## EXECUTIVE PROGRAMME OF CO-OPERATION IN THE FIELD OF SCIENCE AND TECHNOLOGY BETWEEN THE GOVERNMENT OF JAPAN AND THE GOVERNMENT OF ITALY

**FOR THE YEARS 2010-2011** 

Within the framework of the Scientific and Technological Co-operation Agreement between Japan and Italy, which was signed in Tokyo, on 7th October, 1988, the delegations of Japan and Italy held the 10<sup>th</sup> Session of the Joint Committee on 29<sup>th</sup> March, 2010.

The Japanese delegation was led by Ambassador Yoshinori KATORI, Ambassador for Science and Technology Cooperation.

The Italian delegation was led by Ambassador Vincenzo PETRONE, Ambassador of the Italian Republic to Japan.

The members of the two delegations are given in **Annex 1**.

The Government of Japan and the Government of Italy share the view that cooperative activities between the two Countries should be promoted for the period 2010-2011 in the following manner.

#### 1. MODALITIES OF COOPERATION

The joint Scientific and Technological activities should be performed in the following ways: (i) research projects, (ii) exchange of researchers, experts and university professors, (iii) organization of workshops, conferences, seminars, exhibitions and advanced training courses, (iv) establishment of joint research centres, and (v) participation to multilateral activities.

#### 2. PRIORITY AREAS

- Basic Sciences (Physics, Chemistry, Mathematics, Biology)
- Life Sciences (Health, Biotechnology, Agriculture)
- Space
- Earth Science and Climate Change
- Information and Communication Technology
- Robotics and Production Technologies
- Nanosciences, Advanced Materials
- Technologies Applied to Cultural Heritage.

#### 3. NEW PROJECTS OF COLLABORATION

3.1 New proposals were received and were subsequently evaluated by both sides.



- 3.2 The projects listed in **Annex 2** are financed by the Government of Italy for the mobility of researchers.
- 3.3 In addition to the projects listed in Annex 2, the Italian side will consider granting a unilateral financing contribution to significant bilateral research projects listed in **Annex 4**.

## 4. GENERAL AND FINANCIAL PROVISIONS

The activities and initiatives foreseen in this Programme are to be implemented in accordance with relevant rules, laws and regulations prevailing in each Country and will be carry out within the limits of the annual budget.

The general and financial provisions for the Government of Italy are indicated in Annex 3.

### 5. OTHER

This Executive Programme for the years 2010-2011 will continue until the signature of the next Executive Programme, or the end of the year 2012, whichever is the earlier.

Any amendment to the text of this Executive Programme has to be carried out through diplomatic channels.

The present document, including the Annexes 1, 2, 3, 4, which are an integral part of it, has been drawn up in Tokyo on 29<sup>th</sup> March, 2010, in two originals in English language.

