

## 第 31 回 札幌国際がんシンポジウム

### テーマ

“最先端放射線治療とがん研究の最前線”

### 日時

2012 年 7 月 23 日(月)～24 日(火)

### 会場

北海道大学医学部 フラテ会館 (札幌市北区)

### 代表世話人

白土 博樹(北海道大学大学院医学研究科 教授)

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## The 31st Sapporo International Cancer Symposium

### Theme:

“Advanced Radiation Therapy and Cancer Research Up-to Date”

### Date:

July 23-24, 2012

### Venue:

Hokkaido University The Alumni Hall “Frate”, Sapporo, Japan

### Organizer (\*Chairperson):

Hiroki Shirato\* (Hokkaido University)

Hiraoka Masahiko (Kyoto University)

Sakurai Hideyuki (University of Tsukuba)

Kamata Tadashi (National Institute of Radiological Sciences)

## **Program**

### **Introduction**

Advanced Radiation Therapy and Cancer Research

Hiroki Shirato (Hokkaido University, Japan)

Molecular Mechanisms behind Tumor Recurrence after Radiation Therapy; Lessons from Hypoxia Biology

Hiroshi Harada (Kyoto University, Japan)

### **Symposium 1: Dynamic Biological Researches and Radiotherapy**

Keynote Address: Radiation Therapy and Biomarker in Breast Cancer "B1 integrin: A multifaceted target for cancer therapy"

Catherine Park (UCSF, USA)

Tumor Invasion and Radiotherapy "Invasive Migration of Irradiation-survived Human Lung Adenocarcinoma Cells in 3D Matrix"

Hisashi Haga (Hokkaido University, Japan)

[Selected papers]

Rab5c Promotes AMAP1-PRKD2 Complex Formation to Enhance B1 Integrin Recycling in EGF-Induced Cancer Invasion

Yasuhito Onodera (Hokkaido University, Japan)

Mutant-p53 Generates GEP100-Arf6-AMAP1 Pathway to Promote Breast Cancer Cell Invasiveness in Response to TGFβ1

Ari Hashimoto (Hokkaido University, Japan)

### **Symposium 2: Bio-physical Model, Biological phenomenon in Radiotherapy**

Optimization of Dose Fractionation based on 3D dose distribution and LQ model

Masahiro Mizuta (Hokkaido University, Japan)

Abscopal effects in Radiation Therapy: Current concepts and future applications  
Kenshiro Shiraishi (University of Tokyo, Japan)

[Selected papers]

HIF-1alpha Post Transcriptional mRNA Regulation Under Normoxia: The Significance  
of UTRs

Takeshi Nishioka (Hokkaido University, Japan)

Global View on Radiotherapy and Cancer Research

Branislav Jeremic (Institute of Lung Diseases, Serbia)

Radiotherapy and Translational Research in Korea

Eun Kyung Choi (University of Ulsan Medical College, Korea)

Translational Radiobiology for Cancer Treatment

Catharine West (Christie Hospital NHS Trust, UK)

**Symposium 3:** Innovation to Develop Minimum Risk Radiotherapy Equipment based  
on "Packaging of Advanced Radiotherapy Technology: Super TOKKU for Medical  
Equipment"

A Real Time 3D Robotic Radiation Therapy System

Eiji Tanabe (Accuthera, co. ltd., Japan)

Synchronization of Medical Linear Accelerator (Varian IX) based on Real-Tracking

Masayori Ishikawa (Hokkaido University, Japan)

[Selected papers]

Particle Radiotherapy for Mucosal Malignant Melanoma of the Head and Neck:  
Comparison of Proton Therapy and Carbon Ion Therapy – Single Institutional  
Experience

Yusuke Demizu (Hyogo Ion Beam Medical Center, Japan)

Cell Inactivation Ability and Mechanism of Clinical High-Energy Proton Beams

Koji Tsuboi (University of Tsukuba, Japan)

Conformal Proton Irradiation by Multi-Layer Energy Filter

Takeji Sakae (University of Tsukuba, Japan)

Development of CT-Image Guided Positioning System for Proton Therapy

Kazutaka Yamamoto (Wakasawan Energy Research Center, Japan)

Evaluation of  $^{64}\text{Cu}$ -ATSM for an Internal Radiotherapy Agent Against CD133+ Cancer Stem Cells with Human Colon Carcinoma:  $^{64}\text{Cu}$ -ATSM Treatment Caused Cell Apoptosis

Yasuhisa Fujibayashi (National Institute of Radiological Sciences, Japan)

Current Status and Potential Impact of Carbon Ione Microsurgery System at GHMC

Takashi Nakano (Gunma University, Japan)