Revised forms for the submission of the Confidence-Building Measures

At the Third Review Conference it was agreed that all States Parties present the following declaration, later amended by the Seventh Review Conference:

Declaration form on Nothing to Declare or Nothing New to Declare for use in the information exchange

Measure	Nothing to declare	Nothing new to declare	Year of last declaration if nothing new to declare
A, part 1		✓	2022
A, part 2 (i)		√	2022
A, part 2 (ii)			
A, part 2 (iii)			
В	✓		
С			
Е			
F		✓	2022
G		✓	2022

(Please mark the appropriate box(es) for each measure with a tick, and fill in the year of last declaration in the last column where applicable.)

Date: March 15, 2023

State Party to the Convention: **Japan**

Date of ratification/accession to the Convention: June 8, 1982

National point of contact: <u>TSUTSUI Akiyuki, Assistant Director, Biological and Chemical Weapons Conventions Division, Ministry of Foreign Affairs of Japan</u>

Active promotion of contacts

The Third Review Conference agreed that States parties continue to implement the following:

"Active promotion of contacts between scientists, other experts and facilities engaged in biological research directly related to the Convention, including exchanges and visits for joint research on a mutually agreed basis."

In order to actively promote professional contacts between scientists, joint research projects and other activities aimed at preventing or reducing the occurrence of ambiguities, doubts and suspicions and at improving international cooperation in the field of peaceful bacteriological (biological) activities, the Seventh Review Conference encouraged States parties to share forward looking information, to the extent possible,

- on planned international conferences, seminars, symposia and similar events dealing with biological research directly related to the Convention, and
- on other opportunities for exchange of scientists, joint research or other measures to promote contacts between scientists engaged in biological research directly related to the Convention,

including through the Implementation Support Unit (ISU) within the United Nations Office for Disarmament Affairs.

Confidence-Building Measure "A"

Part 1 Exchange of data on research centres and laboratories

At the Third Review Conference it was agreed that States Parties continue to implement the following:

"Exchange of data, including name, location, scope and general description of activities, on research centres and laboratories that meet very high national or international safety standards established for handling, for permitted purposes, biological materials that pose a high individual and community risk or specialize in permitted biological activities directly related to the Convention."

Modalities

The Third Review Conference agreed on the following, later amended by the Seventh Review Conference:

Data should be provided by States Parties on each facility, within their territory or under their jurisdiction or control anywhere, which has any maximum containment laboratories meeting those criteria for such maximum containment laboratories as specified in the latest edition of the WHO¹ Laboratory Biosafety Manual and/or OIE² Terrestrial Manual or other equivalent guidelines adopted by relevant international organisations, such as those designated as biosafety level 4 (BL4, BSL4 or P4) or equivalent standards.

States Parties that do not possess a facility meeting criteria for such maximum containment should continue to Form A, part 1 (ii).

Form A, part 1 (i)

Exchange of data on research centres and laboratories³

1.	Name(s) of facility ⁴	Murayama Annex of National Institute of			
Instit	<u>ute</u>	<u>Infectious</u>	Diseases	(former	National
		of Health)			
2.	Responsible public or private	Ministry of I	Health, Labo	our and We	<u>lfare</u>
	organization or company				
3.	Location and postal address	Gakuen4-7-1	l, Musashim	urayama, T	Tokyo,
		208-0011, Ja	<u>pan</u>		

World Health Organization

World Organization for Animal Health

³ The containment units which are fixed patient treatment modules, integrated with laboratories, should be identified separately.

For facilities with maximum containment units participating in the national biological defence research and development programme, please fill in name of facility and mark "Declared in accordance with Form A, part 2 (iii)".

4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

The source of funding for activities is provided by the Ministry of Health, Labor and Welfare, and no funding is provided by the Ministry of Defense.

