JST’s Efforts and Activities in relation to “the Great East Japan Earthquake”

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Activities of JST

Virtual Networking Research Institute

Creation of Innovation from Japan

“Eco System”

Strategic Basic Research Programs
CREST, PRESTO, ERATO, ALCA, RISTEX

Technology Transfer
S-innovation, A-STEP, Development of Advanced Measurement and Analysis Systems etc.

International Collaboration
SICORP/SICP, SATREPS, e-ASIA JRP

Center for Research and Development Strategy (CRDS)

Center for Low Carbon Society Strategy (LCS)

Scientific Information Dissemination
J-DREAM II, J-GLOBAL, J-STAGE, NBDC, etc.

Promoting Science Education
SSH, SPP, Japan High School Science Championships

Science Communication
“Mirai-kan, Science Agora, Science portal, etc.”
Nobel Prize 2012

Professor Shinya YAMANAKA, Nobel Laureate in Physiology or Medicine 2012

Awarded for “The discovery that mature cells can be reprogrammed to become pluripotent.”

Daniel M. Portnoy, Ph.D., Director, Wistar Institute

Relationship between Prof. Yamanaka and JST

❖ October 2003 to September 2009: Research Director on the topic of “Generation of Pluripotent Stem Cells for Clinical Application” of CREST

❖ April 2008 to present: Yamanaka iPS Cell Project
Integrated promotion of science and technology innovation
JST aims at effectively generating new systems and services through combining various programs in specific technology area related to the priority fields.

**Green Innovation**
Open up frontiers for natural energy

**Life Innovation**
Fulfill unmet needs with medical innovation

**Information and Communication Technology**
Knowledge infrastructure building and application technology for big data

**Nanotechnology / Materials**
Solve Social Problems through Realization of Nanosystems

**Science and Technology for Society and Social Infrastructure**
Reconstruction of resilient society

**Promoting Tohoku Reconstruction**
Manufacturing industry, fishing industry, radiation, and disaster prevention
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April 1, 2012
Center for Revitalization Promotion opened
Located in three cities in the disaster area (Morioka, Sendai and Koriyama) in order to provide supports tailored to the local needs.
-Actions
Activities for recovery and rebirth

**Program for revitalization promotion**
Enhance R&D activities in the disaster area, by supporting companies to commercialize universities' innovative technologies.

**Developing technologies/devices to measure/analyze radiation**
Development of the devices/systems to measure/analyze the dose and density of the radiation in food and soil, for prompt and reliable use in the disaster areas. 14 projects were selected.

**Establishing an R&D center for innovative energy (commissioned project)**
MEXT and METI collaborate to establish the globally-advanced center for research and development of sustainable energy. JST is commissioned to research and develop innovative super-high-efficient solar cells.

**(Providing a support to) Tohoku Medical Megabank**
Aims to deliver the next-generation medical service from Tohoku region, conducts health survey on the residents in the disaster areas, and establishes a large scale biobank in collaboration with the medical information network.

**(Providing a support to) Tohoku-based materials technology project**
Establishes an Industry-Academia-Government collaborative nanotechnological R&D base in the area of nanotechnology-materials, which the universities and manufacturers in Tohoku are strong at, to boost the development of the materials industry in the region.

Public seminars in collaboration with the Japan Radiation Research Society
Approx. 10 seminars are scheduled for FY 2012
Urgent Support for Researches Discontinued by the Disaster

- Research Seeds Quest Program (RESQ)

June 24: **101** projects selected
(78 selected projects from Tohoku University)

**JST have funded for:**

- Repairing or purchasing new equipment and reagents in order to start research activities again as soon as possible
- Cost for temporary use or rent of experimental equipment outside of the laboratories
- Additional cost for change of experiment plans

A) Iwate  3
B) Miyagi  82
C) Fukushima  8
D) Ibaraki  7
E) Chiba  1
( total 101 )
Support for Social Application

**Wooden Comfortable Temporary Housing**
(Fukushima Pref.)
Associate Prof. Fuminori TANBA, Fukushima University

**Determination of heavy-metal pollution caused by Tsunami**
(Miyagi Pref.)
Prof. Noriyoshi TSUCHIYA, Tohoku University

**Decontamination technique using rapeseed**
(Miyagi Pref.) Prof. Yutaka NAKAI, Tohoku University

**Fatigue measurement for prevention of disease**
(Kesennuma City, Miyagi Pref.)
Prof. Toshiko YOSHIDA, Miyagi University

**Water quality improvement using micro-bubble method**
(Ofunato City, Iwate Pref.)
Prof. Hirofumi OHNARI, Tokuyama College of Technology

**Splitting portable toilet**
(Minami Sanriku-cho, Miyagi Pref.)
Prof. Yoshihisa SHIMIZU, Kyoto University
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Urgent Funding for International Collaborative Research

**J-Rapid Program:**
responds to immediate needs for international collaborative research/survey that arise from unanticipated situations

- Application Support
- Researchers in Japan
- Cooperative Researches/ Surveys having a severe urgency of Data Collection, Problem Solving, and so on
- JST
- Counterpart FA / Research Institutes
- Researchers in Counterpart Country
Urgent Funding for International Collaborative Research

- J-Rapid Program:

In the Case of Great East Japan Earthquake

JST opened the call for proposals immediately after The Great East Japan Earthquake

Started the call for proposals on April 18, 2011

Average grant amount: Yen 3 – 5 Million (US$ 33K-55K)
Urgent Funding for International Collaborative Research

Counterpart Funding Agencies/Research Institutes of J-RAPID Program
In the Case of Great East Japan Earthquake

- National Science Foundation (NSF) U.S.: 20 Projects
- Agence Nationale de la recherche (ANR) France: 9 Projects
- Indonesian Institute of Sciences (LIPI) Indonesia: 1 Project
- National Institutes for Health (NIH) U.S.: 1 Project
- National Center for Atmospheric Research (NCAR) U.S.: 1 Project
- Atmospheric Dispersion Modeling Liaison Committee (ADMLC) U.K.: 1 Project
- JST: 20 Projects
Urgent Funding for International Collaborative Research - Breakdown of research areas

- Geo-science: 7
- Structures: 9
- Environment/Social Science: 9
- ICT・Robotics: 8
Urgent Funding for International Collaborative Research

液状化被害調査
a. 液状化による道路の陥没
b. 浮き上がったマンホール

ロボット探査
c. 探査対象の東北大学の被災建物、
d. 日米のロボットによる探査、
e. 探査エリアの地図の一例

(a) (b) (c) (d) (e)
Urgent Funding for International Collaborative Research - Thailand

Counterpart Funding Agencies/Research Institutes of J-RAPID Program

In the Case of Thai Flood in 2011

JST

NSTDA
(National Science and Technology Development Agency, Thailand)

Duration: 12 months
Funding: Yen 3 MM (approx.)=US$33K
2 Projects
Thank You For Your Attention