For the Italian Delegation

For the Japanese Delegation

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## ANNEX 1

### MEMBERS OF THE DELEGATIONS

Head of the Japanese delegation

Yoshinori KATORI

Ambassador for Science and Technology

Cooperation

Ministry of Foreign Affairs

Members

Toshiaki KOBAYASHI

Principal Deputy-Director

International Science Cooperation Division

Ministry of Foreign Affairs

Naoki KURIHARA

Deputy-Director

International Science Cooperation Division

Ministry of Foreign Affairs

Head of the Italian delegation

Vincenzo PETRONE

Ambassador of the Italian Republic to Japan

**Members** 

**Daniele BOSIO** 

Counsellor, Italian Embassy

Alberto MENGONI

Scientific Attaché, Italian Embassy



# ANNEX II

# PROJECTS FOR THE EXCHANGE OF RESEARCHERS

| RESEARCH<br>AREA                           | TITLE   | ITALIAN<br>PARTNER   | JAPANESE<br>PARTNER  |
|--|---|--|--|
| Basic Sciences                             | Unravelling and control of matter at atomic level with novel radiation sources  | Avaldi Lorenzo CNR Istituto di Metodologie Inorganiche e dei Plasmi                | Okunishi Misaki Tohoku University - Institute of Multidisciplinary Research for Advanced Materials |
| Basic Sciences                             | Evaluation of photon<br>statistics with photon<br>number resolving detectors<br>and correlated photon pair<br>sources               | Rajteri Mauro<br>Istituto Nazionale di<br>Ricerca Metrologica                      | Fukuda Daiji AIST - National Institute of Advanced Industrial Science and Technology               |
| Basic Sciences                             | Evoluzione delle Galassie<br>alla epoca della loro<br>maggiore attività   | Renzini Alvio Osservatorio Astronomico di Padova Istituto Nazionale di Astrofisica | Arimoto Nobuo National Astronomical Observatory  |
| Energy                                     | Distributed power generation from biomass and waste through integrated rotary klin Pyrolisis and fuel cell and battery micro plants | Fantozzi Francesco Dipartimento di Ingegneria, Università di Perugia               | Capiglia Claudio<br>RECRUIT R&D  |
| Earth Sciences<br>Climate Change           | Reactive nitrogen oxides:<br>air pollution accumulation<br>and atmospheric self-<br>cleansing capacity                              | <b>Di Carlo Piero</b> Università di L'Aquila CETEMPS - Dipartimento di Fisica      | <b>Kajii Yoshizumi</b> Tokyo Metropolitan University   |
| Information<br>Communication<br>Technology | VisualSound Sistema portatile per non vedenti via conversione sonora degli stimoli visuali  | Marchisio Roberto<br>Hicare Research   | Micheletto Ruggero Yokohama City University  |
| Life Sciences                              | Potenziali effetti benefici<br>dell'eplerenone<br>sull'endotelio umano  | Caprio Massimiliano<br>IRCCS<br>San Raffaele                                       | Mochizuki Seibu<br>Musashino University<br>Medical Center  |
| Life Sciences                              | Guinea Pig<br>cytomegalovirus as a model<br>system for human<br>cytomegalovirus vaccine<br>development                              | Gallina Andrea<br>Università di Milano   | Inoue Naoki National Institute of Infectious Diseases, Tokyo                                       |



| Life Sciences                              | Twilight zone between structural order and structural in the space of sequences   | Giansanti Andrea<br>Università La<br>Sapienza, Roma                                       | Shimizu Kana Institute of Advanced Industrial Science and Technology Tokyo                 |
|--|---|---|--|
| Life Sciences                              | Comparazione tra le tecniche di erogazione della dose nei trattamenti di radioterapia con ioni carbonio eseguiti con campi passivi e con scansione attiva | Orecchia Roberto Fondazione CNAO - Centro Nazionale di Adroterapia Oncologica             | Tsujii Hirohiko NIRS -National Institute of Radiological Sciences                          |
| Nanosciences,<br>Advanced<br>Materials     | Lab-on-chip system for early diagnostic in disease  | Pirri Fabrizio Politecnico di Torino  | Esashi Masayoshi<br>Tohoku University  |
| Nanosciences,<br>Advanced<br>Materials     | Preparazione e caratterizzazione di nano-slurry a base di idrossiapatite con capacità di rilascio di farmaci per applicazioni biomediche                  | Rimondini Lia Università del Piemonte Orientale, Dipartimento di Scienze Mediche          | Otsuka Makoto<br>Musashino University,<br>Research Institute of<br>Pharmaceutical Sciences |
| Nanosciences,<br>Advanced<br>Materials     | Operatività ad alta<br>frequenza di dispositivi<br>quantistici di Silicio a<br>singolo drogante   | Prati Enrico CNR - Istituto Nazionale per la Fisica della Materia, Genova                 | Shinada Takahiro Waseda Institute for Advanced Studies, Waseda University                  |
| Robotics and<br>Production<br>Technologies | Full-body kinesthetic teaching of a free-standing humanoid robot  | Caldwell Darwin Fondazione Istituto Italiano di Tecnologia                                | Kanamiya Yoshikatsu<br>Tokyo City University   |
| Space                                      | Tubi di calore con fluidi "self-rewetting"  | Savino Raffaele Università di Napoli Federico II, Dipartimento di Ingegneria Aerospaziale | Abe Yoshiyuki Advanced Industrial Science and Technology Institute AIST - Tsukuba          |
| Technologies Applied to Cultural Heritage  | Monitoraggio/Controllo<br>Intelligente sui Beni<br>Culturali  | Mallardo Vincenzo<br>Università di Ferrara  | Matsumoto Toshiro<br>Nagoya University   |



## **ANNEX III**

## GENERAL ADMINISTRATIVE AND FINANCIAL PROVISIONS

The projects that could be financed within the present Programme are those listed in Annex II. In accordance with the relevant rules of Italy, the travel costs of the Italian researchers to Japan shall be covered by the Italian side, within the limits of the annual budget.

## Journey of Italian Researchers Travelling to Japan

Italian researchers willing to travel to Japan for stays at the local Institutions, must present, two months in advance the departure date, a formal application to the Italian Ministry of Foreign Affairs, Direzione Generale per la Promozione e la Cooperazione Culturale, Ufficio V, Piazzale della Farnesina 1, 00135 Roma.

The Italian party will pay travelling expenses in economic class only. The application is to be completed with:

- Name and address of the hosting Institution;
- Foreseen dates of departure and arrival;
- Title of the research project;
- Letter of invitation by the hosting Institution;

Declaration of Italian researcher with the engagement: to pay the due penalties in case of travel cancellation, to deliver travel documents (air tickets and boarding cards) within 15 days after returning and to write final report on the activities carried out within 15 days after return;

Declaration of the project's co-ordinator concerning the participation of the researcher to the project (only in case the researcher is not the project's responsible).



