EXECUTIVE PROGRAMME OF SCIENTIFIC AND TECHNOLOGICAL COOPERATION BETWEEN ITALY AND CHINA FOR THE YEARS 2010-2012

Within the framework of the Scientific and Technological Agreement between the Italian Republic and the People's Republic of China, which was signed in Beijing on June 9th, 1998, the 13th Session of the Italian-Chinese Joint Committee was held in Rome on November 23rd, 2009, in order to examine the present state and further development of scientific and technological cooperation between the two Countries and define the new Programme for the years 2010-2012.

The institutions in charge of the co-ordination and the realisation of the present Programme are:

for the Italian Party: Ministry of Foreign Affairs, Directorate General for Cultural Promotion and Cooperation.

for the Chinese Party: Ministry of Science and Technology of the People's Republic of China, Department of International Cooperation.

The Italian delegation was led by Ms. Stefania Gabriella Anastasia Craxi, Secretary of State for Foreign Affairs.

The Chinese delegation was led by Mr. Du Zhanyuan, Vice Minister of Science and Technology.

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

The following agenda was adopted:
1) present state of scientific and technological cooperation;
2) new Programme of cooperation;
3) planning of future meetings.

1. Present state of scientific and technological cooperation

The two Parties acknowledged the growing importance of science and technology for the economic, social and cultural development of the two Countries.

The two Parties, considering the good relationships between the two Countries, have stressed the need to develop and further strengthen the cooperation in the fields of science and technology.

The two Parties also agreed to pay serious attention to extending the co-operation in international and European research and development multilateral programmes, and more specifically the European Union Framework Programmes, as well as other initiatives.

2. New Programme of cooperation

Calls for proposal were launched in the course of 2009 to collect bilateral research projects in the following priority areas:

- Agriculture and Food Safety
- Aerospace Activities and Physics
- Energy and Environment
- Medicine and Traditional Chinese Medicine
- Natural Risks Prevention
- Technologies for Cultural Heritage Preservation

After an extensive evaluation of the project proposals considered eligible by both Parties, 10 projects for the exchange of researchers were selected for financial support by the Italian Party and by the Chinese Party through its key International S&T Cooperation Programme according to its procedure.

The two Parties have agreed on the following criteria:

- scientific relevance of the project (methodology, originality and innovation, quality of the research team);
- project documentation and quality;
- laboratory facilities;
- merit of collaboration with the foreign partner and research unities;
- potentialities for creating research and development;
- exploitation and/or publication/diffusion of results.

The list of the selected projects is given in **Annex 2**.

The general administrative and financial provisions for the implementation of the Programme are given in **Annex 3**.

In addition to the bilateral projects listed in Annex 2, both Parties may consider granting respectively a financial contribution following their own procedures to significant bilateral research projects, which are 16 projects for the Chinese Party and 9 projects for the Italian Party, listed separately in **Annex 4** and **Annex 5**.

For the Italian Party, the financial contributions are intended to partly cover the expenses of the research activities of the projects. Financial support will be granted to the Italian partners upon evaluation of the applications to be submitted according to indications that will be given by the Italian Party.

3. Planning of future meetings

The two Parties have agreed that the next session of the Joint Committee will be held in Beijing, at a date to be agreed upon through diplomatic channels.

The present Programme for the years 2010-2012 will remain valid until the signature of the next one, but no longer than one year after its expiration.

Any amendment to the text of this Programme must be authorised by the competent Ministries in both Countries and has to be carried out through diplomatic channels.

All initiatives foreseen in this Programme shall be carried out within the limits of the budgets and according to the rules prevailing in each Country.

Annexes 1, 2, 3, 4 and 5 form integral part of the present document.

Done in Rome, on November, 23rd 2009, in English language in two originals, both being equally authentic.

