



INTERNATIONAL COOPERATION AGREEMENT FOR JOINT RESEARCH

UFSCar
Nº <u>278 / 2012</u>
Proc. <u>3169/12-00</u>

Agreement between the Federal University of São Carlos and National Institute of Advanced Industrial Science and Technology

Through the following administrative covenant instrument, the parts, on one side the Federal University of São Carlos, situated on the São Carlos campus at Rodovia Washington Luís, Km 235, São Carlos - SP, Brazil, inscribed under the CNPJ with the number. 45.358.058/0001-40, in this act represented as a statute, by the dean, Prof. Dr. Targino de Araújo Filho, herewith denominated UFSCar; and, on the other part, National Institute of Advanced Industrial Science and Technology, 1-3-1 Kasumigaseki, Chiyoda-ku, Tokyo, Japan, in this act represented as a statute, by President, Dr. Tamotsu Nomakuchi, herewith denominated AIST;

CONSIDERING that UFSCar and AIST reached a settlement from which a mutual understanding resulted in as far as common activities are concerned, and which contributed to the development of science and technology of bioluminescence;

CONSIDERING the convenience of intensifying the academic and technological relationship between the Institutions, aiming at cooperation and exchange of knowledge and experience in the interest of both;

CONSIDERING the interest in specifically conducting the joint research concerning the area, "**Biomedical and biotechnological applications of bioluminescence**";

CONVENING THIS AGREEMENT according to the following conditions:

First Clause - AIMS

The following is aim of this Agreement:

I.1. To stipulate the terms and conditions between UFSCar and AIST, so as to jointly conduct the research whose details are as follows ("**Joint Research**"):

I.1.1. The Joint Research Title: Bioluminescence and its Biophotonic applications.



I.1.2. The Joint Research Purpose: We aim to develop of new detecting technologies for biomedical, biotechnological and environmental purposes using Brazilian beetle luciferases.

I.1.3. The Technical Description of Work: Bioluminescence is produced by luciferin (substrate) – luciferase (enzyme) reaction, in which luciferin reacts with the oxygen catalyzed by luciferase and emits the light. Recently, luciferases are suitable reporter enzymes for the measurement of gene expression, the visualization of cell function and the detection of cell metabolism. Especially, beetle luciferases are considered powerful tool as a reporter enzyme. In this joint research, we aim to apply some new beetle luciferase from Brazilian luminescent beetles cloned by Prof. Viviani's group, solve the molecular mechanism of beetle bioluminescence, and develop new detecting technologies for biomedical, biotechnological and environmental purposes. During the joint research, we do exchange of researchers or students for short or long term periods.

I.1.4. The Work Plan- respective roles and responsibilities: Each part will satisfy the objectives of the research as described in Attachment 1.

I.1.5. This Joint Research shall commence on October 1, 2012 and end on March 31, 2014. Upon the expiration of that term, this term may be renewed if necessary and mutually agreed to in writing by the parts.

I.1.6. The parts shall engage the personnel listed in Attachment 2 in the Joint Research as research participants who are composed of executives, officers, employees, visiting researchers and students belonging to each part and employed either directly or through contract by each part or bound by this Agreement under the responsibility of UFSCar ("Participating Researcher(s)") and shall administer and efficiently carry out the Joint Research under the coordinators for the execution of this Agreement, Prof. Dr. Vadim Viviani, representing UFSCar, and Dr. Yoshihiro Ohmiya, representing AIST respectively.

I.1.7. The activities to be developed by the parts conducting the Joint Research can comprise, reception and exchange of researchers or students, for short or long term periods; cession or exchange of scientific and technical information, as well as exchange of publications referent congresses, workshops, colloquiums, seminars and meetings, of which the parts may participate in; and developing new detecting technologies for biomedical, biotechnological and environmental purposes.

Second Clause - - RESPONSABILITIES OF BOTH PARTS

II.1. Each part shall be individually responsible for performing the Work Plan enumerated in Attachment 1.

