Development of a novel drug for respiratory diseases.

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Surfactant protein is a useful a drug for respiratory diseases !?



Our goal is to develop a novel drug for respiratory diseases, pneumonia, pulmonary fibrosis, and chronic obstructive pulmonary disease (COPD) using a novel surfactant protein, SCGB3A2.

Content:

Our goal is to understand the mechanism of lung development and respiratory diseases for developing a novel drug to help patients with respiratory distress syndrome and respiratory diseases. Because an increasing number of people are affected by respiratory diseases worldwide, with increasing morbidity and mortality rates.

We focus on the roles of a surfactant protein, SCGB3A2/UGRP1 in lung development and respiratory diseases. We have already revealed that 1) SCGB3A2/UGRP1 promotes branching of bronchi and maturation of lung (*Am J Respir Crit Care Med.* 2008, 178(4):389-398), 2) SCGB3A2/UGRP1 suppresses allergic airway inflammation (*Am J Respir Crit Care Med.* 2006, 173(9):958-964) and 3) SCGB3A2 suppresses fibrosis (*J Biol Chem.* 2011, 286(22):19682-19692). In our projects, many techniques are used as follows; cell engineering, molecular biological technique, animal study, pathological and physiological techniques.

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