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
A, part 1		
A, part 2 (i)		
A, part 2 (ii)		
A, part 2 (iii)		
B (I)		
B (ii)	x	
C		
D		
E		x
F	x	
G		x

(Please mark the appropriate box(es) for each measure, with a tick.)

Date: 2009

State Party to the Convention: Finland

CONFEDENCE-BUILDING MEASURE A

Form A, part 1

Exchange of Data on Research Centres and Laboratories -#1

1. **Name(s) of the Facility**
   Centre for Biothreat Preparedness

2. **Responsible public or private organization or company**
   Centre for Military Medicine, Finnish Defence Forces under the Ministry of Defence and the National Public Health Institute* under Ministry of Social Affairs and Health.

3. **Location and postal address**
   Tukholmankatu 8 A, FI-00290 Helsinki and Mannerheimintie 166, FIN-00300 Helsinki.

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 Centre is financed jointly by the Finnish Defence Forces and National Public Health Institute.

5. **Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m2)**
   There are no BSL-4 units at the Centre.

6. **If no maximum containment unit, indicate highest level of protection**
   BSL-3, 120m^2

7. **Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate**
   The Centre for Biothreat Preparedness started its activies in 2005. During 2008, the Centre developed rapid PCR detection assays for selected microbial agents.

*The National Public Health Institute (KTL) and the National Research and Development Centre for Welfare and Health (STAKES) joined forces to form the National Institute for Health and Welfare (THL) on 1 January 2009.

Form A, part 1

Exchange of Data on Research Centres and Laboratories -#2

1. **Name(s) of the Facility**
   National Public Health Institute*, Bacteriological and Virological laboratories

2. **Responsible public or private organization or company**
   National Public Health Institute under Ministry of Social Affairs and Health

3. **Location and postal address**
   Mannerheimintie 166
   FI-00300 Helsinki

4. **Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence**
   Funding from the Ministry of Social Affairs and Health and large variety of external research funding.

5. **Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m2)**
   There are no BSL-4 laboratories or other units at this containment level.

6. **If no maximum containment unit, indicate highest level of protection**
   Three BSL-3 level laboratories. 120m^2 and 20m^2 in Helsinki, 80m^2 in Turku.

7. **Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate**
   Clinical and environmental microbiological research and reference laboratory facilities in Helsinki, Turku, Kuopio and Oulu. Work mainly with ordinary occurring endemic and epidemic bacteria and viruses with main emphases on vaccine preventable diseases, enteric pathogens, zoonoses, tuberculosis spp, enteroviruses, polioviruses, influenza, HIV, Hepatitis viruses and environmental fungi and bacteria causing human health problems. The Institute manages regional Influenza and Polio laboratory facilities. The Institute is in charge of biothreat preparedness in public health context. National focal point for IHR started June 2007.

*The National Public Health Institute (KTL) and the National Research and Development Centre for Welfare and Health (STAKES) joined forces to form the National Institute for Health and Welfare (THL) on 1 January 2009.

Form A, part 1

Exchange of Data on Research Centres and Laboratories -#3

1. **Name(s) of the Facility**
   Yersinia Research Laboratory

2. **Responsible public or private organization or company**
   University of Helsinki
   University of Turku

3. **Location and postal address**
   Department of Bacteriology and Immunology
   Haartman Institute, University of Helsinki
   Haartmaninkatu 3
   P.O Box 21
   FI-00014 University of Helsinki
   Helsinki, Finland

   and
   Department of Medical Biochemistry and Genetics
   University of Turku
   Kiinamyllynkatu 10
   FI-20520 Turku, Finland

   Yersinia-research home page: Http://www.hi.helsinki.fi/yersinia/

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

5. **Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m2)**
   No BSL-4 laboratories.

6. **If no maximum containment unit, indicate highest level of protection**
   Containment level BSL-2. The studied microbes have been attenuated or are avirulent.

7. **Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate**
   The research is focused on genetics and biosynthesis of lipopolysaccharide (LPS) of *Yersinia pestis*, as well as on the role of LPS in virulence. Molecular evolution studies elucidate the relationships between the species of the genus *Yersinia.* Research work is also conducted on the identification of *Y. pestis* specific bacteriophage reseptors.

Form A, part 1

Exchange of Data on Research Centres and Laboratories -#4

1. **Name(s) of the research centre and/or laboratory**
   Department of Virology

2. **Responsible public or private organization or company**
   University of Helsinki

3. **Location and postal address**
   P.O. Box 21
   Haartman Institute
   00014 University of Helsinki

4. **Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence**
   In 2008: Funding from Helsinki University Hospital EVO-fund, University of Helsinki, National Technology Agency of Finland, Academy of Finland, Sigrid Jusélius Foundation, European Union and University of Helsinki Funds. In 2009, a project on alphavirus and flavivirus RNA detection funded by the Finnish Ministry of Defence has started.

