

## Department of Internal Medicine Division of Respiratory Diseases

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### General Summary

We have started clinical and basic research concerning chronic obstructive pulmonary disease (COPD), bronchial asthma, pulmonary infection, pulmonary fibrosis, and lung cancer. Basic research should resolve clinical problems, and clinical research should develop novel treatments.

### Research Activities

#### COPD

Clinical research concerning the incidence of COPD in patients with diabetes mellitus was started.

Pulmonary infection: The investigation of biomarkers for infectious lung diseases was started.

#### Lung cancer

Clinical research about the effects of nitroglycerin on chemotherapy in non-small cell lung cancer was started. This study is a multicenter trial in Japan.

Pulmonary fibrosis: Basic research concerning the mechanism of transforming growth factor beta activation by integrin and its role in epithelial and mesenchymal cell interactions was started.

### Publications

**Yamada M, Kuwano K, Maeyama T, Yoshimi M, Hamada N, Fukumoto J, Egashira K, Hiasa K, Takayama K, Nakanishi Y.** Gene transfer of soluble transforming growth factor type II receptor by *in vivo* electroporation attenuates lung injury and fibrosis. *J Clin Pathol* 2007; **60**: 916-20.

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**Yamada M, Kuwano K, Maeyama T, Hamada N, Yoshimi M, Nakanishi Y, Kasper M.** Dual-immunohistochemistry provides little evidence for epithelial-mesenchymal transition in pulmonary fibrosis. *Histochem Cell Biol* 2008; **129**: 453-62.

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## Reviews

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