

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
PLUM ISLAND ANIMAL DISEASE CENTER
AND

PIRBRIGHT LABORATORIES OF THE INSTITUTE FOR ANIMAL HEALTH,
UNITED KINGDOM
AND

NATIONAL CENTRE FOR FOREIGN ANIMAL DISEASE, CANADA
AND

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION through
the AUSTRALIAN ANIMAL HEALTH LABORATORY
AND

NATIONAL VETERINARY INSTITUTE OF
THE UNIVERSITY OF DENMARK (DTU VET)
AND

WAGENINGEN UNIVERSITY AND RESEARCH CENTRE, THE NETHERLANDS
AND

AGENCE FRANCAISE DE SECURITE SANITAIRE DES ALIMENTS
(AFSSA), FRANCE
AND

THE AGRICULTURAL RESEARCH COUNCIL, SOUTH AFRICA
AND

INSTITUTO NACIONAL DE TECNOLOGIA AGROPECUARIA (INTA), ARGENTINA
AND

INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE (ILRI) OF NAIROBI, KENYA
AND

VETERINARY AND AGROCHEMICAL RESEARCH CENTRE OF BELGIUM
AND

NATIONAL VETERINARY RESEARCH QUARANTINE SERVICE (NVRQS), KOREA
AND

CENTRO DE BIOLOGIA MOLECULAR SEVERO OCHOA (CSIC-UAM), SPAIN
AND

LABORATOIRE NATIONAL VETERINAIRE (LANAVET), CAMEROON,
WEST CENTRAL AFRICA
AND

MAKERERE UNIVERSITY, COLLEGE OF VETERINARY MEDICINE,
ANIMAL RESOURCES AND BIOSECURITY, UGANDA
AND

DEPARTMENT OF ANIMAL HEALTH, VIETNAM
AND

SOKOINE UNIVERSITY OF AGRICULTURE, TANZANIA.
AND

ANIMAL HEALTH LABORATORY, NEW ZEALAND
AND

FRIEDRICH-LOEFFLER-INSTITUT, FEDERAL RESEARCH INSTITUTE FOR ANIMAL HEALTH,
GERMANY
AND

NATIONAL VETERINARY RESEARCH INSTITUTE, FOOT AND MOUTH DISEASE
RESEARCH CENTRE, NIGERIA
AND

COLLEGE OF VETERINARY MEDICINE, UNIVERSITY OF MINNESOTA,
UNITED STATES OF AMERICA
AND

THE LANZHOU VETERINARY RESEARCH INSTITUTE,
CHINESE ACADEMY OF AGRICULTURAL SCIENCES, CHINA
AND

ANIMAL HEALTH RESEARCH INSTITUTE, C.O.A., TAIWAN

MEMORANDUM OF UNDERSTANDING

NO. 58-0208-3-002FM

THIS MEMORANDUM OF UNDERSTANDING (MOU) is made

AMONG:

UNITED STATES DEPARTMENT OF AGRICULTURE, AGRICULTURAL RESEARCH SERVICE, PLUM ISLAND ANIMAL DISEASE CENTER ("USDA") whose principal address is at Department of Agriculture, Plum Island Animal Disease Control Laboratory, Greenport, New York, USA.

AND

PIRBRIGHT LABORATORIES OF THE INSTITUTE FOR ANIMAL HEALTH, UNITED KINGDOM ("PIIAH") whose principal address is at Pirbright Laboratory, Institute for Animal Health, Ash Rd, Woking, Surrey, GU24 0NF, UK.

AND

NATIONAL CENTRE FOR FOREIGN ANIMAL DISEASE, CANADA ("NCFAD") whose principal address is at National Centre for Foreign Animal Disease, Canadian Food Inspection Agency, Winnipeg, Manitoba, Canada.

AND

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION (ABN 41 687 119 230) whose principal address is at Limestone Avenue, Campbell, in the Australian Capital Territory through the **AUSTRALIAN ANIMAL HEALTH LABORATORY ("CSIRO")**

AND

NATIONAL VETERINARY INSTITUTE OF THE TECHNICAL UNIVERSITY OF DENMARK ("DTU VET") whose principal address is at the Department of Virology, National Veterinary Institute, Technical University of Denmark, Lindholm, DK-4771 Kalvehave, Denmark.

