

Exchange of data on research centres and laboratories

1. Name(s) of facility:

Bernhard-Nocht-Institut für Tropenmedizin

2. Responsible public or private organization or company:

Free and Hanseatic City of Hamburg

3. Location and postal address:

Bernhard-Nocht-Straße 74
D-20359 Hamburg

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

Free and Hanseatic City of Hamburg, Federal Republic of Germany and Federal States;
one research contract funded by Federal Ministry of Defence,
one research contract funded by Federal Ministry of Health,
one research contract funded by Federal Ministry of the Interior

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

one maximum containment unit, approx. 70 m²

6. If no maximum containment unit, indicate highest level of protection:

n.a.

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

Diagnosis of and research on viruses causing hemorrhagic fevers (Lassa, Ebola, Marburg, Hanta)
Development of methods for the detection of Dengue and Arena viruses, Monkey pox, Crimean-Congo fever

Exchange of data on research centres and laboratories

1. Name(s) of facility:

Friedrich-Loeffler-Institut, Federal Research Institute for Animal Health

2. Responsible public or private organization or company:

Federal Ministry of Food, Agriculture and Consumer Protection

3. Location and postal address:

Boddenblick 5a
D-17493 Greifswald - Insel Riems

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

Federal Ministry of Food, Agriculture and Consumer Protection

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

three maximum containment units, approx. 190 m²,
(FMD laboratory with effluent treatment, negative pressure and HEPA filters to protect the environment according to FAO standards, no equipment for the protection of staff, therefore unsuitable for work with human pathogens)

6. If no maximum containment unit, indicate highest level of protection:

n.a.

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

Diagnosis of and research on animal diseases
Veterinary medicine: mechanisms of pathogenesis, vaccines, diagnosis of Foot and mouth disease, Bovine spongiform encephalopathy, African swine fever, Classical swine fever and other animal diseases caused by viruses

Note: The laboratory at D-72076 –Tübingen, reported formerly under the name 'Bundesforschungsanstalt für Viruskrankheiten der Tiere in the past CBMs has been moved to the a.m. location and been renamed under the a.m. institute name.

Exchange of data on research centres and laboratories

1. Name(s) of facility:

Institut für Virologie der Philipps Universität Marburg

2. Responsible public or private organization or company:

State of Hesse

3. Location and postal address:

Hans-Meerwein-Straße 3
D-35043 Marburg

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

State of Hesse, German Research Foundation (Deutsche Forschungsgemeinschaft), Federal Ministry of Education and Research, European Union

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

one maximum containment unit, 30 m²

6. If no maximum containment unit, indicate highest level of protection:

n.a.

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

Basic research on Marburg virus, Ebola virus, Lassa virus and SARS-Corona Virus.
Diagnostic services in surveillance of hemorrhagic fever viruses and smallpox virus

Germany

Form A, part 2 (i)

National Biological Defence Research and Development Program Declaration

1) Is there a national program to conduct biological defence research and development within the territory of the State Party, under its jurisdiction or control anywhere?

Activities of such program would include prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research.

YES

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

Germany

Form A, part 2 (ii)

National Biological Defence Research and Development Program

II: Description

- 1. State the objectives and funding of the program and summarize the principal research and development activities conducted in the program.**

Federal Ministry of Defence :

The RD activities of the national program include: prophylaxis, diagnostic techniques, sampling and detection techniques, toxinology, decontamination and physical protection.

Summaries and objectives of all research and development projects in the field of Medical NBC Defence are published on the Internet under www.bundeswehr.de .

Federal Ministry of Interior:

A B Task Force pilot project is conducted with focus on the development of rapid detection systems for B agents. Within the scope of the B Task Force pilot project Hamburg is the development of real time detection systems based on the polymerase chain reaction for B agents. This means the development of specific Primer systems and chemical reagents stable at room temperature. All investigations were accomplished at the Bernhard-Nocht-Institut Hamburg (BNI) and their facilities.

- 2. State the total funding for the program and its source.**

Federal Ministry of Defence:

The total funding in 2006 was approx. 11,2 Mio Euro

The program is funded by the Federal Ministry of Defence.

