## The Fourth iCeMS SEMINAR

## Immunotoxins in 2008: Successes and Challenges: Effective Treatment of Drug Resistant Hairy Cell Leukemia by Immunotoxin BL22

Lecturer: Dr. Ira Pastan

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Moderator: **Dr. Kazumitsu Ueda**Professor of iCeMS and Faculty/Graduate School of Agriculture
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Date & Time: Wednesday, April 23, 2008, 16:00-17:00 Venue: Roof Terrace

Institute for Frontier Medical Sciences, 5F of the East Building

Most cancers cannot be cured once they have metastasized. To develop a new treatment for metastatic cancer, Dr. Pastan and his team have used genetic engineering to modify a powerful bacterial toxin, Pseudomonas exotoxin A (PE), so that instead of killing normal cells it selectively kills cancer cells. PE-based anti-cancer agents have been produced by replacing the binding domain of PE with the Fv fragment of an antibody or with a growth factor that binds to cancer cells. These agents are termed "recombinant immunotoxins". They are currently conducting clinical trials with some of these immunotoxins. In this presentation, Dr. Pastan will present his recent progress of the clinical applications of BL22, which targets CD22 on B cell leukemias and lymphomas.