5. Number of maximum containment units ⁵ within the research centre and/or laboratory, with an indication of their respective size (m²)

Three BSL4 Laboratories, Seventeen BSL3 Laboratories and their supporting Laboratories (2,270.36 m² in totals)

6. Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate

<u>Laboratory diagnosis of viral haemorrhagic fever such as Lassa, Marburg and Ebola diseases (However, such diagnosis has never been performed in these laboratories so far).</u>

Exchange of data on research centres and laboratories⁶

1. Name(s) of facility⁷ RIKEN Tsukuba Campus

2. Responsible public or private <u>The Institute of Physical and Chemical</u>

organization or company Research (RIKEN)

3. Location and postal address 3-1-1, Koyadai, Tsukuba-shi, Ibaraki,

305-0074, JAPAN

4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

Ministry of Education, Culture, Sports, Science and Technology

5. Number of maximum containment units 8 within the research centre and/or laboratory, with an indication of their respective size (m²)

2 units, 82 m2×2

6. Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate

None

Form A, part 1 (ii)

If no BSL4 facility is declared in Form A, part 1 (i), indicate the highest biosafety level implemented in facilities handling biological agents 9 on a State Party's territory:

⁵ In accordance with the latest edition of the WHO Laboratory Biosafety Manual, or equivalent.

⁶ The containment units which are fixed patient treatment modules, integrated with laboratories, should be identified separately.

For facilities with maximum containment units participating in the national biological defence research and development programme, please fill in name of facility and mark "Declared in accordance with Form A, part 2 (iii)".

 $^{^{8}\,}$ In accordance with the latest edition of the WHO Laboratory Biosafety Manual, or equivalent.

Biosafety level 3 ¹⁰	yes / no
Biosafety level 2 ¹¹ (if applicable)	yes / no

Any additional relevant information as appropriate:			

Microorganisms pathogenic to humans and/or animals
 In accordance with the latest edition of the WHO Laboratory Biosafety Manual and/or the OIE Terrestrial Manual or other equivalent internationally accepted guidelines.

In accordance with the latest edition of the WHO Laboratory Biosafety Manual and/or the OIE Terrestrial Manual or other equivalent internationally accepted guidelines.

Part 2 Exchange of information on national biological defence research and development programmes

At the Third Review Conference it was agreed that States Parties are to implement the following:

In the interest of increasing the transparency of national research and development programmes on biological defence, the States Parties will declare whether or not they conduct such programmes. States Parties agreed to provide, annually, detailed information on their biological defence research and development programmes including summaries of the objectives and costs of effort performed by contractors and in other facilities. If no biological defence research and development programme is being conducted, a null report will be provided.

States Parties will make declarations in accordance with the attached forms, which require the following information:

- (1) The objective and summary of the research and development activities under way indicating whether work is conducted in the following areas: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research;
- (2) Whether contractor or other non-defence facilities are utilized and the total funding provided to that portion of the programme;
- (3) The organizational structure of the programme and its reporting relationships; and
- (4) The following information concerning the defence and other governmental facilities in which the biological defence research and development programme is concentrated;
 - (a) location
- (b) the floor areas (sqM) of the facilities including that dedicated to each of BL2, BL3 and BL4 level laboratories;
- (c) the total number of staff employed, including those contracted full time for more than six months;
- (d) numbers of staff reported in (c) by the following categories: civilian, military, scientists, technicians, engineers, support and administrative staff;
 - (e) a list of the scientific disciplines of the scientific/engineering staff;
- (f) the source and funding levels in the following three areas: research, development, and test and evaluation; and
- (g) the policy regarding publication and a list of publicly-available papers and reports.

Form A, part 2 (i)

National biological defence research and development programmes Declaration

Are there any national programmes to conduct biological defence research and development within the territory of the State Party, under its jurisdiction or control anywhere? Activities of such programmes would include prophylaxis, studies on

pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research.

Yes/No

If the answer is Yes, complete Form A, part 2 (ii) which will provide a description of each programme.