5. **Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m2)**
   There are no BSL-4 laboratories.

6. **If no maximum containment unit, indicate highest level of protection**
   BSL-3, 75 m^2 (at Meilahti campus) and 100 m^2 (at Viikki campus)

7. **Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate**
   The Helsinki University Viral Zoonoses Group (HUVZG) conducts research on virology, cell biology, ecology and epidemiology of zoonotic viruses, especially hantaviruses and certain other rodent-borne and arboviruses occurring in Northern Europe. Our research group operates within Faculty of Medicine, Haartman Institute Department of Virology, and partially at the Division of Microbiology and Immunology at the Veterinary Faculty, has a BSL-3 facility in both faculties, is connected to diagnostic laboratory of viral zoonoses in HUSLAB, Helsinki, and also acts as a WHO Collaborating Centre for Arbo- and Zoonotic Viruses. Principal investigators of the group are Alexander Plyusnin, Antti Vaheri and Olli Vapalahti.

Form A, part 1

Exchange of Data on Research Centres and Laboratories -#5

1. **Name(s) of the Facility**
   Finnish Food Safety Authority (Evira)

2. **Responsible public or private organization or company**
   Finnish Food Safety Authority under the Ministry of Agriculture and Forestry

3. **Location and postal address**
   Mustialankatu 3
   FI-00790 Helsinki

4. **Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence**
   Financing from the Ministry of Agriculture and Forestry

5. **Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m2)**
   None

6. **If no maximum containment unit, indicate highest level of protection**
   Six containment level 3+ laboratories, total size 473,5m^2

7. **Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate**
   Diagnostics of animal diseases, for example rabies, avian influenza, Newcastle disease, foot and mouth disease, classical swine fever, anthrax, tuberculosis, verotoxic *E. coli.*

Exchange of Data on Research Centres and Laboratories -#6

1. **Name(s) of the Facility**
   Finnish Defence Forces Technical Research Centre (PVTT)

2. **Responsible public or private organization or company**
   Finnish Defence Forces Technical Research Centre (PVTT), Finnish Defence Forces under the Defence Staff

3. **Location and postal address**
   P.O. Box 5 (Paroistentie 20)
   FI-34111 Lakiala
   Finland

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

5. **Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m2)**
   No BSL-4 laboratories.

6. **If no maximum containment unit, indicate highest level of protection**
   Biosafety laboratory level BSL-2, 20 m^2. A CB-deployable laboratory has been equipped with BSL-3 glovebox.

7. **Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate**
   The objective of the research work has been in the development of detection/identification methods for biowarfare microbes and toxins. The main activity in 2008 focused on the development of a bioaerosol detection method. A deployable BC-laboratory has been developed. All biodefence research has been carried out with non-pathogenic strains, or otherwise harmless microbes.

   In addition, PVTT has been involved in developing antibody based detection kits for ricin, botulinum and SEB toxins.

National Biological Defence Research and Development Programme Declaration

Description and Facilities

The Finnish Strategy to Secure Vital Functions of Society from November 2003 (and Nov. 2006) defined vital functions of Finnish society and established targets and development policies that would guide each administrative branch of the government in dealing with its strategic tasks. The strategy called for co-operation between each government sector in combating against new threats towards society. According to the Government Report on Finnish Security and Defence Policy of 2004, terrorism and epidemics caused by infectious diseases were listed as key threats affecting national security.

Based on the above resolutions The Centre for Biothreat Preparedness started operations in Helsinki in May 2005. The Centre combines Finnish scientific and laboratory knowhow on biological defence, as well as on biothreat assessment and preparedness. The Centre is actively seeking domestic and international collaboration, especially in the field of rapid detection and identification methodologies of selected biological agents. The Centre is composed of two Units; the Biological Defence Unit of the Finnish Defence Forces, and the Biological Threat Unit of the National Public Health Institute (NPHI)*. Scientific work is carried out in a biological safety level 3 laboratory at the NPHI facilities. Furthermore, the Centre works in close contact with the Department of Infectious Disease Epidemiology of the NPHI. In addition, the Centre functions within the Biomedicum Helsinki Institute, where work is carried out in close contact with the CB Defence and Environmental Health Centre of the Centre for Military Medicine.