Federal Ministry of Interior:

The funding in 2006 for the B Task Force project Hamburg was approx. 53,500 €

The programs are funded by the Federal Office for Civil Protection and Disaster Assistance

- 3. Are aspects of this program conducted under contract with industry, academic institutions, or in other non-defence facilities?**

Yes

4. What proportion of the total funds for the program is expended in these contracted or other facilities?

Federal Ministry of Defence:
approx. 32 percent

Federal Ministry of Interior:
approx. 100 percent

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

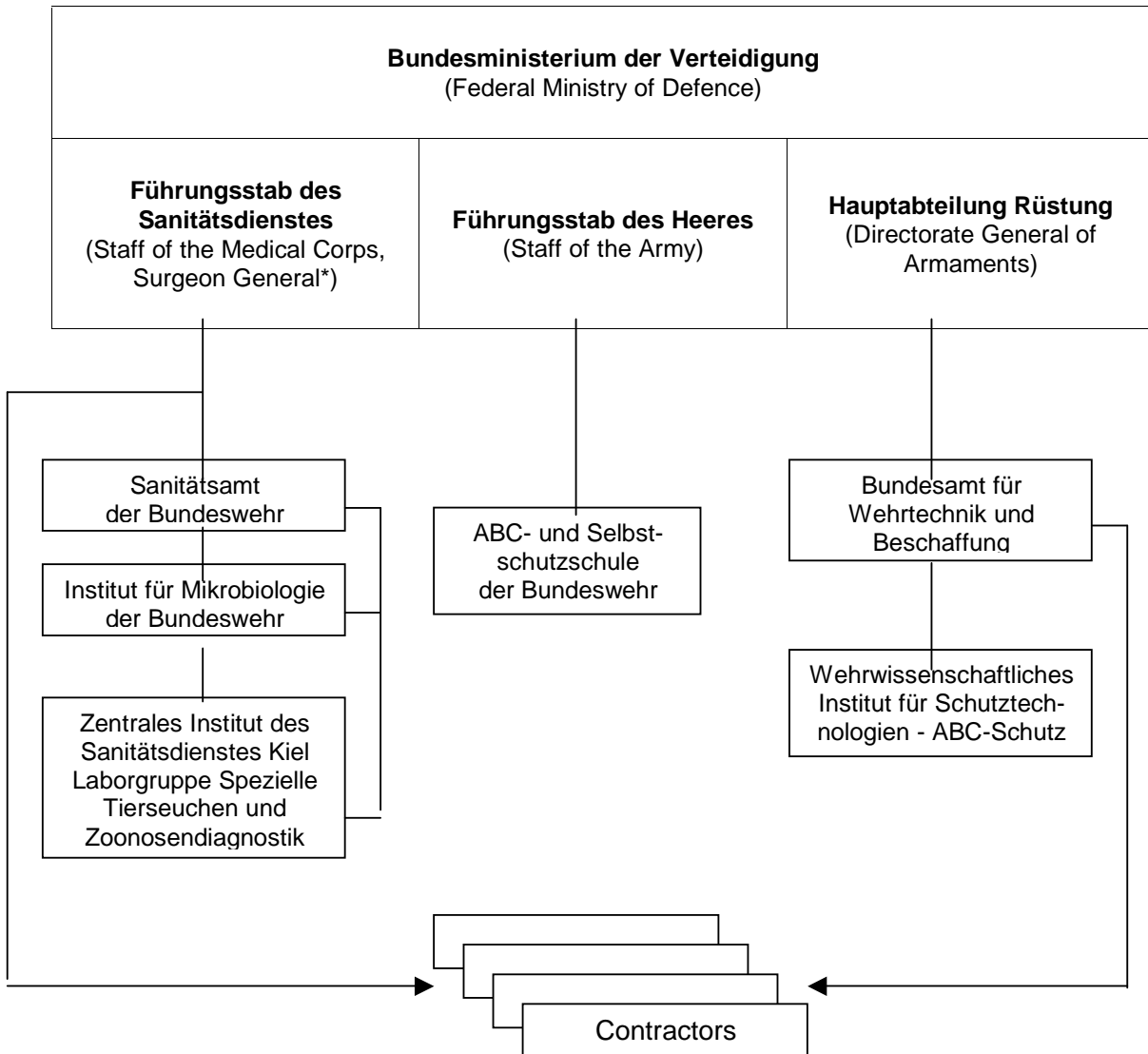
Federal Ministry of Defence:

The objective of the contracted activities is to provide pertinent expertise and hardware to the Federal Ministry of Defence for the improvement of the B-defence capabilities. The research areas are the same as mentioned above under # 1.

The Federal Ministry of Interior:

The objective of the contracted activities is the development of a rapid detection system to be able to react as fast as possible in case of a bioterroristic assault or casualty to minimise the threatening effect on human population and economy.

6. Provide a diagram of the organisational structure of the program and the reporting relationships (include individual facilities participating in the program).



* Surgeon General coordinates all biodefence R + D activities of the Bundeswehr

Federal Ministry of Interior

The Federal Office for Civil Protection and Disaster Assistance contracts facilities like the Bernhard-Nocht-Institute in accordance with their expertise for the development of new real time detection systems for the identification of B-agents and organisms with high impact on public health.