For the Italian Party	For the Chinese Party
The Secretary of State for Foreign Affairs **Ms. Stefania Gabriella Anastasia Craxi**	**The Vice Minister of Science and Technology** **Mr. Du Zhanyuan**

Annex 1

Members of the two Delegations

ITALIAN DELEGATION	CHINESE DELEGATION
Ms. Stefania Gabriella Anastasia CRAXI Secretary of State for Foreign Affairs	**Mr. DU Zhanyuan** Vice Minister of Science and Technology
Mr. Federico FAILLA Directorate General for Cultural Promotion and Cooperation Ministry of Foreign Affairs	Mr. YAO Weike Deputy-Director General Department of International Cooperation Ministry of Science and Technology
Ms. Barbara BREGATO Head of Office V Directorate General for Cultural Promotion and Cooperation Ministry of Foreign Affairs	Mr. ZHANG Zhihong Deputy-Director General Department of High Technology Ministry of Science and Technology
Ms. Lucia PATTARINO Secretary of State's Office Ministry of Foreign Affairs	Mr. ZHOU Longchao Deputy-Director for European Affairs, Department of International Cooperation Ministry of Science and Technology
Mr. Mario BARTOLI Deputy-Head of Office III Directorate General for the countries of Asia, Oceania, the Pacific and Antarctica Ministry of Foreign Affairs	Mr. YANG Jiankun Vice Minister's Office Ministry of Science and Technology
Ms. Alessandra RAFFA Office V Directorate General for Cultural Promotion and Cooperation Ministry of Foreign Affairs	Mr. SUN Yuxi Ambassador of the Chinese Embassy in Italy
Ms. Laura NAPOLITANO Office V Directorate General for Cultural Promotion and Cooperation Ministry of Foreign Affairs	Mr. SUN Chengyong Science Counsellor of the Chinese Embassy in Italy
Mr. Paolo BATTINELLI Scientific Expert - Office V Directorate General for Cultural Promotion and Cooperation Ministry of Foreign Affairs	Mr. YIN Jun Science Counsellor of the Chinese Embassy in Italy

Ms. Isabella MAZZIOTTI
Scientific Expert – Office V
Directorate General for Cultural Promotion and Cooperation
Ministry of Foreign Affairs

Ms. Monica PAGANELLI
Scientific Expert – Office V
Directorate General for Cultural Promotion and Cooperation
Ministry of Foreign Affairs

Ms. Rina LARIZZA
Head of Office II
Directorate General for the Internationalization of Research
Ministry of Education, University and Research

Mr. Ranieri GUERRA
Director of External Relations Office
ISS – National Institute of Health

Ms. Rita FERRELLI
Researcher - External Relation Office
ISS – National Institute of Health

Mr. Alberto DI PIETRO
International Relation Unit
Italian National Agency for New Technologies, Energy and Sustainable Economic Development - ENEA

Ms. Lucilla ALAGNA
Industrialized Countries and International Organization Office
National Research Council - CNR

Ms. Gabriella ARRIGO
International Relations Office – Non-European Countries
Italian Space Agency – ASI

Ms. SHI Yi
Second Secretary
Chinese Embassy in Italy

Mr. LIU Jie
Third Secretary
Chinese Embassy in Italy

Mr. MA Leju
Attaché
Chinese Embassy in Italy

Annex 2

Projects for the exchange of researchers selected for financial support by the Italian Party and by the Chinese Party through its key International S&T Cooperation Programme according to its procedure within the frame of the Executive Programme of Scientific and Technological Cooperation between Italy and China for the years 2010-2012

Priority Areas		Selected projects
- Agriculture and Food Safety	AG	2
- Aerospace Activities and Physics	AP	2
- Energy and Environment	EE	3
- Medicine and Traditional Chinese Medicine	MTCM	1
- Natural Risks Prevention	NRP	1
- Technologies for Cultural Heritage Preservation	TCH	1
Total		10

