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		~	2021
A, part 2 (i)		~	2021
A, part 2 (ii)			
A, part 2 (iii)			
В	~		
С			
E		~	2021
F		~	2021
G			

(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: April 12, 2022

State Party to the Convention: **Japan**

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

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

Confidence-Building Measure "A"

Part 1 Exchange of data on research centres and laboratories

Form A, part 1 (i)

Exchange of data on research centres and laboratories1

1. Name(s) of facility² Murayama Annex of National Institute of Infectious

Diseases (former National Institute of Health)

2. Responsible public or private <u>Ministry of Health, Labour and Welfare</u> organization or company

3. Location and postal address <u>Gakuen4-7-1, Musashimurayama, Tokyo,</u>

208-0011, 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 Health, Labour and Welfare

5. Number of maximum containment units ³ within the research centre and/or laboratory, with an indication of their respective size (m²)

Three P4 Laboratories, Seventeen P3 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 hemorrhagic 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 laboratories4

1. Name(s) of facility⁵ RIKEN Tsukuba Campus

2. Responsible public or private The Institute of Physical and Chemical Research organization or company (RIKEN)

¹ 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)".

³ In accordance with the latest edition of the WHO Laboratory Biosafety Manual, or equivalent.

⁴ 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)".

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 ⁶ 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 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 agents⁷ on a State Party's territory:

Biosafety level 38	yes / no
Biosafety level 29 (if applicable)	yes / no

Any additional relevant information as appropriate:			

⁶ In accordance with the latest edition of the WHO Laboratory Biosafety Manual, or equivalent.

⁷ Microorganisms pathogenic to humans and/or animals

⁸ In accordance with the latest edition of the WHO Laboratory Biosafety Manual and/or the OIE Terrestrial Manual or other equivalent internationally accepted guidelines.

⁹ 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

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 JFY2021.

- 2. State the total funding for each programme and its source.
- (1) Ministry of Defense provided 26,844,000 yen for the research area of "Special Health Protection, Advanced Defense Medicine" in FY2021. 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 JFY2021 is approximately 5 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 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) 6 persons (2) 6 persons

(ii) Division of personnel:

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

Civilian (1) 4 persons (2) 6 persons

(iii) Division of personnel by category:

Scientists (1) 6 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

(iv) List the scientific disciplines represented in the scientific/engineering staff.

- (1) Medicine, Immunology, Microbiology
- (2) Molecular biology, Genetics, Inorganic chemistry, Organic chemistry, Analytical chemistry
- (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. Ito S, Nakashima M, Ishikiriyama T, Nakashima H, Yamagata A, Imakiire T, Kinoshita M, Seki S, Kumagai H, Oshima N. Effects of ?-Carnitine treatment on kidney mitochondria and macrophages in mice with diabetic nephropathy. Kidney Blood Press Res, in press
- 2. 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
- 3. 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, in press
- 4. 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, doi: 10.1080/09553002.2021.2009145.?
- 5. 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 doi: 10.1080/09553002.2021.1987570.
- 6. Ishibashi H, Hagisawa K, Kinoshita M, Yuki Y, Miyamoto M, Kure T, Sakai H, Saitoh D, Terui K, Takano M. Resuscitative efficacy of hemoglobin vesicles for severe postpartum hemorrhage in pregnant rabbits. Sci Rep 11; 22367, 2021. doi: 10.1038/s41598-021-01835-w
- 7. Ito S, Nakashima H, Ishikiriyama T, Nakashima M, Yamagata A, Imakiire T, Kinoshita M, Seki S, Kumagai H, Oshima N. Effect of a CCR2 antagonist on macrophages and Toll-like receptor 9 expression in a mouse model of diabetic nephropathy. Am J Physiol-Renal 321; F757-F770, 2021. doi: 10.1152/ajprenal.00191.2021
- 8. Ono T, Yamaguchi Y, Nakashima H, Nakashima M, Ishikiriyama T, Seki S, Kinoshita M. Lipopolysaccharide preconditioning augments phagocytosis of malaria-parasitized red blood cells by bone marrow-derived macrophages in the liver, thereby increasing the murine survival after Plasmodium yoelii infection. Infect Immun 89; e0024921, 2021. doi: 10.1128/IAI.00249-21
- 9. Ishikiriyama T, Nakashima H, Endo-Umeda K, Nakashima M, Ito S, Kinoshita M, Seki S. Contrasting functional responses of resident Kupffer cells and recruited liver macrophages to irradiation and liver X receptor stimulation. PlosOne 16; e0254886, 2021. DOI: 10.1371/journal.pone.0254886
- 10. Nagano H, Suematsu Y, Takuma M, Aoki S, Satoh A, Takayama E, Kinoshita M, Morimoto Y, Takeoka S, Fujie T, Kiyosawa T. Enhanced cellular engraftment of adipose-derived mesenchymal stem cell spheroids by using nanosheets as scaffolds. Sci Rep 11; 14500, 2021. DOI: 10.1038/s41598-021-93642-6
- 11. Rump A, Eder S, Hermann C, Lamkowski A, Kinoshita M, Yamamoto T, Abend M, Shinomiya N, Port M. A comparison of thyroidal protection by iodine and perchlorate against radioiodine exposure in Caucasians and Japanese. Arch. Toxicol. 95; 2335-2350, 2021. doi: 10.1007/s00204-021-03065-5