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 the national biological defence research and development program, within the territory of the reporting State, or under its jurisdiction or control anywhere.

4 Forms A, part 2 (iii) are attached

**National Biological Defence Research
and Development Program**

1. What is the name of the facility?

ABC- und Selbstschuttschule der Bundeswehr
(NBC-Defence and Self-protection School of the Bundeswehr)

2. Where is it located?

D-87527 Sonthofen/Allgäu, Mühlenweg 2
(47°31 north, 10°17 east)

3. Floor area of laboratory areas by containment level:

BL 2	270 m ²
BL 3	--
BL 4	--
Total Laboratory Floor Area	270 m ²

4. The organisational structure of the facility:

The workload of the Biology Section of the facility is approx. 95 percent in B-defence and 5 percent in environmental protection. The following personnel figures cover the total strength for both working areas because of the engagement of some of the personnel in both areas.

I)	Total number of personnel:	4
II)	Division of personnel:	
	Military	-
	Civilian	4
III)	Division of personnel by category:	
	Scientists	1
	Engineers	-
	Technicians	2
	Admin. and support staff	1

IV) **Represented scientific disciplines:**

Parasitology, toxicology, microbiology, veterinary medicine

V) **Contractor staff:** 0

VI) **Source of funding:** Federal Ministry of Defence

VII) **Funding levels for the following program areas:**

The funding for the 95 percent share for personnel, consumable items and equipment in 2006 was approx. 0,2 million €

Development	25 %
Test and Evaluation	15 %
Education and Training	60 %

VIII) **Publication policy:**

Results will be published primarily in reports to the Federal Office for Military Technology and Procurement and to the Federal Ministry of Defence and will be presented in scientific meetings.

IX) **Lists of public available papers and reports resulting from the work during the previous 12 month:**

none

5. **Brief description of the biological defence work carried out at the facility, including types of micro-organisms and/or toxins studied, as well as outdoor studies of biological aerosols:**

- a. Conceptual development of biological defence in the Bundeswehr
- b. Initiation of and participation in the development of biological defence material and equipment; drafting of operational requirements
- c. Review and establishment of detection methods for pathogens and toxins suitable for military use
- d. Training of NBC defence personnel (theory and practice) including familiarisation with the handling of vectors, micro organisms and toxins
- e. Training support for non-military government authorities
- f. Training support for military personnel of other states
- g. Initiation and expert monitoring of studies in the field of biological defence
- h. Drafting of joint publications for biological defence

The current program covers pathogenic R I and R II organisms, inactivated material of pathogens R III and RIV, insects and ticks as well as high and low-molecular toxins; no work has been done with active viruses.

No outdoor studies of biological aerosols.

**National Biological Defence Research
and Development Program**

6. What is the name of the facility?

Institut für Mikrobiologie der Bundeswehr (Bundeswehr Institute of Microbiology)

7. Where is it located?

D-80937 München, Neuherbergstraße 11
(48°12' north, 11°34' east)

8. Floor area of laboratory areas by containment level:

BL 2	1258 m ²
BL 3	67 m ²
BL 4	-- m ²
Total Laboratory Floor Area	1325 m ²

9. The organisational structure of the facility:

I) **Total number of personnel:** 63

II) **Division of personnel:**

Military	36
Civilian	27

III) **Division of personnel by category:**

Scientists	20
Technicians	38
Admin. And support staff	5

IV) **Represented scientific disciplines:**

Medicine, veterinary medicine, microbiology, virology, bacteriology, immunology, molecular biology, epidemiology, laboratory medicine

V) **Contractor staff:** 0

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VI) **Source of funding:** Federal Ministry of Defence

VII) Funding levels for the following program areas:

The funding for personnel, consumable items and equipment in 2006 was approx. 5,1 million €.

Research	40 %
Development	25 %
Test and Evaluation	25 %
Education and Training	10 %

VIII) Publication policy:

Results will be published in scientific journals as well as in reports to the Federal Ministry of Defence and will be presented in national and international scientific meetings.

IX) Lists of public available papers and reports resulting from the work during the previous 12 months:

see Annex 1

10. Brief description of the biological defence work carried out at the facility, including types of micro-organisms and/or toxins studied, as well as outdoor studies of biological aerosols:

- a. Research, development and evaluation of approaches for the rapid detection, identification and differentiation of *Orthopoxvirus*, *Alpha-*, *Flavi-*, *Bunyaviruses* using polyclonal and monoclonal antibodies and real-time-PCR
- b. Research, development and evaluation of approaches for the rapid detection, identification and differentiation of *Coccidia*, *Burkholderia*, *Yersinia*, *Brucella*, *Bacillus* and *Francisella spp.* using polyclonal and monoclonal antibodies, biochemical methods and real-time-PCR
- c. Production of polyclonal and monoclonal antibodies and production of test kits for the identification and immunodiagnosis of relevant infections
- d. Studies of the epidemiology, immunopathogenesis of and immune response against *Francisella tularensis*, *Bacillus spp.*, *Burkholderia spp.*, *Brucella spp.* and *Yersinia spp.*, resp.