II.2. It is the duty of each part to guarantee the necessary means and material or human resources towards the development of the activities referred to in this Agreement when hosting persons from the other Institution to the extent allowed by the respective internal regulations in effect at the Institute which receives them.

II.3. During the exchange activities of this Agreement, researchers or students will have to observe and be liable insofar as the Institute's legal rules and regulations, always obeying the disciplinary rules in effect at the Institute which receives them.

II.4. Throughout the exchange of persons or material of both parts of the Agreement, specially relating to the importation of equipment and necessary samples for the



cooperation, both parts commit to help each other with the formal implementations at customs and with fiscal circumstances in effect.

II.5. The activities developed throughout this do not involve any formal employer-employee activities between either Institution or parts.

II.6 Each of the parts is responsible for health and accident insurance for all members involved in the exchange.

II.7. Within thirty (30) days of the completion of the Joint Research, the parts shall mutually provide a summary report on the overall Joint Research achievement which shall include the Application status resulted from the Joint Research and oral and/or written announcement made to public.

Third Clause - FINANCIAL RESOURCES

III.1. Each of the parts of this Agreement is held responsible for all costs pertaining to its part during the execution of activities foreseen in this Agreement. •

III.2. The development of activities foreseen in this Agreement does not oblige either of the parts to commit resources of its own budget to assure financial support necessary to its fulfillment.

III.3. In case of specific, isolated or joint activities hereunder, the parts can pursue resources at national or international agencies dedicated to research and development as well as enterprises from both countries.

III.4. Notwithstanding the provision of this Clause, the parts shall conduct separate consultations with each other on the sharing of administrative expenses under the following circumstances:

III.4.1. Participating Researchers and research assistants of either part conduct the Joint Research within the premises of the other part for the whole or part of the term of this Agreement with the purpose to complete its mission.

III.4.2. Either part provides a research base within its premises for Participating Researchers and research assistants from the other part.

Fourth Clause - CONFIDENTIALITY

IV.1. The parts shall keep confidential any and all information, provided or disclosed by the other part (hereinafter in this Clause to include Participating Researchers of the other part) in connection with the Joint Research, which were designated confidential at the time of disclosure and the results of the Joint Research, ("Confidential Information"), and shall not provide or disclose the same to any third party without the other part's prior written consent.

IV. 2. The provisions of the Fourth Clause, First Sub-Clause (**IV.1.**) hereof shall not apply to Confidential Information which was in the public domain or in the possession of the receiving part at the time of disclosure due, or which is required to be disclosed as a result of governmental or judicial order.



Fifth Clause - PUBLICATION OF RESULTS

V.1. When either part announces publicly the results of the Joint Research created in the course of the Joint Research, that part shall observe the confidentiality terms set forth in the foregoing Clause, shall disclose to the other part the contents of the announcement in advance, and shall obtain written consent of the other part. No announcement shall be made without obtaining such prior consent of the other part and respecting the conditions and limitations foreseen in the Fourth Clause and in the legislation in effect.

V.2. The divulgation of activities and the propagation of knowledge resulting from this Agreement will explicitly mention both parts of the Agreement.

Sixth Clause - INTELLECTUAL OWNERSHIP

VI.1. The intellectual product of activities developed throughout this Agreement by the staff and researchers of UFSCar and by AIST, comprises valuable patrimony, protected by academic norms and by the legislation in effect.

VI.2. When the activities result in the intellectual product or the development or perfection of material goods, the utilization or ownership rights must be foreseen in a specific contract/agreement on the basis of the following policies:

VI.2.1. Concerning its ownership, the parts agree as follows:

VI.2.1.1 The Intellectual Property Rights related to an intellectual product made independently during the term of this Agreement or started before this Agreement by a researcher of either part shall be owned solely by such part.