No.	AREA	TITLE	ITALIAN COORDINATOR	ITALIAN INSTITUTION	CHINESE COORDINATOR	CHINESE INSTITUTION
1	AG	Cross talk between nitric oxide and carbon monoxide during adventitious rooting process and related application in agriculture	**Delledonne Massimo** Tel. 045-8027962 massimo.delledonne@univr.it	Università degli Studi di Verona Dipartimento di Biotecnologie	**Shen Wenbiao**	College of Life Sciences, Nanjing Agricultural University
2	AG	Use of innovative enzymes for detection and decontamination of organophosphate pesticides	**Manco Giuseppe** Tel. 081-6132296 g.manco@ibp.cnr.it	CNR – Istituto di Biochimica delle Proteine	**YAN FENG**	Shanghai Jiaotong University (SJTU)
3	AP	Ultrafast laser ablation of solid targets and nanoparticles synthesis	**Amoruso Salvatore** Tel. 081-679287 amoruso@na.infn.it	Università degli Studi di Napoli "Federico II"	**Wang Qingyue**	Tianjin University

4	AP	Ultrathin metal oxides on conductors for miniaturization of technological instruments	**Sytchkova Anna** Tel. 06-30484441 anna.sytchkova@enea.it	ENEA C.R.E. Casaccia	**He Hongbo**	Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences
5	EE	Experimental and computational analyses in support supercritical water nuclear design	**Ambrosini Walter** Tel 050-2218073 walter.ambrosini@ing.unipisa.it	Università di Pisa Dipartimento di Ingegneria Meccanica Nucleare e della Produzione	**JANG Peixue**	Departement of thermal Engeneering Tsinghua University
6	EE	Ecological Impact Assessment of the Coastal Lagoons of Cabras (Italy) and Yundang (China)	**Magni Paolo** Tel. 0783-22027 paolo.magni@cnr.it	Consiglio Nazionale delle Ricerche Istituto per l'Ambiente Marino Costiero (CNR-IAMC, Oristano)	**Huang Lingfeng**	College of Oceanography and Environmental Science, Xiamen University
7	EE	Optimization of biocatalysts and reactors for second generation biodiesel synthesis	**Pirozzi Domenico** Tel. 081-7682284 dpirozzi@unina.it	Università di Napoli "Federico II" Dipartimento di Ingegneria Chimica	**Liu Dehua**	Tsinghua University (Beijing, China)
8	MTCM	New synthetic Processes for the preparation of non-classical blactams antibiotics	**Panunzio Mauro** Tel. 051-209 9508 mapan@isof.cnr.it	CNR - Istituto di Sintesi Organica e Fotoreattività (ISOF)	**XIA ZHINING**	Chongqing University, Istitute of Chemistry and Chemical Engin
9	NRP	Use of EPS-producing microalgae and cyanobacteria in the prevention and control of desertification	**De Philippis Roberto** Tel. 055-3288284 roberto.dephilippis@unifi.it	Università di Firenze	**LIU Yong-ding**	Institute of Hydrobiology, Chinese Academy of Sciences; State Key Laboratory for Freshwater Ecology and Biotechnology
10	TCH.	Preservation technologies for historic urban fabric in contemporary China with special reference to post-earthquake cases	**Barbera Lucio** Tel. 06-49919333 lucio.barbera@uniroma1.it	Università di Roma "La Sapienza" Facoltà di Architettura "L.Quaroni"	**LU ZHOU**	School of Architecture Tsinghua University

Annex 3

General administrative and financial provisions

The joint projects that may be financed within the present Programme are exclusively those mentioned in **Annex 2.**

For each project listed in Annex 2, one short-term stays (up to 10 days) or one long-term stay (1 month = 30 days) will be financed yearly.

The researchers will be entitled to the exchange only if they hold Italian nationality (or EU nationality) and Chinese nationality.

The international travel expenses between the two cooperating partner institutions shall be borne by the Sending Party.

The Receiving Party shall bear the expenses of lodging and boarding by means of an all inclusive cash allowance.

Both Parties shall provide their visiting researchers with medical insurance coverage against accidents and illness, excluding already existing and chronic diseases.

The researchers have to submit to the host Party within 30 days after finishing their visit, a debriefing report on the activities carried out. The report must be co-signed by both the Chinese and Italian researchers involved in the joint project.

STAY OF CHINESE RESEARCHERS IN ITALY

The Italian Party will finance, yearly, for each project listed in **Annex 2** one short term stay (up to 10 days) or one long term stay (1 full month = 30 days).