The current program covers pathogen R I, R II and R III organisms.

No outdoor studies of biological aerosols have been conducted.

National Biological Defence Research and Development Program

1. What is the name of the facility?

Wehrwissenschaftliches Institut für Schutztechnologien – ABC-Schutz
(Federal Armed Forces Scientific Institute for Protection Technologies - NBC-Protection)

2. Where is it located?

D-29633 Munster/Oertze, Humboldtstr.
(53°00 North, 10°08 East)

3. Floor area of laboratory areas by containment level:

BL 2	520 m ²
BL 3	360 m ²
BL 4	----- m ²
Total Laboratory Floor Area	880 m ²

4. The organisational structure of the facility:

The workload of the Biology Section of the facility is approx. 90 percent in B-defence and approx. 10 percent in bio-analytics. The following personnel figures cover the total strength for both working areas because of the engagement of some of the personnel in both areas.

I) Total Number of personnel: 35

II) Division of personnel Civilian 35

III) Division of personnel by category

Scientists	08
Engineers	06
Technicians	17
Admin. and support staff	04

IV) Represented scientific disciplines:
Biology, biochemistry, immunology, molecular biology, bacteriology, mycology, virology, toxicology, toxinology, biotechnology, pathology, environmental toxicology, ecology, veterinary medicine, biotechnology

V) Contractor staff: 00

VI) Source of funding:
Federal Ministry of Defence

VII) Funding levels for the following program areas:

The funding for the 90 percent share for personnel, consumable items and equipment in 2005 was approx. 2 million €.

Research	40 %
Development	30 %
Test and Evaluation	30 %

VIII) Publication policy

Results will be published primarily in reports to the Federal office for Military Technology and Procurement and to the Federal Ministry of Defence.

IX) Lists of publicly available papers and reports resulting from the work during the previous 12 month:

Dierstein R, Driks A (2006) The biological threat. In: A. Zichichi RR (ed) The Science and Culture Series. International Seminar on Nuclear War and Planetary Emergencies. World Scientific Publisher Co. Pte. Ltd., Singapore, pp 432-436. ISBN 981-256-739-9

Hülseweh B, Ehrlich R, Marschall H-J (2006) A simple and rapid protein array based method for the simultaneous detection of biowarfare agents. *Proteomics* 6: 2972–2981

Richard A, Russmann H (2006) Strategien gegen Milzbrand, Pocken & Co. *Biologische Kampfstoffe: Nachweis und Bekämpfung. Biol. Unserer Zeit* 5/2006 (36):322-329

5. Brief description of the biological defence work carried out at the facility, including types of micro-organisms and/or toxins studied, as well as outdoor studies of biological aerosols:

- a. Development of early-warning systems permitting non-specific identification of toxins, micro-organisms and viruses
- b. Development of equipment and procedures for rapid and accurate identification of toxins and pathogenic agents in samples from air, water, soil, vegetation (sensor-equipment, collectors, detection kits)
- c. Development of procedures for disinfection and decontamination
- d. Anthrax and toxin laboratory analysis with suspect samples

The current program covers non-human pathogen R I and pathogenic R II and R III organisms as well as low-molecular weight toxins; no work has been done with active R III viruses.

Outdoor studies were performed with commercial "Turex" (*Bacillus thuringiensis var. aizawai*) as a simile for biological aerosols.

National Biological Defence Research and Development Program

11. What is the name of the facility?

Zentrales Institut des Sanitätsdienstes der Bundeswehr Kiel, Außenstelle Munster, Laborgruppe Spezielle Tierseuchen- und Zoonosendiagnostik (Central Institute of the Bundeswehr Medical Service Kiel, Location Munster, Laboratory for Infectious Animal Diseases and Zoonosis). It is collocated with the Federal Armed Forces Scientific Institute for Protection Technologies and NBC-Protection (WIS) in Munster.

12. Where is it located?

D-29633 Munster/Oertze, Humboldtstr.
(53°00' north, 10°08' east)

13. Floor area of laboratory areas by containment level:

BL 2	80 m ²
BL 3	cooperation with WIS
BL 4	--

Total Laboratory Floor Area 80 m² (BL 3 as required on a case to case basis)

14. The organisational structure of the facility:

The workload is 70 percent in the diagnosis of infectious animal diseases and zoonosis and 30 percent in B-defence.