VI.2.1.2 The Intellectual Property Rights related to an intellectual product made jointly by researchers of both parts ("Jointly-Owned Intellectual Property Rights") using beetle luciferase made available from one part to the other shall be owned jointly by the parts with the extent of the ownership to be determined through consultation between the parts, taking into consideration the contributions made by each part.

VI.2.1.3 Each material to be shared during the term of this Agreement, which is potentially the source of new intellectual property, shall follow the specific rules provided in specific Material Transfer or License Agreements.

VI.2.2. Parts shall be responsible for the application and maintenance expenses of the Jointly-Owned Intellectual Property Rights proportionate to their respective holdings.

VI.2.3. Unless otherwise agreed to by the parts, any payment, including but not limited to royalties and initial payment or lump sum payments, resulting from any Jointly-Owned Intellectual Property Rights invented or created during the Joint Research will be shared by the parties in proportion to the ownership.

VI.3. If a Participating Researcher of either part independently makes an intellectual product related to ongoing research developed by the other part that pertains to this Joint Research, or using material provided by such part in the course of the Joint Research, the Participating Researcher shall obtain from the other part written consent to file a patent



application, and shall discuss the ownership based on the acknowledgement of the other part's contribution to the new filed intellectual property.

VI.4. Intellectual Property rights shall be related exclusively to inventions and products developed pursuant the cooperation of this Agreement, and shall not include ongoing research made independently by each part prior to this Agreement.

VI.5. When either part seeks to transfer its holdings of the Jointly-Owned Relevant Intellectual Property Rights to a third party, or to grant a license to a third party, written notice to that effect shall be given to the other part in order to obtain consent of that other part. In that case, the other part receiving that notice shall not withhold consent without good cause.

VI.6. When the parts grant to a third party the exploitation of the Jointly-Owned Relevant Intellectual Property Rights, each part shall be entitled to receive royalties in proportion to its holdings, and the parts shall together enter into a separate licensing contract with that third party stipulating payment of royalties and other necessary matters.

VI.7. If either part exploits the Jointly-Owned Relevant Intellectual Property Rights for the purposes of experiments or research, it may do so without obtaining consent from the other part or paying consideration, such as royalties, to the other part.

VI.8. The parts will strive in their efforts to impede improper divulgation or improper utilization of data, information, techniques, methods or other material goods utilized in or resulting from activities developed throughout this Agreement.

Seventh Clause - VALIDITY

This Agreement will be in effect for the duration of the stipulated research period in the First Clause, Sub-Clause 1.5 (**I.1.5.**) hereof from the moment it is duly signed.

Eighth Clause - MISCELLANEOUS

VIII.1. This Agreement may be altered upon written consent by both parts with the approval of the Addendum Term.

VIII.2. The Work Plans or Participating Researchers approved by this Agreement can have their execution formally modified, suspended or cancelled, when, due to explicit technical reasons, one of the parts, or both agree its pursuance to be inconvenient.

VIII.3. Each of the parts can terminate this Agreement upon well-founded previous notification, with a minimum of 90 (ninety) days forewarning, notifying receipt, and without causing harm to ongoing activities.

VIII.4. The foregoing paragraph notwithstanding, the provisions of the Second Clause, seventh Sub-Clause (**II.7.**) shall be valid until the presentation of reports referred to therein; the provisions of the Sixth Clause 6 except its third Sub-Clause (**VI.3.**) shall remain valid while the Relevant Intellectual Property Rights referred to in the respective Articles continue to exist; the provisions of the Ninth Clause shall survive the termination



of this Agreement; the provisions of the Sixth Clause, third Sub-Clause (VI.3.) shall remain valid for one (1) year after the termination of this Agreement; and the provisions of the Fourth Clause shall remain valid for three (3) years after the termination of this Agreement.

VIII.5. This Agreement shall be executed both in English and in Portuguese, but in the event of any difference or inconsistency between the versions of this Agreement, the English version shall prevail in all respects.

