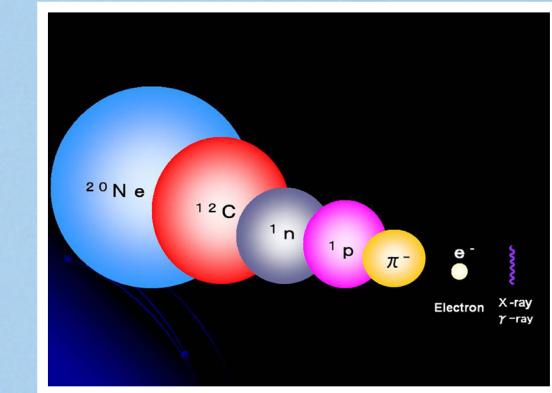


June 11 & 12,  
2010

# NIRS International Symposium on Radiation Life Sciences



## I: Review Session (June 11, Fri.)

### 1. International Open Laboratory Session

- 8:30-10:30 Particle Therapy Model Research Unit  
**Anders Brahme** (Karolinska Inst.)  
**Takeshi Murakami** (NIRS) et al
- 10:45-12:45 Particle Radiation Molecular Biology Unit  
**Penelope A. Jeggo** (Univ. Sussex)  
**Ryuichi Okayasu** (NIRS) et al
- 13:45-15:45 Space Radiation Research Unit  
**Tom K. Hei** (Columbia Univ.)  
**Yukio Uchihori** (NIRS) et al

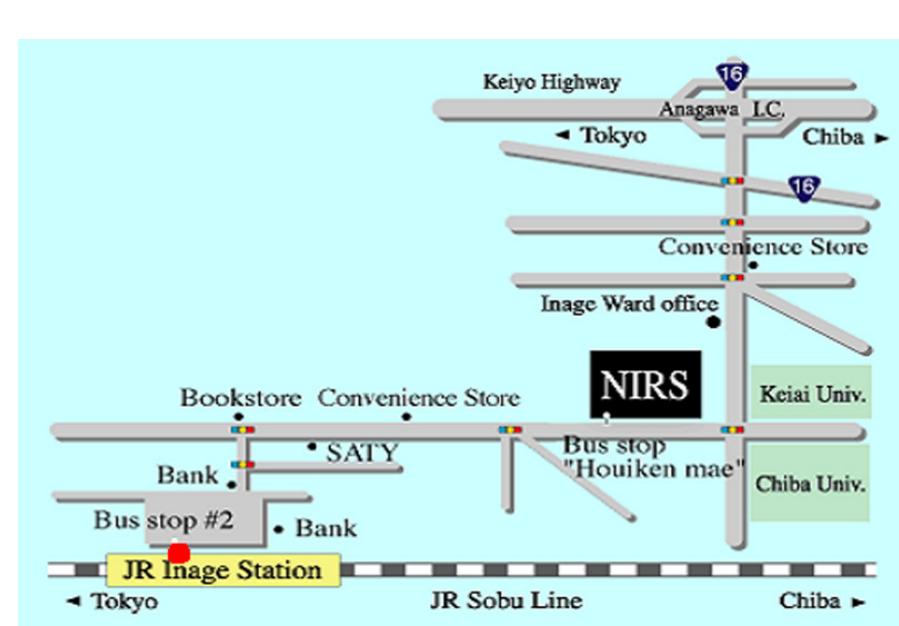
### 2. NIRS President Grant - Creative Scientific Research Session -

- 16:00-16:45 Development of component technologies and a prototype for the OpenPET  
**Taiga Yamaya** (NIRS)
- 16:45-17:30 Research toward cancer diagnosis and therapy targeting "strategic hypoxia" in cancer stem cells  
**Takako Furukawa** (NIRS)

### Supplementary Session

- 17:30-18:00 15 years' experience on heavy-ion therapy and introduction of the new therapy facility  
**Koji Noda and Tadashi Kamada** (NIRS)

Organizer: Hirohiko Tsujii  
Venue: Auditorium, 2F Research Building for Charged Particle Therapy, NIRS  
Admission: Free  
Secretariat: Planning Office, International Open Laboratory, NIRS  
E-mail: open\_unei@nirs.go.jp  
Tel: 043-206-3962  
Fax: 043-206-3371



## II: Scientific Session (June 12, Sat.)

### Session 1: Space Radiation

- 13:05-13:25 Radiation dose assessments in space missions  
**Guenther Reitz** (German Aerospace Center, Germany)
- 13:25-13:45 Radiation Environment on the moon  
**Nobuyuki Hasebe** (Waseda University)

### Session 2: Radiation Physics

- 13:55-14:15 How to irradiate target volume with carbon beams using passive and scanning irradiation systems  
**Tatsuaki Kanai** (Gunma University)
- 14:15-14:35 Optimal use of light ions for radiation therapy  
**Anders Brahme** (Karolinska Institute, Sweden)

### Session 3: Cellular Responses

- 14:45-15:05 Genomic instability in non-targeted mammalian cells  
**Tom K. Hei** (Columbia University Medical Center, USA)
- 15:05-15:25 Effects of low doses of energetic particles in cells and a tissue model  
**Kathryn D. Held** (Harvard Medical School, USA)

### Session 4: Molecular Responses

- 15:50-16:10 LET-dependent molecular pathways  
**Eleanor A. Blakely** (Lawrence Berkeley Natl. Lab., USA)
- 16:10-16:30 Role of polyADP-ribosylation reaction in response to ionizing radiation  
**Mitsuko Masutani** (National Cancer Research Center)
- 16:30-16:50 Genotoxic effects and repair of DNA-protein crosslink damage  
**Hiroshi Ide** (Hiroshima University)

### Session 5: DSB and its Repair

- 17:00-17:20 The complexity of radiation-induced double strand breaks - challenge for repair  
**Peter O'Neill** (University of Oxford, UK)
- 17:20-17:40 Examination of DNA double strand break induction and repair following exposure to heavy ions  
**Penelope A. Jeggo** (University of Sussex, UK)