- 12. Nakashima H, Nakashima M, Kinoshita M, Seki S. The role of Kupffer cells in systemic anti-microbial defense. IntechOpen, Antimicrobial Immune Response DOI: 10.5772/intechopen.97256
- 13. Kinoshita M, Nakashima M, Seki S, Nakashima H. Generalized Shwartzman reaction as an experimental endotoxin shock model -role of intermediate T cell receptor-expressing innate T lymphocytes in its pathogenesis-. (Review) Fungal Genomics & Biology in press
- 14. Hagisawa K, Kinoshita M, Sakai H, Takeoka S. Artificial blood transfusion. Physiology News Spring 121, 22-25, 2021. https://doi.org/10.36866/pn.121.22
- 15. Hsueh AJ, Park S, Satoh T, Shimizu T, Koiwai K, Nakashima M, Morimoto Y, Kinoshita M, Suzuki H. Microdevice with integrated Clark-type oxygen electrode for measurement of respiratory activity of cells. Analytical Chemistry 93; 5577?5585, 2021. DOI: 10.1021/acs.analchem.1c00227
- 16. Kinoshita M, Ito S, Ishikiriyama T, Sekiguchi K, Yamaguchi R, Tsuruhara R, Matsuda A, Koiwai K, Nakashima M, Nakashima H, Miyashita M, Seki S. The efficacy of post-treatment with synthetic C-reactive protein in murine bacterial peritonitis via activation of Fc γ RI-expressing Kupffer cells. J. Innate Immun. 13; 306-18, 2021. doi: 10.1159/000515333
- 17. Nishikawa M, Kinoshita M, Morimoto Y, Ishikiriyama T, Nakashima M, Nakashima H, Ono T, Seki S, Moriya T, Yamamoto J, Kishi Y. LPS preconditioning reduces liver metastasis of Colon26 cells by enhancing antitumor activity of NK cells and NKT cells in murine liver. J Gastro Hepatol 36; 1889-98, 2021. doi: 10.1111/jgh.15375.
- 18. Yuki Y, Hagisawa K, Kinoshita M, Ishibashi H, Kaneko K, Ishida O, Saitoh D, Sakai H, Terui K. Efficacy of resuscitative infusion with hemoglobin vesicles in rabbits with massive obstetric hemorrhage. Am J Obstet Gynecol 224; 398. e1-11, 2021. doi: 10.1016/j.ajog.2020.09.010
- 19. Hiruma S, Hata Y, Ishihara M, Takayama T, Nakamura S, Ando N, Fukuda K, Sato Y, Murakami K, Yokoe H. Efficacy of Bioshell Calcium Oxide Water as Disinfectants to Enable Face Mask Reuse. Biocontrol Sciece 26; 27-35, 2021. DOI: 10.4265/bio.26.27.
- 20. Hata Y, Ishihara M, Hiruma S, Takayama T, Nakamura S, Ando N. Recent Progress in the Development of Disinfectants from Scallop Shell-Derived Calcium Oxide for Clinical and Daily Use. Biocontrol Sciece 26; 129-135, 2021. DOI: 10.4265/bio.26.129.

(2) N/A

5. Briefly describe the biological defence work carried out at the facility, including type(s) of micro-organisms¹⁰ and/or toxins studied, as well as outdoor studies of biological aerosols.

(1)
_	-	_

¹⁰ Including viruses and prions.

