**Cluster Vision**

We aim to establish a world-leading cluster in the life sciences area. This cluster of bio-industries, in conjunction with our proud heavy and machinery industries, will strengthen the economical activities and raise technological standards in the region, making Hiroshima one of the most important industrial areas in the world.

We conduct joint research programs with people from industry, academia, and government to develop new medical treatments and pharmaceutical products using seeds invented in academia and to develop new health care products using existing local specialities. These programs promote the spin-off of venture companies and launch of new commercial products.

**Project Overview**

- **Activities of the Cluster Headquarters**
  - A core organization of the Hiroshima Biocluster, the headquarters has conducted various activities such as discovery of world-class research “seeds”, collection of regional needs, and improvement of developed technologies.

- **Joint Research Programs**
  - We have conducted joint research programs to invent new biotech “seeds” in 4 regions (see the scheme at the bottom of the next page) including “Development of recombinant protein production systems for bio pharmaceuticals using transgenic animals and insects”.

- **Result Incubation Programs**
  - We have also conducted result incubation programs to apply those results to patients and to accelerate commercialization in 5 regions including “Development of an automated culture apparatus for mesenchymal stem cells”.

- **Collaboration Project with Concerned Ministries**
  - We have promoted development of bio-related equipment by taking advantage of existing manufacturing technologies, one of Hiroshima’s strengths, in close connection with the Industrial Cluster Project.

**Unique Program in Hiroshima**

We have offered a wide variety of technology promotion programs such as subsidies from the Hiroshima Prefectural Government.

**Towards Establishment of Hiroshima Biocluster**

The five-year program of the Knowledge Cluster Initiative starting in 2002 just finished at the end of March, 2007. We have worked to create a world-leading cluster in the life sciences by fusing cutting-edge technologies with traditional ones. The former includes genetic engineering and cellular biotechnology invented by Hiroshima University and other institutions. The latter contains brewing technology from traditional industries such as sake brewing and pickles manufacturing industries.

We have been making steady progress at improving the research environment to create the cluster, launching many new business ventures, and commercializing new products through the combination of biotech and regional specialties like sake and pickles.

We are enthusiastically promoting our activities by strengthening joint research programs and supporting creation of new “seeds”. We believe that Hiroshima is approaching its goal.

**Main Results**

- **Establishment of new ventures**
  - As fruits of the joint research programs, several venture companies have been established (Norsilk Co., Ltd: a bio venture that uses silkworms for mass-production of recombinant proteins as a contracted service. Hiroshima Bio-Medical Co., Ltd: a venture that uses chickens to produce a broad variety of low-cost, beneficial, and useful materials for medical purposes).
  - In addition, the “Hiroshima Bio Venture Network” was organized in December, 2005 to promote collaborations among bio venture companies. The activities of this network are expected to establish the Hiroshima BioCluster and to contribute to the development of regional industries.

- **Launch of new commercial products**
  - Many regional companies have successfully commercialized new products through the combination of modern biotechnology, e.g. plant-derived Lactobacillus and regional specialties like sake, sake lees, pickles, citrus fruits etc.
  - We have created our own trademark for several health care products born at Hiroshima University.

**Participating Research Organizations**

- **Industrial Cluster Organizations**
  - **Academia**
    - Faculty of Engineering, Hiroshima Institute of Technology, etc.
    - Technology Research and Development Office, University of Toyama, etc.
    - Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Jichi Medical School: Division of Organ Replacement Reseach, etc.
  - **Government**
    - Hiroshima Prefectural Institute of Industrial and Technology, etc.

**Core Organization**

Hiroshima Industrial Promotion Organization

**Cluster Headquarters**

- Deputy Project Director: D. Makoto. Luda. Chairman, Hiroshima Prefecture Federation of Chambers of Commerce and Industry
- Director Technology: D. Y. K. Hiroshima Prefecture Federation of Chambers of Commerce and Industry
- Members: T. T. M. Hiroshima Prefecture Federation of Chambers of Commerce and Industry