The application for both long and short term research stays shall be submitted exclusively to the Italian diplomatic Representatives in China. These applications must be received, by the Office V of the Directorate General for Cultural Promotion and Cooperation of the Italian Ministry of Foreign Affairs, no less than two months before the beginning of the visit.

The application consists in the following documents (to be presented in two copies):

1) letter of engagement of the host Institution;
2) application Form undersigned by the Chinese researcher comprehensive of personal and professional applicant data, title of the project, date and length of the visit, list of the institutes to visit (2 original application forms); the Application Form is available at:
http://www.esteri.it/MAE/EN/Politica_Estera/Cultura/CooperScientificaTecnologica/ProgrammiEsecutivi/MobilitaRicercatori/MobilitRicercatoriStranieri.htm
3) detailed programme of the visit;
4) curriculum vitae of the researcher;
5) letter of appointment by the head of the project (if the head of the project is not travelling in person);
6) declaration in which the researcher commits himself/herself:

- respecting the indicated period of visit;
- receiving grants by other National/International Organisations or Corporations during his/her stay;
- not changing the Programme or destination of the visit and not leaving Italy without authorization;
- presenting within 30 days from the end of the visit, a debriefing report on the activities carried out;
- transmitting, for insurance purpose, to INA Assitalia – MARSH S.p.A, Piazza Marconi 25, 00144 Roma, notice of any accidents and/or illness which may have occurred in Italy.

Cancellations, unless seriously documented, shall prevent the hosting Party from accepting further applications for related missions.

The Italian Party shall provide 1300 Euro per month for long term stays (1 month =30 days) and 93 Euro per day for short term stays (up to10 days).

The above amounts shall be paid to the Chinese researchers entirely on their arrival in Italy.

Chinese researchers will receive their grants at the Italian Ministry of Foreign Affairs in case they stay in Rome, or at the nearest Provincial Treasury (Local Branch of the Banca d'Italia).

STAY OF ITALIAN RESEARCHERS IN CHINA

The Chinese Party will provide the Italian researchers adequate boarding and lodging in China, organized by their Chinese Host Institute, for projects listed in Annex 2.

JOURNEY OF ITALIAN RESEARCHERS TRAVELLING TO CHINA

The Italian Party will pay the roundtrip airline ticket in economic class only from the place of work in the home Country to the place of work in the foreign Country.

Italian researchers willing to travel to China for stays at the local Institutions, must present, not later than two months the departure date, a formal application to the *Italian Ministry of Foreign Affairs, Direzione Generale per la Promozione e Cooperazione Culturale, Ufficio V, Piazzale della Farnesina 1, 00135 – Roma*.

The application is to be completed with:

1) name and address of the hosting Institution;
2) foreseen dates of departure and arrival;
3) title of the research project;
4) letter of invitation by the hosting Institution;
5) 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 his/her return;
- to write final report on the activities carried out within 30 days after his/her return;
6) declaration of the project's co-ordinator concerning the participation of the researcher in the project (only in case the researcher is not the project's responsible).

All the described rules are available at the following address:

http://www.esteri.it/MAE/EN/Politica_Estera/Cultura/CooperScientificaTecnologica/ProgrammiEsecutivi/MobilitaRicercatori/MobilitaRicercatoriItaliani.htm

JOURNEY OF CHINESE RESEARCHERS TRAVELLING TO ITALY

The Chinese side will be responsible for the travelling expenses of the Chinese researchers to Italy for projects listed in Annex 2.