WAGENINGEN UNIVERSITY AND RESEARCH CENTRE, whose principal address is at 6700 HB Wageningen, The Netherlands

AND

AGENCE FRANCAISE DE SECURITE SANITAIRE DES ALIMENTS (AFSSA) whose principal address is at 7 Av. du Général de Gaulle, France

AND

THE AGRICULTURAL RESEARCH COUNCIL, whose principal address is at 1134 Park Street, Hatfield, Pretoria, Republic of South Africa

AND

INSTITUTO NACIONAL DE TECNOLOGIA AGROPECUARIA (INTA), whose principal address is at Ciudad de Buenos Aires (postal code 1033), Argentina

AND

INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE (ILRI) whose principal address is at Nairobi,
Kenya
AND

VETERINARY AND AGROCHEMICAL RESEARCH CENTRE OF BELGIUM whose principal address is at
B-1180 Ukkel, Belgium
AND

NATIONAL VETERINARY DISEASE RESEARCH QUARANTINE SERVICE (NVRQS) whose principal
address is at Republic of Korea,
AND

CENTRO DE BIOLOGIA MOLECULAR SEVERO OCHOA (CSIS-UAM), whose principal address is at
Madrid, Spain
AND

LABORATOIRE NATIONAL VETERINAIRE (LANAVET), whose principal address is at Garoua,
Cameroon
AND

**MAKERERE UNIVERSITY, COLLEGE OF VETERINARY MEDICINE, ANIMAL RESOURCES AND
BIOSECURITY**, whose principal address is at Kampala, Uganda
AND

**EPIDEMIOLOGY DIVISION (DISEASE CONTROL & PREVENTION), DEPARTMENT OF ANIMAL
HEALTH, MARD**, whose principal address is at No. 15, Lane 78, Giai Phong Road, Hanoi, Vietnam
AND

SOKOINE UNIVERSITY OF AGRICULTURE, whose principal address is at P. O. BOX 3000, Chuo Kikuu,
Morogoro, Tanzania.
AND

**ANIMAL HEALTH LABORATORY, INVESTIGATION AND DIAGNOSTIC CENTRES AND RESPONSE,
MINISTRY FOR PRIMARY INDUSTRIES**, whose principal address is at 66, Ward street, P.O. Box 40-742,
Upper Hutt, New Zealand
AND

FRIEDRICH-LOEFFLER-INSTITUT, FEDERAL RESEARCH INSTITUTE FOR ANIMAL HEALTH, whose
principal address is at Suedufer 10, 17493 Greifswald-Insel Riems, Germany
AND

**NATIONAL VETERINARY RESEARCH INSTITUTE, FOOT AND MOUTH DISEASE RESEARCH
CENTRE**, whose principal address is at P.M.B. 01, Vom, Plateau State, Nigeria
AND

COLLEGE OF VETERINARY MEDICINE, UNIVERSITY OF MINNESOTA, whose principal address is at
200 Oak St SE, Minneapolis, MN 55455, United States of America
AND

**THE LANZHOU VETERINARY RESEARCH INSTITUTE, CHINESE ACADEMY OF AGRICULTURAL
SCIENCES**, whose principal address is at No.1 Xujiaping, Lanzhou 730046, Gansu Province, P.R.China

AND

ANIMAL HEALTH RESEARCH INSTITUTE, C.O.A., whose principle address is at 376 Chung-Cheng Rd.,
Tamsui District, New Taipei City 25158, Taiwan, ROC

Collectively called "the Participants"

RECITALS:

