007).

主催 グローバル COE (連絡先：成宮 周 753-4450)