

COLLABORATIVE RESEARCH AGREEMENT

THIS COLLABORATIVE RESEARCH AGREEMENT (hereinafter referred to as "AGREEMENT") IS FOR RESEARCH ON BIOACTIVE COMPOUNDS OF TROPICAL RARE ACTINOMYCETES DERIVED FROM THAILAND BASED ON GENOMIC MICROBIOLOGY

BETWEEN

Chulalongkorn University, (hereinafter referred to as "CU"), a university having its office at 254 Phayathai Road, Pathumwan, Bangkok 10330 Thailand

AND

National University Corporation Shizuoka University, (hereinafter referred to as "SU"), a university having its office at 836 Ohya, Suruga-ku, Shizuoka-Shi, Shizuoka-Ken, 422-8529, Japan.

CU and SU shall be referred to individually as a "PARTY" or collectively as "PARTIES".

The PARTIES hereby agree as follows:

1. Objective and Plan

- 1.1 The purpose of the collaborative research under the AGREEMENT (hereinafter referred to as "COLLABORATIVE RESEARCH") is to research on Bioactive Compounds of Tropical Rare Actinomycetes Derived from Thailand based on Genomic Microbiology.

2. Implementation

- 2.1 Each PARTY should take necessary measures written in the AGREEMENT for the implementation of the COLLABORATIVE RESEARCH.
- 2.2 Each PARTY shall be responsible for supervising its research team to comply with the AGREEMENT. SU shall be responsible for coordinating its research team consisting of SU, University of Yamanashi and Shinshu University to comply with this AGREEMENT.

3. Research Cost and Accommodation of the Research Environment

- 3.1 Each PARTY shall bear its own costs for its own research sharing.
- 3.2 Each PARTY shall accommodate the research environment of activity and stay of researchers of the other PARTY who are conducting the COLLABORATIVE RESEARCH.

4. Confidentiality

- 4.1 Confidential information held by each PARTY prior to the commencement of or outside the scope of the COLLABORATIVE RESEARCH and provided to the other PARTY in the course of the COLLABORATIVE RESEARCH shall remain the property of the providing PARTY, shall be kept confidential by the receiving PARTY, and shall not be disclosed to any third party or used for any purpose other than the COLLABORATIVE RESEARCH hereunder without receiving approval from the providing PARTY.
- 4.2 The results (including know-how, knowledge, information or data) obtained or generated from the COLLABORATIVE RESEARCH (hereinafter referred to as the

"RESULTS") shall become the joint property of the PARTIES unless otherwise agreed upon between the PARTIES in writing. Each PARTY shall not disclose the know-how to any third party without the prior written consent of the other PARTY, and this consent shall not unreasonably be withheld.

5. Intellectual Property Rights

- 5.1 The COLLABORATIVE RESEARCH shall be forwarded through collaboration and determined through consultation between both PARTIES.
- 5.2 Intellectual property rights generated from the COLLABORATIVE RESEARCH (hereinafter referred to as the "INTELLECTUAL PROPERTY RIGHTS") shall be jointly owned by the PARTIES unless otherwise agreed upon between the PARTIES in writing. Any application for INTELLECTUAL PROPERTY RIGHTS (hereinafter referred to as the "APPLICATION"), unless otherwise agreed upon, shall be jointly filed by the PARTIES hereto. For this purpose, the PARTIES shall have interests in the INTELLECTUAL PROPERTY RIGHTS in proportion to their contributions to the INTELLECTUAL PROPERTY RIGHTS generated from COLLABORATIVE RESEARCH, and shall share in the costs and expense of protecting such INTELLECTUAL PROPERTY RIGHTS in the same proportion, unless otherwise agreed between the PARTIES.
- 5.3 Each PARTY hereto shall not commercially exploit the RESULTS or assign or grant a license to a third party for INTELLECTUAL PROPERTY RIGHTS or APPLICATIONS thereof without the prior written consent of the other PARTY, and this consent shall not unreasonably be withheld. Detailed term for sharing of benefits from commercial use or licensing shall be separately negotiated in good faith.
- 5.4 INTELLECTUAL PROPERTY RIGHTS that arise from any invention or discovery developed under the COLLABORATIVE RESEARCH during the effective duration of the AGREEMENT shall be processed by each PARTY according to its regulation.

6. Access to Genetic Resources and Benefit Sharing

- 6.1 The PARTIES shall agree that SU accesses to genetic resources of Thailand for the implementation of the COLLABORATIVE RESEARCH in strict compliance with any applicable national legislation and applicable international treaties and conventions, such as the "Convention on Biological Diversity", the "Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (NP)" and the "International Treaty on Plant Genetic Resources for Food and Agriculture".
- 6.2 The PARTIES shall agree to consider this CRA as Mutually Agreed Terms (MAT) entered into between the PARTIES.
- 6.3 In addition to 6.1, in the case of obtaining genetic resources from any person other than the PARTIES, the PARTIES shall establish MAT with the provider of the genetic resources.
- 6.4 Genetic resources shall be used exclusively for the purpose of research. The use of genetic resources for the purpose of commercialization shall be treated as change in utilization and require new MAT, subject to a separate agreement.
- 6.5 Transfer of genetic resources shall be conducted under Material Transfer Agreement (MTA) which shall be separately signed upon. Each PARTY hereto shall not transfer the genetic resources to a third party without the prior written consent of the other PARTY, and this consent shall not unreasonably be withheld.
- 6.6 Benefits arising from the utilization of genetic resources shall be shared fairly and