- A. The Participants have recognized capabilities and expertise in a broad range of advanced technologies and research capabilities in fields that are of potential strategic, tactical or commercial interest to each other in the area of Foot and Mouth Disease (FMD).
- B. The Participants wish to cooperate to form a Global Foot and Mouth Disease Research Alliance (GFRA) for the purpose of fostering research cooperation and technical exchange through a matrix approach for the GFRA participants to:
- enhance each Participant's specific expertise;
 - safely carry out research into FMD;
 - promote knowledge and awareness in relation to FMD; and
 - bring to bear the required cutting edge technologies that can realistically deliver a new generation of vaccines and related strategies in relation to FMD.
- C. The Participants envisage that the members of the GFRA will through collaboration with each other be the global leaders in scientific and technical knowledge for economically viable, socially and environmentally responsible detection management and eradication of FMD.
- D. The purpose of this MOU is to describe the cooperative relationship among the Participants to facilitate the sharing of confidential information and the development of proposals for research and development projects among them. This MOU is intended to set out principles and guidelines to be followed by the Participants in discussing and establishing proposals and not itself to set out terms and conditions governing the conduct of specific research and development projects.
- E. Whilst the Participants acknowledge that this MOU is not intended to set out terms and conditions governing the conduct of specific Research Projects ("Research Projects"), it is expected to result in:
- the sharing of relevant information on a confidential basis with the aim of identifying needs and capabilities of the Participants;
 - the establishment of a working relationship between the Participants which is targeted to the Participants' specific needs;
 - the establishment of research and development projects of interest to all Participants;
 - closer linking of strategic planning of all Participants; and
 - the creation of a non-binding relationship among the Participants to be known as the Global Foot and Mouth Disease Research Alliance (GFRA).
- F. The Participants acknowledge that issues relating to confidentiality will be dealt with in separate confidentiality agreements among them before confidential information will be exchanged.
- G. The Participants acknowledge that notwithstanding Recital E, each of them is free to undertake research on their own or in conjunction with third persons, and that the Participants will cooperate only in circumstances where each of them agrees cooperation is for their benefit and each is satisfied that the specific provisions covering that cooperation are appropriate.

1. RECORD OF INTENTIONS

The Participants do not intend that this MOU will be in any way binding. It serves only as a record of the Participants' separate intentions pending execution of specific agreements for each Research Project as contemplated by clause 4.

2. FIELDS OF RESEARCH

2.1 The Participants intend to cooperate to identify fields of research of interest to the Participants ("Fields of Research").

2.2 A Field of Research is one which fulfils the following criteria:

- (a) it is of sufficient strategic, tactical or commercial interest; and
 - (b) it is within the capacity of each Participant to carry out its obligations.
- 2.3 The Fields of Research will be in the area of the detection, management and eradication of Foot and Mouth Disease (FMD) and any other areas of scientific research and development the Participants agree to focus on.
- 2.4 Subject to the terms of any Research Agreement, each Participant will have the right, in any Field of Research related to a Research Agreement, or otherwise, to:
 - (a) conduct research independently;
 - (b) continue existing commitments, or make new ones; and
 - (c) exploit or otherwise take advantage of its intellectual property.

3. CONFIDENTIAL INFORMATION EXCHANGE

The Participants confirm their intention to exchange, to the extent deemed necessary by the disclosing entity, information on a confidential basis relevant to potential Research Projects within the agreed Field of Research.

4. RESEARCH AGREEMENTS

- 4.1 The Participants confirm their intention subsequently to develop Terms and Conditions for the carrying out of research and development projects. If the Participants identify a project where each determines they would wish to work in conjunction with the other, it is the intention of the Participants to enter into separate Research Agreements for each such project and each agreement should, as appropriate, adopt the relevant Terms and Conditions and specifically set out any terms and conditions which differ therefrom. Set out in the Attachment in schematic form is an outline of the structure of such documents (the "Research Documentation").
- 4.2 The Research Agreements may include provisions dealing with, amongst other things:
 - (a) the provision of a Project Plan ("Project Plan"), pursuant to which the Research Project will be carried out which will include information pertaining to technical objectives, statement of work, deliverables, schedule, decision gates, resource requirements and costs;
 - (b) the funding arrangements for the Research Project;
 - (c) the provision for the Participants to the agreement to hold periodic project review meetings to assess the management and the progress of the Research Project and the status of any expenditure;
 - (d) provisions dealing with any background project intellectual property (BIP) that will be put into the particular project by the Participants to the agreement;
 - (e) provisions should also deal with the relative share of any Project Intellectual property (PIP) that may arise from the research;
 - (f) relevant commercial arrangements among the Participants to the agreement;
 - (g) arrangements for licensing of owned intellectual property that is a result of the carrying out of any Research Project in a manner that is in the best interests of the Participants to the agreement;
 - (h) Publications and Media Activity to do with specific projects and the establishment of an acceptable process to have all Participants to the agreement accept Media releases or the like; and
 - (i) separate agreements may be required to record any transfer of materials protocols, knowhow etc (Material Transfer Agreements) among the Participants to the agreement.
- 4.3 The Participants acknowledge that any Research Agreement made on or after the date of this MOU must be in writing and signed by a duly authorized representative of the Participant to be bound.

