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June 23, 2004

Prof. Maury Tigner  
Floyd R. Newman Laboratory for Elementary-Particle Physics  
Cornell University  
Ithaca, NY 14853-5001  
USA

Dear Professor Tigner,

Thank you for your letter of May 7, 2004 with your inquiry concerning the Central Team of the Linear Collider Global Design Initiative (GDI). We are happy to inform you that we would like to express our desire at KEK to host the GDI Central Team for the next few years.

In this letter we would like to outline the responses from KEK to numerous inquiries, which appeared in the memo of March 26, 2004, itemizing the required and desired features of the host institution for the central team of GDI.

1. Institutional Character

- a) KEK has a strong particle physics program centered around KEKB B-factory, which has the world highest luminosity record and a number of physics results on CP-violation and production and decay of heavy quark mesons. KEK is one of the leading members of the K2K experiment, and is currently constructing the J-PARC high current proton accelerator complex in collaboration with JAERI on its Tokai campus. KEK is located at the northern end of Tsukuba city, which hosts Tsukuba University and many other national research institutes. It is well known as one of the intellectual centers in Japan with a substantial academic population from overseas, offering an ideal environment for maintaining the GDI Central Team.

2. Operational Nature of GDI

- a) KEK has extensive experiences in hosting international collaborations in research programs in High Energy Physics (HEP). KEK considers that GDI essentially belongs to the same category as these collaborations, and would like to treat the GDI activities on KEK site as such.
- b) We expect that the operation fund for the Central Team of GDI to be supported jointly by participating institutes, according to a Memorandum of Understanding in ways similar to other collaborations in High Energy Physics. KEK intends to contribute its fair share in this regard, and,

when it serves as the host for the Central Team, is prepared to make the best efforts in providing the services as outlined in the following sections.

### 3. Services

#### a) Liaison

- We designate Professor Fumihiko Takasaki as KEK liaison. He is a vice director of KEK Institute of Particle and Nuclear Sciences and is currently serving as the Head of KEK Linear Collider Office.

#### b) Space

- The GDI central team is offered to use the office and meeting area space with maintenance and management services supplied by KEK.
- The office space and the meeting room, an area size of ~360m<sup>2</sup>, is available. It is capable of admitting up to 20 scientific, engineering, technical and secretarial staff.  
For future expansion of GDI towards 2006-2008, KEK will make its maximum efforts to accommodate the space needs by utilizing existing facilities.

#### c) Administrative Services

- KEK expenses: KEK is prepared to pay for maintenance and operational expenses for the common facilities such as the office utilities, meeting room equipment.
- Fiduciary agent: The operation budget for the Central Team of GDI would consist of the following two kinds:
  1. Common fund
  2. Institutional fund

The common fund refers to the fund that is under control by the GDI Central Team, supported by contributions from collaborating institutes. The institutional fund refers to the fund that is under direct control by individual collaborating institutes. In both cases KEK may be entrusted for managing the funds as a fiduciary agent, as per agreements to be signed in the appropriate Memorandum of Understanding.

- Procurement: The authority of signing on any spending of the common fund or institutional fund should belong to the Central Team or the specific institute. KEK will extend support in executing the daily business of payment management.
- Personnel services for any local hiring: KEK considers that the secretarial staff with good command of foreign languages and an adequate cultural background in dealing with the GDI environment be best sought in out-sourcing agents. Such staff should be employed on the common collaboration fund of GDI. KEK is prepared to offer assistance in the search and the employment processes of GDI secretariat.
- Environmental, safety and health (ES&H) services: KEK internal regulations are applied to ensure the healthy and safe work environment, including the radiation safety, for the members of the GDI central team. KEK offers the GDI Central Team members appropriate services in this regard, and the GDI Central Team members are requested to abide by the local regulations.
- Local housing: Various types of housing options are locally available, including KEK guest houses, public housing complexes and private apartment houses. Once the operation of GDI central team is established, the GDI secretariat should take over the task of assisting the team members in search and contract processes of local housing. However, initially, KEK can offer the GDI central team members an assistance in this regard. Tsukuba-city Office is putting much efforts into improvement of the living environment for non-Japanese

residents, because of their relatively large population as mentioned in Section 1 – Institutional Character. Hence, we believe that the living environment in Tsukuba is comfortable for members of the Central Team, too.

- Travel arrangements: KEK members are usually on their own to arrange their business travels. Numerous travel agents are locally available. Once the operation of GDI central team is established, the GDI secretariat should take over the tasks of assisting the team members in contacting such agents. However, initially, KEK can offer the GDI central team members an assistance in this regard.
- Visas and work permits: KEK can assist the GDI central team members by preparing necessary documents for petitioning for visas and work permits if they are needed.
- Non-salaried visiting positions: Members of the GDI central team are eligible for using libraries, gymnasiums and other KEK facilities in the same rules that apply to KEK employees and visiting scientists. Regarding the health insurance, the members of GDI central team who stay in Japan for more than one year are eligible for enrolling in the National Health Insurance Program on condition of monthly premium payment.
- Fee-for-service items: Essentially the same services that apply to other KEK research groups can be provided. In case of telephone or fax which the GDI central team may heavily rely on, dedicated phone lines may be established whose usage fees can be directly charged to the GDI common fund account.
- Overhead: KEK will try its best to minimize the overhead associated with fee-for-service items and material procurements.

d) Location

- Detailed information can be found at <http://www.kek.jp/info/reachkek.html>. KEK is located approximately 70km north-east of Tokyo. Regular NATT's bus line connects between Narita airport and Tsukuba city (approx. 90 minutes for 60km). In addition, a new railway line (Tsukuba Express), which connects between Tsukuba and Tokyo in 45 minutes, is scheduled to begin its service from 2005.

e) Computing

- Internet connection: The computing equipment of GDI Central Team members at KEK may be connected to the internet via KEK LAN. The bandwidth provided will be 1Gbps or higher into a high speed scientific backbone.
- Software license: KEK can act as a fiduciary agent for procuring and maintaining licenses for the necessary software on a fee-for-service basis.
- Hardware procurement: KEK can provide advice, hardware procurement and appropriate maintenance and security services on a fee-for-service basis.

f) Design Services, Engineering and Consulting

- In-house design and CAD services on a fee-for-service basis are available for KEK. For large-scale, dedicated tasks required by the GDI Central Team, however, KEK considers that such service resources be best sought in out-sourcing agents. Such staff should be employed on the common collaboration fund of GDI. KEK is prepared to offer assistance in their search and the employment processes.

4. Designee for Future Discussions

- a) Prof. Fumihiko Takasaki will be available for further discussions on this matter with ILCSC.

Sincerely,

A handwritten signature in black ink, appearing to read 'Y. Totsuka'. The signature is written in a cursive, flowing style with a prominent initial 'Y'.

Yoji Totsuka