氏　　名	XIONG WEI
学位（専攻分野）	博士（薬科学）
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	Therapeutic Effects of an Anti-sialyl Lewis X Antibody in a Murine Model of Allergic Asthma （気管支喘息モデルにおける抗シアリルルイス X 抗体の治療効果の検討）
論文審査委員	（主査）教授 伊藤 晃成
	（副査）教授 高野 博之　　教授 樋坂 章博

論　文　内　容　の　要　旨

Asthma is an allergic disease that causes severe infiltration of leukocytes into the lungs. Leukocyte infiltration is mediated by the binding of sialyl Lewis X (sLex) glycans present on the leukocytes to E- and P-selectins present on the endothelial cells at the sites of inflammation. Here, we found that mouse eosinophils express sLex glycans, and their infiltration into the lungs and proliferation in the bone marrow were significantly suppressed by an anti-sLex monoclonal antibody (mAb) F2 in a murine model of ovalbumin-induced asthma. The percentage of eosinophils in the bronchoalveolar lavage fluid and bone marrow and serum IgE levels decreased significantly in the F2-administered mice. Levels of T helper type 2 (Th2) cytokines and chemokines, involved in IgE class switching and eosinophil proliferation and recruitment, were also decreased in the F2-administered mice. An ex vivo cell rolling assay revealed that sLex glycans mediate the rolling of mouse eosinophils on P-selectin-expressing cells. These results indicate that the mAb F2 exerts therapeutic effects in a murine model of allergen-induced asthma, suggesting that sLex carbohydrate antigen could serve as a novel therapeutic target for allergic asthma.