5. FUNDING

- 5.1 It is envisaged that the Participants will agree on a budget and Project Plan for each Research Project which will be incorporated into the relevant Research Agreement.

- 5.2 All costs and expenses of a Participant in negotiating, and finalizing, Research Documentation, and the adoption thereof in respect of any Research Agreement will be borne by the Participant incurring the cost or expense unless the Participants otherwise agree.

6. ACCOUNT MANAGERS

- 6.1 For the term of this MOU, each Participant may appoint one of its employees to act as its representative in relation to this MOU (each such employee being an "Account Manager"). It is envisaged that each Participant will promptly upon appointment of its Account Manager notify the other of the identity of its Account Manager from time to time.
- 6.2 The Account Manager of an appointing Participant will be responsible for:
- (a) managing, overseeing or coordinating that Participant's relationship with the other Participants;
 - (b) identifying any commercial issues that arise among the Participants and referring those issues to the appropriate person within the Account Manager's organisation.
 - (c) discussing with the Account Managers of the other Participants issues arising out of this MOU or any Research Agreement; and
 - (d) providing to the Account Managers of the other Participants non-confidential information known to the Account Manager and which may be of interest to the other Participants, including information about activities.
- 6.3 The Participants intend to form a coordinating committee composed of their respective Account Managers or another nominated representative as the case may be which will meet at least once per year

7. EFFECTIVE DATE, TERM, MODIFICATIONS, AND EXTENSIONS

Cooperation under this MOU may commence from the date of signature and is expected to continue for five (5) years. This MOU may be modified or extended by a mutual determination of all Participants in writing.

8. TERMINATION

- 8.1 Any Participant may discontinue its participation under the MOU at any time. A Participant should endeavour to give the other Participants at least 90 calendar days notice in writing of its intention to end its cooperation under this MOU.
- 8.2 This Agreement will terminate when only one Participant remains in the GFRA relationship.
- 8.3 The Participants do not intend that the termination of this MOU will affect any Agreement entered into in respect to a Research Project made pursuant to Clause 4 of this MOU. The Participants should continue to work together to conclude specific cooperative projects already in progress.

9. GENERAL

- 9.1 It is the Participants' intention that each Research Agreement will include provisions giving effect to the provisions of this MOU which relate to Research Agreements, and that any conflicts identified between them will be an agenda item for discussion in respect of any Research Agreement negotiated between the Participants.
- 9.2 The Participants acknowledge that, in the interests of promoting a good working relationship among them, it is desirable to avoid conflict in relation to activities contemplated by clause 2.4. To assist in this, the Participants should seek through their Account Managers continuously to improve their respective internal systems for identifying their own and the other Participant's areas of interest in the development of new technologies. The Participants should also (subject to the need to preserve confidentiality in relation to their business interests, intellectual property or obligations to third parties) consult with each other in relation to activities identified by the Account Managers which have the potential to create conflicts among the respective interests of the Participants, such consultations to be conducted with a view to avoiding or mitigating those conflicts. Where any conflicts or disputes arise among the Participants, the Participants should seek to resolve the matters amicably and within a reasonable time. If a conflict or dispute among the Participants has not been resolved within 90 days of the date of that conflict or dispute arising - subject to Clause 1 of this MOU - the UNCITRAL rules of dispute resolution,

arbitration and mediation will apply; but the rulings or decisions resulting from any such resolution, arbitration and/or mediation (concerning the interpretation or application of this MOU or compliance with its terms) will not be legally binding on the Participants.