Form A, part 2 (ii)

National biological defence research and development programmes

Description

1. State the objectives and funding of each programme and summarize the principal research and development activities conducted in the programme. Areas to be addressed shall include: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research.

(1) Research Fund for Advanced Defense Medicine, Research Area: Special Health Protection

- (2) Acquisition, Technology & Logistics Agency, Ministry of Defense, Japan, conducts research on rapid and easy-to-use detection of biological agents in JFY2022.
- 2. State the total funding for each programme and its source.
- (1) Ministry of Defense provided 28,418,000 yen for the research area of "Special Health Protection, Advanced Defense Medicine" in FY2022. This research area consists of five major research fields; 1. Development of decontamination agent against Bio- and Chemical-threat, 2. 3D-culture of human skin for development of the technique of massive skin graft, 3. Evaluation of radiation damage, 4. Increase in the capability of medical counter measures (MCM) against CBRN threat, 5. Information sharing and risk assessment on the international CBRN threat. The fund was used partly for the research field 1 and 4. The fund includes the fee for hiring contract staff as research technicians.
- (2) The total expenditure of the research program in JFY2022 is approximately 4 million Japanese yen. The research is funded by Ministry of Defense, Japan.
- 3. Are aspects of these programmes conducted under contract with industry, academic institutions, or in other non-defence facilities?

Yes/No

4. If yes, what proportion of the total funds for each programme is expended in these contracted or other facilities?

N/A

5. Summarize the objectives and research areas of each programme performed by contractors and in other facilities with the funds identified under paragraph 4.

N/A

6. Provide a diagram of the organizational structure of each programme and the reporting relationships (include individual facilities participating in the programme).

(1) Ministry of Defense – National Defense Medical College – Research Groups for Advanced Defense Medicine (in this case, the name of research project which has relation to CBM (confidence building measures) is "Research Group for Special Health Protection")

(2) Plan, Administration, Research - Acquisition, Technology & Logistics Agency (ATLA)

7. Provide a declaration in accordance with Form A, part 2 (iii) for each facility, both governmental and non-governmental, which has a substantial proportion of its resources devoted to each national biological defence research and development programme, within the territory of the reporting State, or under its jurisdiction or control anywhere.

Form A, part 2 (iii)

National biological defence research and development programmes

Facilities

Complete a form for each facility declared in accordance with paragraph 7 in Form A, part 2 (ii).

In shared facilities, provide the following information for the biological defence research and development portion only.

1. What is the name of the facility?

(1) National Defense Medical College

- (2) Ground Systems Research Center, Acquisition, Technology&Logistics Agency(ATLA)
- 2. Where is it located (include both address and geographical location)?

(1) Department of Immunology and Microbiology, 3-2 Namiki, Tokorozawa, Saitama 359-8513, Japan

(2) 2-2-1 Nakameguro, Meguro-ku, Tokyo, 153-8630, Japan

- 3. Floor area of laboratory areas by containment level:
- BL2 (1) 55 (2) N/A (sqM)
- BL3 (1) N/A (2) N/A (sqM)
- BL4 (1) N/A (2) N/A (sqM)

Total laboratory floor area (1) 55 (2) N/A (sqM)

- 4. The organizational structure of each facility.
- (i) Total number of personnel (1) 5 persons (2) 6 persons
- (ii) Division of personnel:

Military (1) 1 persons (2) N/A

Civilian (1) 4 persons (2) 6 persons

(iii) Division of personnel by category:

