MEMORANDUM OF UNDERSTANDING

between

THE BOARD OF TRUSTEES
SOUTHERN ILLINOIS UNIVERSITY
FOR AND ON BEHALF OF
SOUTHERN ILLINOIS UNIVERSITY CARBONDALE
Carbondale, Illinois, United States Of America

and

FOUNDATION STATE UNIVERSITY OF CEARA-FUNECE
Ceara, Brazil

In order to advance friendly relations between the United States and Brazil and in the pursuit of excellence in scholarship for the purpose of advancing and disseminating knowledge, Southern Illinois University and Foundation State University of Brazil-FUNECE sign this Memorandum of Understanding to strengthen mutual understanding, foster friendly cooperation and promote academic excellence, collaboration, and exchange in all fields of academic endeavor.

Both parties agree on the following general forms of cooperation:

a. Establish and regulate programs of academic and scientific cooperation in the areas of common expertise and interests.
b. Develop student and scholar exchanges.
c. Promote faculty exchanges for short visits or longer term periods, with the details to be arranged and mutually agreed upon in writing.
d. Exchange research resources and publications.
e. Organize joint conferences, seminars, training, and academic meetings.
f. Facilitating mutual visits to enable the fulfillment of the above projects. Financial arrangements will be agreed upon in advance and in writing.
g. Emphasize scientific and academic cooperation with RENORBIO (Northeast Biotechnology Network housed within the Brazilian institution (See Appendix 1).

Both institutions will make every reasonable effort to encourage direct contact and research cooperation between their faculty members, departments and research institutes, to the extent that they are able, under provisions of this agreement, and endeavor to cooperate in the fields with which both parties are concerned.
The terms and the necessary resources for such joint activities and exchange programs shall be discussed and mutually agreed upon in writing by both parties prior to the initiation of the particular activity or program. Both universities understand that all the financial arrangements should be negotiated and will depend upon the availability of funds.

Both institutions agree to appoint one or more representatives to the Planning and Management Team in order to undertake the following responsibilities:

1. Serve as liaison and maintain communication and accountability for this Agreement.
2. Initiate an Action Plan to undertake tangible activities within this Agreement.
3. Monitor progress and report on the outcome of these activities.
4. Determine new courses of action to sustain and strengthen the institutional relationship.

The name and contact information of the respective liaison persons are:

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Appendix 1: Action Plan with Northeast Biotechnology Network (RENORBIO)

Background Information

The partnership between SIUC and the Ph.D. program at RENORBIO (Northeast Biotechnology Network) began with Professor Eduardo Gastal’s visit to Ceara on May, 2010, during which Professor Gastal learned about RENORBIO’s infrastructure and the interaction between the coordinators of the network and the researchers. In addition, Professor Gastal gave two lectures at FUNECE (Foundation State University of Ceará), spoke about SIUC, and discussed future plans for collaboration between the two institutions. This visit resulted in a partnership between Dr. Jose Ricardo de Figueiredo, a professor at RENORBIO and the coordinator of LAMOFOPA, and Professor Gastal. At first, the partnership involved collaborating in projects and scientific papers as well as receiving a Ph.D. student at SIUC to work on her dissertation. The Ph.D. student was sent to SIUC with a scholarship from the Brazilian government. Professor Figueiredo came to SIUC January, 2011 to visit the campus and to give two lectures. The goals of the lectures were two-fold: firstly, to talk about the research project in Brazil, and secondly, to promote a partnership with SIUC researchers. Ph.D. students at SIUC showed interested in being trained in the field of oocytes manipulation at the lab coordinated by Professor Figueiredo in Brazil. Such interest from SIUC students will help further establish a promising and successful partnership between the two institutions.

Profile of Other Institution

Foundation State University of Ceara –FUNECE is located in Ceara, one of Brazil’s 27 states, situated in the northeastern part of the country, on the Atlantic coast. It is the second largest university in Ceara. It was founded in 1979 to meet the technological and scientific needs of the state of Ceara. FUNECE is spread over nine campuses, with the main campus being in Itaperi, a neighborhood of Fortaleza, the state capital. It has 21,000 students including over 3000 graduate students and offers programs in computer science, veterinary medicine, biomedical sciences, sociology, mathematics, and physics. RENORBIO is headquartered in FUNECE with several of its departments involved with research in the area of biotechnology playing a major role in RENORBIO. The Ph.D. program at the Northeast Biotechnology Network (PPGB-RENORBIO) began in 2007, and it is a network consisting of 31 institutions, among which are public and private universities and research institutes in the nine states of the Northeast region of the country and in the state of Espirito Santo. The Ministry for Science and Technology funds the network’s research projects. The PPGB comprises four major areas: Biotechnology, Agriculture and Animal Science, Health, and Natural Resources and Industry. One of the primary objectives at RENORBIO is to establish partnerships that will carry out cooperative projects. Such projects are to be organized in networks, which involve several institutions and a large number of experienced and competent Biotechnology researchers available in the country’s northeastern region. It is expected that the private sector should benefit from such human and physical resources stemming from these network projects.

Ph.D. students enrolled in the program have at their disposal all the infra-structure of the labs and libraries of the 31 higher education and research institutions which participate in the Ph.D. program at RENORBIO.
Currently the program has 361 students and 182 faculty. So far the program has seen completed two post-doctoral internships and 34 doctoral theses defenses, all of which have been (or are accepted to be) published in prominent Biotechnology journals or as patent deposits. Between 2007 and 2010, the networks of the program at RENORBIO developed and deposited more than 41 patents for products and processes.

**Objectives**
The objectives of this linkage will help SIUC and FUNECE:

To have exchange programs between students, faculty, and researchers.
To offer short-term training programs in areas of interest among members of the linkage.
To exchange biological material for lab analyses.
To offer courses to students from both institutions.
To obtain financial support to promote research projects among members of the linkage.
To award scholarships to students involved in training programs.
To promote the publication of scientific articles, patents, products, and processes resulting from the projects done during the linkage agreement.

**Programmatic Linkage**

The linkage will enable the development of research and academic projects in Biotechnology at SIUC. In addition, the linkage will provide the opportunity for faculty from both institutions to teach courses on areas of mutual interest. It is vital to note three important outcomes of this partnership: a. teaching, b. the student exchange program, and c. the collaborative development of research projects, scientific articles, and technological processes (patents).

**Benefits**

This linkage will greatly benefit the faculty/researchers involved due to their collaborative work and will result in the strengthening of the biotechnology field in both institutions. Furthermore, it will promote the increase in both qualitative and quantitative scientific activities, which, in turn, will encourage further training in biotechnology. It will also promote the enrollment of Brazilian students at SIUC and SIUC students at FUNECE.

**Evaluation**

The agreement will be evaluated yearly through on-the-spot workshops or video conferences as well as through reports drawn up the Planning and Assessment Team in each institution.
This Agreement will remain valid for a period of five years and will need to be renewed after review and renegotiation by both universities. This agreement may, at any time during its period of validity, be terminated by either party upon written notification six months prior to termination.

In witness of the terms of this agreement our signatures are affixed:

Dr. Rita Cheng  
Chancellor  
Southern Illinois University Carbondale (SIUC)  
Date July 6, 2011

Professor Francisco de Assis Moura Araripe  
Rector  
Foundation State University of Ceara (FUNCE)  
Date July 6, 2011