**Program**

10:00-10:05 "Greetings by the president of Nishina Memorial Foundation" Toshimitsu Yamazaki

10:05-10:20 "Foreword - Dr. Yoshio Nishina" Hiromichi Kamitsubo (Saga Light Source)

10:20-11:05 "Cyclotrons and FFAGs: From Nishina’s Pioneering Work to RI-Beam Factory" Michael Craddock (UBC & TRIUMF)

11:05-11:50 "From TRISTAN to B-FACTORY" Yoshitaka Kimura (KEK)

11:50-12:35 "Developments of SR in Japan" Tetsuya Ishikawa (RIKEN)

12:35-13:40 Lunch

13:40-14:25 "From KEK-PS to J-PARC" Yoshishige Yamazaki (J-PARC, KEK & JAEA)

14:25-15:10 "Accelerator Developments for Cancer Therapy" Satoru Yamada (Gunma Univ.)

15:10-15:55 "Status of ILC and the Role of Japan in Developing the ILC" Marc Ross (FNAL)
The first cyclotron to operate outside the USA was built by Professor Nishina’s group at RIKEN (1935-7). It was quickly followed by three more Japanese machines, establishing a leadership role for Japan in this field. In 1946, Nishina received the Nobel Prize in Physics “for his discovery of the characteristic radiation from nuclei induced by charged particles”.

In 1950, Nishina founded the Institute for Nuclear Study at the University of Tokyo, which he directed until his retirement in 1957. Under his leadership, the Institute became a major research center in Japanese nuclear science.

Nishina was also a key figure in the development of particle accelerators in Japan. He was a strong advocate for the construction of new accelerators to study the properties of elementary particles. In 1958, he established the Japanese Accelerator Laboratory (JAL), which was later renamed the High Energy Accelerator Research Organization (KEK) in 1974.

Nishina was a tireless promoter of science and education. He was a member of the Japan Academy, the Royal Society, and the American Physical Society, among other prestigious organizations. He was also a strong supporter of the advancement of women in science, and was one of the first to advocate for the appointment of women to high-level positions in the sciences.

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From KEK-PS to J-PARC

The user experiments of J-PARC have just started. The J-PARC, which stands for Japan Proton Accelerator Research Complex, comprises a 400-MeV linac (at present 180 MeV, being upgraded), a 3-GeV Rapid-Cycling Synchrotron (RCS), and a 50-GeV Main Ring (MR), which is now in operation at 30 GeV. The RCS will build a high-intensity linear collider and show the global production target with a beam energy of 1 MW (at present 120 kW) at a repetition rate of 25 Hz. The muons and neutrons thus generated will be used for materials science, life science and other industrial applications. The fast beam extracted from the MR will generate neutrons to be sent to the Super KAMIOKANDE detector located 300-km west. The slowly extracted beam will generate Kaons for Hypernuclear experiments. Kaon rare decay experiments and so forth. This unique accelerator and its usage originates from those of KEK-PS. It can be said that the J-PARC is an upgraded version of KEK-PS in both the beam energy and beam power. It will be said that the world-class machine of J-PARC has developed from KEK-PS.

Accelerator Developments for Cancer Therapy

Treatments of cancers with charged particle beams are one of the most fruitful applications of high energy accelerators. Japan has become world leader in this field after completion of the dedicated heavy ion accelerator, HIMAC. Brief history of the accelerator developments will be presented. More than 5,000 patients are treated with carbon ions from “HIMAC” at National Institute of Radiological Sciences since 1994. Clinical data of the cancer treatments show excellent results especially against photon-resistant cancers.

Status of ILC and the Role of Japan in Developing the ILC

The ILC design brings together the needs of the world’s particle physicists to extend their reach LHC and the capabilities of the accelerator community to deploy superconducting RF technology for this purpose. In this talk we will describe the state of the art of the technology needed to build a high luminosity linear collider and show the global basis for the technology. The latter is a necessary component for the realization of a strongly multi-lateral international science project. To this end, the ILC Global Design Effort (GDE), was established in 2005. To maintain adequate inter-regional balance, the GDE is not hosted by a single country but by several countries together.

The Institute of Physical and Chemical Research as scientific research institution was established in 1949. Its first president was Dr. Hideki Yukawa, who was later awarded the Nobel Prize in Physics for his work on the theory of mesons. Since its inception, the Institute has played a leading role in the development of many areas of science, including physics, chemistry, and biology.

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