Scientists (1) 5 persons (2) 6 persons

Engineers

(1) N/A (2) N/A

Technicians

(1) N/A (2) N/A

Administrative and support staff

(1) N/A (2) N/A

(1) N/A (2) N/A

- (iv) List the scientific disciplines represented in the scientific/engineering staff.
- (1) Medicine, Immunology, Microbiology
- (2) Molecular biology, Genetics, Inorganic chemistry, Organic chemistry, Pharmaceutical sciences
- (v) Are contractor staff working in the facility? If so, provide an approximate number.
- (1) 4 persons (temporarily hired)
- (2) N/A
- (vi) What is (are) the source(s) of funding for the work conducted in the facility, including indication if activity is wholly or partly financed by the Ministry of Defence?
- (1) Research Fund for Advanced Defense Medicine, Ministry of Defense
- (2) Research fund for defence equipment, Ministry of Defense
- (vii) What are the funding levels for the following programme areas:

Research (1) Yes (2)Yes

Development (1) No (2) No

Test and evaluation (1) No (2) No

- (viii) Briefly describe the publication policy of the facility:
- (1) Follow the rule of the Ministry of Defense
- (2) We follow the rule of the ATLA (Acquisition, Technology & Logistics Agency).
- (ix) Provide a list of publicly-available papers and reports resulting from the work published during the previous 12 months. (To include authors, titles and full references.)

(1)

- 1. Nakashima H, Kinoshita M. Antitumor immunity exerted by natural killer and natural killer T cells in the liver. J Clin Med *in press*
- 2. Miyazaki H, Kinoshita M, Nakashima H, Nakamura S, Saitoh D. Pioglitazone modifies Kupffer cell function and protects against *Escherichia coli*-induced bacteremia in burned mice. Int J Mol Sci 23; 12746, 2022. doi: 10.3390/ijms232112746
- 3. Goto H, Nakashima M, Nakashima H, Noguchi M, Imakiire T, Oshima N, Kinoshita M, Kumagai H. Heat accumulation ameliorated heat stress-induced acute

- kidney injury and prevented changes in kidney macrophages and fibrosis. Am J Physiol Renal Physiol 323; F243-54, 2022. doi: 10.1152/ajprenal.00065
- 4. Nakashima M, Kinoshita M, Nakashima H, Kato A, Mori K, Koiwai K, Shinomiya N, Seki S. Mouse liver B cells phagocytose *Streptococcus pneumoniae* and initiate immune responses against their antigens. J Immunol 209; 26-37, 2022 doi: org/10.4049/jimmunol.2100520
- 5. Takase B, Higashiyama Y, Asahina H, Masaki N, Kinoshita M, Sakai H. Intraosseous infusion of liposome-encapsulated hemoglobin (HbV) acutely prevents hemorrhagic anemia-induced lethal arrhythmias, and its efficacy persists with preventing proarrhythmic side effects in the subacute phase of severe hemodilution model. Artif Organ 46; 1107-21, 2022. doi: 10.1111/aor.14170
- 6. Goto H, Shoda S, Nakashima H, Noguchi M, Imakiire T, Oshima N, Kinoshita M, Tomimatsu S, Kumagai H. Early biomarkers for kidney injury in heat-related illness patients: A prospective observational study at Japanese Self-Defense Force Fuji Hospital. Nephrol Dial Transplant May 2;gfac166, 2022. doi: 10.1093/ndt/gfac166.
- 7. Ito S, Nakashima M, Ishikiriyama T, Nakashima H, Yamagata A, Imakiire T, Kinoshita M, Seki S, Kumagai H, Oshima N. Effects of L-Carnitine treatment on kidney mitochondria and macrophages in mice with diabetic nephropathy. Kidney Blood Press Res, 47; 277-90, 2022 doi: 10.1159/000522013
- 8. Maeda H, Ishima Y, Saruwatari J, Mizuta Y, Minayoshi Y, Ichimizu S, Yanagisawa H, Nagasaki T, Yasuda K, Oshiro S, Taura M, McConnell MJ, Oniki K, Sonoda K, Wakayama T, Kinoshita M, Shuto T, Kai H, Tanaka M, Sasaki Y, Iwakiri Y, Otagiri M, Watanabe H, Maruyama T. Nitric oxide facilitates the targeting Kupffer cells of a nano-antioxidant for the treatment of NASH. J Control Release 341; 457-474, 2022. doi: 10.1016/j.jconrel.2021.11.039
- 9. Hagisawa K, Kinoshita M, Takeoka S, Ishida O, Ichiki Y, Saitoh D, Hotta M, Takikawa M, Filho IT, Morimoto Y. H12-(ADP)-liposomes for Hemorrhagic Shock in Thrombocytopenia: Mesenteric Artery Injury Model in Rabbits. Res Pract Thromb Haemost, 6; e12659, 2022 doi: 10.1002/rth2.12659
- 10. Ito Y, Yamamoto T, Miyai K, Take J, Scherthan H, Rommel A, Eder S, Steinestel K, Rump A, Port M, Shinomiya N, Kinoshita M. Ascorbic acid-2 glucoside mitigates intestinal damage during pelvic radiotherapy in a rat bladder tumor model. Int J Radiat Biol, 98; 942-57, 2022 doi: 10.1080/09553002.2021.2009145.
- 11. Rump A, Eder S, Hermann C, Lamkowski A, Kinoshita M, Yamamoto T, Take J, Abend M, Shinomiya N, Port M. Modeling principles of protective thyroid blocking. Int J Radiat Biol, 98; 831-42, 2022 doi: 10.1080/09553002.2021.1987570.