- 9.3 Although the Participants intend to enter into separate Research Agreements by virtue of discussions arising out of this MOU, no Participant represents that it will enter into any such Research Agreements.
- 9.4 The Participants intend to make the GFRA and its role widely known within each Participant's respective organization.
- 9.5 Cooperative activities to be conducted under this MOU may be set out in greater detail by the Participants in writing in subsequent implementing arrangements.
- 9.6 Each Participant should bear the costs of its participation in all cooperative activities carried out under this MOU unless the Participants establish other arrangements in writing. Each Participant's participation in the cooperative activities under this MOU is subject to the availability of funds, resources, and personnel and is to be conducted in accordance with the laws and regulations of that Participant's government. This MOU does not create any legally binding obligations among the Participants.
- 9.7 Correspondence and documentation regarding this MOU should cite # 58-0208-3-002FM.

EXECUTED BY THE PARTICIPANTS:

SIGNED for and on behalf of)
THE AGRICULTURAL RESEARCH SERVICE)
U.S. DEPARTMENT OF AGRICULTURE)
THE UNITED STATES OF AMERICA in the presence)
of:

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
COMMONWEALTH SCIENTIFIC AND)
INDUSTRIAL RESEARCH ORGANISATION in the)
presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of
INSTITUTE FOR ANIMAL HEALTH
UNITED KINGDOM in the presence of:

)
)
)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of
NATIONAL CENTRE FOR FOREIGN ANIMAL
DISEASE
CANADA in the presence of:

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)
)
)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
WAGENINGEN UNIVERSITY AND RESEARCH)
CENTRE)
THE NETHERLANDS in the presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of
LABORATOIRE NATIONAL VETERINAIRE (LANAVET)
in the presence of:

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)
)
)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of
AGENCE FRANCAISE DE SECURITE SANITAIRE DES
ALIMENTS (AFSSA) FRANCE in the presence of:

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)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of
THE AGRICULTURAL RESEARCH COUNCIL (ARC)
SOUTH AFRICA in the presence of:

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Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
INTERNATIONAL LIVESTOCK RESEARCH)
INSTITUTE (ILRI)
NAIROBI, KENYA in the presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
VETERINARY AND AGROCHEMICAL RESEARCH)
CENTRE)
BELGIUM in the presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
INSTITUTO NACIONAL DE TECNOLOGIA)
AGROPECUARIA)
ARGENTINA in the presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
CENTRO DE BIOLOGIA MOLECULAR SEVERO)
OCHOA (CSIC-UAM))
MADRID, SPAIN in the presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
NATIONAL VETERINARY RESEARCH &)
QUARANTINE SERVICE (NVRQS))
THE REPUBLIC OF KOREA in the presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of
MAKERERE UNIVERSITY, COLLEGE OF VETERINARY
MEDICINE, ANIMAL RESOURCES AND BIOSECURITY
UGANDA in the presence of:

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)
)
)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of
DEPARTMENT OF ANIMAL HEALTH, MARD,
VIETNAM in the presence of:

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)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of
SOKOINE UNIVERSITY OF AGRICULTURE,
TANZANIA in the presence of:

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)
)
)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

EXECUTED BY THE PARTICIPANTS:

SIGNED for and on behalf of
ANIMAL HEALTH LABORATORY, NEW ZEALAND
in the presence of:

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)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of
FRIEDRICH-LOEFFLER-INSTITUT, FEDERAL
RESEARCH INSTITUTE FOR ANIMAL HEALTH,
GERMANY,
in the presence of:

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)
)
)

Signature of Witness

Signature

Dr. Bernd Haas
National Reference Laboratories for Foot- and
Mouth-Disease, Swine Vesicular Disease and
Vesicular Stomatitis

Prof.Dr.Dr.h.c. Th. C. Mettenleiter
President

Date

Date

SIGNED for and on behalf of)
NATIONAL VETERINARY RESEARCH INSTITUTE,)
FOOT AND MOUTH DISEASE RESEARCH CENTRE,)
NIGERIA)

in the presence of:

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
UNIVERSITY OF MINNESOTA, UNITED STATES OF)
AMERICA)
in the presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
THE LANZHOU VETERINARY RESEARCH)
INSTITUTE, CHINA)
in the presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

SIGNED for and on behalf of)
ANIMAL HEALTH RESEARCH INSTITUTE, C.O.A.,)
TAIWAN)
in the presence of:)

Signature of Witness

Signature

Print Name

Print Name

Date

Date

GFRA

RESEARCH DOCUMENTATION