Annex 4

Significant research projects that are eligible for applying for the annual financial contribution given by the Chinese Party within the frame of the Executive Programme of Scientific and Technological Cooperation between Italy and China for the years 2010-2012

Priority Areas		Selected projects
- Agriculture and Food Safety	AG	2
- Aerospace Activities and Physics	AP	1
- Energy and Environment	EE	6
- Medicine and Traditional Chinese Medicine	MTCM	4
- Natural Risks Prevention	RP	
- Technologies for Cultural Heritage Preservation	TCH	3
Total		16

No.	**AREA**	**TITLE**	**ITALIAN COORDINATOR**	**ITALIAN INSTITUTION**	**CHINESE COORDINATOR**	**CHINESE INSTITUTION**
1	AG	Drought resistance, salt tolerance breeding and cultivation for energy beet	**Biancardi Enrico**	Industrial crop Research Institute Italian Academy of Agricultural Sciences (ISCI)	Geng Gui	Research Institute of Sugar Beet of Chinese Academy of Agricultural
2	AG	Joint Research and Development of Natural Medical Plants as Feed	**Zoccarato Ivo**	Università di Torino	Xu Jianqin	China Agriculture University
3	AP	Gravitational Waves Detection with Atom Interferometry	**Tino Guglielmo**	Università di Firenze Dipartimento di Fisica and LENS Laboratory	Lu Xuanhui	Zhejiang University

4	EE	The collaboration project on a conjugated nanotechnological and computational approach for environmental monitoring	**Cannistraro Salvatore**	Università della Tuscia Centre for Biophysics and Nanoscience	Wang Cunxin	College of Life Science and Bioengineering, Beijing University of Technology
5	EE	Key fluidic technology on bio-hydrogen production	**Dario Paolo**	Scuola Superiore Sant'Anna di Pisa	Fu Xin	The State Key Lab of Fluid Power Transmission and Control Zhejiang University
6	EE	Distributed optical fiber sensors for environmental monitoring and assessment of large civil and geotechnical structures and their integration in communication networks	**Di Pasquale Fabrizio Cesare Filippo**	Scuola Superiore Sant'Anna di Pisa	Zhao Wei	Xi'an Institute of Optics and Precision Mechanics of Chinese Academy of Sciences
7	EE	Innovative solutions for facing the effects of intensive anthropic impact on lacustrine ecosystems	**Iannelli Renato**	Università di Pisa Dipartimento di Ingegneria Civile	Hu Hongying	Department of Environmental Science and Engineering, Tsinghua University
8	EE	The research on integration technology of second generation fuel ethanol production	**Ottonello Piero**	Chemtex Italy R&D Europe	Bao Xiaoming	Shandong University
9	EE	Collaboration of Mapping and Characterization of Gas Hydrate Reservoir in the South Chinese Sea	**Tinivella Umberta**	National Institute of Oceanography and Geophysical Sphere (OGS)	Liu Xuewei	China University of Geosciences
10	MTCM	The Basic and Applied Research in Innovative Therapeutic Techniques of End-stage Heart Failure	**Benussi Stefano**	St. Raffaele Hospital, Milano	Hu Shengshou	Cardiovascular institute and Fu Wai Hospital; Peking Union Medical College & Chinese Academy of Medical Science

11	MTCM	The natural alkaloid compounds as DNA G-quadruplex ligands: evaluation and discovery of the anti-cancer drugs	**Bianco Armandodoriano**	Università di Roma “La Sapienza” Dipartimento di Chimica “Stanislao Cannizzaro”	Gu Lianquan	School of Pharmaceutical Sciences Sun Yat-sen University
12	MTCM	The regulation of active compounds from TCM and derivative on anti-microbial immune response	**Boraschi Diana**	National Research Council (CNR) Institute of Biomedical Technologies, Unit of Immunobiology	Qu Di	Fudan University
13	MTCM	The Prevention Research on Thalassemia	**Marazziti Mario**	Mediterranean Institute of Hematology (IME)	Chen Ping	Guangxi Medical University
14	TCH	Advanced technologies in investigating and monitoring Danba Tower in Sichuan Province, and conservation approach	**Abruzzese Donato**	Università di Roma “Tor Vergata”	Yuan Jianli	Yangzhou University
15	TCH	Research on the Italian Conservation and Regeneration System of Historic Architecture and Landscape Heritage	**Cornaglia Paolo**	Politecnico di Torino	Chen Yi	Tongji University
16	TCH	Studies on Wireless Sensor Network used in Heritage Protection	**Perrone Alessio**	Università del Salento	Fang Dingyi	Northwest University