I) Total number of personnel:	3
II) Division of personnel:	
Military	1
Civilian	2
III) Division of personnel by category:	
Scientists	1
Technicians	2
IV) Represented scientific disciplines:	
veterinary medicine, microbiology	
V) Contractor staff:	0
VI) Source of funding:	Federal Ministry of Defence

VII) **Funding levels for the following program areas:**

The funding for consumable items and equipment in 2006 was approx. 0,29 million €.

Development	25 %
Test and Evaluation	30 %
Diagnosis	45%

VIII) **Publication policy:**

Results will be published primarily in reports to the Federal Ministry of Defence and in journals for military medicine or technology

IX) **Lists of public available papers and reports resulting from the work during the previous 12 month:**

In 2006 no results were published in journals.

15. Brief description of the biological defence work carried out at the facility, including types of micro-organisms and/or toxins studied, as well as outdoor studies of biological aerosols:

- a. Development and evaluation of diagnostic systems permitting specific identification of micro organism, viruses and toxins
- b. Development of test kits for use in a deployable containerised field laboratory
- c. Diagnosis of zoonoses i.e. Q-fever, anthrax, avian influenza and other influenza viruses
- d. Diagnosis of infectious animal diseases, especially swine fever
- e. Diagnosis of food and waterborne threats, i.e. *Vibrio cholerae*, Norovirus
- f. Evaluation of test kits for the detection of *Clostridium botulinum* toxins
- g. Development of test kits for the detection of ricin

The current program covers pathogen R I, R II and R III organisms.

No outdoor studies of biological aerosols.

Publications

Bundeswehr Institute of Microbiology

2006

Scientific journals (peer reviewed)

1. **Al Dahouk S**, Nöckler K, **Scholz HC**, **Tomaso H**, Bogumil R, **Neubauer H** (2006)
Immunoproteomic characterization of *Brucella abortus* 1119-3 preparations used for the serodiagnosis of *Brucella* infections
Journal of Immunological Methods **309**, 34-47
2. **Al Dahouk S**, Jansen A, Nöckler K, **Tomaso H**, **Hagen RM**, **Scholz HC**, Rudwaleit M, Morguet AJ, **Neubauer H**, Schneider T (2006)
Brucella endocarditis on two prosthetic valves – A case report and short review on therapeutic options
The Canadian Journal of Cardiology **11**, 971-4
3. **Dobler G**, **Wölfel R**, Schmuser H, **Pfeffer M**, **Essbauer S** (2006)
Seroprevalence of Tick-borne and Mosquito-borne Arboviruses in European Brown Hares in Northern and Western Germany
International Journal of Medical Microbiology **296**, Suppl. 40: 80-83
4. **Essbauer S**, Schmidt J, Conraths FJ, Friedrich R, Koch J, Hautmann W, **Pfeffer M**, **Wölfel R**, **Finke E-J**, **Dobler G**, Ulrich R (2006)
A new Puumala hantavirus subtype in rodents associated with an outbreak of severe Nephropathia epidemica in South-East Germany in 2004
Epidemiology and Infection **134**, 1333-1344
5. **Pfeffer M**, Foster JE, Edwards EA, Blomberger Brown M, Komar N, Brown CR (2006)
Phylogenetic analysis of *Buggy Creek virus*: Evidence for multiple lineages in the western great plains, U.S.A
Applied and Environmental Microbiology **72**, 6886-6893
6. **Scholz HC**, Witte A, **Tomaso H**, **Al Dahouk S**, **Neubauer H** (2006)
Detection of *Chromobacterium violaceum* by multiplex PCR targeting the *prgI*, *spaO*, *invG*, and *sipB* genes
Systematic and Applied Microbiology **29**, 45-8
7. **Scholz HC**, Joseph M, **Tomaso H**, **Al Dahouk S**, Witte A, Kinne J, **Hagen RM**, Wernery R, Wernery U, **Neubauer H** (2006)
Detection of the reemerging agent *Burkholderia mallei* in a recent outbreak of glanders in the United Arab Emirates by a newly developed fliP-based polymerase chain reaction assay
Diagnostic Microbiology and Infectious Diseases **54**, 241-7