(2) N/A

5. Briefly describe the biological defence work carried out at the facility, including type(s) of micro-organisms¹² and/or toxins studied, as well as outdoor studies of biological aerosols.

(1)

¹² Including viruses and prions.

Microorganisms: E. coli, P. Aeruginosa, Staphylococcus aureus (MRSA)

<u>Bacteria</u> were used for testing *in vitro* bactericidal activity or for making mouse infection models. Outdoor studies of biological aerosols have never been performed.

(2)

Microorganisms: *Bacillus subtilis*, *Bacillus atrophaeus*, *Geobacillus stearothermophilus*Bacteria was used for studying of biological detection. We do not conduct the study using toxins and biological aerosols.

Confidence-Building Measure "B"

Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins

At the Third Review Conference it was agreed that States Parties continue to implement the following:

Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins, and on all such events that seem to deviate from the normal pattern as regards type, development, place, or time of occurrence. The information provided on events that deviate from the norm will include, as soon as it is available, data on the type of disease, approximate area affected, and number of cases.

The Seventh Review Conference agreed the following:

No universal standards exist for what might constitute a deviation from the normal pattern.

Modalities

The Third Review Conference agreed on the following, later amended by the Seventh Review Conference:

- 1. Exchange of data on outbreaks that seem to deviate from the normal pattern is considered particularly important in the following cases:
- When the cause of the outbreak cannot be readily determined or the causative agent¹³ is difficult to diagnose,
- When the disease may be caused by organisms which meet the criteria for risk groups III or IV, according to the classification in the latest edition of the WHO Laboratory Biosafety Manual,
 - When the causative agent is exotic to a given geographical region,
 - When the disease follows an unusual pattern of development,
- When the disease occurs in the vicinity of research centres and laboratories subject to exchange of data under item A,
 - When suspicions arise of the possible occurrence of a new disease.
- 2. In order to enhance confidence, an initial report of an outbreak of an infectious disease or a similar occurrence that seems to deviate from the normal pattern should be given promptly after cognizance of the outbreak and should be followed up by annual reports. To enable States Parties to follow a standardized procedure, the Conference has agreed that Form B should be used, to the extent information is known and/or applicable, for the exchange of annual information.
- 3. The declaration of electronic links to national websites or to websites of international, regional or other organizations which provide information on disease outbreaks (notably outbreaks of infectious diseases and similar occurrences caused by

¹³ It is understood that this may include organisms made pathogenic by molecular biology techniques, such as genetic engineering.

toxins that seem to deviate from the normal pattern) may also satisfy the declaration requirement under Form B.