Annex 5

Significant research projects that are eligible for applying for the financial contribution given by the Italian Party within the frame of the Executive Programme of Scientific and Technological Cooperation between Italy and China for the years 2010-2012

Priority Areas		Selected projects
- Agriculture and Food Safety	AG	1
- Aerospace Activities and Physics	AP	1
- Energy and Environment	EE	2
- Medicine and Traditional Chinese Medicine	MTCM	3
- Natural Risks Prevention	NRP	1
- Technologies for Cultural Heritage Preservation	TCH	1
Total		9

No	AREA	TITLE	ITALIAN COORDINATOR	ITALIAN INSTITUTION	CHINESE COORDINATOR	CHINESE INSTITUTION
1	AG	Control of protein degradation in plant development and environmental response	**Frugis Giovanna** Tel 06-90672539 frugis@ibba.cnr.it	CNR - Istituto di Biologia e Biotecnologia Agraria (IBBA) - UOS di Roma	**Xie Qi**	Chinese Academy of Sciences, Institute of Genetics and Developmental Biology
2	EE	Dendrimers coupled to Si nanoparticles as new hybrid materials for environmentally friendly solar cells	**Ceroni Paola** Tel. 051-2099535 paola.ceroni@unibo.it	Università di Bologna, Dipartimento di Chimica "G. Ciamician"	**Yuguo Ma**	Dept. Polymer Science & Engineering, College of Chemistry & Molecular Engineering Peking University

3	EE	CO2 geological sequestration: geochemical techniques for the storage, safety and monitoring verification at the selected sites	**Zuppi Giovanni Maria** tel. 06-90672743 gmzuppi@igag.cnr.it	CNR di Roma Istituto di Geologia Ambientale e Geoingegneria	**Pang Zhonghe**	Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing
4	MTCM	Adipose tissue-derived stromal vascular fraction cells: isolation and characterization for dermal matrix production	**Giannetti Alberto** Tel. 059-2056457 alberto.giannetti@unimore.it	Università di Modena e Reggio Emilia Dipartimento di Dermatologia	**Zhu Xuejun**	University of Peking Department of Dermatology
5	MTCM	Good clinical practice of a multicentric trial for treating chemo-therapy side effects with acu-puncture	**Guerra Ranieri** Tel. 06-4990.4030 guerra@iss.it	Istituto Superiore di Sanità	**Gao Xiumei**	Tianjin University of Traditional Chinese Medicine
6	MTCM	High-throughput screening of natural compounds from Chinese medicinal herbs for the identification of aquaporin inhibitors to be used in the treatment of brain edema	**Svelto Maria** Tel. 080-5443328 svelto@biologia.uniba.it	Università di Bari Dipartimento di Fisiologia Generale e Ambientale	**Tonghui Ma**	Jilin University, Central Research Laboratory of the Second Affiliated Hospital
7	NRP	SAGA-4-EPR Satellite/Seafloor/Ground data Analyses for Earthquake Pattern Recognition	**De Santis Angelo** Tel. 06-51860341 angelo.desantis@ingv.it	Istituto Nazionale di Geofisica e Vulcanologia (INGV)	**Wu Lixin**	Beijing Normal University (BNU)

8	AP	Development of a innovative instrument for micro satellite simultaneous measurement of perturbations of the electromagnetic field and of high energy trapped particles in the Van Allen Belts and their correlation with geophysical phenomena	**Battiston Roberto** Tel. 0755852719 roberto.battiston@pg.infn.it	INFN Sezione di Perugia	**Shen Xuhui**	Institute of Earthquake Science, China Earthquake Administration (CEA)
9	TCH	Reverse engineering methods for 3D digital reconstruction of fragments and archaeological finds with complex geometry	**Teti Roberto** Tel. 081-7682371 roberto.teti@unina.it	Università di Napoli "Federico II", Dipartimento di Ingegneria dei Materiali e della Produzione	**Zhang Guoxiong**	Tianjin University, College of Precision Instrument & Opto-Electronics, Tianjin