# ANNEX IV

## SIGNIFICANT RESEARCH PROJECTS

| RESEARCH<br>AREA                           | TITLE   | ITALIAN<br>PARTNER  | JAPANESE<br>PARTNER  |
|--|---|---|--|
| Basic Sciences                             | Accurate Real time Traking inside@lhc   | Annovi Alberto Istituto Nazionale Fisica Nucleare   | <b>Yorita Kohei</b><br>Waseda University   |
| Basic Sciences                             | Role of Epigenome and noncoding RNA in neuromuscolar functions  | <b>Orlando Valerio</b> Fondazione Thelethon   | <b>Hayashizaki Yoshihide</b><br>RIKEN OSC  |
| Basic Sciences                             | PROME THEUS   | <b>Turchetti Giorgio</b><br>Fondazione Alma<br>Mater, Bologna                               | Bolton Paul<br>JAEA<br>Photo Medical Research<br>Centre  |
| Energy                                     | Giunzioni meccaniche e<br>sigillante di compositi<br>SiC/SiC per applicazioni ad<br>alte temperature                          | Ferraris Monica Politecnico Torino, Dipartimento Scienza dei Materiali e Ingegneria Chimica | Hinoki Tatsuya Institute of Advanced Energy, Kyoto University                                      |
| Information<br>Communication<br>Technology | Tecnologie quantistiche:<br>Informazione,<br>comunicazione e calcolo  | Pascazio Saverio<br>Università di Bari<br>Dipartimento di Fisica                            | Nakazato Hiromichi<br>Waseda University,<br>Physics Department                                     |
| Life Sciences                              | Sfide globali per la salute.<br>Biofarmaceutici prodotti in<br>pianta   | Benvenuto Eugenio<br>ENEA   | Fujiyama Katsuhito Osaka University, ICBiotech   |
| Life Sciences                              | Joint Laboratory Japanese-<br>Italian Tissue Engineering<br>Laboratory  | <b>Di Nardo Paolo</b><br>Università Tor<br>Vergata, Roma                                    | Okano Teruo<br>Tokyo Women's Medical<br>University   |
| Nanosciences,<br>Advanced<br>Materials     | ValutazioNe alla nanoscala<br>delle propriEtà chiMiche,<br>magnEtiche e StrutturalI di<br>nanoStrutture avanzate<br>(NEMESIS) | Salviati Giancarlo<br>CNR (IMEM)  | Sekiguchi Takashi<br>National Institute of<br>Materials Science –<br>NIMS,<br>Tsukuba              |
| Nanosciences,<br>Advanced<br>Materials     | Chimica e meccanica su<br>scala nanometrica in<br>materiali inorganici avanzati   | Bettinelli Marco<br>Università di Verona e<br>INSTM Dipartimento<br>Biotecnologie           | Pezzotti Giuseppe<br>RIN - Research Institute<br>for Nanoscience, Kyoto<br>Institute of Technology |





| Nanosciences, | Laboratorio Congiunto        | Di Bartolomeo          | Bando Yoshio             |
|---------------|------------------------------|------------------------|--------------------------|
| Advanced      | Italia-Giappone              | Elisabetta             | National Institute for   |
| Materials     | Nanorarchitettura di         | Università Tor         | Material Science         |
|               | Materiali per lo Sviluppo    | Vergata, Roma          |                          |
|               | Sostenibile                  |                        |                          |
| Robotics and  | Laboratorio congiunto in     | Dario Paolo            | Hashimoto Shuji          |
| Production    | Biorobotica, Scienze e       | Scuola Superiore       | Waseda University        |
| Technologies  | Ingegneria                   | Sant'Anna, Pisa        |                          |
| Space         | The JEM-EUSO Project:        | Galeotti Piero         | Ebisuzaki Toshikazu      |
|               | observing cosmic rays,       | Dipartimento di Fisica | RIKEN Computational      |
|               | neutrinos, meteors and cloud | Generale, Università   | Astrophysics Laboratory, |
|               | coverage from the            | di Torino              | Advanced Science         |
|               | International Space Station  |                        | Institute                |
| Space         | Radio Astronomia dallo       | Giovannini Gabriele    | Murata Yasuhiro          |
|               | spazio                       | INAF Istituto di       | Japan Aerospace          |
|               |                              | Radioastronomia        | Exploration Agency       |
| Technologies  | Characterization of dynamic  | Valluzzi Maria Rosa    | Aoki Takayoshi           |
| Applied to    | behaviour of historical      | Università di Padova   | Nagoya City University   |
| Cultural      | masonry structures           |                        |                          |
| Heritage      |                              |                        |                          |