8. **Scholz HC, Tomaso H, Al Dahouk S**, Witte A, Schloter M, Kampf P, Falsen E, **Neubauer H** (2006)
Genotyping of *Ochrobactrum anthropi* by recA-based comparative sequence, PCR-RFLP, and 16S rRNA gene analysis
FEMS Microbiology Letters **257**, 7-16
9. **Tomaso H, Bartling C, Al Dahouk S, Hagen RM, Scholz HC**, Beyer W, **Neubauer H** (2006)
Growth characteristics of *Bacillus anthracis* compared to other *Bacillus* spp. on the selective nutrient media Anthrax Blood Agar and Cereus Ident Agar
Systematic and Applied Microbiology **29**, 24-8
10. **Tomaso H, Scholz HC, Al Dahouk S**, Eickhoff M, Treu TM, Wernery R, Wernery U, **Neubauer H** (2006)
Development of a 5' nuclease real-time PCR assay targeting *flip* for the rapid identification of *Burkholderia mallei* in clinical samples
Clinical Chemistry **52**, 307-310
11. **Tomaso H**, Mooseder G, **Al Dahouk S, Bartling C, Scholz HC**, Strauss R, Treu TM, **Neubauer H** (2006)
Seroprevalence of anti-*Yersinia* antibodies in healthy Austrians
European Journal of Epidemiology **21**, 77-81
12. **Tomaso H, Scholz HC, Neubauer H, Al Dahouk S, Seibold E**, Landt O, Forsman M, **Splettstoesser WD** (2006)
Real-time PCR using hybridization probes for the rapid and specific identification of *Francisella tularensis* subspecies *tularensis*
Molecular and Cellular Probes **21**, 12-16
13. **Wölfel R, Pfeffer M, Essbauer S**, Nerkelun S, **Dobler G** (2006)
Evaluation of sampling technique and transport media for the diagnostics of adenoviral eye infections / Adenovirus sampling and transport
Graefe's Archive for Clinical and Experimental Ophthalmology **24**, 1497-1504
14. **Wölfel R, Terzioglu R**, Kiessling J, Wilhelm S, **Essbauer S, Pfeffer M, Dobler G** (2006)
Rickettsia spp. in *Ixodes ricinus* Ticks in Bavaria, Germany
Annals of the New York Academy of Sciences **1078**, 509-11
15. **Frangoulidis D, Schröpfer E, Al Dahouk S, Tomaso H, Meyer H** (2006)
Comparison of Four Commercially Available Assays for the Detection of IgM Phase II Antibodies to *Coxiella burnetii* in the Diagnosis of Acute Q Fever
Annals of the New York Academy of Sciences **1078**, 561-62
16. Merk S, **Meyer H**, Greiser-Wilke I, Sprague L D, **Neubauer H** (2006)
Detection of *Burkholderia cepacia* DNA from artificially infected EDTA-blood and lung tissue comparing different DNA isolation methods
Journal of Veterinary Medicine Series B **53**, 281-285
17. Esposito JJ, Sammons S A, Frace AM, Osborne JD, Olsen-Rasmussen M, Zhang M, Govil D, Damon IK, Kline R, Laker M, Li Y, Smith GL, **Meyer H**, LeDuc JW and Wohlhueter R M (2006)
Genome sequence diversity and clues to the evolution of Variola virus
Science **313**, 807-812
18. Niedrig M, **Meyer H**, Panning M and Drosten C (2006)
Follow up on diagnostic proficiency in *orthopoxvirus* PCR: The second international external quality assurance study

Journal of Clinical Microbiology **44**, 1283-87

19. Madisch J, **Wölfel R**, Harste G, Pommer H and Heim A (2006)
Molecular identification of *adenovirus* sequences: a rapid scheme for early typing of human *adenoviruses* in diagnostic samples of immunocompetent and immunodeficient patients
Journal of Medical Virology **78**, 1210-1217
20. Nübel U, Reissbrodt R, **Porsch-Özcürümez M**, **Grunow R**, **Tomaso H**, Hofer E, **Splettstoesser W**, **Finke E-J**, Tschäpe H, Witte W (2006)
Limited genetic recombination across subspecies of *Francisella tularensis*
Journal of Bacteriology **188**, 5319-5324
21. Kampf P, Rossello-Mora R, **Scholz HC**, Welinder-Olsson C, Falsen E, Busse HJ (2006)
Description of *Pseudochrobactrum* gen. nov., with the two species *Pseudochrobactrum asaccharolyticum* sp. nov. and *Pseudochrobactrum saccharolyticum* sp. nov.
International Journal of Systematic and Evolutionary Microbiology **56**, 1823-1829
22. Nübel U, Reissbrodt R, Weller A, **Grunow R**, **Porsch-Özcürümez M**, **Tomaso H**, Hofer E, **Splettstoesser W**, **Finke E-J**, Tschäpe H, Witte W (2006)
Population Structure of *Francisella tularensis*
Journal of Bacteriology **188**, 5319-5324
23. Arricau-Bouvery NA, Hauck Y, Bejaoui A, **Frangoulidis D**, Bodier CC, Souriau A, **Meyer H**, **Neubauer H**, Rodolakis A, Vergnaud G (2006)
Molecular characterization of *Coxiella burnetii* isolates by infrequent restriction site-PCR and MLVA typing.
BMC Microbiology **6**, 38
24. Nitsche A, Büttner M, Wilhelm S, Pauli G, and **Meyer H** (2006)
Real-time PCR detection of *parapoxvirus* DNA
Clinical Chemistry **52**, 316-319
25. Weidmann M, Schmidt P, Hufert FT, Krivanec K, **Meyer H** (2006)
Tick-Borne Encephalitis Virus in *Clethrionomys glareolus* in the Czech Republic
Vector-borne and Zoonotic Diseases **6**, 379-381
26. **Pfeffer M**, **Dobler G**, Löscher T und Hassler D (2006)
Chikungunya Fieber grassiert auf den Trauinseeln vor der Ostküste Afrikas. Deutsche Medizinische Wochenschrift **131**, 601-602
27. **Essbauer S**, **Friedewald S**, Hassler D, **Meyer H**, **Pfeffer M** (2006)
Kuhpockenviren in Europa
Deutsche Medizinische Wochenschrift **46**, 2381-2382
28. **Splettstoesser W**, **Neubauer H**, Hassler D (2006)
Renaissance der Tularämie
Deutsche Medizinische Wochenschrift **4**, 132-134
29. **Wittig MB**, Wohlsein P, **Hagen RM**, **Al Dahouk S**, **Tomaso H**, **Scholz HC**, Nikolaou K, Wernery R, Wernery U, Kinne J, Elschner M, **Neubauer H**. (2006)
Ein Übersichtsreferat zur Rotzbekämpfung
Deutsche Tierärztliche Wochenschrift **113**, 323-30