Ninth Clause – SOLUTION OF CONTROVERSIES

Questions and controversies arising from this Agreement will be solved by direct entente or by binding arbitration. Unless otherwise agreed to in writing, the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL) shall apply. If UFSCar requests arbitration, the arbitration shall take place in Tokyo, Japan; if AIST requests arbitration, the arbitration shall take place in Sao Carlos, SP Brazil. The language to be used in the arbitral proceedings shall be English.

Tenth Clause – CONFORMITY TO EXPORT CONTROL LAWS AND REGULATIONS

X.1. In transferring goods and technologies, each of the parts shall observe the export control laws and regulations of Japan and Brazil.

X.2. If required by export control laws and regulations of Japan and Brazil, each part shall obtain approval for export of goods and technologies which are to be transferred for the purposes of cooperative activities under this Agreement.

X.3. Neither part may use goods and technologies, and duplications thereof, which have been obtained under this Agreement, for the purposes of developing and manufacturing nuclear weapons, chemical weapons, biological weapons, or missiles to transport such weapons. Nor shall either part permit any third party to use them for the aforementioned purposes.

AND BEING IN JUST AGREEMENT the parts sign this instrument in 4 (four) identical copies, two in Portuguese and two copies in English, in front of the witnesses cited below.

AIST, 7 of March 2013
清水 隆之
Dr. Kiyoyuki Shimizu,
Director, Collaboration Promotion
Division, Research and Innovation
Promotion Headquarters - AIST
for and behalf of
Dr. Tamotsu Nomakuchi, President- AIST

São Carlos, 01 NOV 2012, of ,

Prof. Dr. Pedro Manoel Galetti Junior
Vice-Reitor

M Prof. Dr. Targino de Araújo Filho
Rector - UFSCar



Witnesses:

1. Y. Ohmiya

2. Paulo Cezar Vieira

Name: Yoshihiro Ohmiya,
Director, BioMedical Institute-AIST
ID:

Name: Paulo Cezar Vieira
International Relations Officer
ID:



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Attachments

Attachment 1: Work Plan

Work Proposal by AIST

During the collaboration, AIST will be concerned with the development of new detecting technologies for biotechnological/biomedical purposes using beetle luciferases. All researchers cooperate with each other in this joint research. Additionally AIST researchers may train UFSCAR students and younger researcher at AIST.

Work Proposal by UFSCar

During the collaboration, UFSCar will be concerned mainly with cloning and engineering new beetle luciferases, investigating the molecular and structural mechanisms of beetle bioluminescence, with the development of new detecting technologies for biotechnological/environmental purposes, and participating in the development of biomedical and biotechnological applications of bioluminescence made by AIST researchers. All researchers cooperate with each other in this joint research.



Attachment 2: Research Participants

AIST

Participating Researcher(s)

Position: Director, BioMedical Institute
Name: Yoshihiro Ohmiya
Whether to be located at UFSCar: No

Position: Resercher, Metrology Institute of Japan
Name: Kazuki Niwa
:Whether to be located at UFSCar: No

Position: Group Leader, Health Research Institute
Name: Yoshihiro Nakajima
Whether to be located at UFSCar: No

UFSCar

Participating Researcher(s)

Position: Professor
Name: Vadim Viviani
Affiliation: UFSCAR
Whether to be located at AIST: No

Position: Post-doctoral researcher
Name: Rogilene Prado
Affiliation: UFSCAR
Whether to be located at AIST: No

Research assistant(s)

Position: PhD student
Name: Danilo Amaral
Affiliation: UFSCAR
Whether to be located at AIST: No

Position: Master student
Name: Gabriele V. Gabriel
Affiliation: UFSCAR
Whether to be located at AIST: No

Position: Senior undergraduate student
Name: Deimison R. Nevesral
Affiliation: UFSCAR
Whether to be located at AIST: No