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

Toxins: Staphylococcal enterotoxin B (SEB)

Bacteria and toxins 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

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

Form B

Information on outbreaks of infectious diseases and similar occurrences, that seem to deviate from the normal pattern¹¹

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 rega	rds
-	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	

¹¹ See paragraph 2 of the chapeau to Confidence-Building Measure B.

13. Measures taken _____

Confidence-Building Measure "C"

Encouragement of publication of results and promotion of use of knowledge

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.

Taichiro Tanikawa, Saki Sakuma, Eiji Yoshida, Ryota Tsunekuni, Momoko Nakayama, Sota Kobayashi. Comparative susceptibility of the common teal (Anas crecca) to infection with high pathogenic avian influenza virus strains isolated in Japan in 2004?2017. Vet. Microbiol. 263:109266. 2021. doi: 10.1016/j.vetmic.2021.109266.

https://www.sciencedirect.com/science/article/pii/S0378113521002893?via%3Dihub

Saki Sakuma, Yuko Uchida, Momoyo Kajita, Taichiro Tanikawa, Junki Mine, Ryota Tsunekuni, Takehiko Saito. First Outbreak of an H5N8 Highly Pathogenic Avian Influenza Virus on a Chicken Farm in Japan in 2020. Viruses 13(3): 489. 2021. doi: 10.3390/v13030489

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8001370/

Ivan Sobolev, Kirill Sharshov, Nikita Dubovitskiy, Olga Kurskaya, Alexander Alekseev, Sergey Leonov, Yuriy Yushkov, Victor Irza, Andrey Komissarov, Artem Fadeev, Daria Danilenko, Junki Mine, Ryota Tsunekuni, Yuko Uchida, Takehiko Saito, Alexander Shestopalov. Highly Pathogenic Avian Influenza A (H5N8) Virus Clade 2.3.4.4b, Western Siberia, Russia, 2020. Emerg. Infect. Dis. 27(8):2224-2227. 2021. doi: 10.3201/eid2708.204969.

https://wwwnc.cdc.gov/eid/article/27/8/20-4969 article

Tatsuya Nishi, Kazuki Morioka, Rie Kawaguchi, Manabu Yamada, Mitsutaka Ikezawa, Katsuhiko Fukai. Quantitative analysis of infection dynamics of foot-and-mouth disease virus strain O/CATHAY in pigs and cattle. PLoS One 22;16(1):e0245781. 2021. doi: 10.1371/journal.pone.0245781.

https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0245781

Kentaro Masujin, Tomoya Kitamura, Ken-ichiro Kameyama, Kota Okadera, Tatsuya Nishi, Takato Takenouchi, Hiroshi Kitani, Takehiro Kokuho. An immortalized porcine macrophage cell line competent for the isolation of African swine fever virus. Sci Rep. 11: 4759. 2021. doi: 10.1038/s41598-021-84237-2

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7910288/

Confidence-Building Measure "E"

Declaration of legislation, regulations and other measures

Form E

Declaration of legislation, regulations and other measures

Relating to	Legislation	Regulations	Other measures ¹²	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- organisms ¹³ and toxins	Yes /No	Yes/No	Yes/No	Yes/No
(c) Imports of micro- organisms ¹¹ and toxins	Yes/No	Yes/No	Yes/ No	Yes/ No
(d) Biosafety ¹⁴ and biosecurity ¹⁵	Yes/No	Yes/No	Yes/No	Yes/ No

Name of legislation, regulations, and other measures:

Foreign exchange and Foreign Trade Law (1949)

Export Trade Control Order (1949)

Ordinance of the Ministry Specifying Goods and Technologies Pursuant to Provisions of the Appended Table 1 of the Export Control Order and the Appended Table of the Foreign Exchange Order (1991)

Law on Implementing the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction and the Other Conventions (1982)

¹² Including guidelines.

¹³ Micro-organisms pathogenic to man, animals and plants in accordance with the Convention.

¹⁴ In accordance with the latest version of the WHO Laboratory Biosafety Manual or equivalent national or international guidance.

¹⁵ In accordance with the latest version of the WHO Laboratory Biosecurity Guidance or equivalent national or international guidance.

Cabinet Order for the Enforcement of the Law on Implementing the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (1995)

<u>The Law Concerning the Prevention of Infections and Medical Care for Patients of Infections (1998)</u>

Confidence-Building Measure "F"

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

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:
- <u>No</u>
- 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

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	4720 Takeda, Mitsui, Hikari, Yamaguchi, Japan	Tetanus, Measles, Mumps, Rubella
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