4. In order to improve international cooperation in the field of peaceful bacteriological (biological) activities and in order to prevent or reduce the occurrence of ambiguities, doubts and suspicions, States Parties are encouraged to invite experts from other States Parties to assist in the handling of an outbreak, and to respond favourably to such invitations, respecting applicable national legislation and relevant international instruments.

Form B

Information on outbreaks of infectious diseases and similar occurrences, that seem to deviate from the normal pattern¹⁴

1.	Time of cognizance of the outbreak	
2.	Location and approximate area affected	·
3.	Type of disease/intoxication	
4.	Suspected source of disease/intoxication	
5.	Possible causative agent(s)	
6.	Main characteristics of systems	
7.	Detailed symptoms, when applicable	
-	respiratory	
-	circulatory	
-	neurological/behavioural	
-	intestinal	
-	dermatological	
-	nephrological	
-	other	
8.	Deviation(s) from the normal pattern as regards	
-	type	
-	development	
-	place of occurrence	
-	time of occurrence	
-	symptoms	
-	virulence pattern	
-	drug resistance pattern	
-	agent(s) difficult to diagnose	
-	presence of unusual vectors	
-	other	
9.	Approximate number of primary cases	
10.	Approximate number of total cases	
11.	Number of deaths	
12.	Development of the outbreak	

 $^{^{14}\,}$ See paragraph 2 of the chapeau to Confidence-Building Measure B.

Confidence-Building Measure "C"

Encouragement of publication of results and promotion of use of knowledge

At the Third Review Conference it was agreed that States parties continue to implement the following:

Encouragement of publication of results of biological research directly related to the Convention, in scientific journals generally available to States parties, as well as promotion of use for permitted purposes of knowledge gained in this research.

Modalities

The Third Review Conference agreed on the following:

- 1. It is recommended that basic research in biosciences, and particularly that directly related to the Convention should generally be unclassified and that applied research to the extent possible, without infringing on national and commercial interests, should also be unclassified.
- 2. States parties are encouraged to provide information on their policy as regards publication of results of biological research, indicating, *inter alia*, their policies as regards publication of results of research carried out in research centres and laboratories subject to exchange of information under item A and publication of research on outbreaks of diseases covered by item B, and to provide information on relevant scientific journals and other relevant scientific publications generally available to States parties.
- 3. The Third Review Conference discussed the question of cooperation and assistance as regards the safe handling of biological material covered by the Convention. It concluded that other international forums were engaged in this field and expressed its support for efforts aimed at enhancing such cooperation.

The Government of Japan maintains an open policy on the exchange of information on biological research, the results of such research being made freely available in all cases where the release is not prejudicial to vital national or commercial interests. This policy would apply to any research subject to the reporting in Forms A and B.

Takashita E, Morita H, Nagata S, Shirakura M, Fujisaki S, Miura H, Takayama I, Arita T, Suzuki Y, Yamaoka M, Tanikawa T, Tsunekuni R, Mine J, Sakuma S, Uchida Y, Shibata A, Iwanaka M, Kishida N, Nakamura K, Kageyama T, Watanabe S, Hasegawa H; Influenza Virus Surveillance Group of Japan. Antiviral Susceptibilities of Avian Influenza A(H5), A(H7), and A(H9) Viruses Isolated in Japan. Jpn J Infect Dis. 75(4):398-402, 2022. doi: 10.7883/yoken.JJID.2021.751.

https://www.jstage.jst.go.jp/article/yoken/75/4/75_JJID.2021.751/_article

(Avian influenza virus)

Taichiro Tanikawa, Kotaro Fujii, Yuji Sugie, Ryota Tsunekuni. Ubiquitin-specific protease 18 in mallard (*Anas platyrhynchos*) interferes with type I interferon-mediated inhibition of high pathogenicity avian influenza virus replication. Virology. 2022. 577, 32-42. https://doi.org/10.1016/j.virol.2022.10.001