Further publications

1. **Dobler G, Wölfel R, Essbauer S, Pfeffer M, Finke E-J** (2006)
Globale Infektionsrisiken im Jahre 2005 aus Sicht des Medizinischen B-Schutzes
Wehrmedizinische Monatsschrift **50**, 178-184
2. **Wölfel R, Pfeffer M, Essbauer S, Dobler G** (2006)
Rickettsiosen in Einsatzgebieten der Bundeswehr – Aspekte zur Epidemiologie,
Diagnostik und Therapie
Wehrmedizinische Monatsschrift **50**, 185-189
3. **Wölfel R, Löscher T, Bretzel G, Pfeffer M, Essbauer S, Dobler G** (2006) Erstisolierung einer
Rickettsia africae bei einem Reiserückkehrer aus Südafrika
Wehrmedizinische Monatsschrift **50**, 190-192
4. **Pfeffer M, Löscher T, Essbauer S, Wölfel R, Finke E-J, Dobler G** (2006) Erstisolierung eines
Chikungunya-Virus bei einer Patientin in Deutschland
Wehrmedizinische Monatsschrift **50**, 193-195
5. **Wölfel R** (2006)
Entwicklung eines feldtauglichen Nachweisverfahrens für *Krim-Kongo*
hämorrhagisches Fieber
Wehrmedizinische Monatsschrift **50**, 322-331
6. **Dobler G** (2006)
Mit Gelenksbeschwerden und Fieber zurück aus dem Urlaub
Ärztliches Journal Reise & Medizin. **30(9)**, 46-47
7. **Pfeffer M** und Löscher T (2006)
Cases of chikungunya imported to Europe
European Surveillance **16**, 11(3) <http://www.eurosurveillance.org/ew/2006/060316.asp#2>
8. Hofstetter I, Eckert J, **Splettstoesser W**, Hauri A (2006)
Tularaemia outbreak in hare hunters in the Darmstadt-Dieburg district, Germany
Eurosurveillance Weekly **11**, 2-3
9. **Friedewald S, Finke E-J, Dobler G** (2006)
Patientennahe Diagnostik in Krisensituationen
Journal of Laboratory Medicine **30**, 211-218
10. **Pfeffer M** (2006)
Mitarbeit bei: Chikungunya-Fieber – eine Übersicht, 75-76; und Chikungunya-Fieber: Bericht über
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Stand: 30.01.2007

Germany

Form B (i)

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

Animal Diseases (outbreaks)

	2002	2003	2004	2005	2006
African swine fever	0	0	0	0	0
Anthrax	0	0	0	0	0
Aujeszky's disease	0	0	0	0	0
Bovine Brucellosis	0	0	0	0	0
Foot and mouth disease	0	0	0	0	0
Classical swine fever of domestic pigs	11	1	0	0	8
Newcastle disease	0	0	0	0	0
Psittacosis	143	184	162	138	83
Q fever	121	225	150	111	96
Rabies (districts)	13	18	28	39	11
Rinderpest	0	0	0	0	0
Sheep pox	0	0	0	0	0
Swine vesicular disease	0	0	0	0	0
Teschen disease	0	0	0	0	0
Tularemia	0	0	0	0	4