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CONFIDENCE-BUILDING MEASURE B

Form B (i)

Background information on outbreaks of reportable human infectious diseases

Disease	Number of cases per year									
	1999	2000	2001	2002	2003	2 004	2005	2006	2007	2008
Tularaemia	87	926	29	106	823	151	62	475	403	116
Anthrax	0	0	0	0	0	0	0	-	-	-
Diphteria	0	0	2	0	0	0	0	0	0	0
Febris typhoides	8	0	1	3	6	6	8	5	10	2
Febris paratyphoides	36	3	7	1	4	9	5	5	9	11
Salmonellosis alia	2801	2624	2734	2351	2170	2248	2477	2565	2732	3 129
Ornithosis	0	0	0	0	0	0	0	-	-	-
Shigellosis	71	75	223	85	64	110	113	74	112	123
Nephropatia epidemica (Puumala virus infection)	2300	774	1057	2603	1566	1429	2402	1890	1726	3 216

CONFIDENCE-BUILDING MEASURE B

Form B (ii)

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

Nothing to declare.

CONFIDENCE-BUILDING MEASURE C

Encouragement of publication of result and promotion of use of knowledge

Publications:

1. Alminaite A, Backström V, Vaheri A, Plyusnin A.Oligomerization of hantaviral nucleocapsid protein: charged residues in the N-terminal coiled-coil domain contribute to intermolecular interactions. J Gen Virol. 2008 Sep;89(Pt 9):2167-74.

2. Biedzka-Sarek, M., Jarva, H., Hyytiäinen, H., Meri, S., and Skurnik, M. 2008. Characterization of complement factor H binding to *Yersinia enterocolitica* serotype O:3. Infect Immun 76: 4100-4109.

3. Biedzka-Sarek, M., Salmenlinna, S, Gruber, M., Lupas, A.N. and Skurnik, M. 2008. Functional mapping of YadA- and Ail-mediated binding of human factor H to *Yersinia enterocolitica* serotype O:3. Infect Immun. 76:5016-5027.

4. Charbonnel N, Deter J, Chaval Y, Laakkonen J, Henttonen H, Voutilainen L, Vapalahti O, Vaheri A, Morand S, Cosson JF. Serological evidence of viruses naturally associated with the montane water vole (Arvicola scherman) in eastern France.Vector Borne Zoonotic Dis. 2008 Dec;8(6):763-7.

5. Donoso Mantke O, Vaheri A, Ambrose H, Koopmans M, de Ory F, Zeller H, Beyrer K, Windorfer A, Niedrig M; European Network for Diagnostics of Imported Viral Diseases (ENIVD) Working Group for Viral CNS Diseases.Analysis of the surveillance situation for viral encephalitis and meningitis in Europe. Euro Surveill. 2008 Jan 17;13(3). pii: 8017. Review.

6. Ferenczi E, Bán E, Abrahám A, Kaposi T, Petrányi G, Berencsi G, Vaheri A. Severe tick-borne encephalitis in a patient previously infected by West Nile virus. Scand J Infect Dis. 2008;40(9):759-61.

7. Heyman P, Vaheri A, ENIVD Members. Situation of hantavirus infections and haemorrhagic fever with renal syndrome in European countries as of December 2006. Euro Surveill. 2008 Jul 10;13(28). pii: 18925.

8. Huhtamo E, Uzcátegui NY, Siikamäki H, Saarinen A, Piiparinen H, Vaheri A, Vapalahti O. Molecular epidemiology of dengue virus strains from Finnish travelers. Emerg Infect Dis. 2008 Jan;14(1):80-3. J Gen Virol. 2008 Aug;89(Pt 8):1987-97.

9. Jääskeläinen KM, Plyusnina A, Lundkvist A, Vaheri A, Plyusnin A. Tula hantavirus isolate with the full-length ORF for nonstructural protein NSs survives for more consequent passages in interferon-competent cells than the isolate having truncated NSs ORF. Virol J. 2008 Jan 11;5:3.

10. Kirjavainen, V., Jarva, H., Biedzka-Sarek, M, Blom, A., Skurnik, M., and Meri, S. 2008. *Yersinia enterocolitica* serum resistance proteins YadA and Ail bind the complement regulator C4b-binding protein. Plos Pathogens 4: e1000140.

11. Kurkela S, Helve T, Vaheri A, Vapalahti O. Arthritis and arthralgia three years after Sindbis virus infection: clinical follow-up of a cohort of 49 patients.

12. Kurkela, S., Rätti,O., Huhtamo, E., Uzcátegui, N.Y., Nuorti, J.P., and Laakkonen,J., Manni, T., Helle, P., Vaheri,A. and Vapalahti, O. Sindbis Virus Infection in Resident Birds, Migratory Birds, and Humans, Finland. Emerg Infect Dis, 2008, 14, 41-47.