Yoko Hayama, Kotaro Sawai, Yoshinori Murato, Emi Yamaguchi, Takehisa Yamamoto. Estimation of introduction time window of highly pathogenic avian influenza virus into broiler chicken farms during the 2020 - 2021 winter season outbreak in Japan. Prev Vet Med. 2022. 208, 105768. https://doi.org/10.1016/j.prevetmed.2022.105768

Yoshihiro Takadate, Ryota Tsunekuni, Asuka Kumagai, Junki Mine, Yuto Kikutani, Saki Sakuma, Kohtaro Miyazawa, Yuko Uchida. Different infectivity and transmissibility of H5N8 and H5N1 high pathogenicity avian influenza viruses isolated from chickens in Japan in the 2021/2022 season. Viruses 2023. 15, 265. https://doi.org/10.3390/v15020265

(Foot-and-mouth disease virus)

Tatsuya Nishi, Katsuhiko Fukai, Kentaro Masujin, Rie Kawaguchi, Mitsutaka Ikezawa, Manabu Yamada, Nozomi Nakajima, Takashi Komeno, Yousuke Furuta, Hiromi Sugihara, Chie Kurosaki, Kenichi Sakamoto, Kazuki Morioka. Administration of the antiviral agent T-1105 fully protects pigs from foot-and-mouth disease infection. Antiviral Res. 2022. 208, 105425. https://doi.org/10.1016/j.antiviral.2022.105425

Fukai K, Kawaguchi R, Nishi T, Ikezawa M, Yamada M, Seeyo KB, Morioka K. Risk of transmission of foot-and-mouth disease by wild animals: infection dynamics in Japanese wild boar following direct inoculation or contact exposure. Vet Res. 2022. 53, 86. https://doi.org/10.1186/s13567-022-01106-0

Katsuhiko Fukai, Tatsuya Nishi, Tomoko Kato, Rie Kawaguchi, Kingkarn Boonsuya Seeyo, Kazuki Morioka. Near-complete genome sequences of three foot-and-mouth disease virus O/ME-SA/Ind-2001e isolates obtained from cattle and pigs in Thailand in 2016. Microbiol Resour Announc. 2023. 18, e0111022.

https://doi.org/10.1128/mra.01110-22

(African swine fever virus)

Ken-ichiro Kameyama, Tomoya Kitamura, Kota Okadera, Mitsutaka Ikezawa, Kentaro Masujin, Takehiro Kokuho. Usability of immortalized porcine kidney macrophage cultures for the isolation of ASFV without affecting virulence. *Viruses* 2022. *14*, 1794. https://doi.org/10.3390/v14081794

Tatsuya Nishi, Kota Okadera, Katsuhiko Fukai, Miwa Yoshizaki, Ai Nakasuji, Syuji Yoneyama, Takehiro Kokuho. Establishment of a direct PCR assay for simultaneous differential diagnosis of African swine fever and classical swine fever using crude tissue samples. Viruses. 2022. 14, 498.

https://doi.org/10.3390/v14030498

Confidence-Building Measure "D"

(Deleted)

Confidence-Building Measure "E"

Declaration of legislation, regulations and other measures

At the Third Review Conference the States parties agreed to implement the following, later amended by the Seventh Review Conference:

As an indication of the measures which they have taken to implement the Convention, States parties shall declare whether they have legislation, regulations or other measures:

- (a) To prohibit and prevent the development, production, stockpiling, acquisition or retention of the agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention, within their territory or anywhere under their jurisdiction or under their control anywhere;
- (b) In relation to the export or import of micro-organisms pathogenic to man, animals and plants or of toxins in accordance with the Convention;
 - (c) In relation to biosafety and biosecurity.

States parties shall complete the attached form (Form E) and shall be prepared to submit copies of the legislation or regulations, or written details of other measures on request to the Implementation Support Unit (ISU) within the United Nations Office for Disarmament Affairs or to an individual State party. On an annual basis States parties shall indicate, also on the attached form, whether or not there has been any amendment to their legislation, regulations or other measures.