Germany

Form B (i)

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

Human Diseases (cases)

	2002	2003	2004	2005	2006
Anthrax	0	0	0	0	0
Botulism	11	8	6	24	7
Brucellosis	35	27	32	31	37
Cholera	0	1	3	0	1
Glanders	0	0	0	0	0
Ornithosis	41	41	15	33	25
Plague	0	0	0	0	0
Q-fever	191	386	114	416	204
Shigellosis	1183	793	1149	1168	815
Smallpox	0	0	0	0	0
Tularemia	5	3	3	15	1
Typhus abdominalis	59	66	82	80	75
Typhus fever	0	1	0	0	0
Viral hemorrhagic fever	0	0	1**	1**	1*
Yellow fever	0	0	0	0	0

* Lassa

**Dengue

Exchange of information on published results

In **2006** scientific papers related to research and development for prophylactic and/or protective measures against microbial and biological agents and toxins sponsored by the Federal Ministry of Defence have been published inter alia in the following journals:

Annals of the New York Academy of Sciences
Applied and Environmental Microbiology
Ärztliches Journal Reise und Medizin
Biol. Unserer Zeit
BMC Microbiology
Clinical Chemistry
Deutsche Medizinische Wochenschrift
Deutsche Tierärztliche Wochenschrift
Diagnostic Microbiology and Infectious Diseases
Epidemiologisches Bulletin
Epidemiology and Infection
European Journal of Epidemiology
European Surveillance
FEMS Microbiology Letters
Graefe's Archive for Clinical and Experimental Ophthalmology
International Journal of Medical Microbiology
International Journal of Systematic and Evolutionary Microbiology
Journal of Bacteriology
Journal of Clinical Microbiology
Journal of Immunological Methods
Journal of Laboratory Medicine
Journal of Medical Virology
Journal of Veterinary Medicine Series B
Mammalian Biology
Molecular and Cellular Probes
Pest Control
Proteomics
Rechtsmedizin
Science
Systematic and Applied Microbiology
The Canadian Journal of Cardiology
Vector-borne and Zoonotic Diseases
Wehrmedizin und Wehrpharmazie
Wehrmedizinische Monatsschrift
Wiener Medizinische Wochenschrift

Active Promotion of Contacts

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

Name of the conference	Biological Medical Defence Conference 2007
Arranging organization	Bundeswehr Institute of Microbiology
Time	16 – 17 October 2007
Place	München
Main subjects	<ol style="list-style-type: none">1. Impact of biological threat2. Principles and measures of the management of biological warfare or bio-terrorism casualties3. Objectives and results of the German biological medical defence research and development programm
Conditions for participation	Experts named by States Parties

Point of contact for further
information, registration etc.

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Form E

Declaration of Legislation, Regulations and Other Measures

RELATING TO MEASURES	LEGISLATION	REGULATIONS	OTHER	AMENDED SINCE LAST YEAR
a) Development, production, acquisition or retention of microbial or other biological agents, or toxins, weapons, equipment and means of delivery specified in Article I	YES	YES	NO	All pertinent legislation related to a), b), and c) is published with links to source documents on the German Foreign Office website: http://www.auswaertiges-amt.de/diplo/en/Aussenpolitik/FriedenSicherheit/PeacePolicy.html
b) Exports of microorganisms* and toxins	YES	YES	NO	or UN website: http://disarmament2.un.org/Committee1540/legalDB.html
c) Imports of microorganisms* and toxins	YES	YES	NO	

* Microorganisms pathogenic to humans, animals and plants in accordance with the Convention

Germany

Form G

Declaration of Vaccine Production Facilities

A.1. Name of Facility:

Novartis Vaccines and Diagnostics GmbH & Co. KG

2. Location (mailing address):

Postfach 1630
D-35006 Marburg

3. General description of the types of diseases covered:

botulism (antitoxin), diphtheria, influenza, pertussis, rabies, tetanus, tick-borne encephalitis, meningococcal meningitis C

B. 1. Name of Facility:

Sächsisches Serumwerk Dresden
Niederlassung der SmithKline Beecham Pharma GmbH & Co KG

2. Location (mailing address):

Zirkusstr. 40
D-01069 Dresden

3. General description of the types of diseases covered:

influenza

C.1. Name of Facility:

Impfstoffwerk Dessau-Tornau GmbH

2. Location (mailing address):

Postfach 400214
D-06855 Rosslau

3. General description of the types of diseases covered:

Smallpox (vaccinia virus vaccines), HIV (therapeutic clinical trial vaccines), malaria (prophylactic clinical trial vaccines), tuberculosis (prophylactic clinical trial vaccines), hepatitis B (therapeutic clinical trial vaccines), rotavirus vaccines