13. Lehtinen VA, Huhtamo E, Siikamäki H, Vapalahti O. Japanese encephalitis in a Finnish traveler on a two-week holiday in Thailand. J Clin Virol. 2008 Jun 14.

14. Leo, J.C., Elovaara, H., Brodsky, B., Skurnik, M. and Goldman, A. 2008. The *Yersinia* adhesin YadA binds to a collagenous triple-helical conformation but without sequence specificity. Protein Engineering Design & Selection 21: 475-484.

15. Lindh E, Huovilainen A, Rätti O, Ek-Kommonen C, Sironen T, Huhtamo E, Pöysä H, Vaheri A, Vapalahti O. Orthomyxo-, paramyxo- and flavivirus infections in wild waterfowl in Finland. Virol J. 2008 Feb 28;5:35.

16. Lindquist L, Vapalahti O. Tick-borne encephalitis. Lancet. 2008 May 31;371(9627):1861-71. Review.

17. Manni T, Kurkela S, Vaheri A, Vapalahti O: Diagnostics of Pogosta disease: Antigenic properties and evaluation of Sindbis virus IgM and IgG enzyme immunoassays. Vector Borne Zoon Dis, 2008, 8(3): 303-11.

18. Plyusnina, A., Laakkonen, J., Niemimaa, J., Nemirov, K., Muruyeva, G., Pohodiev, B., Lundkvist, Å., Vaheri, A., Henttonen, H., Vapalahti, O. and Plyusnin, A. Genetic analysis of hantaviruses carried by Myodes and Microtus rodents in Buryatia. Virology Journal, 2008, 5, 1-6.

19. Razzauti M, Plyusnina A, Henttonen H, Plyusnin A. Accumulation of point mutations and reassortment of genomic RNA segments are involved in the microevolution of Puumala hantavirus in a bank vole (Myodes glareolus) population. J Gen Virol. 2008 Jul;89(Pt 7):1649-60. Scand J Infect Dis. 2008; 40(2):167-73.

20. Sironen T, Kallio ER, Vaheri A, Lundkvist A, Plyusnin A. Quasispecies dynamics and fixation of a synonymous mutation in hantavirus transmission. J Gen Virol. 2008 May;89(Pt 5):1309-13.

21. Sironen T, Klingström J, Vaheri A, Andersson LC, Lundkvist A, Plyusnin A.Pathology of Puumala hantavirus infection in macaques. PLoS ONE. 2008 Aug 21;3(8):e3035.

22. Skurnik, M., Kiljunen, S., and Pajunen, M. 2008. Phage Therapy. In *Therapeutic Microbiology: Probiotics and Related Strategies.* Versalovic, J and Wilson, M (eds). ASM Press. pp. 373-389.

23. Strandin T, Hepojoki J, Wang H, Vaheri A, Lankinen H. Hantaviruses and TNF-alpha act synergistically to induce ERK1/2 inactivation in Vero E6 cells. Virol J. 2008 Sep 29;5:110.

24. Vaheri A, Vapalahti O, Plyusnin A. How to diagnose hantavirus infections and detect them in rodents and insectivores. Rev Med Virol. 2008 Jul-Aug;18(4):277-88.

25. Zhang, P., Skurnik, M., Zhang, S.-S. Schwartz, O., Kalyanasundaram, R., Bulgheresi, S., He, J.J., Klena, J.D., Hinnebusch, B.J., and Chen, T. 2008. Human dendritic cell-specific intercellular adhesion molecule-grabbing nonintegrin (CD209) is a receptor for *Yersinia pestis* that promotes phagocytosis by dendritic cells. Infection and Immunity 76:2070-2079.

26. Zhang, S.-S., Park, C.G., Zhang, P., Bartra, S.S., Plano, G.V., Klena, J.D., Skurnik, M., Hinnebusch, B.J., and Chen, T. 2008. Plasminogen activator Pla of *Yersinia pestis* utilizes murine DEC-205 (CD205) as a receptor to promote dissemination. J. Biol. Chem. 283: 31511–31521.

27. Zou Y, Hu J, Wang ZX, Wang DM, Li MH, Ren GD, Duan ZX, Fu ZF, Plyusnin A, Zhang YZ. Molecular diversity and phylogeny of Hantaan virus in Guizhou, China: evidence for Guizhou as a radiation center of the present Hantaan virus.