- equitably upon MAT. The PARTIES shall note that benefits include both non-monetary and monetary benefits, as described in annex to NP.
- 6.7 Any results obtained from utilizing genetic resources by either PARTY in the COLLABORATIVE RESEARCH shall be reported to the other PARTY, and upon request, shall be provided to the other PARTY together with the relevant information.
- 6.8 Both PARTIES agree upon obtaining Prior Informed Consent (PIC) from the authorities of the providing country, according to the situation of the country. The providing PARTY responds to domestic laws and regulations in Thailand required for providing genetic resources and other materials. The receiving PARTY responds to domestic laws and regulations in Japan required for receiving the genetic resources and other materials.
- 6.9 CU shall be responsible for all the procedures of the domestic measure for the ABS Guideline of NP before importing materials from Thailand to Japan.
- 6.10 SU shall be responsible for all the procedures of the domestic measure for the ABS Guideline of NP after importing materials from Thailand to Japan.
- 6.11 Matters not stipulated in each of the preceding items with respect to interpretation and performance of each of the preceding items shall be discussed by both PARTIES in good faith.
- 7. Publication**
- 7.1 Co-author publications shall be forwarded through collaboration and determined through consultation between both PARTIES.
- 7.2 The PARTIES agree that all information developed during the COLLABORATIVE RESEARCH may in principle be made available to the public by either PARTY, subject to the provisions of the Section 4.
- 7.3 When the PARTIES publish any information described at the Section 7.2, the PARTIES shall state that the information is the result of research supported by the JSPS Grants-in-Aid for Scientific Research, KAKENHI.
- 8. Dispute Resolution**
- 8.1 Any issues that are not addressed or stipulated in this AGREEMENT shall be agreed and resolved through negotiation in good faith.
- 8.2 The PARTIES further agree that any dispute between the PARTIES, out of or in relation to or, in connection with this AGREEMENT, will be settled as amicably as possible.
- 8.3 Any and all claims, disputes, controversies or differences among the PARTIES hereto arising out of, in relation to or in connection with this AGREEMENT or a breach hereof, which cannot be satisfactorily, amicably and soon resolved among the PARTIES hereto shall be settled by arbitration.
- 8.4 The arbitration proceedings set forth in the preceding section shall be conducted at the Japan Commercial Arbitration Association in Tokyo, Japan if invoked by CU or at the International Chamber of Commerce in Bangkok, Thailand if invoked by SU, by one or more arbitrators appointed in accordance with the rules and procedures of the respective organization.
- 8.5 The award rendered by the arbitrators is final and binding upon the PARTIES hereto.
- 9. Restrictions**
- 9.1 Each PARTY shall not use for the purpose of developing, manufacturing, using, or stockpiling weapons, or provide to a third party that possesses that purpose, any funds or expenses, technology, information, or property provided by the other

PARTY for the COLLABORATIVE RESEARCH. Each PARTY shall not divert RESULTS for the purpose of use in developing, manufacturing, using, or stockpiling weapons.

10. Duration of the AGREEMENT

10.1 The term of this AGREEMENT and the COLLABORATIVE RESEARCH shall be from **09 MAR**, 2022 to March 31, 2026.

Notwithstanding above, the PARTIES may terminate this AGREEMENT upon mutual agreement.

The provisions in the Sections 4, 5, 6, 7, 8 and 9 shall remain in force after the expiration or termination of this AGREEMENT.

11. Compliance with Laws and Regulations

11.1 All research activities conducted in connection with the COLLABORATIVE RESEARCH shall be done in compliance with all applicable laws, regulations and guidelines of the countries and universities in which the research is conducted.

Each PARTY shall sign two identical copies of this AGREEMENT and retain one copy.

Agreed by:

Chulalongkorn University

Authorized Officer

Signature: *B. Eua-arporn*

Name: Bundhit Eua-Arporn

Title: President

Date: *March 9, 2022*

Project Scientist

Signature: *Chompoonik Kanchanabancha*

Name: Chompoonik Kanchanabancha

Title: Lecturer

Date: *February 28, 2022*

As Witness

Signature: *Polkit Sangvanich*

Name: Polkit Sangvanich

Title: Dean

Date: *March 1, 2022*

National University Corporation Shizuoka University

Authorized Officer

Signature: *Kazuyuki Hizume*

Name: Kazuyuki Hizume

Title: President

Date: *February 21, 2022*

Project Scientist

Signature: *Shinya Kodani*

Name: Shinya Kodani

Title: Associate Professor

Date: *February 21, 2022*

As Witness

Signature: *Masaru Toriyama*

Name: Masaru Toriyama

Title: Dean of Faculty of Agriculture

Date: *February 21, 2022*