Form E Declaration of legislation, regulations and other measures

Relating to	Legislation	Regulations	Other measures ¹⁵	Amended since last year
(a) Development, production stockpiling, acquisition or retention of microbial or other biological agents, or toxins, weapons, equipment and means of delivery specified in Article I	Yes/No	Yes/No	Yes/ No	Yes/ No
(b) Exports of micro-	Yes/No	Yes/No	Yes/No	Yes/No

¹⁵ Including guidelines.

organisms16 and toxins

(c) Imports of micro-	Yes /No	Yes/No	Yes/No	Yes/No
organisms ¹¹ and toxins				

(d) Biosafety¹⁷ and biosecurity¹⁸ Yes/No Yes/No Yes/No Yes/No

Micro-organisms pathogenic to man, animals and plants in accordance with the Convention.
 In accordance with the latest version of the WHO Laboratory Biosafety Manual or equivalent national or international guidance.

 $^{^{18}\,}$ In accordance with the latest version of the WHO Laboratory Biosecurity Guidance or equivalent national or international guidance.

Confidence-Building Measure "F"

Declaration of past activities in offensive and/or defensive biological research and development programmes

In the interest of increasing transparency and openness, States parties shall declare whether or not they conducted any offensive and/or defensive biological research and development programmes since 1 January 1946.

If so, States parties shall provide information on such programmes, in accordance with Form F.

Form F

Declaration of past activities in offensive and/or defensive biological research and development programmes

1. Date of entry into force of the Convention for the State Party.

June 8, 1982

- 2. Past offensive biological research and development programmes:
- No
- Period(s) of activities
- Summary of the research and development activities indicating whether work was performed concerning production, test and evaluation, weaponization, stockpiling of biological agents, the destruction programme of such agents and weapons, and other related research.
- 3. Past defensive biological research and development programmes:
- <u>No</u>
- Period(s) of activities
- Summary of the research and development activities indicating whether or not work was conducted in the following areas: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination, and other related research, with location if possible.

Confidence-Building Measure "G"

Declaration of vaccine production facilities

To further increase the transparency of biological research and development related to the Convention and to broaden scientific and technical knowledge as agreed in Article X, each State party will declare all facilities, both governmental and non-governmental, within its territory or under its jurisdiction or control anywhere, producing vaccines licensed by the State party for the protection of humans. Information shall be provided on Form G attached.

Form G

Declaration of vaccine production facilities

No.	Name of Facility	Location (postal address)	General Description of the Types of Diseases Covered
1	Denka Co.,Ltd	1359-1 Kagamida, Kigoshi, Gosen-shi, Niigata, Japan	Influenza, Tetanus
2	Daiichi Sankyo Biotech Co.,Ltd.	6-111 Arai, Kitamoto-shi, Saitama, Japan	Influenza, Rubella, Measles, Mumps
3	Takeda Pharmaceutical Co.,Ltd		Covid-19, Tetanus, Measles, Mumps, Rubella, Influenza
4	BIKEN Co.,Ltd	2-9-41 Yahata-cho, Kanonji- shi, Kagawa, Japan	Influenza, Diphtheria, Tetanus, Varicella, Japanese Encephalitis, Pertussis, Measles, Rubella, Poliomyelitis
5	KM Biologics Co,Ltd	Kumamoto-shi, Kumamoto,	Influenza, Rabies, Diphtheria, Tetanus, Japanese Encephalitis, Pertussis, Hepatitis A, Hepatitis B, Poliomyelitis
6	Japan BCG Laboratory	3-1-5 Matsuyama, Kiyose- shi, Tokyo, Japan	Tuberculosis
7	JCR Pharmaceuticals	3-19 Kasuga-cho, Ashiya, Hyogo, Japan	Covid-19