28. Zou Y, Wang JB, Gaowa HS, Yao LS, Hu GW, Li MH, Chen HX, Plyusnin A, Shao R, Zhang YZ.Isolation and genetic characterization of hantaviruses carried by Microtus voles in China. J Med Virol. 2008 Apr;80(4):680-8.

29. Zou Y, Xiao QY, Dong X, Lv W, Zhang SP, Li MH, Plyusnin A, Zhang YZ. Genetic analysis of hantaviruses carried by reed voles Microtus fortis in China. Virus Res. 2008 Oct;137(1):122-8. Epub 2008 Aug 3.

CONFIDENCE-BUILDING MEASURE D

Form D

Active promotion of contacts

International conferences, symposia, seminars, and other similar forums are planned for the year 2009.

1. Planned international conferences, symposia, seminars, and other similar forums for exchange

1.1

- name of the conference: **7th symposium on CBRNE threats**
- arranging organizations: The Association of Finnish Chemical Societies Section for NBC protection, rescue and civil defence
- time: June 8-11, 2009
- place: Jyväskylä, Finland
- main subject(s) for the conference:
  The objective of the Symposium is to provide an interdisciplinary forum for discussions on issues related to protection against Chemical, Biological, Radiological, Nuclear threats (CBRN) and Improvised Explosive Devises (IED) with CBRN payload, for decision makers, experts, professionals, security officers, military planners and scientists in the fields of CBRNE defence and security.
- conditions for participation: free for all
- point of contact for further, information, registration: www.nbc2009.org

Form D

1.2

- name of the conference: **7th Finnish Microbial Pathogenesis Day**
- arranging organizations: Biomedical Graduate School, Haartman Institute, University of Helsinki, Finland
- time: October 21-22, 2009
- place: Haartman Institute, Haartmaninkatu 3, Helsinki, Finland
- main subject(s) for the conference: Microbial pathogenesis
- conditions for participation: free
- point of contact for further, information, registration: mikael.skurnik@helsinki.fi; elina.varto@helsinki.fi

CONFIDENCE-BUILDING MEASURE E

Form E

Declaration of legislation, regulations and other measures

Relating to	Legislation	Regulations	Other measures	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	YES	YES	NO
(b) Exports of micro-organisms* and toxins	YES	YES	YES	NO
(c) Imports of micro-organisms* and toxins	YES	YES	YES	NO

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

Form E

Declaration of legislation, regulations and other measures

Additional information

Finland's legislation on biological weapons is based on the Biological Weapons Act 257/1975 and Decree 258/1975. Corresponding penal provisions were included in the Penal Code, chapter 11, section 7 b (Breach of the prohibition of biological weapons), with amendment 17/2003. Penal Code (39/1889) chapter 11, section 1 (War Crime), chapter 5, section 3 (Complicity in an offence) and section 6 (Abetting), chapter 34, sections 4 (Health endangerment) and 5 (Aggravated health endangerment), and chapter 34 a (Terrorist offences) are also applicable.

Exports of micro-organisms and toxins are regulated by the Act on the Control of Export of Dual-Use Goods (562/1996, as amended by Acts 891/2000, 884/2001 and 581/2003), Government Decree on the Control of Export of Dual-Use Goods (924/2000 as amended by Decree 924/2000) and EC Council Regulation 1334/2000. Corresponding penal provisions were incorporated in the Penal Code (39/1889), chapter 46, sections 1-3 by Acts 769/1990, 1522/1994 and 706/1997. Since 2003, the authority responsible for export controls of micro-organisms and toxins is the Ministry for Foreign Affairs (Export Control Unit).

Imports of micro-organisms and toxins are regulated by the Biological Weapons Act 257/1975 and Decree 258/1975. Transports of micro-organisms and toxins are also regulated by the EC Council Directives 94/55/EEC and 96/49/EEC, the Communicable Diseases Act 583/1986 (as amended), section 33; Communicable Diseases Decree 786/1986 (as amended); Act on the Transport of Dangerous Goods (719/1994 as amended) and related decrees, Act on Protecting Plant Health (702/2003), section 7, and related decrees, Act on Animal Diseases (55/1980 as amended) and related decrees, Act on Veterinary Border Control (1192/1996 as amended) and related decrees. The corresponding penal provisions are included in the Penal Code (39/1889 as amended), chapter 44, section 2 (Health protection violation), chapter 44, section 13 (Transport of dangerous substances offence) and chapter 46, section 4 (Smuggling).

CONFIDENCE-BUILDING MEASURE F

Form F

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

Nothing to declare.

CONFIDENCE-BUILDING MEASURE G

Form G

Declaration of vaccine production facilities

There are no vaccine production facilities in Finland.